CHAPTER 1

APPENDIX

RECOMMENDED INFORMATION TO ACCOMPANY DRILLING APPLICATIONS - SAMPLE FORMS

ARKANSAS

OIL	KANSAS AND GAS MMISSION		Submit Form To: El Dorado Regior P.O. Box 11510 El Dorado, Arkan	
Permit No.		API No	.: 03	
	FO	RM 2		
	NOTICE OF INTENTION T		OR GAS	
	(This application to drill must be acc	ompanied by a remittance of	of \$300.00)	2
Date Issued				
27		요즘 이 가 있는 것 같아.		
Name of Operator				
				Zip
Is proposed well Vertica	al 🗌 Directional 🗌 Horizontal	Acres In Lease	Acres in Drill	ing Unit
Will oil-based drilling mud be	used in the drilling of this well:	YES NO		
Description of Drilling Unit or	Lease (if uncontrolled or wildcat)			101 TAL
Location of proposed well fro	m nearest drilling unit or lease (if applic	cable) boundaries - Mustagr	ee with Surveyor's Plat.	
(SHL)	(F	PBHL)		
	m nearest section lines - Must agree with			
(SHL)	(P	°BHL)	(10-2	
Lat. & Lon. (dd.dddd)		Sec	Twp	Rge
County		Field		
Distance and direction from n				
	proposed location to nearest drilling, cor	mpleted or applied for well:		
Date work will start	Depth to be drilled)	MD
Name of drilling or workover o				
Formation you propose to cor				
	e copy of exceptional location permit or			
Purpose of Form 2	Original O Amend	Iment () Renewa	al O Re-entry	0
Remarks:				
	CERTI	FICATE		
	of perjury that this report has been examinamed operator has a valid lease, farm	mined by me and to the bes	250	
	Signature		Title	Date
	Source country way		MICRES IN	1999 (1999) (1999) (1999)
× 8.		Typed or Clearly Printed	Namé	

See Instructions on Reverse Side

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Revised 04/09

INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

- This report must be filed on every proposed well.
- 2. Do not begin operation on any location not conforming to the spacing rules for such location until you receive written order from the Commission, granting permission.
- Work performed prior to receipt of an approved permit will be considered to have been performed at the operator's own risk.
- 4. In order that it may be ascertained whether or not the proposed location covered by this notice conforms to the applicable spacing regulations set by the Commission, there are important footages that must be shown (indicate all applicable distances):
 - (A) Distance of proposed location from nearest lease or property lines.
 - (B) Distance of proposed location from nearest drilling unit or lease (if uncontrolled or wildcat).
 - (C) Distance of proposed location from the nearest well in the same lease, unit, or unit subdivision
 - (D) If proposed well is to be directionally or horizontally drilled, indicate proposed bottom hole location.
- 5. This application must be accompanied by a certified lease plat, prepared by a Registered Professional Land Surveyor. The plat must be drawn to a scale between one inch to one thousand feet and one inch to five hundred feet (1"=1000' to 1"=500'). Designate scale and northerly direction. A plat using a different scale must be approved prior to submittal. The plat of the lease or unit must indicate the location of the proposed well from all applicable boundaries and in latitude and longitude measurements in NAD27 decimal form. The lease or unit shall be depicted in bold lines. The plat must also indicate all unplugged and drilling wells within the lease or unit (whichever applicable). Plats shall also indicate Section, Township, Range and County within which the proposed location is found.
- 6. A permit is non-transferrable. If there is any change in the operating ownership of the property shown on this report, before the well applied for is drilled, a permit must be issued to the new operator.
- 7. No allowables will be assigned to any well unless said well complies with existing rules and regulations of the Oil and Gas Commission. Please check before drilling operations are commenced.
- 8. This notice shall be of no effect unless the well covered herein is actually drilling on the date of adoption of special field rules, unless said well is in conformity with such field rules.

Submit Form To Appropriate District Office:

Fort Smith Regional Office 3309 Phoenix Avenue Fort Smith, Arkansas 72903 El Dorado Regional Office P. O. Box 11510 El Dorado, Arkansas 71731

FORM 3

PRODUCER'S WELL	COMPLETION	AND RECOMPL	ETION REPORT
,			

ARKANSAS

OIL AND GAS COMMISSION

	SECTION A - WELL DESCRIPTION	ON - MUST BE COMPL	ETED	and the second second
Permit No. API	No. 03-	0.1.1	the state of the s	
Field		Address	2024332025	
Pool Completed in		City		5 (C
Well Name	No.	State	Zin	· · · ·
Sec Twp		Phone		
County	Ngs	Fax		
Work Commenced	Work Completed	E-Mail		
(Date)	(Date)			
	SECTION B - FILL OUT	FOR NEW WELLS	11.4.4	
Surface hole location				
Bottom hole location	V1 V1			
Elevation: KB	GL DF	Total Depth	Drilled PBTI	2
Electric Log Run: Yes No	Filed: Yes No Dril	Iling Unit Description:		
Conductor: (Size & Wl.)		set at	ft	. w/s
Surface: (Size & Wt.)		set at	ft	. w/s
Intermediate: (Size & Wt.)		set at	ft	. w/s
Production: (Size & Wt.)		set at	ft	. w/ s
	set at	ft.	Packer Depth	ft.
Perforated/Open Hole Intervals				
s this a commingle of existing zones? Plugged Back TD			le or Commission Order?	Yes 🗌
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.)	Yes No Commingle :	approved by General Ru Electric Log Run: ft. to	le or Commission Order?	Yes 🗌
s this a commingle of existing zones? Plugged Back TD Plugged Back BHL .iner: (Size & Wt.) Fubing: (Size & Wt.)	Yes No Commingle a	approved by General Ru Electric Log Run: ft. to ft. Pac	Ile or Commission Order?	Yes Yes sks.
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals	Ves No Commingle a	approved by General Ru Electric Log Run: ft. to ft. Pac	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes	Yes No Commingle a From	approved by General Ru Electric Log Run: ft. to ft. Pac	Ile or Commission Order?	Yes Yes sks.
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes h	Yes No Commingle a From Set at SECTION D - WELL TREATMEN No Interval No Inter	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized:	Yes No Commingle a From	approved by General Ru Electric Log Run: ft. to ft. Pac	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes h Fractured: Yes h w/ lbs. of sand	Yes No Commingle a From Set at SECTION D - WELL TREATMEN No Interval No Inter	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes Fractured: Yes W/ lbs. of sand	Yes No Commingle a From Set at SECTION D - WELL TREATMEN No Interval No Inter	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes Fractured: Yes W/lbs. of sand Describe Work:	Yes No Commingle a From From set at SECTION D - WELL TREATMEN SECTION D - Interval No Interval w/	approved by General Ru Electric Log Run: ft. to ft. Pac ft. Pac ft. Pac ft. Pac ft. Pac	Ile or Commission Order?	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes h W/ Yes h Us. of sand Describe Work: SEC1	Yes No Commingle a From From Set at SECTION D - WELL TREATMENT SECTION D - WELL TREATMENT NO Interval NO Interval W/ FION E - PRODUCTION INFORMA	approved by General Ru Electric Log Run: ft. to ft. Pac ft. Pac f	Ile or Commission Order? Yes No Filed: transformed fluid type of fluid s on back)	☐ Yes ☐ ☐ Yes ☐
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes this well the only completion in the completion in t	Yes No Commingle a From From Set at SECTION D - WELL TREATMEN SECTION D - WELL TREATMEN No Interval No Interval W/ FION E - PRODUCTION INFORM/ Interval Source of Supply within the u	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on bbls. of fluid ATION (See Instruction unit? Yes	Ile or Commission Order? Yes No Filed: transformed fluid type of fluid s on back) No	☐ Yes ☐ ☐ Yes ☐
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s this a commingle of existing zones? Plugged Back TD Plugged Back BHL iner: (Size & Wt.) Fubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes Acidized: Yes Fractured: Yes Ibs. of sand Describe Work: SECTION S	Yes No Commingle a From From SECTION D - WELL TREATMEN SECTION D - WELL TREATMEN No Interval w/ TION E - PRODUCTION INFORMA Interval w/ TION E - PRODUCTION INFORMA Interval W/ NTON SOURCE OF SUPPLY within the u authorized by General Rule or app Vented (approval required) NF - PRODUCER'S PRODUCTION	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on bbls. of fluid ATION (See Instruction unit? Yes poved by Commission C Lease Fuel DN TEST (See Instruction	Ile or Commission Order? Yes No Filed: ft. w/ type of fluid	☐ Yes ☐ ☐ Yes ☐
s this a commingle of existing zones? Plugged Back TD Plugged Back BHL iner: (Size & Wt.) Fubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes In Fractured: Yes In V/ Ibs. of sand Describe Work: SECT s this well the only completion in the cor (no, have additional completion(s) been Disposition of gas from this well: SECTIO Date of Test: Test	Yes No Commingle a From From Set at SECTION D - WELL TREATMEN SECTION D - WELL TREATMEN No Interval w/ TION E - PRODUCTION INFORMA Interval w/ TION E - PRODUCTION INFORMA Interval W/ NT - PRODUCEN'S PRODUCTIC Length hrs. Production	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on bbls. of fluid ATION (See Instruction unit? Yes D poved by Commission C Lease Fuel DN TEST (See Instruction	Ile or Commission Order? Yes No Filed: ft. w/ type of fluid	Yes Yes sks. ft.
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes Intervals Acidized: Yes Intervals Acidized: Yes Intervals Acidized: SECT Sthis well the only completion in the cord f no, have additional completion(s) been Disposition of gas from this well: SECTIO Date of Test: Test	Yes No Commingle a From From SECTION D - WELL TREATMEN SECTION D - WELL TREATMEN No Interval w/ TION E - PRODUCTION INFORMA Interval w/ TION E - PRODUCTION INFORMA Interval W/ NTON SOURCE OF SUPPLY within the u authorized by General Rule or app Vented (approval required) NF - PRODUCER'S PRODUCTION	approved by General Ru Electric Log Run: ft. to ft. Pac T (See Instructions on bbls. of fluid ATION (See Instruction unit? Yes poved by Commission C Lease Fuel DN TEST (See Instruction	Ile or Commission Order? Yes No Filed: 	Yes Yes Sks. ft.
Is this a commingle of existing zones? Plugged Back TD Plugged Back BHL Liner: (Size & Wt.) Tubing: (Size & Wt.) Perforated/Open Hole Intervals Acidized: Yes Kacidized: Yes Kacidized: Yes Kacidized: SECTION SECTION	Ves No Commingle a From From Set at SECTION D - WELL TREATMEN SECTION D - WELL TREATMEN SU SECTION D - WELL TREATMEN No Interval W/ SU SUBJECTION INFORMA SUBJECTION	approved by General Ru Electric Log Run: ft. to ft. Pac t. Pac T (See Instructions on bbls. of fluid ATION (See Instruction unit? Yes poved by Commission C Lease Fuel ON TEST (See Instruction Method: Flowing [Casing Pressure bbls. GOR	Ile or Commission Order? Yes No Filed: 	Yes Yes Sks. ft.

I declare under the penalties of perjury that this report has been examined by me and to the best of my knowledge is true, correct, and complete.

Signature Typed or Clearly Printed Name

Revised 04/09

INSTRUCTIONS FOR FILING FORM 3

- 1. Form 3 is required to be submitted in accordance with General Rule B-5, or wiithin 30 days of the plugging of a dry hole. Please check the appropriate office where form is to be sent.
- For newly drilled wells check the "Original Completion" box and "Type of Well" boxes at top of Form and complete Sections A, B, D, E and F.
- 3. For completion of a new zone in an existing well, check the "Recompletion of New Zone or Commingle" box and "Type of Well" box at top of Form and complete Sections A, C, D, E, and F.
- 4. For commingle of zones in an existing well, check the "Recompletion of New Zone or Commingle" box and "Type of Well" box at top of Form and complete Section A and answer the commingle questions in Section C.
- 5. For workovers of previously completed zones in existing wells, complete Sections A, C, D and F.
- For conversion of a producing well into use as a SWD/EOR well, check the "Recompletion of New Zone, Commingle or Well Conversion" box and "SWD/EOR" box at top of Form and complete Sections A, C and D.

7. For a dry hole, check "Dry Hole" box and "Type of Well" box at top of Form and complete Sections A and B.



ARKANSAS OIL AND GAS COMMISSION Submit Form To Appropriate District Office:

Fort Smith Regional Office 3309 Phoenix Avenue Fort Smith, Arkansas 72903 El Dorado Regional Office
 P.O. Box 11510
 El Dorado, Arkansas 71730

FORM 4 REQUEST FOR CERTIFICATE OF COMPLIANCE or CHANGE OF PURCHASER

🗌 Requ	lest for Certifi	cate of Com	pliance (C	heck	appropriate i	box below	w)					
	Original Comp	etion (New	Well)		Recompletio	on 🗌	Comming	gle [Active Statu	
Notice /	Authorizing Pu	rchaser or	Purchase	r Chan	ige							<i>(</i> 2
General Info	ormation (Req	uired)										
		Permit Holder's	Name						Mailing Addre	\$5		
	Phys	ical Address	(a) (a) (a)			Ci	у		State	-	Zip	
	Phone Num	her			Fax					-Mail		
Well Inform	ation (Require		cate of Co	mpliar	8							
Perm	il Number					Wel	Name and Num	08r				
Sectio	n Township	Rang	e			Field			-	Cou	inty	
Notice Auth	orlzing Purch	aser or Purc	haser Cha	ange:								
The above	named permit	holder hereb	y authoriz	es				Name of Purc				
								Name of Purch	laser			
whose ad	dress is		Street			-	City			ate	Zip	
to purchas		% of the	🗌 Oil	G	Gas produce	ed from th	e above des	signated we	ell or lease	until further	notice.	
Other pure	chasers purcha	sing oil or ga	s from this	well o	r lease:							%
Remarks:		1) 011 0-0-0										
	gned certifies the and regulation											10
· · · ·		Name of Alfiant	- Print									
		Signature of A	fiant			-			Dated Sign	ned		
			CERTI	FICAT	TE (For Ce	rtificate	of Compl	iance Or	nly)			
equest auth	amed permit ho orizes the comr on submission	nencement o	of productio	on for t	thirty (30) days							
1 		(Co	nmission Appro	oval)						(Date)	tar +	
	tions on Reverse	011									Revised 0	2/00

INSTRUCTIONS

This request for a Certificate of Compliance shall be executed and filed with the appropriate Commission District Office upon the actual completion, recompletion and/or commingle of the well, and prior to commencement of production (date of first sales). Original Completion is defined as initial zone perforation and configuration of wellhead for production, excluding pipeline connections. Any further completion work, after the initial configuration of the wellhead, shall be considered a recompletion or workover. A Form 4A (Notice of Commencement of Production) shall be filed by the permit holder notifying the Commission of the actual date of first sales.

This form is required to be filed and approved for any well returned to production if the well has not produced in the last twenty-four (24) months and has been temporary abandoned per General Rule B-7.

This form is required to be filed and approved for any well returned to production using the orphaned or abandoned well (plugging) program.

The checkbox for "Request for Certificate of Compliance" must be checked along with the well category (below the Request for Certificate of Compliance checkbox) in order to receive an approved "Certificate of Compliance". This certificate approval is granted to the permit holder upon submission of required data per General Rule B-5.

This form is required to be filed for each change in purchaser (South Regional District Only) and must have the checkbox for "Notice Authorizing Purchaser or Purchaser Change" checked.

The "General" section must be completely filled out.

After said Certificate of Compliance has been approved by the Commission, one copy shall be returned to the permit holder.

DATA REQUIREMENTS FOR THE APPROVAL OF A CERTIFICATE OF COMPLIANCE FOR AN ORIGINAL COMPLETION:

- 1) Form 3 Well Completion or Recompletion Report, along with a bottom hole directional survey (if applicable) and any additional information required by specific field rules;
- 2) Form 4 Request for Issuance of Certificate of Compliance;
- 3) All electric and other open hole wire line logs (1 paper copy and 1 electronic version);

DATA REQUIREMENTS FOR THE APPROVAL OF A CERTIFICATE OF COMPLIANCE FOR A RECOMPLETION OR COMMINGLE:

- Form 3 Well Completion or Recompletion Report and any additional information required by specific field rules;
- Form 4 Request for Issuance of Certificate of Compliance;

DATA REQUIREMENTS FOR THE APPROVAL OF A CERTIFICATE OF COMPLIANCE FOR RETURNING A WELL TO ACTIVE STATUS:

1) Form 3 - Well Completion or Recompletion Report and any additional information required by specific field rules;

- 2) Form 4 Request for Issuance of Certificate of Compliance;
- 3) Updated plat indicating all wells on the lease or drilling unit.

		ARKANSA OIL AND G COMMISSI	AS 🗆	it Form To Appr Fort Smith Regiona 3309 Phoenix Aven Fort Smith, Arkans Phone: 479-646-66 Fax: 479-649-7656	al Office	ice Where Well is Located: El Dorado Regional Office P. O. Box 11510 El Dorado, Arkansas 71730 Phone: 870-862-4965 Fax: 870-862-8823
			APPLIC	FORM 11 ATION TO	PLUG	×
Permit No.						
API No.	03				Date	
Ori	iginal F	form Must Be	e Filed Three Fu	Il Days Prio	r to Beginning F	Plugging Operations
					Y HOLES - SEE INST	
Operator			oposed progging pr	1		
						Zip
						Fax
Well Name						Well No.
Section		Township	Range	County	Ŀ	
Field					Total depth of well	
Location _						
Type of wel	l (Oil, Ga	s, Brine, Injectio	on, Water Supply)		Date you w	ish to plug
Name of pa	rty plugg	ing well				
						Phone

CERTIFICATE

I declare under the penalties of perjury that this report has been examined by me and to the best of my knowledge is true, correct and complete.

Signature

Typed or Clearly Printed Name

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Revised 04/09

INSTRUCTIONS

- For dry holes, submission of Form 11 is not required. Notice of plugging a dry hole shall be given via telephone or fax as soon as possible, but not less than 8 hours, to the appropriate Regional Office where the dry hole is located. Plugging of dry holes shall be in accordance with General Rule B-8(E) or as specified on general dry hole plugging requirements accompanying the drilling permit.
- 2) For existing wells, the submission of Form 11 to the appropriate Regional Office is required at least 72 hours before commencement of plugging operation and shall include a proposed plan of plugging for Commission review. Notice of plugging in situations involving emergencies or on-going well operations in which 72 hours notice is not practical, approval of commencement of operation may be granted.



ARKANSAS OIL AND GAS COMMISSION Submit Form To Appropriate District

 Fort Smith Regional Office 3309 Phoenix Avenue Fort Smith, Arkansas 72903 El Dorado Regional Office
 P.O. Box 11510
 El Dorado, Arkansas 71730

FORM 33

APPLICATION FOR TEMPORARY ABANDONED WELL STATUS

General	Information			
	Permit Hölder's Name		Mailing Address	
	Physical Address	City	State	Zip
	n jacal hourses	City	Jale	20
	Phone Number	hax	E-Mail	
Nell Info	rmation			
Pe	rmit Number	Well Name and	Number	
			Second	
Sec	ion Township Range	Field	Cour	ity
Qualifica	tions for approval - The following boxes must be check	ked as true and correct in orde	r for this application to be approved:	
	The well is not part of a Commission approved active	waterflood/enhanced oil recove	ery unit.	
	The well has produced crude oil or natural gas in the I	ast ten (10) years, or a well tha	at is under ten (10) years old and never pr	oduced.
	The well is secured with a suitable wellhead with no le	akage of any substance at the	surface.	
	The well site is maintained in accordance with general	I Rule B-26.		
	Proper well identification is maintained in accordance	with General Rule B-26.		
Protectio	n of Groundwater - Useable groundwaters are protected	ed utilizing one of the following	methods (check one):	
	A drillable, retrievable or other type of mechanical brid	170 IZ.		of the production
	casing, but at least 150 feet below the base of the low			
	and valve in operable condition. (attach all pertinent s			and a wonnedd
	A maker has been as an labian about the surducing	interval in the commuted and	of the anodustion and an but at least d	FO (and halow the
	A packer has been run on tubing above the producing base of the lowest usable groundwater in the area, an			
	to the atmosphere or with a wellhead and valve in ope			
	A casing inspection log was run to confirm the mechan wellhead and valve in operable condition. (attach log a			ace with a
	A fluid level test by wireline or other approved electron least 150 feet below the base of the lowest usable gro than 48 hours notice prior to conducting the fluid level temporary abandonment during each year of the three	undwater in the area and which test. The fluid level test shall t	h must be witnessed by Commission Staf be conducted annually, on the anniversary	f with no less
lemarks:				
		CERTIFICATE		
hereby c	ertify that I am authorized to submit this application, whi		er my supervision. The facts and propose	als made herein are
ue, corre	ct and complete to the best of my knowledge and belief			
	Signature		Title	
	Printed Name		Date	
or staff u	se only:			
DDDOVE				
PPROVE		r of Production and Conservation		Date
Remarks:				
officinas;				
to locker	lone en enverse side			B -1-4 F
as instruct	ions on reverse side.			Revised 5/09

After said application has been approved by the Commission, a copy shall be returned to the permit holder.

Wellbores that have not reported production in more than ten (10) years may not apply for temporary abandonment status using this form.

INSTRUCTIONS

This application for temporary abandonment of a wellbore must be submitted and approved for any well that has not reported production in the most recent twenty-four (24) month reporting periods per General Rule B-7. Upon approval of this application, the wellbore will not be required to be plugged and abandoned for a <u>thirty-six (36) month period</u>. The well and the well site must be maintained in accordance with all Commission Rules. If the well is not returned to production within the extension period, the well must be plugged within thirty (30) days of the expiration of the extension period.

All Sections must be completed in their entirety.

Sign, date and submit this form with all attachments to the appropriate regional office.



ARKANSAS OIL AND GAS COMMISSION Submit Form To: Ft. Smith Regional Office 3309 Phoenix Avenue Fort Smith, Arkansas 72903

FORM 34

GENERAL RULE B-44: APPLICATION FOR A WELL LOCATION CLOSER THAN 560 FEET FOR MIDDLE ATOKA COMPLETIONS

Operator Name:				Contact Person:		
Address:				Phone No.:	Fax No.	
City:	199 H.C.		State:	Zip:		
Permit No	.:		Lease Name/Well No.:			
Sec :	Twp:	Rge:	County:	Surface Location		

Bottom Hole Location (if directional, provide BHL mid-point perfs; if horizontal, provide beginning and end of perforated interval):

- 1. Note: The reason for this application must be based solely on stratigraphic separation between different productive intervals within the Middle Atoka sequence.
- 2. The following information must accompany this request:
 - a) Plat showing location of all wells being encroached upon, showing productive zones in each well
 - b) Stratigraphic cross-section containing the location of all wells being encroached upon demonstrating that the productive intervals in each well are from stratigraphically different intervals
- 3. Supply proof of written notice to all owners, as defined in Ark. Code Ann. § 15-72-102(9), in the subject unit. The notice shall contain at a minimum, the name of the applicant, the name and location of the encroaching wells, and instructions as to the filing with the Director written objections within fifteen (15) days after receipt of the application by the Director.
- 4. Compliance with General Rule B-5 is required at the completion of well activities.

I hereby certify that I am authorized to submit this application, which was prepared by me or under my supervision. The facts and proposals made herein are true, correct and complete to the best of my knowledge and belief.

K - sa ila sera	Signature			Title	Date	
For staff use or APPROVED:	nly:	□ No	Initials:	Date:		
ATTROVED.				Date.		
Comments:						
		10			Revised 1/09	



NOTICE OF INTENT



Application for Coverage under General Permit 00000-WG-LA Land Application of Drilling Fluids

Tracking Permit No.:	AFIN No .:
----------------------	------------

1. Information on Opera	ator Requesting Permit:			
Name of Facility:				
Contact Name:			Title:	
Address:			Fax:	1
City:	State:		Zip Cod	e:
Phone Number:		E-Mail:		

2. Information on Contractor if different from Operator (a representative at the well site during drilling activities):

Name of Facility:					
Contact Name:			Ti	tle:	
Address:		(1-2)	Fa	x:	
City:	State:			Zip Code:	
Phone Number:		E-Mail:		****	

3. Information on Land Application Site

Land application site Owner's Nat	me:				127	1.1121			
Does land own by the operator:									
Yes Please attach a copy	of the	deed or	other legal	document proving	owners	hip.	10		
No Please attach a copy	of the	lease ag	greement w	ith landowner grant	ting land	d applica	ation of drilling	g fluids.	
Address (NO P.O. BOXES):							9		
City:	S	State: A	AR			Zip Co	ode:		
Latitude'' N			Longitude	······································	_" W	÷.	County:		
Proposed acreage for disposal:	ac	Appli	cation Rate:	: gpm	Max	imum A	pplication Dep	oth:	inches
Well Name:	Field	i.		Section	Т	ownship)	Range	2 B
ADEQ Reserve Pit Tracking Perm	it No.:			Does loading rate	for meta	ls excee	d limits: Yes	No	
Nearest City/Town:		N	lame of & D	Distance to the Near	est Stre	am:			
Describe the location of and direct landmarks:	ions to	the land	d applicatio	n site with respect	to roads	, towns a	and other easil	y identifiable	

- 4. Is this applicant a corporation? Yes _____ No ____ If "Yes", the operator certifies by signature the certification below that the corporation is registered with the Secretary of State of Arkansas.
- 5. The applicant certifies by signing certification below that a copy of NOI with a location map was submitted to the Arkansas Department of Health (ADH) and County Judge of the County listed above.

ADEQ Land Application General Permit NOI Draft Rev.7-30/2007

6. Applicant must also submit the following documents for ADEQ review with this NOI:

- a. Design and implementation of waste management plans shall be in accordance with all applicable State and Federal regulations and Department guidelines and policies.
- b. All waste management plans, construction plans, specifications and design calculations must be signed and approved by an Arkansas registered professional engineer.
- c. The technical information specified in the general permit.
- d. The operator must complete and submit a "Disclosure Statement" with this NOI. The Disclosure Form may be obtained from ADEQ on the website at http://www.adeq.state.ar.us/disclosure_stmt.pdf.
- e. Fee of \$ 500.00 Check #_____
- 7. Cognizant Official (Duly Authorized Representative):
 - a. All reports required by the permit, or other information requested by the Director, shall be signed by the applicant (or person authorized by the applicant) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by the applicant.
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, superintendent, position of equal responsibility, or an individual or position having overall responsibility for environmental matters for the company.
 - (3) The authorization is submitted to the Director.
 - b. The applicant hereby designates the following person as duly authorized representative, for signing reports required by the permit, and other information requested by the Director:

		the second se
Typed or Printed Name	Title	Telephone No.

Signature

Date Signed

The applicant certifies by signing certification below that the above named individual is qualified to act as a duly authorized representative. (NOTE: If no duly authorized representative is designated herein, the Department considers the applicant to be the cognizant official for the facility and only reports signed by the applicant will be accepted by the Department)

- 8. Certification and Signatory Requirements:
 - a. Signature on Notice of Intent (NOI): The Notice of Intent must be signed below by a person authorized (Operator) under the provisions of state law. Applicants should be familiar with the provisions regarding signatory authority which are described in the general permit.
 - b. Certification: The applicant and any person signing a document required under this permit must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name	Title	Telephone No.
Signature	Date Signed	
a 2 43 A		

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ADEQ Land Application General Permit NOI Draft Rev.7-30/2007



NOTICE OF TERMINATION

for General Permit 00000-WG-LA Land Application of Drilling Fluids



	The second s
Tracking Permit No.:	AFIN No .:

1. OPERATOR INFORMATION

Site Location	:			
Section	Township	Range	County	
Contact Perso	on:			
Contact Addr	ess:			
Telephone Ni	umber:			
Well Name:			5. 	

2. DESCRIPTION OF WASTE FLUIDS LAND APPLIED

TYPE OF FLUID	NUMBER OF APPLICATIONS	VOLUME (BBLS)
Water-Based Drilling Fluids		
Freshwater/Rainwater		3
Other:		
Date Application Completed		<i>Ф</i> .
Soil Analysis Conducted After App Yes Soil Analysis Attache		

3. Certification:

- a. Signature on Notice of Termination (NOT): The Notice of Termination must be signed below by a person authorized (Operator) under the provisions of state law. Applicants should be familiar with the provisions regarding signatory authority which are described in the general permit.
- b. Certification: The applicant and any person signing a document required under this permit must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name	Title	Telephone No.

Signature

Date Signed



AUTHORIZATION TO CONSTRUCT, OPERATE AND CLOSE THE PITS ASSOCIATED WITH OIL AND GAS WELL EXPLORATION

In accordance with the provisions of the Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, A. C. A. § 8-4-101, et seq.) and A. C. A. § 8-1-201, et seq., operators of pits associated with oil and gas exploration, drilling, completion, and re-completion, located within the State of Arkansas are authorized to construct, operate and properly close the pits under the terms and conditions of this permit.

For facilities that are eligible for coverage under this general permit, the Arkansas Department of Environmental Quality (ADEQ) sends a cover letter (Authorization for Coverage with the permit tracking number), a copy of the permit, and Notice of Termination (NOT) to the operator. The Authorization for Coverage includes ADEQ's determination that a facility is covered under this general permit and may specify alternate requirements outlined in the permit.

Operators who fail to submit a request for coverage under this permit are not authorized to operate under this permit.

Original Issue Date: November 30, 2007

Modification Issue Date: June 30, 2008

Modification Effective Date: August 1, 2008

Expiration Date: December 31, 2012

Steven L. Drown

Chief, Water Division Arkansas Department of Environmental Quality

Permit Number: 00000-WG-P Page 1 of Part I

PART I PERMIT REQUIREMENTS

SECTION A: COVERAGE UNDER THIS PERMIT

1. PERMIT AREA

This permit includes all areas within the State of Arkansas.

2. DEFINITIONS

As used in this Permit, unless the context otherwise requires, the terms below will have the following definitions:

Act: The Arkansas Water and Air Pollution Control Act (Act 472 of 1949, as amended, Ark. Code Ann. § 8-4-101, et seq.).

AOGC: Arkansas Oil and Gas Commission.

APCEC: Arkansas Pollution Control and Ecology Commission.

<u>Closed Loop System</u>: A system that uses a combination of solids control equipment incorporated in a scries of non-permeable above-ground tanks that climinates the use of a pit. A closed system may include the use of a small pit to receive cuttings, but does not include the use of pits for the collection of fluids of any kind.

<u>Cuttings</u>: Fragments of rock which are a result of the cutting action of the drill bit on the formation. These cuttings are transported to the surface by the drilling fluid.

Department: The Arkansas Department of Environmental Quality (ADEQ).

<u>Director</u>: The Director of the Arkansas Department of Environmental Quality or designated representative.

Discharge: when used without qualification means the "discharge of a pollutant".

<u>Drilling Fluids</u>: Any of a number of liquid and gaseous fluids and mixtures of fluids and solids (as solid suspensions, mixtures and emulsions of liquids, gases and solids) generated, encountered or utilized during oil and gas drilling operations.

<u>Drilling Muds</u>: Materials used during drilling operations that typically contain bentonitic clays, chemical additives, foaming agents, lubricants, emulsifiers and weighting materials. Mud is generally synonymous with drilling fluid which encompasses most fluids used in drilling operations, especially fluids that contain significant amounts of suspended solids, emulsified water or oil. Mud includes all types of water-based, oil-based and synthetic-based drilling fluids.

Permit Number: 00000-WG-P Page 2 of Part I

Exploration and Production Waste (E&P waste): Wastes associated with the exploration, development and production of oil and gas and which are not regulated by the provisions of, and, therefore, exempt from the Federal Resource Conservation and Recovery Act, and may include, but are not limited to the following: salt water (produced brine or produced water); oil-based drilling mud (mud, fluids and cuttings); water-based drilling mud (mud, fluids and cuttings); completion, workover and stimulation fluids; produced water; rainwater from firewalls and pits at drilling and production facilities; and other wastes not described above.

Extraordinary Resource Waters (ERW): Waters that have been given the designated use of Extraordinary Resource Waterbody by the Arkansas Pollution Control and Ecology Commission. This beneficial use is a combination of the chemical, physical and biological characteristics of a waterbody and its watershed which is characterized by scenic beauty, aesthetics, scientific values, broad scope recreation potential and intangible social values.

<u>Ecologically Sensitive Waterbody (ESW)</u>: Waters that have been given the designated use of Ecologically Sensitive Waterbody by the Arkansas Pollution Control and Ecology Commission. This beneficial use identifies segments known to provide habitat within the existing range of threatened, endangered or endemic species of aquatic or semi-aquatic life forms.

<u>Flow-back Water</u>: Fluids that flow from a well following treatment, either in preparation for a phase of treatment or in preparation for cleanup and returning the well to operation.

<u>Frac Fluids</u>: Fluids generated during hydraulic fracturing of a well. Frac fluids may consist of fresh water and solids such as sand or other proppant (resin or ceramic grains), or other additives.

NOI: Notice of Intent covered by this permit.

NOT: Statement of Disposition and Notice of Termination Form covered by this permit.

<u>Natural and Scenic Waterways (NSW)</u>: Waters that have been given the designated use of Natural and Scenic Waterways by the Arkansas Pollution Control and Ecology Commission. This beneficial use identifies segments which have been legislatively adopted into a state or federal system.

<u>Oil-Based Drilling Mud</u>: Fluids containing diesel or crude oil rather than fresh water as the main liquid phase of the drilling mud.

<u>Nonhazardous Oilfield Wastes (NOW)</u>: Fluids to be used or reused in connection with activities associated with the exploration, development, and production of oil or gas and includes, but is not limited to, drilling fluids, completion fluids, surfactants, and chemicals used to detoxify oil and gas wastes.

<u>Operator</u>: Any person (an individual, association, partnership, corporation, municipality, state or federal agency) who has the primary management and ultimate decision-making responsibility over the operation of a facility or activity. The operator is responsible for ensuring compliance with all applicable environmental regulations and conditions.

<u>Person</u>: Natural person, corporation, organization, municipality, government or governmental subdivision or agency, public or private corporation, business trust, estate, trust, individual, partnership, association, or any other legal entity.

Pit: shall include:

<u>Circulation Pit</u>: A pit used during drilling and completion where drilling fluids are recirculated during operations. The circulation pit may be part of the mud pit.

<u>Completion pit</u>: Pit used for storage of spent completion fluids and drilling fluids, silt, debris, water, brinc, oil scum, paraffin, or other materials which have been cleaned out of the well bore of a well being completed.

<u>Emergency pit</u>: Pit used for containing fluids at an operating well during an actual emergency and for a temporary period of time. Use of the pit is necessitated due to unplanned operational issues, which may include but is not limited to, a temporary shutdown of disposal well or fluid injection well or associated equipment, temporary overflow of saltwater storage tanks on a producing lease, gas flaring, cement circulation, or a producing well loading up with formation fluids.

<u>Mud pit</u>: A pit or series of pits used during drilling and completion where fluids are mixed and returned (circulated) during operation. Typically mud pits refer to a series of open tanks, usually made of steel plates, through which the drilling mud is cycled to allow sand and sediments to settle out. Mud pumps withdraw the mud from one end of the pit as the circulated mud (bearing rock chips from the borehole) flows in at the other end. As the mud moves to the suction line, the cuttings drop out leaving the mud ready for recirculation to the well. Additives may also be mixed with the mud in this pit. Mud pit compartments are also called shaker pits, settling pits, and suction pits, depending on their main purpose.

<u>Reserve pit</u>: A pit not part of the active circulation system used to store drilling fluids or to contain fluids generated during drilling operations. Such fluids would include, but not be limited to, cuttings, drilling fluids, produced water.

Test Pit: Pit constructed for use during a well test.

<u>Pollution</u>: Such contamination or other alteration of the physical, chemical, or biological properties of any waters of the state, or such discharge of any liquid, gaseous, or solid substance in any waters of the state as will, or is likely to, render the waters harmful, detrimental, or injurious to public health, safety, or welfare; to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish, or other aquatic life.

Produced Water: Fluid produced from a well that is not a treatment, completion or drilling fluid.

Stormwater: Rainwater runoff, snow melt runoff, and surface runoff and drainage.

<u>Water-Based Drilling Fluids</u>: Fluids containing fresh water as the major liquid phase of the drilling mud as well as the wetting (external) phase.

Waters of the State: All streams, lakes, marshes, ponds, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state.

<u>Water Table</u>: The surface between the zone of saturation and the zone of aeration and the surface of a body of unconfined ground water at which the pressure is equal to that of the atmosphere.

3. ELIGIBILITY

After the effective date of this permit, any operator who will construct a test pit, reserve pit, mud pit, circulation pit, or completion pit during drilling and initial completion at an oil or gas well, shall apply for and obtain coverage under this General Permit prior to construction of said pit. The permit will include conditions for the construction, operation, and closure of pits in addition to the proper disposal of fluids generated during drilling and initial completion. The permit will also include stormwater erosion and sediment control requirements. An operator is not required to submit a NOI for the construction of an emergency pit. However, ADEQ must be notified in writing immediately after the construction of the emergency pit.

4. <u>AUTHORIZATION</u>

- a. An operator of a facility eligible for coverage under this general permit shall submit an NOI. The NOI shall be submitted on the form developed and approved by ADEQ. A copy of the NOI form is available from the Department's website at the following address: http://www.adeg.state.ar.us/water/
- b, The complete NOI and all accompanying documentation shall be submitted to the Department at least five (5) business days prior to coverage under this permit. The Department will notify the operator of any deficiencies in the NOI or accompanying documentation within five (5) business days of receipt of the NOI. If the operator does not receive a notification of deficiencies or notification of permit coverage within five (5) business days from ADEQ's receipt of the NOI, the operator is deemed to be covered by this general permit and must comply with the terms and conditions herein. If ADEQ determines the NOI is deficient, ADEQ will, within five (5) business days of the receipt of the NOI, issue a Notice of Deficiencies (NOD). The operator must submit a response to address the deficiencies. If the deficiencies are addressed to ADEQ's satisfaction, ADEQ will submit a notification of coverage to the operator. If the operator does not receive a notification of additional deficiencies or notification of permit coverage within three (3) business days from ADEQ's receipt of the response to address the deficiencies, the operator is deemed to be covered by this general permit and must

Permit Number: 00000-WG-P Page 5 of Part I

comply with the terms and conditions herein. A copy of a completed NOI, with samples of the necessary accompanying documentation which contains all of the information required for the NOI to be deemed complete, is available from the Department's website at the following address: <u>http://www.adeq.state.ar.us/water/</u>

c. A permit application fee of \$300 for each well site shall accompany an NOI (If the NOI will be filed electronically, the permit application fee may be submitted to ADEQ in advance so that the NOI will be deemed complete upon receipt of the electronic filing. A PDF copy of the check should be included with the electronic filing for tracking purposes). Failure to remit the required fee shall be grounds for the Director to deny coverage under this general permit.

- 5. Stormwater Erosion and Sediment Controls
 - a. The operator shall prepare a stormwater erosion and sediment control plan for the well site covered by this permit. The plan shall be prepared in accordance with proven and accepted engineering practices. The plan shall describe and ensure the implementation of both erosion and sediment control practices which are to be used to reduce pollutants in stormwater discharges associated with the well pad and access roads to minimize erosion and reduce the sediments which may enter waters of the state and assure compliance with any applicable Water Quality Standards (WQS). Facilities shall implement the provisions of the plan required under this part as a condition of this permit. The operator shall provide upon request by the Department a copy of the stormwater erosion and sediment control plan.
 - b. In lieu of a stormwater erosion and sediment control plan as required above, the operator may use a guidance document that provides operators the appropriate erosion and sediment controls based upon geographic region, terrain, and distance to adjacent water bodies previously submitted and approved by the Department.
 - c. Any facility that potentially discharges stormwater runoff to a water body listed for siltation pursuant to Section 303(d) of the Clean Water Act, or an ERW, ESW or a NSW shall have a site specific stormwater erosion and sediment control plan prepared and certified by a registered professional engineer, and such plan shall incorporate best management practices to provide reductions of the listed pollutants to the extent reasonably feasible. The 303(d) list, and the location of ERW; ESW and NSW waters are available from the Department's website at the following address: http://www.adeq.state.ar.us/water/.
 - d. The Operator shall complete and return the Statement of Disposition and NOT within 90 days after fluid disposal activities have ceased and proper closure of the pit has occurred. The Department will supply this form to the Operator for each well's pit with the permit coverage letter.

6. ACTIVITIES PROHIBITED UNDER THE TERMS OF THIS GENERAL PERMIT:

This permit is a no discharge permit. Therefore, the discharge of any fluids generated from any activity associated with oil and gas exploration or production to any surface or ground waters (unless disposed of in an authorized underground injection well) is prohibited. Such discharge of fluids may subject the operator to enforcement actions under the provisions of the Water and Air Pollution Control Act (Act 472 of 1949, as amended, A. C. A. § 8-4-101, et seq.). Leakage from the pit is considered an unauthorized discharge.

7. DUTY TO REAPPLY

The permittee must comply with this general permit upon expiration until the general permit is reissued. Upon reissuance of the general permit, the operator must notify the Director of his/her intent to be covered by the reissued general permit by submitting a certification of no changes or an NOI consistent with the reissued general permit requirements within 30 days following the effective date of the reissued general permit. Failure to reapply is a violation of permit conditions and may result in a penalty.

8. GENERAL

- a. The disposal of produced fluids, drilling muds, or other wastes resulting from oil and gas production activities is subject to terms and conditions specified by the Department and the AOGC.
- b. Immediate corrective action shall be taken in all cases where pollution has occurred. An operator responsible for the facility from which the pollution resulted shall immediately take all necessary steps to abate the source of pollution and remove such waste from the waters where it is found. Such removal activities will be at the expense of the operator. The operator shall report such pollution in accordance with the requirements of Part II of this permit.
- c. The Department will forward a copy of the permit coverage letter to the Arkansas Department of Health (ADH) and the appropriate County Judge.

SECTION B. SUBMISSION OF THE NOTICE OF INTENT (NOI) FOR COVERAGE

1. NOTIFICATION REQUIREMENTS

- a. The NOI shall be submitted to the Department containing the following information:
 - i. Facility name, address and telephone number;
 - ii. Operator name, address and telephone number;
 - Location of the well: latitude and longitude (in degrees, minutes, seconds), County, Section, Range, and Township (including the 1/4 of the 1/4 position within the Section), driving directions to the well site;

Permit Number: 00000-WG-P Page 7 of Part I

- iv. Name and distance to the nearest waterbody;
- v. Nearest city, town or community; and
- vi. Signature requirements
- b. The following information shall be included with the NOI:
 - i. USGS Quad Sheet or other topographic map with an appropriate scale indicating the well location to depict nearby lakes, streams or ponds, wetlands, and floodplains within ½ mile of the well site;
 - ii. A simple schematic of the anticipated pit location including the approximate pit dimensions, with the approximate well location identified by latitude and longitude from a GPS or other means;
 - iii. A completed Disclosure Statement required by Ark. Code Ann. § 8-1-106 and APCEC Regulation No. 8; and
 - iv. A fee of \$300.00.
- c. A Copy of the NOI and a well location map shall also be submitted to the Arkansas Department of Health (ADH) and the County Judge of the county in which the pit is to be located.

2. SIGNATURE REQUIREMENTS

The NOI shall be signed in accordance with the provisions of Part II of this permit.

3. WHERE TO SUBMIT

a. The operator shall submit a complete signed NOI or Response to NOD and all accompanying documents to the Department by one of the following methods:

By U.S. Certified Mail, Return Receipt Requested, Mail Service (i.e. Federal Express) or Hand-Delivery to: Permits Section - No Discharge Permits Water Division Arkansas Department of Environmental Quality 5301 Northshore Drive North Little Rock, AR 72218-5317;

By electronic mail* (documents should be submitted in PDF format) to: Water-permit-application@adeq.state.ar.us;

or

By facsimilie* to 501-682-0910:

*Fee payment may be made separately, but the NOI will not be deemed complete until such payment is received by the Department.

Permit Number: 00000-WG-P Page 8 of Part 1

b. The operator shall submit a copy of the NOI and a location map to the Arkansas Department of Health at the following address:

Arkansas Department of Health 4815 West Markham St., Slot 37 Little Rock, AR 72205-3867

c. The operator shall also submit a copy of the NOI and a location map to the appropriate County Judge at his or her official address.

Permit Number: 00000-WG-P Page 1 of Part II

PART II PERMIT CONDITIONS

SECTION A. CONSTRUCTION REQUIREMENTS FOR FRESH-WATER BASED DRILLING FLUIDS

- 1. Reserve pits shall be constructed with a minimum of 2:1 (two feet horizontal to one foot vertical) side slope on both the interior and exterior walls. The top of the pit walls must be a minimum of 2 feet wide. All reserve pits must be constructed to include the two (2) feet freeboard requirements stated in Part II.B.2 of this permit.
- 2. The liner should completely cover the bottom and inside walls of the pit.
- Pits constructed within the 100 year flood plain must be in accordance with any county or other local ordinance or requirement.
- 4. The location of the pit shall be chosen with consideration to maximizing the distance from surface waters. Pit construction in streams, creeks, ponds, or any other water bodies is strictly prohibited. Any construction in wetlands must receive appropriate prior authorization from the U.S. Army Corps of Engineers.
- 5. In areas other than jurisdictional wetlands referenced in the paragraph above where the water table is ten (10) feet or less below the ground surface, the pit shall be constructed above ground, and shall meet the construction requirements of this Part, or the operator shall use a closed loop system.
- 6. If containers such as steel, concrete or other types of tanks are used to construct circulation pits and mud pits, these containers must be maintained in a leak-free condition.
- 7. Each pit shall be constructed with a liner of one of the following methods:

a. A synthetic liner of at least twenty (20) mils thickness with a four (4) inch overlapping welded seam overlap completely covering the pit bottom and inside walls. Sand or sandy material must be placed below the liner if a rocky or uneven surface is encountered. The synthetic liner must be protected from deterioration, punctures and/or any activity which may damage the integrity of the synthetic liner.

b. A compacted clay or bentonite liner may be applied to the bottom and sides of the earthen pit to create an impervious/impermeable barrier. Construction of the pit and liner shall be in accordance with sound construction and engineering principles designed and constructed to prevent any leakage or seepage to waters of the state, with due consideration given to the topography, pit material composition, and availability of liner material(s). In the event a compacted clay liner is used, the clay may be in situ or mixed with additional off-site materials if the on site clay is inadequate.

c. Other materials or methods used for liner construction must be approved by the Department prior to use.

SECTION B. OPERATING REQUIREMENTS FOR FRESH-WATER BASED DRILLING FLUIDS

- 1. The operator and other parties involved with drilling activities shall be prohibited from disposing into the pit any waste oil, hydraulic fluids, transmission fluids, frae fluids, trash or any other miscellaneous rig waste. Water Based Drilling Fluids, spent surfactants, and workover fluids, may be stored in the pit.
- 2. Circulation pits and mud pits must be maintained in such a manner as to prohibit any discharges. It is recommended that there be a minimum of two (2) feet of freeboard maintained to handle a storm event up to a 10-year, 24-hour storm event during the operation of the reserve pit. The applicant is required to maintain adequate storage capacity at all times during operation of the reserve pit. Any discharge, overflow or seepage from a pit or the well site must be reported within 24 hours to the ADEQ Water Division in accordance with the requirements of Part II of this permit.
- 3. Pit levees or walls shall be protected and maintained at all times to prevent deterioration, subsequent overfill or leakage of fluids to the waters of the State. In addition, pit liners shall also be maintained and protected from deterioration, puncture or leakage of fluids until such time that the pit is emptied and closed.
- 4. The pit shall contain only water based drilling fluids generated during the drilling of the well or wells at the single location at which it is constructed. In the event of an emergency, the pit may be used for additional storage of water based drilling fluids from the same or an adjacent site, provided that the event shall be reported to the Department immediately.
- 5. Except in an emergency and with prior approval from the Director, hauling pit fluids to another pit offsite for additional storage is prohibited under this permit.

SECTION C. FLUID DISPOSAL REQUIREMENTS FOR FRESH-WATER BASED DRILLING FLUIDS

- 1. Fresh-water based drilling fluids generated and transported within the State of Arkansas shall be disposed of in the following manner:
 - a. Land applied in accordance with an active ADEQ land application permit;
 - b. Injected via Class II wells at facilities permitted by AOGC;
 - c. Fresh-water based drilling fluids exhibiting high viscosity to high solids concentration may be disposed in situ by combining with available native soils in a manner that prevents runoff of fluids. No other matter prohibited by

Section B(1) of Part II of this permit may be included with the fluids disposed of in this manner; or

- d. By any other method as approved by ADEQ.
- 2. An operator wishing to dispose of drilling fluids by pumping back down the well bore of the well must receive prior approval from the AOGC.
- 3. The operator shall take all reasonable measures to ensure that drilling fluids that are removed, are properly transported to and disposed of at a permitted disposal site.

SECTION D. CLOSURE REQUIREMENTS FOR FRESH-WATER BASED DRILLING FLUIDS

- 1. Unless another closure method is approved by ADEQ, fluids in the pits shall be removed to the maximum extent practical using pumps or similar equipment at the time of closure.
- 2. The closed pit shall be filled with native materials and covered with topsoil at depths consistent with adjoining onsite areas, with the contour mounded or sloped to discourage crosion and restored as close to the original contours as is practicable. Topsoil and native materials removed during pit construction may be preserved and used during closure.
- The synthetic liner shall be removed to the extent that is practicable and properly disposed or recycled.
- The oil & grease content of the material to be buried in situ shall be less than 3% by dry weight.
- 5. If the material in the pit is to be solidified or stabilized with fly ash or kiln dust and buried in situ, the material safety data sheet for fly ash or kiln dust and the estimated amount to be used shall be submitted ten (10) days prior to closure of the pit. The permittee is responsible for ensuring the materials are properly mixed to prevent any migration of pollutants
- 6. The area shall be returned to grade, reclaimed and seeded within a reasonable amount of time not to exceed one hundred eighty days (180) days after the drilling rig is removed from the site. Vegetative coverage of 75%, or equivalent to the surrounding landscape, whichever is less, shall be obtained within six (6) months of closure. Until vegetation is established, the operator is responsible for maintaining a stormwater erosion and sediment control plan.
- 7. The operator shall submit the Statement of Disposition and NOT form signed by the operator within 90 days after pit closure has been completed.

SECTION E. REQUIREMENTS FOR TEST PITS, WORKOVER PITS AND EMERGENCY PITS

- No produced water, waste oil, or any other nonhazardous oilfield waste (NOW) fluids shall be placed in a well test pit or emergency pit whose liner does not meet Part II of the permit.
- 2. Within thirty (30) days after the completion of a test well, each pit shall be emptied of all fluids, waste oil and any NOW fluids. The pit shall be closed in accordance with the requirements of Part II of this permit.

SECTION F. OIL-BASED DRILLING MUD (OBM) REQUIREMENTS

- 1. Pits for OBM systems shall be constructed with a synthetic liner. When the well site is within 100 feet of a pond, lake, stream, ERW, ESW or NSW, or when the depth to groundwater is less than 10 feet, a closed loop system shall be used.
- 2. OBM shall be segregated from water-based muds and other drilling fluids.
- 3. OBM shall be removed from the pit and hauled to a permitted Class 1 (as defined by APCEC Regulation No. 22) landfill for disposal or transferred to above ground tanks for re-use at another well location (the muds may or may not be stabilized prior to transport depending on the requirements of the landfill), or other disposal methods or uses of OBM as approved by the Director. The operator shall inform the Department of the location of the disposal of OBM on the NOT.
- The liner shall be removed and the site reclaimed to obtain closure as described in Part II
 of this permit.
- 5. If fluid other than diesel is used as the base, additional analytical or disposal requirements may be required, which shall require prior notification and approval by the Department.

SECTION G. REQUIREMENTS FOR OTHER MUD SYSTEMS

- 1. Other drilling mud systems not specifically authorized by this Permit shall require prior notification and approval by the Department.
- These systems may include, but are not limited to: calcium treated, polymer, saltwater or salt-laden and synthetic muds.

SECTION H. STANDARD CONDITIONS

1. <u>GENERAL</u>

All applicable provisions of APCEC Regulation No. 2 are incorporated herein by reference.

2. <u>DUTY TO COMPLY</u>

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement.

3. <u>CIVIL AND CRIMINAL LIABILITY</u>

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

4. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under authority of the Act.

5. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

6. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

SECTION I. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. PROPER OPERATION AND MAINTENANCE

The permittee shall at all times properly operate and maintain all portions of the pit and its systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate staffing to ensure that the facilities comply with all conditions of this permit.

2. NEED TO HALT OR REDUCE NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. Upon reduction, loss or failure of the facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control all phases of the disposal activity until the facility is restored or an alternative method of disposal is provided.

3. <u>POWER FAILURE</u>

The permittee is responsible for maintaining reasonable safeguards to prevent the discharge of any fluids during electrical power failure either by means of alternate power sources, standby generators, or retention of wastes.

4. RAINFALL EVENTS

The permittee is responsible for maintaining reasonable safeguards to prevent the discharge of any fluids from the pits during rainfall events that do not exceed a 10 year, 24 hour storm event.

SECTION J. MONITORING AND REPORTING

1. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative of the Department, upon the presentation of credentials or other documents, as may be required by law to:

- a. Enter upon the permittee's premises where the activity is located or conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample, inspect or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act.

2. TRANSFERS

In the event of any change in control or ownership of facilities covered by this general permit, the permittee shall immediately notify the succeeding owner or controller of the

Permit Number: 00000-WG-P Page 7 of Part II

existence of this permit. The operational authority is not transferable to any person except after written notice to the Director and submittal of a disclosure statement and a transfer form.

3. REPORTING AND RECORDKEEPING REQUIREMENTS

- a. The permittee shall visually monitor and report immediately (but no later than 24 hours after the event should have reasonably been discovered) to the ADEQ Water Division any unpermitted discharge from any pit caused by dike or structural failure, equipment breakdown, human error, etc., and shall follow up with a written report within five (5) days of such occurrence. The written report shall contain the following:
 - i. A description of the permit violation and its cause;
 - ii. The period of the violation, including times and dates, as accurately as possible;
 - iii. If the violation has not been corrected, the anticipated time when it is expected that the violation will be corrected; and
 - iv. Steps taken or planned to reduce, eliminate, and prevent the recurrence of the violation.
- b. The permittee shall keep copies of the NOI, the approval letter granting coverage under the General Permit and the liner certification at the site or the specified location.
- c. The permittee shall submit the NOT Form as specified in Part I of this permit.

4. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Department, within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the facility's coverage under this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

5. AVAILABILITY OF REPORTS

Except for data determined by the Department to be confidential, all reporting requirements prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the regulations, the name and address of any permit applicant or operator, permit applications, permits and data shall not be considered confidential.

6. <u>PENALTIES FOR FALSIFICATION OF REPORTS</u>

The Act provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under this permit shall be subject to civil and criminal penalties.

7. SIGNATORY REQUIREMENTS

- a. The NOI, NOT, or other information requested by the Department, shall be signed by a person described below or by a duly authorized representative of that person. All NOIs and NOTs shall be signed as follows:
 - i. For a corporation: By a responsible corporate officer. For the purposes of this section, a responsible officer means:
 - a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or their designee, or any other person who performs similar policy or decision making functions for the corporation, or
 - (2) the general or local or branch manager of one or more manufacturing, production, or operating facilities employing more than 250 persons.
 - ii. For a partnership or sole proprietorship: By a partner or the proprietor, respectively, or their designee, or any other person who performs similar policy or decision making functions for the partnership or sole proprietorship.
- b. If an authorization under this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the above requirements shall be submitted to the Director, prior to or together with any reports, information, or applications to be signed by an authorized individual.

8. <u>CERTIFICATION</u>

Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly

Permit Number: 00000-WG-P Page 9 of Part II

responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations".

9. PERMIT FEES

Failure to promptly remit all required fees for two consecutive years shall be grounds for the Director to initiate action to cancel coverage under this general permit.

10. ENFORCEMENT OF PERMIT CONDITIONS

All conditions of this general permit are subject to the same enforcement authorities applicable to individual permits issued by the Department.

NOTICE OF INTENT

Application for Coverage under General Permit 00000-WG-P Construction, Operation, and Closure of Pits Associated with Oil and Gas Well Exploration

Permit Tracking No.:	AFIN No.:

1. Information on Operator Requesting Permit:

Legal Name of Facility:		N	lame of	Facility	
Contact Name:	and the Water Constant of C			Title:	
Address:				Fax:	
City:	State:		1	Zip Code:	
Phone Number:		E-Mail:			

2. Information on Contractor if different from Operator (a representative at the well site during drilling activities):

Name of Facility:					
Contact Name:			Ti	le:	
Address:			Fa	x:	
City:	State:			Zip Code:	
Phone Number:		E-Mail:			

3. Information on Reserve Pit Location

City:	State:	AR	Zip Code:		County:		
Latitude'' N	Longitude		'W	Source Datum:	WGS 84	NAD 27	NAD 83
Well Name:		Sec	ction	Township		Range	
Nearest City/Town:			of & Distance to the		Colores and the second s		
Describe the location of and direction					Colores and the second s	er easily ident	tifiable
Nearest City/Town: Describe the location of and directi landmarks:					Colores and the second s	er easily ident	tifiable

4. Information on Reserve Pit Construction

Width	ft	Length	ft	Depth (exc	ude 2' freeboard)		ft	Wall slope:	
Type of Line	r: ,				21 (**)				
Type of Fluid	System:	Fresh Water	_ (Dil/Diesel	Gas/Air	Other	_(explain)	

5. Is this applicant a corporation? Yes <u>No</u> State If "Yes", the operator certifies by signature of the certification below that the corporation is registered with the Secretary of State of Arkansas.

6. Has an NOI to drill oil and gas been filed with AOGC? Yes _____ Date _____ No _____

7. Has a permit to drill been issued? Yes _____ Permit Number _____ No _____

- 8. The applicant certifies by signing the certification below that a copy of the NOI with a location map was submitted to the Arkansas Department of Health (ADH) and County Judge of the county where the pit is to be located.
- 9. Applicant must also submit the following documents for ADEQ review with this NOI:
 - a. Topographic map showing well location and receiving streams or ponds within 1/2 mile.
 - b. Pit schematic and location.
 - c. Completed "Disclosure Statement". The Disclosure Form may be obtained from ADEQ on the website at http://www.adeq.state.ar.us/disclosure_stmt.pdf.
 - d. Fee of \$ 300.00 Check #

10. Cognizant Official (Duly Authorized Representative):

- a. All reports required by the permit, or other information requested by the Director, shall be signed by the applicant (or person authorized by the applicant) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by the applicant.
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, superintendent, position of equal responsibility, or an individual or position having overall responsibility for environmental matters for the company.
 - (3) The authorization is submitted to the Director.
- b. The applicant hereby designates the following person as duly authorized representative, for signing reports required by the permit, and other information requested by the Director:

Typed or Printed Name	Title	Telephone No.

Signature

Date Signed

The applicant certifies by signing certification below that the above named individual is qualified to act as a duly authorized representative. (NOTE: If no duly authorized representative is designated herein, the Department considers the applicant to be the cognizant official for the facility and only reports signed by the applicant will be accepted by the Department)

11. Certification and Signatory Requirements:

- a. Signature on Notice of Intent (NOI): The Notice of Intent must be signed below by a person authorized (Operator) under the provisions of state law. Applicants should be familiar with the provisions regarding signatory authority which are described in the general permit.
- b. Certification: The applicant and any person signing a document required under this permit must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name

Title

Telephone No.

Signature

Date Signed

ADEQ Pit General Permit NOI Rev.6/23/2008



NOTICE OF TERMINATION

for General Permit 00000-WG-P

Construction, Operation, and Closure of Pits Associated with Oil and Gas Well Production



Tra	acking	Permit No.:		AFI	No.:			
1. OPERATOR INFORMATI	ON							
Name of Facility:								
Address:					Phone	Number:		
City:		State:			Zip	Code:		
Well Name:		Section:		Town	nship:		Range:	
Spud Date:			Date Total D	epth Rea	ched:			
2. DESCRIPTION OF WASTI Type Fluid	E FLUI	IDS GENER	and the second	ne (bbls)		Waste	Disposition	
A. Water Base Drilling Mud			-					
B. Oil Base Drilling Mud								
C. Produced Saltwater								
D. Freshwater/Rainwater								
E. Completion Fluids								
F. Workover Fluids								
G. Oil and Grease								0.80
H. Other Fluids (Describe)					_			
3. DISPOSITION OF WASTE F	LUIDS	5						
A. <u>Offsite Disposal</u> Disposal Company:						Permit#:	*3	
Date Completed:								
Disposal Method:				- !				
Was Pit Reclaimed, Returned to G					Dat	e Completed		
B. <u>Onsite Disposal</u> Disposal Company:						Permit#:		
Number of bbls:			Date (Complete	d:			

4. Certification:

- a. Signature on Notice of Termination (NOT): The Notice of Termination must be signed below by a person authorized (Operator) under the provisions of state law. Applicants should be familiar with the provisions regarding signatory authority which are described in the general permit.
- b. Certification: The applicant and any person signing a document required under this permit must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name	Title	Telephone No.
Signature	Date Signed	
DEQ Pit General Permit NOI		Pg 1

Draft Rev.7-30/2007

DISCLOSURE STATEMENT

Arkansas Code Annotated Section 8-1-106 requires that all applicants for the issuance, or transfer of any permit, license, certification or operational authority issued by the Arkansas Department of Environmental Quality (ADEQ) file a disclosure statement with their applications. The filing of a disclosure statement is mandatory. No application can be considered complete without one.

Disclosure statement means a written statement by the applicant which contains:

(A) The full name, business address, and social security number of the applicant and all affiliated persons;

(B) The full name and business address of any legal entity in which the applicant holds a debt or equity interest of at least five percent (5%) or which is a parent company or subsidiary of the applicant, and a description of the ongoing organizational relationships as they may impact operations within the state;

(C) A description of the experience and credentials of the applicant, including any past or present permits, licenses, certifications, or operational authorizations relating to environmental regulation;

(D) A listing and explanation of any civil or criminal legal actions by government agencies involving environmental protection laws or regulations against the applicant and affiliated persons in the ten (10) years immediately preceding the filing of the application, including administrative enforcement actions resulting in the imposition of sanctions, permit or license revocations or denials issued by any state or federal authority, actions that have resulted in a finding or a settlement of a violation, and actions that are pending;

(E) A listing of any federal environmental agency and any other environmental agency outside this state that has or has had regulatory responsibility over the applicant; and

(F) Any other information the Director of the Arkansas Department of Environmental Quality may require that relates to the competency, reliability, or responsibility of the applicant and affiliated persons.

The following persons or entities are not required to file a disclosure statement:

(A)(1) Governmental entities, consisting only of subdivisions or agencies of the federal government, agencies of the state government, counties, municipalities, or duly authorized regional solid waste authorities as defined by § 8-6-707.

(2) This exemption shall not extend to improvement districts or any other subdivision of government which is not specifically instituted by an act of the General Assembly; and

(B) Applicants for a general permit to be issued by the department pursuant to its authority to implement the National Pollutant Discharge Elimination System for storm water discharge.

(C) If the applicant is a publicly held company required to file periodic reports under the Securities and Exchange Act of 1934 or a wholly owned subsidiary of a publicly held company, the applicant shall not be required to submit a disclosure statement, but shall submit the most recent annual and quarterly reports required by the Securities and Exchange Commission which provide information regarding legal proceedings in which the applicant has been involved. The applicant shall submit such other information as the director may require that relates to the competency, reliability, or responsibility of the applicant and affiliated persons.

Deliberate falsification or omission of relevant information from disclosure statements shall be grounds for civil or criminal enforcement action or administrative denial of a permit, license, certification, or operational authorization.

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY DISCLOSURE STATEMENT

Instructions for the Completion of this Document:

- A. Individuals, firms or other legal entities with no changes to an ADEQ Disclosure Statement, complete items 1 through 6 and 19.
- B. Individuals who never submitted an ADEQ Disclosure Statement, complete items 1 through 5, 7, 8, and 17 through 19.
- C. Firms or other legal entities who never submitted an ADEQ Disclosure Statement, complete 1 through 5, and 7 through 19.

Mail to: ADEQ DISCLOSURE STATEMENT [List Proper Division(s)] 5301 Northshore Drive North Little Rock, AR 72118-5317

Hand Deliver to: ADEQ DISCLOSURE STATEMENT [List Proper Division (s)] 5301 Northshore Drive North Little Rock, AR 72118-5317

1. APPLICANT: (Full Name)	2. SOCIAL SECURITY NUMBER OR TAX I.D. NUMBER:
3. MAILING ADDRESS (Number and Street, P.O.Box Or Rural Route) :	i constant in the second s
4. CITY, STATE, AND ZIPCODE:	
5. (check all that apply.)	
Individual Corporate or Other Entity	Э
Permit License Certification Operational Authority	
New Application Modification Renewal Application (If no c	changes from previous disclosure statement, complete number 6 and 19.)
Air Water Hazardous Waste Regulated Storage Taok	Mining Solid Waste
Environmental Preservation and Technical Service	
6. <u>Declaration of No Changes:</u> The violation history, experience and credentials, involvement in current or pendi last Disclosure Statement I filed with ADEQ on	ing environmental lawsuits, civil and criminal, have not changed since the
Signature of Individual or Authorized Representative of Firm or Legal Entity (Also complete #19.)	

7. Describe the experience and credentials of the Applicant, including the receipt of any past or present permits, licenses, certifications or operational authorization relating to environmental regulation. (Attach additional pages, if necessary.)

8. List and explain all civil or criminal legal actions (except minor traffic violations) by government agencies against the Applicant * in the last ten years including:

1. Administrative enforcement actions resulting In the imposition of sanctions;

Permit or license revocations or denials issued by any state or federal authority;
 Actions that have resulted in a finding or a settlement of a violation; and

4. Pending actions.

(Attach additional pages, if necessary.)

* Firms or other legal entities shall also include this information for all persons and legal entities identified in sections 9-17 of this Disclosure Statement,

9. List all officers of the Applicant. (Add addi	ional pages, if necessary.)	
NAME:		SSN:
STREET;		
CITY, STATE, ZIP:	*	*
	TITLE;	
STREET:		
CITY, STATE, ZIP:		· ·
NAME:		SSN:
CITY, STATE, ZIP:		
10. List all directors of the Applicant. (Add ad	ditional pages, if necessary.)	
NAME:	TITLE:	SSN:
CITY, STATE, ZIP:		
NAME:	TITLE:	SSN:
STREET:		
CITY, STATE, ZIP:		
NAME:		SSN:
CITY, STATE, ZIP:	and the second	
11. List all partners of the Applicant. (Add ad	ditional pages, if necessary.)	
NAME:	TITLE:	SSN:
CITY, STATE, ZIP:		
NAME:		SSN:
STREET:		
CITY, STATE, ZIP:	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
NAME:	TITLE:	SSN:
CTD PPT.		
12. List all persons employed by the Applicant	n a supervisory capacity or with authority over operations of	the facility subject to this application.
NAME:		SSN:
STREET:		
CITY, STATE, ZIP:		
5 C		
	TITLE:	
STREET:		
CITY, STATE, ZIP:		
NAME:	TITLE:	SSN:
CITY, STATE, ZIP:		

13. List all persons or legal enti	ties, who own or control mor	e than five percent (5%) of the Applicant's debt o	r equity.
NAME:	TITLE:		SSN:
CITY, STATE, ZIP:		ta da	
STREET:			
CITY, STATE, ZIP:		a dia seconda a	
NAME:	TITLE: _		SSN:
STREET:			
11			25 (B) (C)
		or equity interest of more than five percent (5%).	
			EMPLOYER ID #:
STREET:			
CITY, STATE, ZIP:			
STREET:			
CITY, STATE, ZIP:			
12			
NAME:	TITLE:		EMPLOYER ID #:
STREET:			
CITY, STATE, ZIP:			
15. List any parent company of t	the Applicant. Describe the p	arent company's ongoing organizational relation	snip with the Applicant.
NAME:			
STREET:			
CITY, STATE, ZIP:			
Organizational Relationship:	2		
Organizational Relationship:			
			1
	····		
16. List any subsidiary of the Ap	oplicant. Describe the subsid	iary's ongoing organizational relationship with th	e Applicant.
STREET:		•	
CITY, STATE, ZIP:			~
Organizational Relationship:			
		673	
		± (* ≩(
	3 3		
<i>Q</i>			

ME:	TITLE:			SSN:		
REET:						
TY, STATE, ZIP:						_
						±
					25	
ME:						
LEET:						
Y, STATE, ZIP:						
	54					
List all federal environmental	agencies and any other enviro	nmental agencies out	side this state that ha	ve or have had regul	atory responsibility	over t
licant.						
					6	
	e					

19. VERIFICATION AND ACKNOWLEDGEMENT

The Applicant agrees to provide any other information the director of the Arkansas Department of Environmental Quality may require at any time to comply with the provisions of the Disclosure Law and any regulations promulgated thereto. The Applicant further agrees to provide the Arkansas Department of Environmental Quality with any changes, modifications, deletions, additions or amendments to any part of this Disclosure Statement as they occur by filing an amended Disclosure Statement.

DELIBERATE FALSIFICATION OR OMISSION OF RELEVANT INFORMATION FROM DISCLOSURE STATEMENTS SHALL BE GROUNDS FOR CIVIL OR CRIMINAL ENFORCEMENT ACTION OR ADMINISTRATIVE DENIAL OF A PERMIT, LICENSE, CERTIFICATION OR OPERATIONAL AUTHORIZATION.

State of			

County of

I, ______, swear and affirm that the information contained in this Disclosure Statement is true and correct to the best of my knowledge, information and belief.

APPLICANT SIGNATURE:

COMPANY TITLE:

DATE:

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____ 20____

NOTARY PUBLIC

MY COMMISSION EXPIRES:



NOTICE OF INTENT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY (EXCEPT FROM CONSTRUCTION ACTIVITY) AUTHORIZED UNDER NPDES GENERAL PERMIT ARR000000

The enclosed form may be used to obtain coverage under NPDES general permit ARR000000 for discharges of stormwater associated with industrial activity (except from construction activity). <u>Only</u> a copy of the attached authorized Notice of Intent form will be accepted by this Department.

New Discharger:

Any New Discharger seeking coverage under the ARR00000 General Permit must submit the following to the Department:

- a completed and signed copy of the Notice of Intent.
- a copy of the Stormwater Pollution Prevention Plan and Site Map.
- an initial permit fee of \$200.00 as required by APCEC Regulation No. 9. Subsequent annual fees of \$200.00 per year will be billed by the Department. Failure to remit the required permit fee may be grounds for the Director to deny coverage under this general permit, and to require the owner or operator to apply for an individual NPDES permit.

Renewal Discharger:

Existing Discharge seeking to renew coverage under the ARR00000 General Permit must submit the following to the Department:

- a completed and signed copy of the Notice of Intent.
- an updated Site Map.

Return the completed forms to:

Arkansas Department of Environmental Quality Permits Branch, Water Division 5301 Northshore Drive North Little Rock, AR 72118

Or by or by electronic mail (Complete documents (NOI and/or SWPPP) must be submitted in Adobe Acrobat format (.pdf) to: <u>Water-permit-application@adeq.state.ar.us</u>. Notice of Coverage (NOC) will not be issued until payment has been received by ADEQ.

NOTE: DO NOT LEAVE BLANK SPACES IN THE NOTICE OF INTENT. IF ANY QUESTION DOES NOT APPLY, MARK "N/A" IN THE SPACE PROVIDED.

For additional information please contact:

General Permits Engineer Ph.: (501) 682-0623 Fax: (501) 682-0910 Email: <u>adeq@state.ar.us</u>

See page 8 for additional instructions on completing the Notice of Intent.

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 1 of 11 Revision Date - 4/7/2009

	Donowol [Bormit	No ADDO	0	
Application Type: New		J Fermit	NO. AKKU	0	
PERMITTEE/OPERATOR INFORMATIO	24			On	erator Type:
Permittee (Legal Name): Permittee Mailing Address:				STATE	PARTNERSHIP
Permittee City:				FEDERAL	
Permittee State:				SOLE PROPI	
Permittee Telephone Number:					OTHER
Permittee Fax Number					
Permittee E-mail Address				*State of Incorpo	ration:
The legal name of the Permittee must be identical to the name list					
I. INVOICE MAILING INFORMATION (if di	fferent from	facility n	nailing add	lress)	
Invoice Contact Person:				City:	
Invoice Mailing Company:					Zip:
Invoice Mailing Address:				phone:	
II. FACILITY INFORMATION Facility Name				i.	
(if different from Permittee)					
Facility Physical Address:					
Facility County:				Contact Title:	
Facility City:	Zip:		Telep	hone Number:	
Directions to the Facility:				Fax Number	
Is mailing address different from facility address?	Yes	🗌 No	If yes, pro	vide mailing address	in the space provided.
			City:		
					Zip:
Mailing Address:			State: _		
		SIC Code(

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 2 of 11 Revision Date - 4/7/2009

III. FACILITY INFORMATION CONT.

Facility Latitude:		degrees		minutes		seconds		
Facility Longitude:		degrees		minutes		seconds		
Accuracy:	Method:		Datum:		Scale:		Description:	
Section:	Township:		Range:		N R			
IV. OUTFALL INFOR	MATION						a 	
Outfall number shoul	d be assigne	d sequentia	ally if the fac	cility has mo	ore than one o	outfall. (i.e.	001, 002, etc.)	
Outfall:	_							
Outfall Latitude:		degrees		minutes		seconds		
Outfall Longitude:		degrees		minutes		seconds		
Accuracy:		Method:		Datum:		Scale;		
Description:						0		
					Range	:	13	
Receiving Stream:								
Stream Segment:			Hydrologic	Basin Code	:			
Outfalls)(±		
Outfall: Outfall Latitude:	-	decrease		an i annta a		seconds	4.0	
Outfall Longitude:								
	0	S		S S				
						Scale.		
Description:			wnship:			• •		
D						8. <u></u>		
17								
Stream Segment;	~ ~ ~		rydrologic	Dasin Code	•			
Pages may be added for ad	ditional out	falls.						

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 3 of 11 Revision Date - 4/7/2009

v.	DISCHARGE INFORMATION		
	Is this a new discharge? 🗌 Yes 🗌 No If yes, date coverage de	sired:	
	Does the stormwater discharge adversely affect a listed endangered or threatened species or it Yes No If yes, list the endangered or threatened species:	s critical habitat?	
	Does the facility have a stormwater pollution prevention plan? (NEW DISCHARGERS MUST SUBMIT A COPY OF THE PLAN WITH NOI)	Yes	🗌 No
	Does the facility have EXISTING sampling data describing its stormwater discharge(s)? (DO NOT SUBMIT DATA)	🗌 Yes	🗋 No
0.072	FACILITY PERMIT INFORMATION List any additional permits that the facility may have coverage under???		
	NPDES Individual Permit Number (If Applicable): AR00		
	NPDES General Permit Number (If Applicable): ARG		
	NPDES General Industrial Stormwater Permit Number (If Applicable): ARR00		
N	NPDES General Construction Stormwater Permit Number (If Applicable): ARR15		
	No Discharge Permit Number (If Applicable):		
VII.	CONSULTANT INFORMATION	e.	
Cor	nsultant Company:		
Cor	nsultant Contact Name:		(0)
Cor	nsultant Email Address:		
Cor	nsultant Address: City: State:	Zip:	
Cor	nsultant Phone Number: Consultant Fax Number:		
Cor	isultant E-mail		

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 4 of 11 Revision Date - 4/7/2009

VIII. NO EXPOSURE EXCLUSION CERTIFICATION (Only permittees seeking a No Exposure Exclusion needs to fill out this section. It may be left blank. See instructions for additional information.)

Submission of this No Exposure Certification constitutes notice that the entity identified in Section A does not require permit authorization for its stormwater discharges associated with industrial activity in the State identified in Section B under ADEQ's Stormwater General Permit due to the existence of a condition of no exposure. A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- 1. Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- 2. Adequately maintained vehicles used in material handling; and
- 3. Final products, other than those products that would be mobilized in stormwater discharges (e.g., rock salt).

A No Exposure Certification must be provided for each facility qualifying for the no exposure exclusion. In addition, the exclusion from NPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the "no exposure" exclusion.

By signing and submitting this No Exposure Certification form, the entity in Section A is certifying that a condition of no exposure exists at its facility or site, and is obligated to comply with the terms and conditions of 40 CFR 122.26(g).

EXPOSURE CHECKLIST

(Plea	any of the following materials or activities exposed to precipitation, now or in the foreseeable future? use check either "Yes" or "No" in the appropriate box.) If you answer "Yes to any of these questions (a) through (k are not eligible for the No Exposure Exclusion.),	
Jou	in e <u>not</u> engliste for the ris support e succession	Yes	No
a,	Using, storing, or cleaning industrial machinery or equipment, and areas where residuals from using, storing, or cleaning industrial machinery or equipment remain and are exposed to stormwater.		
b.	Are materials or residuals on the ground or in stormwater inlets from spills/leaks.		
c.	Are materials or products from past industrial activity exposed.		
d.	Is material handling equipment exposed (except adequately maintained vehicles).		
e,	Are materials or products during loading/unloading or transporting activities exposed.		
f.	Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to stormwater does not result in the discharge of pollutants).		
g.	Materials contained in open, deteriorated, or leaking storage drums, barrels, tanks, and similar containers.		
h.	Materials or products handled/stored on roads or railways owned or maintained by the discharger.		
i.	Waste materials exposed (except waste in covered, non-leaking containers [e.g., dumpsters]).		
j.	Application or disposal of process wastewater (unless otherwise permitted).		

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER DIVISION - PERMITS BRANCH

5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623 / FAX 501-682-0880 www.adeq.state.ar.us Page 5 of 11

Revision Date - 4/7/2009

		Yes	No
k.	Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater outflow.		
1.	Allowed non-stormwater discharges go through Outfall.		

CERTIFICATION STATEMENT

This statement must be signed if a no exposure exclusion is being requested.

"I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "No Exposure" and obtaining an exclusion from NPDES stormwater permitting; I certify under penalty of law that there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 40 CFR 122.26(g)(2)); I understand that I am obligated to submit a no exposure certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local municipal separate storm sewer system (MS4) into which the facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of stormwater from the facility; Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name:	Title:	·
Signature:	Date:	(*)

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 6 of 11 Revision Date - 4/7/2009

IX. CERTIFICATION OF OPERATOR

"I certify that, if this facility is a corporation, it is registered with the Secretary of State of Arkansas. Please provide the full name of corporation if different than that listed in Section I above."

"I certify that as a whole the stormwater discharge(s) and implementation of Best Management Practices (BMP's) to control stormwater runoff, are not likely to adversely affect species of critical habitat for a listed species."

"I certify that a stormwater pollution prevention plan has been developed in accordance with Part 4 of the general permit."

"I certify that the cognizant official designated in Part IX of this Notice of Intent is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, 1 understand that the Department will accept reports only signed by the applicant."

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations."

Responsible Official Printed Name:	Title:	
Responsible Official Signature:	Date:	
IX. COGNIZANT OFFICIAL		
Cognizant Official Printed Name:	Title:	
Cognizant Official Signature:	Telephone:	
Cognizant Official E-mail:		
X. PERMIT REQUIREMENT VERIFICATION Please check the following to verify completion of permit require	nents. Yes No*	
Submittal of Complete NOI?		
Submittal of Required Permit Fee? (New Discharger Only)		
Check Number:	Report. Autom	
Submittal of SWPPP (for new dischargers only)		
* If you answer No to any of the above questions, then a period	it can not be issued!	
	11 IV	

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 7 of 11 Revision Date - 4/7/2009



INSTRUCTIONS

I. How to Determine Latitude and Longitude:

If a physical address is known go to <u>www.terraserver-usa.com</u> and proceed with the following steps:

- 1. Select Advanced Find
- 2. Select Address
- 3. Input address
- 4. Click on Aerial Photo
- 5. Click on the Info link at the top of the page
- 6. Note the Latitude and Longitude are in Decimal Coordinates.
- 7. Go to www.geology.enr.state.nc.us/gis/latlon.html to convert coordinates to Degrees, Minutes, and Seconds.

NOTE: If a physical address does not exist you may find the coordinates in the Legal Description of the property.

II. How to Determine the Accuracy, Method, Datum, Scale, and Description for the Facility/Outfall Latitude and Longitude:

Horizontal Accuracy Measure - The measure of the accuracy (in meters) of the latitude and longitude coordinates.

Α	1 Meter	K	11,000 Meters
В	3 Meters	1	Nearest 10 th of a Second
С	5 Meters	2	Nearest Second
D	25 Meters	3	Nearest 10 Seconds
E	50 Meters	4	Nearest 30 Seconds
F	150 Meters	5	Nearest Minute
G	400 Meters	6	Nearest 10 Minutes
Н	1,000 Meters	7	Nearest 30 Minutes
I	2,000 Meters	8	Nearest Degree
J	6,000 Meters		· · · · · · · · · · · · · · · · · · ·

Horizontal Collection Method - The text that describes the method used to determine the latitude and longitude coordinates for a point on the earth.

A	Map Interpolation	1	Address Mapping
В	Navigation-Quality GPS	2	Aerial Photo w/ Ground Control
С	Remote Sensing	3	Cadastral Survey
D	ZIP Code Centroid	4	State Plan Coord. System Conv.
E	ZIP + 2 Centroid	5	Township-Section-Range System Conv.
F	ZIP + 4 Centroid	6	UTM Coordinates Conversion
G	Address Matching, Exact Match	7	Raw Photo Extraction
Н	Address Matching, Near Match	8	GPS Survey
U	Unknown	9	Loran-C Navigational Device



Horizontal Reference Datum - The code that represents the reference datum used in determining latitude and longitude coordinates.

U	Unknown	
1	NAD27	
2	NAD83	

Source Map Scale - The scale used to determine the latitude and longitude coordinates.

A	1:100,000	4	1:25,000	
N	Not Applicable	5	1:62,500	
U	Unknown	6	1:63,000	
1	1:15,840	7	1:63,350	
2	1:20,000	8	1:63,360	
3	1:24,000 (1" = 2,000')	9	1:250,000	

Reference Point Description - The place for which geographic coordinates were established.

Facility		Outfall Only		
01099 Centroid of Processing Area		01099	End of Discharge Point	
02099	Front Door of Facility			

III. How to Determine your Hydrologic Basin Code for the Facility/Outfall:

- 1. Locate the county of your facility on the map on Page 11.
- 2. Find the numbered segment overlaying the county. For example 2C overlays most of Saline County.
- 3. Find the Eight Digit Hydrologic Basin Code located inside the numbered segment.

IV. How to Determine your Stream Segment for the Facility/Outfall:

- 2. Locate the county of your facility on the map on Page 11.
- 3. Find the numbered Stream Segment overlaying the county. For example 2C overlays most of Saline County. 2C would be the Stream Segment for any facility located within that segment.
- V. How to Determine your Ultimate Receiving Waters:
 - 1. Locate the county of your facility on the map on Page 11.
 - 2. Find the numbered segment overlaying the county. For example 2C overlays most of Saline County.
 - Match the number from the segment to one of the numbered Ultimate Receiving Waters. For example: A facility located in Western Saline County is in segment 2C. The "2" determines that the Ultimate Receiving Water for the project is the Ouachita River.

VII. How to obtain information in regard to Endangered Species:

Contact the U.S. Fish and Wildlife Service at (501) 513-4470 or www.fws.gov/arkansas-es.

VIII. No Exposure Exclusion Certification:

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION – PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 9 of 11 Revision Date - 4/7/2009



Who May File a No Exposure Certification?

Federal law at 40 CFR Part 122.26 prohibits point source discharges of stormwater associated with industrial activity to waters of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is not required for discharges of stormwater associated with industrial activities identified at 40 CFR 122.26(b)(14)(i) – (ix) and (xi) of the discharger can certify that a condition of "no exposure" exists at the industrial facility or site.

Obtaining and Maintaining the No Exposure Exclusion

This form is used to certify that a condition of no exposure exists at the industrial facility or site described herein. This certification is only applicable in jurisdictions where ADEQ is the NPDES permitting authority and must be re-submitted at least once every five years.

The industrial facility operator must maintain a condition of no exposure at its facility or site in order for the no exposure exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the facility operator must obtain coverage under an NPDES stormwater permit immediately.

Check "Yes" or "No" as appropriate to describe the exposure conditions at your facility. If you answer "Yes" to ANY of the questions (1) through (11) in this section, a potential for exposure exists at your site and you cannot certify to a condition of no exposure. You must obtain (or already have) coverage under an NPDES stormwater permit. After obtaining permit coverage, you can institute modifications to eliminate the potential for a discharge of stormwater exposed to industrial activity, and then certify to a condition of no exposure.

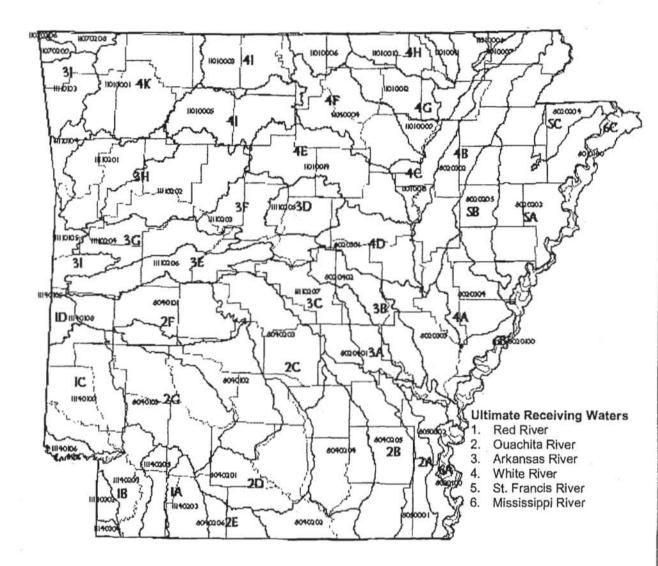
IX. Signatory Requirements:

The information contained in this form must be certified by a <u>responsible official</u> as defined in the "signatory requirements for permit applications" (40 CFR 122.22).

Responsible official is defined as follows:

Corporation, a principal officer of at least the level of vice president, treasurer Partnership, a general partner Sole proprietorship: the proprietor Municipal, state, federal, or other public facility: principal executive officer, or ranking elected official





ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY WATER DIVISION -- PERMITS BRANCH 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Page 11 of 11 Revision Date - 4/7/2009

Arkansas Department of Environmental Quality NPDES Branch, Water Division **5301 Northshore Drive** North Little Rock, AR 72118 (501) 682-0623 NOTICE OF TERMINATION (NOT) FOR DISCHARGERS OF STORMWATER RUNOFF ASSOCIATED WITH INDUSTRIAL ACTIVITY (EXCEPT FROM CONSTRUCTION ACTIVITY) **AUTHORIZED UNDER NPDES GENERAL PERMIT ARR000000** Permit Tracking Number to be Terminated: ARR00 I. PERMITTEE INFORMATION Permittee Legal Name : Permittee Type: Permittee Mailing Address: STATE PARTNERSHIP FEDERAL City: CORPORATION* State: Zip: SOLE PROPRIETORSHIP Permittee Telephone Number: *State of Incorporation: E-mail: Permittee Fax Number: **II. FACILITY SITE INFORMATION** Facility Name: Facility Contact Person: Facility County: Facility Physical Address: Facility City: _____ Zip: _____ Reason for Termination Telephone Number: Does the facility have an Individual NPDES Permit? YES If yes permit Number (AR00____ NO If yes date: (_____ Has the facility ceased operation? YES _) **NO** Has the facility eliminated all stormwater discharges? T YES If yes date: (**NO III. PERMITTEE CERTIFICATION**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"I also certify under penalty of law that all stormwater discharges through outfall(s) permitted under this General Permit for activities associated with this facility have been eliminated. I understand that by submitting this Notice of Termination (NOT) that I am no longer authorized to discharge stormwater through outfall(s) under this General Permit, and that discharging pollutants associated with activity at this facility to waters of the State is unlawful under the Clean Water Act and the Arkansas Water and Air Pollution Control Act where the discharge is not authorized by an NPDES permit."

Typed or Printed Name:	Title:	_
Signature:	 Date:	_

WATER DIVISION 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adcq.state.ar.us Industrial Stormwater Permit NOT / Revision date 7/10/2008



NOTICE OF INTENT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH LARGE CONSTRUCTION ACTIVITY AUTHORIZED UNDER NPDES GENERAL PERMIT ARR150000

The enclosed form may be used to obtain coverage under NPDES general permit ARR150000 for discharges of stormwater associated with large construction activity at any site or common plan of development or sale that will result in the disturbance of five (5) or more acres of total land area.

Return the completed form to:

Arkansas Department of Environmental Quality Permit Branch, Water Division 5301 Northshore Drive North Little Rock, AR 72118

Unless notified by the Director to the contrary, dischargers who submit a complete Notice of Intent in accordance with the requirements of this permit are authorized to discharge stormwater from construction sites under the terms and conditions of this permit two weeks after the date the NOI is postmarked.

As required by ADEQ Regulation No. 9, an initial permit fee of \$200.00 must be submitted with this NOI. Subsequent annual fees of \$200.00 per year will be billed by the Department. Failure to remit the required permit fee may be grounds for the Director to deny coverage under this general permit, and to require the owner or operator to apply for an individual NPDES permit.

NOTE: A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED PRIOR TO SUBMITTAL OF THIS NOI PER PART II.A OF THE GENERAL PERMIT. THE SWPPP MUST BE SUBMITTED FOR REVIEW ALONG WITH THIS NOI FOR LARGE CONSTRUCTION SITES PER PART I.B.6.B OF THE GENERAL PERMIT.

For additional information please contact:

Stormwater Runoff Engineer Ph.: (501) 682-0623 Fax: (501) 682-0880 website: <u>www.adeq.state.ar.us</u>

INSTRUCTIONS

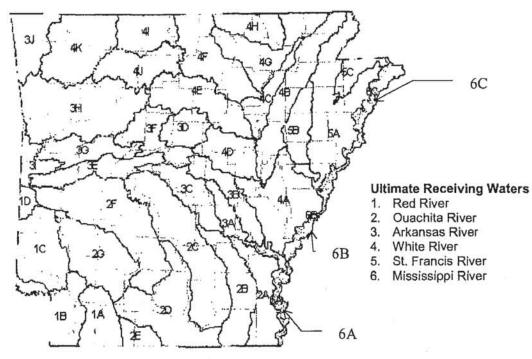
- 1. How to Determine Latitude and Longitude:
 - 1. If a physical address is known go to <u>www.terraserver-usa.com</u>.
 - 2. Select Advanced Find
 - 3. Select Address
 - Input address
 - 5. Click on Aerial Photo
 - 6. Click on the Info link at the top of the page
 - 7. Note the Latitude and Longitude are in Decimal Coordinates.
 - 8. Go to <u>www.geology.enr.state.nc.us/gis/latlon.html</u> to convert coordinates to Degrees, Minutes, and Seconds.

NOTE: If a physical address does not exist you may find the coordinates in the Legal Description of the property.



II. How to Determine your Ultimate Receiving Waters:

- 1. Locate the county of your project.
- 2. Find the numbered segment overlaying the county. For example 2C overlays most of Saline County.
- Match the number from the segment to the one of the numbered Ultimate Receiving Waters. For example: A project located in Western Saline County is in segment 2C. The "2" determines that the Ultimate Receiving Water for the project is the Ouachita River.



III. How to determine if the receiving stream is on the approved Arkansas 303(d) List:

- 1. Go to www.epa.gov/owow/tmdl
- 2. Using the map of the United States, click on Arkansas.
- 3. Using the "Waters Listed by Waterbody Type" links search for your receiving stream.
- 4. If your receiving stream is not listed, than your receiving stream is not on the approved Arkansas 303(d) List.
- 5. If your receiving stream is listed, than click on the links for that receiving stream to determine the pollutants causing the impairment.
- 6. Once a determination is made that your receiving stream is on the approved Arkansas 303(d) List, than you must determine if the receiving stream has an approved TMDL by using the "Approved TMDLs by Pollutant since January 1, 1996" links toward the bottom of the webpage.
- IV. How to obtain information in regard to Endangered Species:

Contact the U.S. Fish and Wildlife Service at (501) 513-4470 or www.fws.gov/arkansas-es .

Pe	Department of Environment ermits Branch, Water Divisio 5301 Northshore Drive North Little Rock, AR 72118 (501) 682-0623	on	D.		
NOTICE OF INTENT FOR DISCHARGERS OF STORMWATER RUNOFF ASSOCIATED WITH LARGE CONSTRUCTION ACTIVITY AUTHORIZED UNDER NPDES GENERAL PERMIT ARR150000					
Application Type: New Renews I. PERMITTEE/OPERATOR INFORMATIO	al 📋 (Permit Tracking Nur N	nber ARR()			
Permittee (Legal Name):		Op	erator Type:		
Permittee Mailing Address:		STATE	D PARTNERSHIP		
Permittee City:		FEDERAL	CORPORATION*		
Permittee State:		SOLE PROPI	RIETORSHIP		
Permittee Telephone Number:		D PUBLIC	☐ OTHER		
Permittee Fax Number					
Permittee E-mail Address		*State of Incorpo	ration:		
* The legal name of the Permittee must be identical to the name li	sted with the Arkansas Secretary of St	ate.			
Invoice Mailing Address:		1 acre = 43,560 sc	juare feet		
Project Name:	Contac	et Person:	51		
Project County:	Project Physical	Address:			
Directions to the Project:	Pro	ject City:	Zip:		
	Telephone				
Project Estimated Start Date:	1	unt of soil to be disturbe imate to nearest 1/2 acre			
Project Estimated End Date:		Total Project Acreag			
Project Latitude: degrees		seconds			
Project Longitude: degrees		seconds			
Type of Project: Subdivision School					
Is the Project part of a larger common plan of de					
Linear Project Starting Coordinates (if applicable		ct Ending Coordinates (i	fapplicable):		
Latitude:°' Longitude:° _		^'' Longitu			
5301 NORTHSHORE DRIVE / NORTH LITT Large Co	WATER DIVISION LE ROCK, ARKANSAS 72118 / www.adeq.state.ar.us instruction NOI / Revision date 12		AX 501-682-0910		
			9		

IV. DISCHARGE INFORMATION

Name of Receiving Stream (i.e. an unnamed tributary of Mill Creek, thence into Mill Creek; thence into Arkansas River):

Choose Your Ultimate Receiving Stream:			ansas River 🔲	
Name of Receiving Municipal Storm Sewe Is the stormwater discharge from the cons critical habitat? Yes No	er System (If applicable): truction site likely to adve			cies or its
V. FACILITY/SITE PERMIT INFORMA	TION			1
NPDES Individual F	ermit Number (If Applicab	le): AR00		
NPDES General F	ermit Number (If Applicab	le): ARG		
NPDES General Industrial Stormwater P	ermit Number (If Applicab	le): ARR00		0
NPDES General Construction Stormwater P	ermit Number (If Applicab	le): ARR15		
VI. OTHER INFORMATION:		78	2	
Location of SWPPP on the Construction Site:		8		
Consultant Company:				
Consultant Contact Name:				
Consultant Email Address:				
Consultant Address:	City:	State:	Zip:	
Consultant Phone Number:	Consultant Fax Number:	¢ (

Arkansas Department of Environmental Quality Permits Branch, Water Division 5301 Northshore Drive North Little Rock, AR 72118 (501) 682-0623

VII. CERTIFICATION OF OPERATOR

- (Initial) "I certify that, if this facility is a corporation, it is registered with the Secretary of State of Arkansas. Please provide the full name of corporation if different than that listed in Section I above."
- (Initial) "I certify that as a whole the stormwater discharge(s), and the construction and implementation of Best Management Practices (BMP's) to control stormwater runoff, are not likely to adversely affect species of critical habitat for a listed species."
- (Initial) "I certify that a stormwater pollution prevention plan has been prepared for this facility in accordance with Part II.A of this permit, which provides for, or will provide for, compliance with local sediment and erosion plans, local stormwater permits or stormwater management plans, in accordance with Part II.A.4.c of this permit."
- (Initial) "I certify that the cognizant official designated in Part VIII of this Notice of Intent is qualified to act as a duly authorized representative under the provisions of 40 CFR 122.22(b). If no cognizant official has been designated, I understand that the Department will accept reports signed by the applicant"

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Responsible Official Printed Name:	Title:
Responsible Official Signature:	
VIII. COGNIZANT OFFICIAL	
Cognizant Official Printed Name:	Title:
Cognizant Official Signature:	Telephone:
X. PERMIT REQUIREMENT VERIFICATION	
Please check the following to verify completion of permit re-	equirements.
	Yes No*
Submittal of Complete NOI?	
Submittal of Required Permit Fee?	
Check Number:	
Complete SWPPP?	
* If you answer No to any of the above questions, then a	permit can not be issued!
	* D
	5 g

Arkansas Department of Environmental Quality NPDES Branch, Water Division 5301 Northshore Drive North Little Rock, AR 72118 (501) 682-0623

NOTICE OF TERMINATION (NOT) FOR DISCHARGERS OF STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY AUTHORIZED UNDER NPDES GENERAL PERMIT ARR150000

D	umit Tugaling Number to be T	Countingtod. ADD15			
I.	ermit Tracking Number to be T PERMITTEE INFORMATION	Cerminated: ARR15			
č×.	Permittee Mailing Address: City:	Zip:		Perr STATE FEDERAL SOLE PROPR	nittee Type: PARTNERSHIP CORPORATION* IETORSHIP
	Email			15	OTHER
II.	Project Name:				
	Project County: Project City: Telephone Number:		Project	Physical Address: _ Zip:	
Hav	e you established vegetation cover with e all discharges associated with constru- e you included pictures of vegetation co	80% density? ction activities been eliminated?	☐ YES ☐ YES ☐ YES	□ NO □ NO □ NO	401 -

Please note that photos must be submitted in order to terminate permit coverage.

III. PERMITTEE CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"In addition, I understand that by submitting this Notice of Termination that I am no longer authorized to discharge storm water by general permit, and that discharging pollutants in stormwater associated with construction activity to Waters of the State is unlawful under the Clean Water Act and the Arkansas Water and Air Pollution Control Act where the discharge is not authorized by an NPDES permit."

Typed or Printed Name:	Title:
Signature:	Date:

WATER DIVISION 5301 NORTHSHORE DRIVE / NORTH LITTLE ROCK, ARKANSAS 72118 / PHONE 501-682-0623/ FAX 501-682-0880 www.adeq.state.ar.us Construction Stormwater Permit NOT / Revision date 07/10/2008

Stormwater Pollution Prevention Plan For Construction Activity

National Pollution Discharge Elimination System General Permit # ARR150000

Prepared for:

Date:

StormWater Pollution Prevention Plan General Permit # ARR150000

Project Name and Location:

Operator Name and Address:

A. Site Description
1) Vicinity Map and Pre-construction Topographic view:
Map inserted: Yes No
2) Project Description and Intended Use after NOT is filed:
3) Sequence of Activities:
5) Bequeite of Activities.
4) Total Acres Available/Total Disturbed Area:
5) Existing Site Information:
5) Existing Site Information:
a. Runoff Coefficient Based on attachment C:
Before construction starts, the site has a runoff coefficient of
After construction is completed, the sit will have a runoff coefficient of
b. Soil Information
B. Responsible Parties-General Contractors, Inspectors, etc:
D. Responsible 1 at thes-General Contractors, Inspectors, etc.
C Devil ten Western (10 CD m)
C. Receiving Waters: (pg 19 of Part II)
 Location of Surface Water on Construction Site The following surface waters are located on the construction site:
The following surface waters are located on the construction site.
2) The following bodies of water receive runoff from the construction site:

D. 1	MDL and 303(d) list: (http://www.adeg.state.ar.us/water/branch_plann	ing/default.htm)
E. A	ttainment of Water Quality Standards after Authorization: (pg 20	0 of Part II)
F. E	andangered Species: US Fish & Wildlife checklist inserted:	Yes No
G.S	ite Map: See Attachment A for items to be included.	
H.S	tormwater Controls	
1.	Initial Site Stabilization, Erosion, & Sediment Controls: (pg 21 of Part I	I)
e. f.	Initial disturbed areas: Erosion and Sediment controls to retain sediment on-site: Replacement of inadequate controls: Removal of off-site accumulations: Maintenance of sediment traps/basins @ 50% capacity: Litter, construction debris and chemicals properly handled: Yes No Off-site storage areas: Yes No. If yes, then what controls are being used:	2
2.	Stabilization Practices: (pg 21 of Part II)	
b. с.	Description and schedule for stabilization: Are Buffer Areas required: If yes, are the Buffer Areas being used: If they are required but not being used, please indicate the reason: Records of Stabilization will be retained for: years Deadlines for site stabilization:	☐ Yes ☐ No ☐ Yes ☐ No
3.	Structural Practices: (pg 22 of Part II)	
	Are more than 10 acres draining to a common point: If yes, are sediment basins included for the project: Are the calculations and design for the basin included: Are the calculations and design for the outfall included: If a basin is required but not included/practicable, please indicate the reason: Are velocity dissipation devices provided at the discharge points from the site: If yes, please describe: If no, please explain why not:	 Yes □ No

- I. Other Controls: In addition to erosion control and storm water management, our plan will include measures to properly manage solid wastes, hazardous wastes, dust generation, and all other activities that will generate wastes during the construction phase. (pg 23 of Part II)
- 1. Solid material control, debris and wastes:

2. Offsite vehicle tracking:

3. Temporary sanitary facilities:

4. Concrete waste area:

5. Fuel storage, hazardous materials and truck washing areas:

J. Non-stormwater Discharges: (pg 10 of Part I)

List of Anticipated Allowable Non-Stormwater Discharges:

K. Post-Construction Stormwater Management: (pg 24 of Part II)

L. State or Local Plans: (pg 24 of Part II)

The municipality in which the construction activity occurs will be contacted to determine if there are erosion control and/or storm water runoff requirements in the city code, city ordinances or city permits. All applicable requirements will be met. Documentation of compliance is attached to this SWPPP. \Box Yes \Box No

M. Inspections: (pg 24 of Part II)

Inspections will be conducted by a qualified inspector at one of the following frequencies:

Every 7 days or

Every 14 Days and within 24 hours after a ½ inch or greater rainfall event. (If this option is chosen, a rain gauge is required to be on-site. The SWPPP should also include a daily rainfall log.) A report of the inspection will summarize the scope of the inspection, the name of the inspector, the date of inspection, any damages observed and repairs made to any control measure. Completed inspection forms will be kept with the SWPPP.

The following are the minimum inspection, maintenance and reporting practices that will be used to maintain erosion and sediment controls at our construction site:

1. Inspection form (Attachment B)

2. All controls will be inspected to ensure that they meet the manufacture's specifications.

3. All site entrances and exits will be checked to ensure no off-site tracking.

4. All inspection reports will be maintained for a minimum of 3 years after permit termination.

- 5. In addition to inspection, records will be kept of the following:
 - a. Dates when major grading activities occur

b. Dates when construction activities cease in an area, temporarily or permanently.

c. Dates when an area is stabilized, temporarily or permanently.

	ment control measure will be maintained in good working e completed within three (3) business days of discovery (pg blease explain the reason:						
Contractors: (pg 25 of Part II)							
All contractors should be identified in the	plan. If additional room is required, please attach a blank						
page with information after the plan certifi	cation.						
Contractor Printed Name:	Contractor Signature:						
Contractor Contact Number:	Responsible for:						
Contractor Printed Name:	Contractor Signature:						
Contractor Contact Number:	Responsible for:						
Contractor Printed Name:	Contractor Signature:						
Contractor Contact Number:	Responsible for:						
Contractor Printed Name:	Contractor Signature:						
Contractor Contact Number:	Responsible for:						
page with information after the plan certifi Inspector Printed Name:	Inspector Signature:						
Inspector Contact Number:							
Inspector Printed Name:							
Inspector Contact Number:							
Plan Certification: (pg 26 of Part II)							
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is,							
to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment							
for knowing violations."							
Printed Name:							
Printed Title:							
Signature:							
Date:							

Please note that Attachments C-E do not have to be submitted with the SWPPP.

Attachment A Site Map

Attachment A

Site Map

Showing at a minimum the following items:

- 1. Direction of stormwater flow;
- 2. Areas of soil disturbance and areas not to be disturbed;
- 3. Location of major structural and nonstructural controls;
- 4. Main construction entrance and exit;
- 5. Location where stabilization practices are expected to occur;
- 6. Locations of off-site materials, storage, waste or borrow areas;
- 7. Locations of areas used for concrete wash-out;
- 8. Location of all surface water bodies (including wetlands);
- 9. Locations where stormwater is discharged to a surface water and/or municipal separate storm sewer system, if applicable;
- 10. Locations where stormwater is discharged off-site (should be continuously updated); and
- 11. Areas where final stabilization has been accomplished and no further construction will take place.

Attachment B Site Inspection Form

Attachment B

STORMWATER POLLUTION PREVENTION PLAN INSPECTION AND MAINTENANCE REPORT FORM

INSPECTOR:

DATE:____

DAYS SINCE LAST RAINFALL: _____ AMOUNT OF LAST RAINFALL _____

AREA	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED (YES/NO)	STAB. WITH	CONDITION
•					

STABILIZATION REQUIRED:

SILT FENCE IS THE BOTTOM OF THE FABRIC STILL BURIED?
IS THE FABRIC TORN OR SAGGING?
ARE THE POSTS TIPPED OVER?
HOW DEEP IS THE SEDIMENT?
MAINTENANCE REQUIRED FOR SILT FENCE: SEDIMENT BASIN DEPTH OF SEDIMENT IN BASIN? CONDITION OF BASIN SIDE SLOPES? ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT? CONDITION OF OUTFALL FROM SEDIMENT BASIN? MAINTENANCE REQUIRED FOR SEDIMENT BASIN: CONSTRUCTION EXIT DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? IS THE GRAVEL CLEAN OR FILLED WITH SEDIMENT?
DEPTH OF SEDIMENT IN BASIN?
CONDITION OF BASIN SIDE SLOPES?ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT? CONDITION OF OUTFALL FROM SEDIMENT BASIN? MAINTENANCE REQUIRED FOR SEDIMENT BASIN: CONSTRUCTION EXIT DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? IS THE GRAVEL CLEAN OR FILLED WITH SEDIMENT?
CONDITION OF BASIN SIDE SLOPES?
CONDITION OF OUTFALL FROM SEDIMENT BASIN?
MAINTENANCE REQUIRED FOR SEDIMENT BASIN: CONSTRUCTION EXIT DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? IS THE GRAVEL CLEAN OR FILLED WITH SEDIMENT?
CONSTRUCTION EXIT DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? IS THE GRAVEL CLEAN OR FILLED WITH SEDIMENT?
DOES MUCH SEDIMENT GET TRACKED ON TO ROAD?
IS THE GRAVEL CLEAN OR FILLED WITH SEDIMENT?
DODA ALL TRADERIC LIGE THE OTABLE IZED EVIT TO LEAVE THE LOD OFTER
DOES ALL TRAFFIC USE THE STABILIZED EXIT TO LEAVE THE JOB SITE?
IS THE CULVERT BENEATH THE EXIT WORKING?
MAINTENANCE REQUIRED FOR CONSTRUCTION EXIT:
CHANGES TO BE PERFORMED BY: ON OR BEFORE:

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN:

REASONS FOR CHANGES:

"I certify under penalty of law that this document was prepared under my direction or supervision. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature

Date

For additional information, please use a separate page.

Attachment C

Computation Sheet for Determining Runoff Coefficients

Attachment C

Computation Sheet for Determining Runoff Coefficients

Total Site Area	=	Acres	(A)
Existing Site Conditions			
Impervious Site Area ¹	=	Acres	(B)
Impervious Site Area Runoff Coefficient 2,4	=		(C)
Pervious Site Area ³	=	Acres	(D)
Pervious Site Area Runoff Coefficient 4	=		(E)
Existing Site Area Runoff Coefficient $\frac{(B \times C) + (D \times E)}{(A)}$	=		(F)
Proposed Site Conditions (after construction)			
Impervious Site Area ¹	=	Acres	(G)
Impervious Site Area Runoff Coefficient ^{2,4}	=		(H)
Pervious Site Area ³	=	Acres	(1)
Pervious Site Area Runoff Coefficient 4	=	·	(J)
Proposed Site Area Runoff Coefficient $\frac{(G \times H) + (I \times J)}{(A)}$	Ξ		(K)

1. Includes paved areas, areas covered by buildings, and other impervious surfaces.

2. Use 0.95 unless lower or higher runoff coefficient can be verified.

3. Includes areas of vegetation, most unpaved or uncovered soil surfaces, and other pervious areas.

4. Refer to local Hydrology Manual for typical C values.

Attachment D

Computational Sheet for Determining Run-on Discharges

Attachment D

Computational Sheet for Determining Run-on Discharges

Existing Site Conditions

Area Runoff Coefficient		11		(A)
Area	Rainfall Intensity	=	in/hr	(B)
	Drainage Area	=	Acres	(C)
Site Area Run-on Discharge	(A) x (B) x (C)	=	ft³/sec	(D)

Attachment E BMP Consideration Checklist

Attachment E

BMP Consideration Checklist

Note: Attachment E does not have to be submitted with the SWPPP. This attachment is for use during the development of the SWPPP.

CONSTRUCTION SITE BMPs CONSIDERATION CHECKLIST

The BMPs listed here should be considered for every project. Those BMPs that are not included in the SWPPP must be checked as "Not Used" with a brief statement describing why it is not being used.

	ER	OSION CONTI	ROL BMP	Ps	
BMP No.	ВМР	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
EC-1	Scheduling				
EC-2	Preservation of Existing Vegetation				
EC-3	Hydraulic Mulch				
EC-4	Hydroseeding				
EC-5	Soil Binders				
EC-6	Straw Mulch				
EC-7	Geotextiles & Mats				
EC-8	Wood Mulching				
EC-9	Earth Dikes & Drainage Swales				
EC-10	Velocity Dissipation Devices				525
EC-11	Slope Drains				
EC-12	Stream bank Stabilization				
	SEC	DIMENT CONT	ROL BM	^o s	4
BMP No.	ВМР	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
SE-1	Silt Fence				
SE-2	Sediment Basin				
SE-3	Sediment Trap				
SE-4	Check Dam				
SE-5	Fiber Rolls				
SE-6	Gravel Bag Berm				
SE-7	Street Sweeping and Vacuuming				
SE-8	Sand Bag Barrier				
SE-9	Straw Bale Barrier				
SE-10	Storm Drain Inlet Protection				
SE-11	Chemical Treatment			Õ	

	2-46 - 41 Me	STRUCTION	Constant Constant of Constant		
The B	MPs listed here should be considere must be checked as "Not Used"				
BMP No.	ВМР	CONSIDERED FOR PROJECT	CHECK IF USED	CHECK IF NOT USED	IF NOT USED, STATE REASON
		DIMENT CONT EROSION CO			
WE-1	Wind Erosion Control				
	TRA	CKING CONT	ROL BM	Ps	
TR-1	Stabilized Construction Entrance/Exit	and a second			
TR-2	Stabilized Construction Roadway				
TR-3	Entrance/Outlet Tire Wash				
	Sector and the sector of the s	M WATER MA	NAGEME	NT BMP	s
NS-1	Water Conservation Practices				
NS-2	Dewatering Operations				
NS-3	Paving and Grinding Operations	~			
NS-4	Temporary Stream Crossing				
NS-5	Clear Water Diversion		H H	H	
NS-6	Illicit Connection/ Discharge				
NS-7	Potable Water/Irrigation				
NS-8	Vehicle and Equipment Cleaning				
NS-9	Vehicle and Equipment Fueling		- H		
	Vehicle and Equipment				
NS-10	Maintenance				
NS-11	Pile Driving Operations				
NS-12	Concrete Curing				
NS-13					
NS-14	Material and Equipment Use Over Water				
NS-15	Demolition Adjacent to Water				
NS-16	Temporary Batch Plants				
	WASTE MANAGEMENT A	ND MATERIA	LS POLL	UTION C	ONTROL BMPs
WM-1	Material Delivery and Storage				
WM-2	Material Use				
WM-3	Stockpile Management				
WM-4	Spill Prevention and Control				
WM-5	Solid Waste Management				
WM-6	Hazardous Waste Management				
WM-7	Contaminated Soil Management				
WM-8	Concrete Waste Management				
WM-9	Sanitary/Septic Waste Management				
WM-10	Liquid Waste Management				



ARKANSAS OIL AND GAS COMMISSION

Submit Form To: El Dorado Regional Office P. O. Box 11510 El Dorado, Arkansas 71730

FORM 14 SALT WATER DISPOSAL REPORT

Producer		Field			
Address		County		2 	8-152
City			State	Zip	
E-Mail		Phone		Fax	
	Report for Month of		,20		

File no later than 15th of Month Following Month covered by this report

INJECTION DATA

(Monthly Figures)

	Water	Cumulative		Pressure, SIG	а.
Injection Well Name and Number	Injected In Barrels	Water Injected in Barrels	Tubing	Annulus	Zone Injected Into
1			0		
2.					
3.					
4					
5					
6.					
7.					
8.					

REMARKS:

CERTIFICATE

I declare under the penalties of perjury that this report has been examined by me and to the best of my knowledge is true, correct and complete.

Signature

Typed or Clearly Printed Name

Date

INSTRUCTIONS

- 1. List each injection well
- 2. Show the amount of water injected, during the current month, into each injection well.
- Show the amount of water injected into each injection well since the date of first inception. (Cumulative Water Injected Column)
- Show the pressure required to inject water into formation. If formation takes the water on a vacuum, fill in the word vacuum in the column reflecting Injection Pressure.
- 5. Show the name of the zone being injected into.
- 6. All Injection wells in one field may be filed on the same form,
- 7. File a separate form for each field.

NOTICE OF INTENT

Application for Salt Water Disposal System Permit

Mail To:

Arkansas Department of Environmental Quality P.O. Box 10340 El Dorado, AR 71730-0024 Phone: (870) 862-5941

SUBJECT: Notice of Intent (NOI) for Coverage Under General Permit 0000-WG-SW for Construction and/or Operation of a Salt Water Disposal System (Injection).

1. ADEQ is hereby notified that the following facility desires coverage under general permit 0000-WG-SW for construction and/or operation of the surface facilities at a Salt Water Disposal System. As required by the general permit, the following information is submitted:

a. Previous Individual State Water Permit No. _____ - ____

Previous General Permit Number - WG -SW (not applicable if applying for initial coverage under this general permit)

Facility owner(s) nan	ne:									
Address:										
City, State, Zip:	2000 - C			,						
e-mail address:							_			
Phone No.: ()		F <i>A</i>	AX:	()				
Operator's name: If different from Owner										
Address:										
City, State, Zip:		-		,				8	44.0	
e-mail address:						(P-14)-		0		
			E	AX:	()				
Phone No.: (ould be des	cribed						
			ould be des	cribed						
Facility name and lo nearest 15 seconds, a			ould be des	cribed						
Facility name and lo nearest 15 seconds, a Range.			ould be des	cribed	f 1/4 si		Sec			
Facility name and lo nearest 15 seconds, a Range. Name of Facility: Latitude:		al descripti	ould be deso on in Spot (cribed	f 1/4 si	ection),	Sec			
Facility name and lo nearest 15 seconds, a Range. Name of Facility:	and the leg	al descripti	ould be desc on in Spot (" North " West	cribed (¼ of	f 1/4 si	ection), m used	Sec	ction,		
Facility name and lo nearest 15 seconds, a Range. Name of Facility: Latitude: Longitude:	and the leg	al descripti	ould be desc on in Spot (" North " West	cribed (¼ of	Datu	ection), m used	Sec	ction,	Town	
Facility name and lo nearest 15 seconds, a Range. Name of Facility: Latitude: Longitude: Spot:/4	and the leg	al descripti	ould be desc on in Spot (" North " West	cribed (¼ of 1	Datu Town	ection), m used	Sec :	ction,	Town	

Rev 10-2006

1

e.

Provide a list below of all wells from which salt water is received for disposal, including estimated volumes (barrels per day, 42 gal = 1 bbl) from each:

Well Identification

Operator	Well Name & Number	Exact Location	Volumes
		and the second second	
			- free a series
			a
n (naise and a start of the start of the			

(Use additional sheets as necessary [1.e.-addendum])

f. Provide salt water storage tank capacity (in barrels) at each <u>transfer</u> station:

	Name of Site	Storage Capacity	Name of Site	Storage Capacity
		· · · · · · · · · · · · · · · · · · ·		
		(Use additional sheets	s, if required)	
g.	Provide the above groun	d storage capacity (in barrels) at the injection site:	barrels.
h.	Disposal rate:	in barrels per day.		
i.	Provide the injection for (This information is being	mation(s) and intervals: g requested for informational	purposes only):	
	Formation Name	Interv	vals	Injection Pressure
	and a second	(Use additional sheets,	if necessary)	
Rev	10-2006	2		

j. Is a copy of the AOGC Letter of Authorization, an approved AOGC Form 23, (for a change of operator only), or other AOGC approved form authorizing injection, enclosed with this NOI?

V	100 K 100 K	
v	Yes:	No:
		110.

If No, explain		

k. Has the owner/operator previously submitted, or have on file with the Department, a complete "Disclosure Statement" as required by Act 454 of 1991?

Yes:	No:	Date Submitted:		Division :	Water
------	-----	-----------------	--	------------	-------

If the answer is "No", a non-exempted owner/operator must complete and submit the "Disclosure Statement" included with this NOI. Additional copies of the Disclosure Form may be obtained from ADEQ.

I. Is this applicant a corporation?

Yes:	No:	
Yes:	NO:	

No:

Yes:

If "Yes", the owner/operator, by signature in Section 3 below, certifies that the corporation is registered with the Secretary of State of Arkansas.

m. Is this facility a new or proposed facility?

Applicant must also submit the following additional documents for ADEQ review:

(1) A schematic diagram of the proposed disposal system, including:

- (i) connected wells
- (ii) tanks (type and sizes)
- (iii) treaters, gunbarrels, separators
- (iv) pumps
- (v) cut-off switches
- (vi) emergency storage (firewalls) dimensions
- (vii) piping (sizes and materials)
- (2) A topographic map and county highway map describing and/or illustrating the location of the disposal system, including directions to the well location.

n. Briefly describe changes being made to this SWD System (e. g., addition/deletion of producing wells, tanks, storage, changes in water volumes, etc.)

o. AOGC Requirements – Required information must be submitted to the AOGC.

p. A permit fee of \$250.00 as per ADPCEC Regulation No. 9 must accompany this NOI if modifications to the system require a fee or if this is the initial application for a new permit. No permit fee is required for a change of ownership/operator or reductions to the system.

Rev 10-2006

3

- 2. Cognizant Official (Duly Authorized Representative)
 - a. All reports required by the permit, or other information requested by the Director, shall be signed by the applicant (or person authorized by the applicant) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - The authorization is made in writing by the applicant (or person authorized by the applicant);
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, superintendent, position of equal responsibility, or an individual or position having overall responsibility for environmental matters for the company.
 - (3) The authorization is submitted to the Director.
 - b. The applicant hereby designates the following person as cognizant official, or duly authorized representative, for signing reports required by the permit, and other information requested by the Director:

Name

Title

By signature in Section 3 below, the applicant certifies that the above named individual is qualified to act as a duly authorized representative. (NOTE: If no duly authorized representative is designated herein, the Department considers the applicant to be the cognizant official for the facility and only reports signed by the applicant will be accepted by the Department)

- 3. Certification and Signatory Requirements:
 - a. Signature on Application (Notice of Intent): The application or Notice of Intent must be signed below by a person authorized under the provisions of state law. Applicants should be familiar with the provisions regarding signatory authority which are included in the general permit in Section II.D.8.
 - b. Certification: The applicant and any person signing a document required under this permit must make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Typed or Printed Name

Title

Signature

Date Signed

Rev 10-2006

4

Addendum Page - Use if Necessary

1. e. Provide a list below of all wells from which salt water is received for disposal, including estimated volumes (barrels per day, 42 gal = 1 bbl) from each:

Well Identification

Operator	Well Name & Number	Exact Location	Volumes
		4	
		And the second state of th	
		1 ¹	
		• •	

(Use additional sheets as necessary [1.e.-addendum])

Rev 10-2006



ARKANSAS OIL AND GAS COMMISSION

Submit Form To: El Dorado Reglonal Office P.O. Box 11510 El Dorado, Arkansas 71730

FORM 20

REQUEST FOR DISPOSAL OF RESERVE PIT FLUIDS

(Waste fluids produced during drilling)

Operator											
Mailing Ad	Mailing Address					City			State	Zip	
Contact PersonE-Mail					Phor	ne	Fax				
Well Name	e			-			Well No.	Cou	nty		
Section		Township		Range		Field					
Exact Loc	ation							- In			
Method of	Disposal (C	heck One)								а <u>.</u>	
O Surfa	ce Casing A	nnulus	0	Open Hol	e	O Per	oration	O Othe	r, Explain:		
Disposal	Zone(s)		-142			Re	quested Ma	aximum Injec	tion Pressure (PSIG)	
Estimated Fluid Volume to be Disposed (Bbls)				Dura	nated Tin tion of osal (Day				Disposal Fluid Density (PPG)		
Specify Ty	pe Fluid for	Disposal									
Casing Size	Casing Weight	Hole Size	Casing Setting Top		Sacks	Cement Tail	S. 200 (33) (32)	ant Yield /Sack) Tail	Total Sack	rs Cement	Cement Top
5128	veign	Hole Size	Тор	Bottom	Leao		Leau	Tall	TOTAL DACK		Cement Top
	(Casing to	est must be co		at a minim	um press		0 PSIG. T		ATA must be a minir	mum of 15 min	utes).
т	est Start Da	te & Time:		-	est Press		-	est End Date	& Time:	End Te	st Pressure:
			INTEGRIT						or to running 2	2nd pipe strin	g)
Т	est Start Dal	te & Time:		Start Te	est Press	ure:	Te	st End Date	& Time:	End Te	st Pressure:
		oplication and hout approval								knowledge, ar	nd that injection of
		Print Name of	Company O	fficial					Ti	lle	
		Sig	nature						Da	ile	
FOR UIC I	DEPT. USE	ONLY	Prod	luction in /	Area of R	leview:	res 🗌	No 🗌			
USDW		Ft.	Casing D	epth		Ft.	CALC	Pressure	PSI	MIT: Pas	ss 🗌 Fail 🗌
Application	Approved		Applicatio	on Denied		Ву				Date	
Reason De	nied:									с	

INSTRUCTIONS

- 1. Form must be completed and submitted to the UIC Department and approval granted prior to performing disposal operations.
- 2. Only water based fluids may be injected.
- 3. Disposal must occur below the confining formation of the USDW.
- 4. If casing pressure tests are not witnessed by a representative of Arkansas Oil and Gas Commission, then a chart recorder must be used and the chart submitted with application. The chart must be signed and dated by a representative that was present during the test.



Application Form <u>PPS</u>

Priority Pollutant Scan Information

ATTENTION

"Clean" Sampling Techniques

Water quality (WQ) standards (Based on aquatic toxicity and human health criteria) for many of the heavy metals are "at" analytical methods' detection levels (MDL).

It is recognized that <u>unclean</u> sampling and lab techniques can and do <u>cause</u> contamination sometimes causing measurements to be "seen" as <u>violations</u> of the WQ standards. Therefore, the permittee must recognize the <u>importance</u> of <u>eliminating</u> contamination.

For personnel responsible for collecting samples in answer to effluent monitoring requirements, the Department recommends following sample collection and handling in accordance with EPA's <u>Method</u> <u>1669: Sampling Ambient Water for Determination of Trace Metals at EPA Water Quality Criteria</u> <u>Levels</u> as closely as possible and as economically feasible. A copy of Method 1669 is available upon request.

Please convey to your contract testing laboratory the extreme importance of proper sampling techniques associated with analytical testing for heavy metals. Some of the techniques may be considered too expensive to justify implementation but it could be in the best interest of your facility to <u>submit the PPS</u> Form by using common sense "Clean" Sampling Techniques.

GENERAL INSTRUCTION

- 1. Generation of a form similar to the <u>PPS</u> form is prohibited without expressed written permission of ADEQ, Discharge Permits Section, Water Division.
- 2. All major facilities, all categorical industries, or any facility that believes there are priority pollutant(s) present in their discharge, must submit the Form <u>PPS</u>.
- 3. All facilities must monitor for metals and cyanide.
- 4. Testing requirements for categorical industries are listed in Attachment 1.
- 5. If one of the EPA approved test methods (40 CFR Part 136) is used the method detection level (MDL) <u>must be as low as Minimum Quantification Levels</u> (MQL). MQLs are based on EPA Region 6 guidance dated April 10, 2006: "MQL = 3.3 X MDL"
- 6. All the units must be expressed in $\mu g/l$ (Micro grams per liter).

7. <u>All the results less than Used Method Detection Level Achieved are reported as ND (Not Detected).</u>

- The data requested for the priority pollutant scan in the enclosures shall be submitted with copies of the laboratory results, MDLs and MQLs. Certification that QA/QC procedures were implemented must be submitted with the requested information.
- All analyses must be performed at the minimum level of sensitivity. The analyses must demonstrate that an acceptable calibration point as low as MQL was used. Test procedures must conform to approved EPA methodology listed in 40 CFR Part 136.

ATTACHMENT 1

TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY

	Volatile	Acid	Base/Neutral	Pesticide
Adhesives & Sealants	x	x	x	
Juminum Forming	х	x	x	2 c 💻
uto & Other Laundries	x	x	x	х
attery Manufacturing	х	-	x	-
oal Mining	x	х	x	х
oil Coating	x	x	x	_
opper Forming	Ŷ	x	x	-
lectric & Electronic Compounds	Ŷ	Ŷ	Ŷ	×
lectronlating	Ŷ	Ŷ	Ŷ	2
lectroplating	~	Ŷ	Ŷ	1297 1
supdrives Manufacturing	×	0	¢	
oundries	÷.	0	ĉ	
	\$	÷	ĉ	^
norganic Chemicals Manufacturing	X	×.	*	
ron & Steel Manufacturing	X	X	X	-
eather Tanning & Finishing	x	X	X	X
echanical Products Manufacturing	x	X	X	
onferrous Metals Manufacturing	x	X	X	X
re Mining rganic Chemicals Manufacturing aint & Ink Formulation	x	x	x	X
rganic Chemicals Manufacturing	x	x	x	x
aint & Ink Formulation	x	X	x	X
esticides	×	X	x	X
etroleum Refining	x	X	x	x
harmaceutical Preparations	x	x	×	-
hotographic Equipment & Supplies	x	x	x	х
hotographic Equipment & Supplies lastic & Synthetic Materials Manufacturing	x	x	x	x
lastic Processing	x	-		-
orcelain Enameling	x	-	x	X
rinting & Publishing	x	x	x	X
rinting & Publishing ulp & Paperboard Mills	x	×	×	x
abber Processing	x	Ŷ	Ŷ	2
an & Detergent Manufacturing	Ŷ	Ŷ	Ŷ	-
oap & Detergent Manufacturing team Electric Power Plants	Ŷ	Ŷ	Ŷ	
extile Mills	Ŷ	Ŷ	Ş	×
Timber Products Processing	÷	Ŷ	Ŷ	Ŷ
Timber Products Processing	~	^	^	~

Testing required. - Testing not required.

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ARKANSAS Department of Environmental Quality PPS REQUIREMENTS

1,	Name of facility:	
2.	Name, address and telephone number of laboratory:	
	· · · · · · · · · · · · · · · · · · ·	24
3.	Is the lab certified by the State of Arkansas? Yes No	
4.	what are the certification dates?	
	Issued data Expire date	
5.	Is the laboratory certified for all the parameters?	
	YES No (Explain)	
	i gi w a se	
6.	Date and time of samples collected:	
7.	Date and time samples were received in the laboratory:	-
8.	Sample location (Outfall No.):	
9.	Samples collected by:	
	Name	2500
	Title	
	Telephone	
10.	I certify under penalty of law that this document and all attachments w my direction of supervision in accordance with a system designed to ass personnel properly gather and evaluate the information submitted. Base the person or persons who manage the system, or those persons direct gathering the information submitted is, to the best of my knowledge and and complete. I am aware that there are significant penalties for information, including the possibility of fine and imprisonment for knowledge	belief. accurate.
	neinted views of sources standard	
	Printed Name of person signing Title	
	Signature Date signed	
	List all attachments to this form:	

			LAL			
METALS AND CYANIDE		RESULTS (µg/1)	APPROVED EPA METHOD USED	DETECTION LEVEL ACHIEVED (µg/1)	REQUIRED MQL (µg/1)	
1.	Antimony	(Total), Recoverable				60
2.	Arsenic	(Total), Recoverable				0.5
3.	Beryllium	(Total), Recoverable				0.5
4.	Cadmium	(Total), Recoverable				0.5
5.	Chromium	(Total), Recoverable				10
7.	Chromium	(6+), Dissolved				10
8.	Copper	(Total), Recoverable				0.5
9.	Lead	(Total), Recoverable				0.5
10.	Mercury	(Total), Recoverable				0.005
12.	Nickel	(Total), Recoverable				0.5
13.	Selenium	(Total), Recoverable				5
14.	silver	(Total), Recoverable				0.5
15.	Thallium	(Total), Recoverable				0.5
16.	Zinc	(Total), Recoverable				20
129.	Phenols, To	ntal Recoverable				5
17.	Cyanide	(Total), Recoverable				10

		LA			
DIOXIN		RESULTS APPROVED EPA LEVER (ug/1) METHOD ACHIEV		DETECTION LEVEL ACHIEVED (µg/l)	REQUIRED MQL (μg/1)
18.	2,3,7,8-Tetrachloro-debenzo-p- dioxin (TCDD)				0.00001

		LA			
VOLATILE COMPOUNDS		RESULTS (µg/1)	APPROVED EPA METHOD USED	DETECTION LEVEL ACHIEVED (µg/l)	REQUIRED MQL (µg/1)
19.	Acrolein				. 50
20.	Acrylonitrile				20
21.	Benzene				10
22.	Bromoform				10
23.	Carbon Tetrachloride				2
24.	Chlorobenzene				10
25.	Chlorodibromomethane				10
26.	Chloroethane				50
27.	2-Chloroethyl vinyl ether				10
28.	Chloroform				10
29.	Dichlorobromomethane				10
30.	1,1-Dichloroethane				10
31.	1,2-Dichloroethane				10
32.	1,1-Dichloroethylene				10
33.	1,2-Dichloropropane				10
34.	1,3-Dichloropropylene				10
35.	Ethylbenzene				10
36.	Methyl Bromide [Bromomethane]				50
37.	Methyl Chloride [Chloromethane]				50
38.	Methylene Chloride				20
39.	1,1,2,2-Tetrachloroethane			1.1	10
40.	Tetrachloroethylene				10
41.	Toluene				10
42.	1,2-trans-Dichloroethylene				10
43.	1,1,1-Trichloroethane				10
44.	1,1,2-Trichloroethane				10
45.	Trichloroethylene				10
46.	Vinyl Chloride				10

ACID COMPOUNDS		LAL			
		RESULTS (µg/1)	APPROVED EPA METHOD USED	DETECTION LEVEL ACHIEVED (µg/l)	REQUIRED MQL (µg/1)
47.	2-Chlorophenol				10
48.	2,4-Dichlorophenol				. 10
49.	2,4-Dimethy1pheno1				10
50.	4,6-Dinitro-o-Cresol [2 methyl 4,6-dinitrophenol				50
51.	2,4-Dinitrophenol				50
52.	2-Nitrophenol				20
53.	4-Nitrophenol				50
54.	P-Chloro-m-Cresol [4 chloro-3-methylphenol]				10
55.	Pentachlorophenol				5
56.	Pheno1				10
57.	2,4,6-Trichlorophenol				10

	30	LA	LABORATORY ANALYSIS				
BASE/NEUTRAL COMPOUNDS		RESULTS (µg/1)	APPROVED EPA METHOD USED	DETECTION LEVEL ACHIEVED (µg/1)	REQUIRED MQL (µg/1)		
58.	Acenaphthene				10		
59.	Acenaphthylene				. 10		
60.	Anthracene				10		
61.	Benzidine				50		
62.	Benzo(a)anthracene				5		
63.	Benzo(a)pyrene				5		
64.	3,4-Benzofluoranthene				10		
65.	Benzo(ghi)perylene				20		
66.	Benzo(k)fluoranthene				5		
67.	Bis(2-chloroethoxy) methane				10		
68.	Bis(2-chloroethyl) ether				10		
69.	Bis(2-chloroisopropyl) ether				10		
70.	Bis(2-ethylhexyl) phthalate				10		
71.	4-Bromophenyl phenyl ether				10		
72.	Butyl benzyl phthalate				10		
73.	2-chloronapthalene				10		
74.	4-Chlorophenyl phenyl ether				10		
75.	Chrysene				5		
76.	Dibenzo (a, h) anthracene				5		
77.	1,2-Dichlorobenzene				10		
78.	1,3-Dichlorobenzene				10		
79.	1,4-Dichlorobenzene			1	10		
80.	3,3'-Dichlorobenzidine		1		5		
81.	Diethyl Phthalate				10		
82.	Dimethyl Phthalate				10		
83.	Di-n-Butyl Phthalate				10		
84.	2,4-Dinitrotoluene				10		
85.	2,6-Dinitrotoluene			<u> </u>	10		
86.	Di-n-octyl Phthalate				10		

4		LA	LABORATORY ANALYSIS				
BASE/NEUTRAL COMPOUNDS		RESULTS (µg/1)	APPROVED EPA METHOD USED	DETECTION LEVEL ACHIEVED (µg/l)	REQUIRED MQL (µg/1)		
87.	1,2-Diphenylhydrazine				20		
89.	Fluorene				· 10		
90.	Hexachlorobenzene				5		
91.	Hexachlorobutadiene				10		
92.	Hexachlorocyclopentadiene				10		
93.	Hexachloroethane				20		
94.	Indeno (1,2,3-cd) pyrene (2,3-o-phenylene pyrene)				5		
95.	Isophorone				10		
96.	Naphthalene				10		
97.	Nitrobenzene			-	10		
98.	N-nitrosodimethylamine				50		
99.	N-nitrosodi-n-propylamine				20		
100.	N-nitrosodiphenylamine				20		
101.	Phenanthrene				10		
102.	Pyrene				10		
103.	1,2,4-Trichlorobenzene				10		

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	LAI	YSIS	REQUIRED MQL (μg/1)	
PESTICIDES	<i>RESULTS</i> (μg/1)	DETECTION LEVEL ACHIEVED (µg/1)		
104. Aldrin				0.01
105. Alpha-BHC				. 0.05
106. Beta-BHC				0.05
107. Gamma-BHC				0.05
108. Delta-BHC				0.05
109. Chlordane				0.2
110. 4,4'-DDT				0.02
111. 4,4'-DDE (p,p-DDX)				0.1
112. 4,4'-DDD 9(p,p-TDE)				0.1
113. Dieldrin				0.02
114. Alpha-endosulfan				-0.01
115. Beta-endosulfan				0.02
116. Endosulfan sulfate				0.1
117. Endrin				0.02
118. Endrin aldehyde				0.1
119. Heptachlor				0.01
120. Heptachlor epoxide (BHC-hexachlorocyclohexane)				0.01
130. chlorpyrifos				0.07
121. PCB-1242				0.2
122. РСВ-1254				0.2
123. РСВ-1221				0.2
124. PCB-1232				0.2
125. РСВ-1248				0.2
126. PCB-1260				0.2
127. РСВ-1016	2 A			0.2
128. Toxaphene				0.3

Arkansas Department of Environmental Quality Water Division

LAND APPLICATION AND/OR STORAGE OF WATER-BASED DRILLING FLUIDS PERMIT APPLICATION

The Arkansas Department of Environmental Quality (ADEQ) Water Division will not accept this application package unless all the instructions are followed. Plans, specifications, and supporting documents shall be prepared in accordance with all applicable Arkansas Pollution Control and Ecology Commission (APCEC) regulations, ADEQ guidelines, and good and acceptable engineering practices. Failure to submit all of the required items in the order described below will lead to additional processing and review time for the permit application.

For more information, links to other forms, or for an electronic version of this form, visit the Water Division web site at: http://www.adeq.state.ar.us/water/branch_permits

- A. General (All New or Modification Application Packages):
 - 1. All designs and documentation must conform to all applicable state and federal rules and regulations.
 - 2. If approvals or permits in addition to those listed in Section J are necessary for the construction of these facilities, the Department may hold approval of this application package to coordinate with other approvals.
- B. Cover Letter (All Application Packages):
 - Submit an original cover letter, which lists all items and attachments included in the application package as well as a brief description of the requested permitting action. For modifications, describe the proposed changes from the previous permit. This letter shall be signed by the person signing the application form (Permittee).
 - 2. If the application is for a renewal, include a statement confirming that there have been no changes made to the system.
- C. Application Form (All Application Packages):
 - Submit an original completed and appropriately executed application form. The instructions (Pages 1 through 4) need not be submitted. Any content changes made to this form will result in the application package being returned. The Department will only accept application packages that have been fully completed with all applicable items addressed.
 - 2. The application must be made in the applicant's legal name, whether this is an individual or company name.
 - 3. If the applicant (Permittee) is a corporation or company, it must be registered for business with the Arkansas Secretary of State. The legal applicant name listed on the application must match the name listed with the Arkansas Secretary of State.
 - 4. The application must be signed appropriately in accordance with Department signatory policy described on the application. An alternate person may be designated as the signing official, provided the referenced criteria are met.
 - 5. The legal name on all forms should be consistent with the legal name on the plans, specifications, agreements, etc.
- D. Disclosure Statement (All Application Packages):
 - 1. Submit an original completed and appropriately executed Disclosure Statement form as required by Arkansas Code Annotated Section 8-1-106, which can be downloaded at http://www.adeg.state.ar.us/water/branch_permits.
 - 2. The applicant name (Permittee name) on the disclosure must be the legal name of the company and match the name on the application and the name listed with the Arkansas Secretary of State.
- E. Application Fee (All New or Major Modification Application Packages):
 - 1. An application fee of \$500. A fee schedule can be found in APCEC Regulation No. 9.
 - 2. Submit a check or money order in the appropriate amount made payable to: Arkansas Department of Environmental Quality.
- F. Signature Page (All New or Major Modification Application Packages):
 - A signature page stating that all documents in the application package (except for those items prepared by a professional geologist or professional soil classifier) were prepared or reviewed by a professional engineer registered in the State of Arkansas must be included.
 - 2. The professional engineer registered in the State of Arkansas must stamp and sign this page.
- G. Property Ownership Documentation (All New or Modification Application Packages involving new land application sites): Provide one of the following:
 - 1. Legal documentation of the ownership (such as a contract, deed, article of incorporation, etc.) of the property, or
 - 2. Written notarized agreement signed by both parties indicating future purchase of the property by the permit applicant and a plat or survey map showing the property, or
 - 3. Written notarized long term lease agreement signed by both parties and specifically indicating intended use of the property and a plat or survey map showing the property addressed in the lease.
 - 4. For land that is neither owned nor leased by the applicant, a notarized Land Use Contract or other notarized document containing the same information. The name of the person signing the Land Use Contract must match the name shown on the deed, which must also be provided.

H. Waste Management Plan (All New or Modification Application Packages):

1. Facility Description:

Submit a detailed explanation describing how the waste will be stored and disposed. For a modification, clearly describe the changes from the previous permit.

2. Waste Description:

Submit details including the source and anticipated volumes.

- 3. Soil Evaluation (All New Application Packages or Modifications that include new land sites):
 - a) A laboratory certified by the ADEQ shall perform all testing.
 - b) One (1) sample for every ten (10) acres shall be collected and analyzed. Identify locations where samples were collected on a map of the land application area. The locations of the samples must be representative of the area where land application is proposed to take place.
 - c) Methods of sampling must be in accordance with the University of Arkansas Cooperative Extension Service guidelines.
 - d) Samples must be analyzed for the parameters listed below. Values shall be reported in mg/kg, unless otherwise indicated:
 - (1) pH (standard units)
 - (2) Conductivity (µmho/cm)
 - (3) Cation Exchange Capacity (meq/100g)
 - (4) Exchangeable Sodium Percent (% Na sat.)
 - (5) Sodium Absorption Ratio (SAR)
 - (6) Total Petroleum Hydrocarbons Diesel Range Organics (TPH-DRO)
 - (7) Potassium
 - (8) Arsenic
 - (9) Barium
 - (10) Cadmium
 - (11) Calcium
 - (12) Chlorides
 - (13) Chromium
 - (14) Copper
 - (15) Iron
 - (16) Lead
 - (17) Magnesium
 - (18) Manganese
 - (19) Mercury
 - (20) Nickel
 - (21) Selenium
 - (22) Sulfate
 - (23) Zinc
 - (24) Soil permeability (in/hr)

e) Soils Report. A soil evaluation of the disposal site shall be prepared, stamped, and signed by a professional soil classifier registered in the state of Arkansas. The report shall include the following:

- (1) Field description of soil profile, based on examinations of excavation pits or auger borings, within five feet of land surface or to bedrock describing the following parameters by individual diagnostic horizons. Applicants shall dig pits when necessary for evaluation of the soils at the site. All pits should have GPS coordinates reported in the soils report.
 - (a) thickness of the horizon;
 - (b) texture;
 - (c) color and other diagnostic features;
 - (d) structure;
 - (e) internal drainage;
 - (f) depth, thickness, and type of restrictive horizon(s);
 - (g) taxonomic identification to the family level; and
- (2) Presence or absence and depth of evidence of any seasonal high water table.
- (3) Recommendations concerning loading rates of liquids, solids, other wastewater constituents and amendments. Maximum irrigation precipitation rates shall be provided for each soil mapping unit. The loading rates should be based on an average of the soils in a loading area. An average range of 10% should be used.
- (4) A field-delineated soil map delineating soil mapping units within each land application site and showing all physical features, location of pits and auger borings, legends, scale, and a north arrow. The legends shall also include dominant soil series name and family or higher taxonomic class for each soil mapping unit.
- (5) The Department may require piezometers to be installed to monitor soil saturation levels and may require plans and specifications for the installation and use of the piezometers.

- 4. Maps (All New Application Packages or Modifications that include new land application sites):
 - For Modifications, submit an updated site map specific to the modification(s) only.
 - a) Topographic map showing all facility-related structures within the storage and disposal areas, and delineation of any land application area(s).
 - b) County map showing the general location of the facility and all facility-related structures within the storage and disposal areas, and delineation of any land application area(s)
 - c) Site map. The site map shall include the following minimum items:
 - (1) all facility-related structures within the storage and disposal areas, and delineation of any land application area(s)
 - (2) The location of all wells, streams (intermittent, and perennial), springs, lakes, ponds, and other surface drainage features within 500 feet of all waste storage and disposal site(s).
 - (3) Delineation of buffer distances as follows (buffer distances for streams, ponds, and lakes must be measured from the ordinary high water mark). Buffer distances are required around all land application areas and storage ponds, unless otherwise noted below.
 - (a) 10 feet from utility easement boarders, unless otherwise released by the utility company in writing (storage ponds, only);
 - (b) 50 feet of rock outcrops and property lines;
 - (c) 100 feet of wetlands, lakes, ponds, springs, streams, and sinkholes;
 - (d) 200 feet of water wells (except monitoring wells);
 - (e) 300 feet of occupied buildings, water supplies, or an Extraordinary Resource Waters, Ecologically Sensitive Waterbody, or Natural or Scenic Waterway (as defined in APCEC Regulation No 2.)
 - (4) Site property boundaries within 500 feet of all waste storage and disposal site(s).
 - (5) Approximate soil series boundaries.
 - (6) Location of the 100-year floodplain.
 - (7) Location of any and all subsurface drainage pipes, tiles, etc. on the property. If none are present, this must be stated.
- 5. Detailed Plans (All New or Modification Application Packages. For Modifications, submit plans specific to the modification(s) only):

Plans must include the following minimum items:

- a) Plan views of all storage and disposal units, piping, valves, and equipment.
- b) Detailed drawings of any proposed construction must be submitted. Drawings must contain sufficient dimensions to verify storage volumes.
- c) Location of the storage pond staff gauges and a table showing the volume in barrels that corresponds to each 0.5-foot increment on the staff gauge.
- d) Location of fencing around the storage ponds.
- e) Plans must depict a completed design and not be labeled with preliminary phrases (e.g., for review only, not for construction, etc.) that indicate that they are anything other than final plans. However, the plans may be labeled with the phrase: final design not released for construction.)
- 6. Specifications (All New or Modification Application Packages):
 - Specifications must include the following minimum items:
 - a) Proposed cover crop(s) or vegetative cover. If additional irrigation water is proposed for the crop, a crop-based need for water must demonstrated and be based upon sound irrigation scheduling practices at a rate no greater than the crop uptake. (Fresh water may not be applied to the site in order to flush the topsoil of salts.)
 - b) Detailed specifications for each storage and disposal unit, piping, valves, equipment (i.e., pumps, blowers, mixers, diffusers, flow meters, etc.), high water alarms, liners etc.
 - c) Specifications for irrigation equipment with sufficient detail to demonstrate the proposed irrigation system is capable of distributing the fluids evenly over the application area.
 - d) Site work (i.e., earthwork, clearing and grubbing, excavation and backfill, fencing, seeding, etc.)
 - e) Means for ensuring quality and integrity of the construction including leakage and pressure testing.
 - f) Plans for monitoring during construction by a Professional Engineer registered in the State of Arkansas.
- 7. Engineering Calculations (All New or Modification Application Packages):
 - a) All design calculations must be signed, sealed, and dated by a Professional Engineer licensed in the State of Arkansas. For Modifications, submit calculations specific to the modification(s) only.
 - b) All calculations used in the design of the proposed waste disposal system, including flow rates, storage volumes, waste application rates, elemental application rates, size(s) and locations of pumps, and residence time(s) must be submitted.
 - c) Calculations must include the following minimum items:
 - (1) Hydraulic and pollutant loading calculations.
 - (2) Sizing criteria for each storage pond and associated equipment.
 - (3) Pump selection information including pump curves.
 - (4) Mainline and lateral design
 - (5) Irrigation system calculations (headloss formulas, pump curves, manufacturer specifications for sprinklers, pumps, etc., showing the pumps and sprinklers are appropriate for the distribution piping.)

- 8. Operation and Maintenance Plan (All New or Major Modification Application Packages):
 - Submit an operation and maintenance plan that shall be maintained for all systems and include at a minimum:
 - a) Description of the operation of the system in sufficient detail to show what operations are necessary for the system to function and by whom the functions are to be conducted,
 - b) If oil or grease removal and collection will be required, please submit an oil/grease disposal plan.
 - c) Solids build-up monitoring and removal plan.
 - d) Description of anticipated maintenance.
 - e) Include safety measures including restriction of access to the site and equipment.
 - f) Spill prevention provisions such as response to upsets and bypasses including how to control, contain and remediate.
 - g) Contact information for personnel, emergency responders and regulatory agencies.
- I. Monitoring Well Work Plan (All New Application Packages or Modifications that include new land application sites): The design and construction of the wells must be completed in accordance with the EPA Handbook of Practices for the Design and Installation of Ground-Water Monitoring Wells. The work plan must be signed by professional geologist registered in the state of Arkansas and must be reviewed and approved by ADEQ prior to implementation of the ground water monitoring system. The work plan must include the following provisions:
 - The wells must be completed in the shallowest ground water zone and the construction must isolate that zone from any deeper ground water zones/aquifers. The wells must be installed at appropriate locations to adequately determine ground water gradient and ground water flow direction. Wells must be constructed so as to provide a sufficient volume of ground water to accommodate required sampling and analysis;
 - 2. The screened interval of the wells must be designed to intercept the top of the water table;
 - 3. Appropriate risers, pads, and other protections must be installed at the well head to prevent damage by vehicles or heavy equipment;
- J. Agency Approvals (All New or Major Modification Application Packages):

Agency approval letters must be provided with the application package. Agencies must either approve the proposed project or have no objections to the proposed project. Objection letters will not be accepted and permits will not be issued to facilities if the agencies below object to the proposed project.

- 1. A wetland determination must be provided for each land application site (new permits or permit modifications where new land sites are being added). The wetland determination must be performed by a District Conservationist from the Natural Resources Conservation Service or any other individual certified to perform wetland determinations.
- 2. Provide the Arkansas Health Department (ADH) a copy of the maps and a description of the operation, and attach the response letter from the ADH.
- Attach a copy of the Federal Emergency Management Agency (FEMA) map for the facility. For sites located in a 100-year floodplain, attach a copy of the Floodplain Development Permit from the county Floodplain Administrator or other appropriate agency.
- 4. Attach an endangered, threatened, or candidate species determination from the U.S. Fish and Wildlife Service and/or other appropriate federal or state agency indicating that the proposed project is not likely to adversely impact any federally listed endangered, threatened, or candidate species.
- 5. If the facility is located within national forest land, a national wilderness area, or national wildlife refuge area, attach written consent for the proposed operation from the agency responsible for managing such area.
- 6. If the facility is located within a state wildlife management area as designated by the Arkansas Game and Fish, attach written consent for the proposed operation from the agency responsible for managing such area.
- 7. Attach a letter from the Department of Arkansas Heritage regarding the impact of the siting of the proposed operation to any cultural resource listed in, or eligible for listing in, the National Register of Historic Places. If the initial determination is that a significant and adverse impact will occur, attach documentation of appropriate mitigation.
- K. Mailing Address (All Application Packages):
 - 1. The completed application package, including all supporting information and materials should be sent by U.S. Certified Mail, Return Receipt Requested, Mail Service (i.e. Federal Express) or hand-delivery to the following address:
 - Permits Branch No Discharge Section
 - Water Division
 - Arkansas Department of Environmental Quality

5301 Northshore Drive

- North Little Rock, AR 72118-5317; or
- 2. By electronic mail (documents should be submitted in PDF format) to :

Water-permit-application@adeq.state.ar.us;

3. Fee payment may be made separately, but the application will not be deemed complete until such payment is received by the Department.

Arkansas Department of Environmental Quality Water Division LAND APPLICATION AND/OR STORAGE OF WATER-BASED DRILLING FLUIDS PERMIT APPLICATION

Permit No.:	AFIN No.:		SIC Co	ode: 138	19	NAICS	Code: 213112
(Office use only)	(Office use only)		(Office u	ise only)		(Office use	e only)
1. Permit Action Requested: (Please check one of the following.)							
						Permit Renewal	
Existing Permit No. (for modifications o	r renewals):	11.12			A	FIN:	
2. Name and Mailing Address of Organiz	ation/Individual Re	questing Per	mit (Pe	mittee):			
Permittee (Legal Name)*:							
Check One: Partnership S	ole Proprietorship	🗌 Ind	ividual		Corporati	on*	
*State of Incorporation:	Foreign	Domest					
Is the corporation currently regi	istered to do busines	ss with the A	rkansas	Secretar	ry of State	? 🗌 Ye	es or 🗌 No
Address:					Phone:	0.000	
City:	5	State:	~	T	Zip:		
Contact Person: Mr. Ms.				Title:			
Fax:	Email:						
* The legal name of the Permittee must be identical							te Arkansas Secretary of State.
3. Land Application and/or Waste Storag	e Location: (actual)	facility addr	ess is re	quired;	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Facility Name:					Phone	3:	
Address:			E	mail:			
City:		State:			Zip:	-	
Contact Person: Mr. Ms.			Т	itle:			(A)
Nearest Town:		County	:				
Latitude: ° ' "N Lo	ongitude: °		W S	ource Da	atum: 🗌 W	/GS 84 [NAD 83 NAD 27
Driving directions to the facility:							
			196				
2. 2.							
4. Invoicing Contact Information:					~		*
Invoice Company Name:		Cont	act Nam		fr. 🗌 Ms		
Address:	1990 - 1990 - 2000			mail:			
City:		State:	1 -	Zi	p:		
5. Consultant Information:	******						
Consulting Firm Name:				Pł	none:		
Contact Name: Mr. Ms.				Fa			
Address:		at <u></u> 11849-0	Emai				
City:	110 TS40 - 101	State:		Zi	n'		
City.		State.		20	P*		

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6. Land Application Site(s). Please provide the following information for all land application sites. A notarized Land Use Contract must be provided for all application sites not owned by the applicant. Please attach additional sheets if necessary.

Owner	Old or New Site?	Latitude		Latitude Longitude		Available Acres*		
		٥	,	" N	٥	'	" W	
		٥	с¢	" N	٥	,	" W	
		٥	,	" N	٥	,	" W	
*		o	,	" N	0	,	" W	

*Available acreage is the total acreage minus buffer zone areas.

7. Agency Approvals

- a. Has a wetland determination been completed and included in the Application Package? Ves
- b. Has the Arkansas Health Department (ADH) a copy of the maps and a description of the operation, and attach the response letter from the ADH? Yes No
- c. For sites located in a 100-year floodplain, is a copy of the Floodplain Development Permit from the county Floodplain Administrator or other appropriate agency included in the Application Package? Yes No
- d. Is an endangered, threatened, or candidate species determination from the U.S. Fish and Wildlife Service and/or other appropriate federal or state agency indicating that the proposed project is not likely to adversely impact any federally listed endangered, threatened, or candidate species included in the Application Package? Yes No
- e. Is the facility is located within a state wildlife management area as designated by the Arkansas Game and Fish? Yes No

If so, is a written consent letter for the proposed operation from the agency responsible for managing such area included in the Application Package? \Box Yes \Box No \Box N/A

f. Is the facility is located within national forest land, a national wilderness area, or national wildlife refuge area? <u>Yes</u> <u>No</u>

If so, is a written consent for the proposed operation from the agency responsible for managing such area included in the Application Package? \Box Yes \Box No \Box N/A

g. Is a letter from the Department of Arkansas Heritage regarding the impact of the siting of the proposed operation to any cultural resource listed in, or eligible for listing in, the National Register of Historic Places included in the Application Package? Yes No

8. Signatory Requirements

A. This form shall be signed as follows:

- 1. For a corporation: By a responsible corporate officer. For the purposes of this section, a responsible officer means:
 - a) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
 - b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- 2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively.
- B. This Form or other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1. the authorization is made in writing by a person described above and submitted to the Director;
 - 2. the authorization specifies either an individual or a person having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

3. If an authorization under this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the above requirements shall be submitted to the Director, prior to or together with any reports, information, or applications to be signed by an authorized individual.

Please carefully read the following and sign below:

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, which may include fines and/or imprisonment."

Responsible Official Printed Name	Title
Responsible Official Signature	Date
Duly Authorized Representative Printed Name	Title
Duly Authorized Representative Signature	Date

LAND USE CONTRACT

Landowner	, agree to allow		(and Mana)	to	land apply wate	er-based drilling
fluids to acre		d in		_County. A	A description of	the areas to be
Total Acreage Available	50.85 D D	County of	Application Site		13	
used as land application sites are	as follows:					
Owner	Old or New Site?	Latitud	e	Lor	ngitude	Available Acres
		0 1	" N	ø	′ ″ W	
5		o /	" N	D	' " W	
		0 1	" N	0	′ ″ W	
		o 1	" N	o	' " W	
State of					2	
nd correct to the best of my know		ar and affirm th i belief.	at the informat	ion containe	d in this Land U	Jse Contract is true
Applicant/Permittee Signature	Date	5 A	Landowne	r Signature		Date
SUBSCRIBED AND SWOI	RN TO BEFORE M	E THIS	DAY	OF		_ 20
MY COMMISSION EXPIR			<u></u>	I	NOTARY PU	IBLIC

COLORADO

1. Drill, Deepen, 2. TYPE OF WELL OIL GAS COALBEO	BIL Demot, Colombo 80203 Phone: (203)894-2100 Fac(203)894 LICATION FOR PERMIT TO: Re-enter, Recomplete and Opera OTHER:	L'NGAS	Plugging Bond Surety ID#
	TIPLE ZONES COMMINGLE ZONES		Complete the
3. Name of Operator:	4. COGCC Operator Numb	юг	Attachment Checklist OP COGCC
5. Address: City:	State: Zip:	N. K. SA 518-	APD Orig & 1 Copy Form 2A
6. Contact Name:	Phone:	Fax:	Well location plat
7. Well Name:		Well Number:	Торо тар
8. Unit Name (if appl):		Unit Number.	Mineral lease map
9. Proposed Total Measured Depth:	WELL LOCATION INFORMATION		Surface agrmt/Surety 30 Day notice letter
10. QtrQtrSec:		Meridian:	Deviated Drilling Plan
Latiude:	Longitude:		Exception Location Request
Footage At Surface:			Exception Loc Waivers
11. Field Name: 12. Ground Elevation:	Field Numb	er	H2S Contingency Plan Federal Orilling Permit
14. GPS Data:			Contraction Contraction
Date of Measurement	PDOP Reading: Instr	iment Operator's Name:	
15. If well Is: Olrectional	Horizontal (higNy deviated), submit deviated	drilling plan. Bottombole Sec T	
	IMASE FRAM		PALIFIX FELFWL
Foolage At Top of Prod Zone:		At Bottom Hole:	
16. Is location in a high density area (Rule			
 Distance to the nearest building, public Distance to Nearest Property Line: 		nearest well permitted/completed in th	he same formation:
20.	LEASE, SPACING AND POO		
Objective Formation(s) Fr	ormation Code Spacing Order Number (s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
23b. If 23 is No: Surface Own	State Federal Indian State Federal Indian IOwner? Yes No wner(s) signature on the lease? Yes I ners Agreement Attached or S25,000 Blanket S g format enter entire mineral lease description upon which		
25. Distance to Nearest Mineral Lease Lin	na; 28. Total Acres	in Lease:	
	DRILLING PLANS AND	PROCEDURES	
27. Is H2S anticipated? Yes 28. Will saft sections be encountered duin 29. Will saft (>15,000 ppm TOS CI) or oll 30. If questions 27 or 28 are yes, is this lo 31. Mud disposal: Offsite Method: Land Farmin NOTE: The use of an earthen pit for Record String Size of Hole	based muds be used during drilling? Yes cation in a sensitive area (Rule 903)? Yes Onsite ng Land Spreading Disposal Fa moletion fluids requires a pit permit (Rule 905b.) If air/gas	No If 28, 29 or 30 are	"Yes" a pit permit may be required. Cement Bottom Cement Top
-			
	Class Teel		
	Stage Tool	CREATER AND	
	Annual	ing Head 🔲 None	
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	ocal land use authority. Thi CC web site at http://colora					Comple	te the Atlac	hment	Checkilst
Gas Location Assess						Attachn	nent	Op	COGCC
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(Form) Page 2
2A State of Colorado
Rev 02/09 Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2109 Oil and Gas Location Assessment Page 2
10. Current Land Use (Check all that apply)
Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP
Non-Crop Land: Rangeland Timber Recreational Other (describe):
Subdivided: Industrial Commercial Residential
11. Future Land Use (Check all that apply)
Crop Land: Irrigated Dry land Improved Pasture Hay Meadow CRP
Non-Crop Land: Rangeland Timber Recreational Other (describe):
Subdivided: Industrial Commercial Residential
12. Soils
List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.
The required information can be obtained from the NRCS web site at http://solidatamart.nrcs.usda.gov/ or from the COGCC web site GIS Online map page found at http://cokorado.gov/cogcc. Instructions are provided within the COGCC web site help section.
NRCS Map Unit Name:
NRCS Map Unit Name:
NRCS Map Unit Name:
13. Plant Community
Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.
Are noxious weeds present: Yes No
Plant species from: NRCS or, Field observation Date of observation:
List individual species:
Charles and a state of the stat
Check all plant communities that exist in the disturbed area. T Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
Disturbed Grassland (Caclus, Yucca, Chealgrass, Rye) Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
Plains Riparian (Collonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
Mountain Riparlan (Cottonwood, Willow, Blue Spruce)
Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
Wellands Aqualic (Bullrush, Sedge, Cattail, Arrowhead)
Alpine (above limberline)
Cher (describe):
14. Water Resources
Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.
Is this a sensitive area: TNO TYes Was a Rule 901.e. Sensitive Areas Determination performed: No TYes
Distance (in feet) to nearest surface water: , water well: , depth to ground water:
Is the location in a riparian area: No Yes Was an Army Corps of Engineers Section 404 permit filed: No Yes If yes atlach permit.
Is the location within a Rule 317B Surface Water Supply Area buffer zone: 🗌 No 📔 0-300 fl. zone 📄 301-500 fl. zone 📄 501-2640 fl. zone
If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified : 🔽 No 🧮 Yes
15. Comments
3
о. — — — — — — — — — — — — — — — — — — —
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
Signed:Email:
Print Name: Title:
CDCCC Assistant Tiles Date
CONDITIONS OF APPROVAL will be attached. Location Number:
CONDITIONS OF APPROVAL will be attached. Location Number:



State of Colorado Oil and Gas Conservation Commission



1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109

EARTHEN PIT REPORT/PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

Complete the Attachment Checklist

FOR OGCC USE ONLY

FORM SUBMITTED	그는 같은 것 같은 것을 안 같은 것을 알고 있는 것이다.	Oper OGC Detailed Site Plan Topo Map w/ Pit Location
		Water Analysis (Form 25)
OGCC Operator Number:	Contact Name and Telephone:	Source Wells (Form 26)
Name of Operator:		Pit Design/Plan & Cross Sect
Address:	No:	Design Calculations Sensitive Area Determ.
	Eav	
City:State:Zip:		Form 2A
API Number (of associated well):	OGCC Facility ID (of other associa	
Pit Location (QtrQtr, Sec, Twp, Rng, Meridian):		
Latitude: Longitude:		
Pit Type: Lined Unlined Surface		No
Offsite disposal of pit contents:		
Attach Form 26 to identify Source Wells and Form 25 to provide		
	Site Conditions	
Is the location in a "Sensitive Area?" Yes No	Attach data used for deter	mination.
Distance (in feet) to nearest surface water: ground wa		
LAND USE (or attach copy of Form 2A if previously submitted for		
	d Pasture Hay Meadow	
	• · · · · · · · · · · · · · · · · · · ·	
Non-Crop Land: Rangeland Timber Recreation		
Subdivided: Industrial Commercial Resident	ial	
SOILS (or attach copy of Form 2A if previously submitted for as	sociated well)	
Soil map units form USNRCS survey: Sheet No:	Soil Complex/Series No:	_
	izon thickness (in inches): A:	
	izon thickness (in inches): A:	; B: ; C:
Soils Series Name: Hor Attach detailed site plan and topo map with pit location.	izon unceriess (in incres). A.	, в. , о.
	and Construction	
Size of pit (feet); Length: Width:		
Calculated pit volume (bbls): Daily inflow rate	S	*
Daily disposal rates (attach calculations): Evaporation:		
	Thickness:	
Attach description of proposed design and construction (includ	le sketches and calculations).	
Method of treatment of produced water prior to discharge into pit (see	parator, heater treater, other):	
	Yes No	
I hereby certify that the statements made in this form are,	to the best of my knowledge, tr	ue, correct, and complete.
Print Name:	사이는 24 - 2 배가 많은 40 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	
Title:	Date:	
	the second s	
OGCC Approved:	_ Title:	Date:
CONDITIONS OF APPROVAL, IF ANY:	FACILITY NU	MBER:



State of Colorado Oil and Gas Conservation Commission



FOR OGCC USE ONLY

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303) 894-2100 Fax (303) 894-2109

DRILL SITE/ACCESS ROAD RECLAMATION FORM

This form shall be submitted in duplicate with the application for permit-to-drill (OGCC Form 2) unless a Federal 13-point surface plan is included. Also required are a minimum of two photographs (site and access road). Soil and plant community information is from United States Natural Resources Conservation Services (USNRCS).

1. OGCC Operator Number 2. Name of Operator:	er:	4. Contact Name and Telephon		Complete the Attachment Checklist			
3. Address:		No:	Driksits and access photographs				
City:	State: Zip:	Fax:	COE Saction 404 decumentation				
5. Well Name and No.:		6. County:					
7. Location (QtrQtr, Sec, Twp	, Rng, Meridian):						

Pre-Drilling Information

Current Land Use

8. Crop Land: Irrigated Dry Land	Improved Pasture	Hay Meadow	CRP	
9. Non-Crop Land: 🔲 Rangeland 🔲 Timber	Recreational	Other (describe):		
10. Subdivided: 🗌 Industrial 🗌 Commercial	Residential			
Attach color photographs of drill site and access road; Iden	tify each photo by date, w	ell name and location.		
	Soils			
11. Soil map units from USNRCS survey: Sheet No:	Soil Complex/Series	No:		
Soils Series Name:	Horizon thickness (In In	ches): A:	; B:	; C:
Soils Series Name:	Horizon thickness (in in	ches): A:	; B:	_; C:
	Plant Community			
Complete this section only if operations are to be conducted	d upon non-crop land.		1	
12. Plant species from: USNRCS or Field Ob	servation Date of	of observation:		
List individual species:				
·····				
13. Check one predominant plant community for the drill site:			5	
Disturbed Grassland (Cactus, Yucca, Cheatgrass, R	ye, Thistle)			
Grassland (Bluestern, Grama, Wheatgrass, Buffalog	rass, Fescue, Oatgrass, Bro	ome).		
Shrub and Brush Land (Mahogany, Oak, Sage, Servi				
Plains Deciduous Riparlan (Cottonwood, Willow, Asp	en, Maple, Poplar, Russian	Olive, Tamarisk)		
Mountain Conifer Riparian (Spruce, Fir, Ponderosa P	'ine)			
Evergreen Forest Land (Spruce, Fir, Ponderosa Pine	, Lodgepole Pine, Juniper, F	Pinyon)		
Aquatic (Bullrush, Sedges, Cattail, Arrowhead)				
Tundra (Alpine, Willow, Currant, Raspberry)				
Other (describe):				
14. Was an Army Corps of Engineers Section 404 Permit filed?	Yes No	If yes, attach appropriate	e documentation.	
Comments:				
				d
I hereby certify that I, or persons under my direct supervisio				
conditions which presently exist, that the statements made in	this form are, to the best	of my knowledge, true,	correct, and corr	nplete.
Print Name:				
Signed:	Title:		Date:	
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deep or sic opera Aban	form is to be ening or sid detracked a ator shall su donment R	Lincoln Street, S submitted w etracking of a new Form 5 i bmit Form 5/ eport) is requ	Suite 801, Denver DRILLING rithin 30 days a well, or any t s required. If A (Completed	r, Colorado 802 COMPI of the setting ime the wellt an attempt h	of production ore configura as been made	94-2100 Fax:(30	ugging of a d d. If the wel	is deepened				
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Fo	otage at su	face:							Core	Analysis		
	Drilled Lati	tude:			As Drilled L	ongitude:			Cmts	summary*		
_	PS Data:											
Da	te of Measure	ment:	PDOP Re	ading:	GPS Inst FNL/F	ument Operator's	Name: FEL/FY					_
** If c	lirectional, fo	otage at Top o	f Prod. Zone					Sec, Twp, Rn	a			
		17			FNL/F	si.	FELIFY	NL .				
** If c	directional, fo	otage at Bottor	n Hole					Sec, Twp, Rn	g			
. Fie	eld Name:					10. Field	d Number		15.	Well Classi	ficati	ion
1. Fe	deral, India	n or State Lea	se Number:						and the owner where the owner w		-	Ga
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									_	Stratigraphic		
6. To	tal Depth	71/044		17	. Plug Back	Total Depth				Enhanced R		ery
		TVD**		[^{MI}	D	100-				Gas Storage Oberservation		
18. El	evations				One paper co	py of all electr	ic and mud	logs must be		Other:	211	
GR	99033095305 24		Кв	s	submitted, alor	g with one dig	ital LAS cop	y as available				
9. Lis	st Electric Lo					ER and CE					-	
-		*If Cemen	t Bond Log wa	as not run, si		or's cement jot	summary f	or each string	cemen	ted		-
			Csg/Liner	Csg/Liner	Csg/Tool Setting	Number of	Cement	Cement			•	
1	String	Hole Size	Size	Тор	Depth	sacks cmt	Тор	Bottom	CBL	Calcul	ated*	
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									24)			

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Print Name: _ Signature:

	E-mail:
Tille:	

Date:

Cil and Gas 1120 Lincoln Street, Suite	State of Colorado Conservation Com 801, Denver, Colorado 80203 Phor	ne: (303)894-2100 Fax:(303)894-2	ALOUS TADO REALS	ie jet joe	Es
COM The Completed Interval Report, formation (successful or not), wh for a recompletion, reperforation section for each formation. Attac of completion.	nen a formation is temporarily n or restimulation, or when	within thirty (30) days of com abandoned or permanently a formation is commingled	abandoned, Fill out a	2	
1. OGCC Operator Number: 2. Name of Operator: 3. Address:		4. Contact Name Phone:		Complete th Attachmen Checklist	
City:Sta	ate:Zlp:	- Fax:		OP	OGC
5. API Number 05-	6. Cou	inty:	v	vellbore diagram	T
7. Well Name:	Well Nu	mber:			
8. Location (QtrQtr, Sec, Twp, Rn	ig, Meridian):				
FORMATION:	Sta	tus			
Treatment Date:	Date of	First Production this formatio	on:		2
Perforations Top: Provide a brief summary of the fo	Bottom:	No. Holes Open	Hole size: _		
Date: Hours: Calculated 24 hour rate: Test Method: Gas Disposition: Tubing Size: Tu Reason for Non-Production: Date formation Abandoned: Date formation Abandoned:	Bbls oil: Bbls oil: Casing PSI: Gas Type: bing Setting Depth: Squeezed Sacks cement on top:	Mcf Gas: Bt Tubing PSI: BTU Gas: Tbg setting date:	API (GOR: Gravity Oll: er Depth: sacks cmt	
	- Sacks certent on top.				
FORMATION:	Stat				
Treatment Date: Perforations Top: Provide a brief summary of the fo	Bottom:	First Production this formatic No. Holes Open	Hole size:		
This formation is commingled with Test Information: Date: Hours:	Bbls oil:	Mcf Gas:Bb	-		
Calculated 24 hour rate:	Bbls oil:		ls H ₂ 0:	GOR:	
Test Method:	Casing PSI:	Tubing PSI:		e size:	
Gas Disposition:	Gas Type:	BTU Gas: Tbg setting date:	API (Gravity Oil:	_
Reason for Non-Production:			Fack	ы рерш	~
Date formation Abandoned:	Squeezed	Yes No If	es number of	sacks cmt	_
Bridge Plug Depth:	Sacks cement on top:				_
hereby certify that the statement Print Name:	s made in this form are, to the	Feedile	e, correct and c	complete.	
Signature:			C)ate:	

ature:		
	_	

LOUISIANA

STATE OF LOUISIANA OFFICE OF CONSERVATION FORM MD-10-R-1 APPLICATION FOR PERMIT TO DRILL FOR MINERALS TYPE ONLY - FILE IN DUPLICATE

	(Print on YELLOW paper)	OFFICE USE ONLY
OFFICE USE ONLY	SERIAL NUME	BER:
Company Data	DATE OF APPLICATION	
		CODE NO.
OPERATOR:		
ADDRESS:		
I Mall Data		CODE NO.
DADISH		CODE NO.
FIELD:		Well No.:
WELL NAME:		
LOCATION: Section:	Township: Range:	
-		YPE OF WELL
	GAS OTHER	New Well
PRODUCT: OIL	feet - Measured Depth	Redrill Repermit
Proposed Total Depth:	feet - True Vertical Depth	Dual Horizontal
(and TVD, if applicable)	Check No.:	Lease Unit
Application Fee:		Straight Directional
PROPOSED ZONE OF	COMPLETION:	
APPLICABLE CONSEI SERIAL NUMBER OF	REDRILL OR REPERMIT (if applicable):	
CONTACT DATA		
SEND PERMIT TO:		
ADDRESS: (if different than above)		
FOR ADDITIONAL		
INFORMATION, CONTACT:		
Phone No.:		
APPLICANT		
SUBMITTED BY:	TYPED NAME AND TITLE	
SIGNATURE:	APPLICANT'S REPRESENTATIVE SIGNATURE	
OFFICE USE ONLY		OFFICE USE ONL
FINANCIAL SECURITY REQUI	RED PRIOR TO PERMITTING: Yes No	
DISTRICT APPROVAL:		DATE:
ISSUED BY:		DATE:
API No.:		Exp.:
		FORM MD-10-R-1 (Rev 01/2008

STATE OF LOUISIANA OFFICE OF CONSERVATION FORM MD-10-R-A-1 APPLICATION TO AMEND PERMIT TO DRILL FOR MINERALS TYPE ONLY - FILE IN DUPLICATE

DATE OF APPLICATION: EFF DATE OF CHANGE:	CURRENT	SERIAL NUMBER:
FIELD:	DATE OF APPLICAT ION:	8
FIELD:	PARISH:	CODE NO.
OPERATOR:		
ADDRESS:		
WELL NAME:		
WELL NAME:	ADDRESS:	
ACTION: PARISH FIELD OPERATOR LEASE TO UNIT UNIT TO UNIT SWD LOCATION UNIT TO LEASE TO UNIT TO	and the Report of the Advectory	
WELL NO. SWD LOCATION UNIT TO LEASE LEASE TO LEASE CURRENT PRODUCT: OIL GAS OTHER:	LOCATION: Section: Towns	ship: Range:
PRODUCT: OIL GAS OTHER:		
APPLICABLE CONSERVATION ORDERS:		OTHER:
Phone No.:		
TYPED NAME AND TITLE SIGNATURE: APPLICANT'S REPRESENTATIVE SIGNATURE Phone No.: FORMERLY WELL NAME: OPERATOR: OPERATOR: OPERATOR: FIELD: SUBMITTED BY: TYPED NAME AND TITLE SIGNATURE: FORMER OPERATOR REPRESENTATIVE Phone No.: DISTRICT MANAGER OFFICE USE ONLY OFFICE USE ONLY OFFICE USE ONLY OFFICE USE ONLY		
SIGNATURE:	SUBMITTED BY:	
APPLICANT'S REPRESENTATIVE SIGNATURE Phone No.:		
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NOTICE

An application to Amend Permit To Drill for Minerals is required in the event a permit to drill must be amended after its initial issuance and shall be filed with the District Office of the Office of Conservation having jurisdiction over the area in which the well is located and shall contain the following as applicable:

> 1) Two (2) original copies of Application to Amend Permit to Drill for Minerals (Form MD-10-R-A-1) completed in its entirety.

2) Fee as set forth in LAC:43:XIX.701 et seq. or successor regulation made payable to the Office of Conservation.

3) Location plat prepared in accordance with LAC:43:XIX.103 in triplicate original for any location change, in addition, a location plat may be required on any other amendment action at the request of the District Manager.

Special Instructions

GENERAL

Check applicable ACTION box(es) to designate whether you wish to amend the PARISH, FIELD, OPERATOR, LEASE TO UNIT, UNIT TO UNIT, WELL NO. (Well Number), SWD (Salt Water Disposal), LOCATION, UNIT TO LEASE, LEASE TO LEASE, or any combination of these.

OPERATOR CHANGE

An assignment or contract of sale that reflects an assumption of liability for oil and gas wells requires an amended permit. Any person who assumes such liability shall file an amended permit within thirty (30) days of the assumption of liability.

In the event that the action sought is a change of operator, the blank for FORMER OPERATOR REPRESENTATIVE must show the signature of the typed name and the phone number of the person representing such operator along with the signature of said party. Form MD-10-R-AO may be used for operator changes only involving multiple wells.

APPLICATION WILL BE CONSIDERED INCOMPLETE UNLESS ALL APPLICABLE BLANKS ARE COMPLETED.

operator action. If the application does not apply to an operator change, leave this blank.

The date the application is signed by <u>the person responsible for approving a</u> <u>change of operator action</u>. If the application does not apply to an operator

change, leave this blank.

Date:

LOUISIANA DNR - OFFICE OF CONSERVATION FORM MD-10-R-AO APPLICATION TO AMEND PERMIT TO DRILL MINERAL OR INJECTION WELLS OPTIONAL APPLICATION TO AMEND OPERATOR

TYPE ONLY - FILE IN DUPLICATE

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Production gas/oil ratio is less than 2,000 and liquid API is between 30° and 40° approximately. Production gas/oil ratio is 2,000 or greater and liquid API is between 40° and 55° approximately.

A gas well incapable of producing an average of 250 MCF per day under operating conditions for the entire taxable period as certified by the Department of Revenue Severance Tax Division. a well incapable of producing an average of more than 10 barrells of oil per producing day as certified by the Department of Revenue Severance Tax Division.

APPROVAL TO CONSTRUCT PERMIT EXPIRED INACTIVE INJECTION WELL (COMMERCIAL OR OTHER) ACTIVE- INJECTION ACTIVE - PRODUCING ACTIVE PRODUCING/CYCLIC INJCT **OPERATOR CHANGE - NO MD10RA** MULTIPLE COMPLETED/PA-35 WELL EDUCATIONAL/SERVICE COMPANY TEMPORARILY ABANDONED WELL INACTIVE WELL, NO RESP. PARTY PA-35 TEMPORARY INACTIVE WELL TO BE OMITTED FROM PROD.REPORT RVRTD TO LANDOWNER-FRESH WATER **REVERTED TO SINGLE COMPLETION** ACT 404 ORPHAN WELL-ENG RVRTD L/O-RESIDENT CONSUMPTION SL-STATE JUR, BHL-FED JUR ACT 404 ORPHAN WELL-INJECTION AND MINING ABANDONED SWD - NOT PLUGGED UNABLE TO LOCATE WELL-NO PLUGGED AND ABANDONED DRY AND PLUGGED PLUGGED AND ABANDONED SHUT-IN DRY HOLE -FUTURE UTILITY SHUT-IN DRY HOLE - NO FUTURE UTILITY SHUT-IN PRODUCTIVE -FUTURE UTILITY SHUT-IN PRODUCTIVE -NO FUTURE UTILITY SHUT-IN WAITING ON PIPELINE SHUT-IN WAITING ON MARKET FORMATION STORAGE - GAS **OBSERVATION WELL-FORMATION GAS STORAGE** ACTIVE PRODUCING/ANNULAR SWD WATER **IRON ORE** * UNKNOWN * CONVERSION TO OIL / GAS WELL NON-WELL/ FOR UIC MANIFEST ONLY SALT WATER OIL RECOVERY POINT

PERMITTED

NOTICE

In accordance with the provisions of Title 30 of Louisiana Revised Statues of 1950, a Permit to Drill for Minerals must be secured from the Office of Conservation before a well can be drilled in the State of Louisiana. For a fee in accordance with Statewide Order No. 29-R or successor regulation shall be due for each such amendment, except for the Conservation unit well nomenclature, and said fee must accompany this application which shall be submitted in duplicate to the District Office of the Office of Conservation having jurisdiction over the area in which the well is located. An assignment or contract of sale that reflect an assumption of liability for oil and gas wells requires an amendment permit. Any person who assumes such liability shall apply for an amended permit within thirty days of the assumption of liability.

APPLICABILITY

This application may be filed in lieu of Form MD-10-R-A for CHANGE OF OPERATOR where multiple wells are involved.

SPECIAL INSTRUCTIONS

Application will be considered incomplete unless all applicable blanks are completed. Particularly, the spaces provided for REPRESENTATIVE of both new and former operator must show the <u>typewritten</u> name and phone number of the person representing such operator along with the signature of said party. A duplicate original letter on company stationary identifying the other party to the conveyance, the field(s) and number of wells authorized for transfer will be accepted in lieu of a signature for either party.

The summary of wells must be completed utilizing the current status of wells included in the application based on the records of the Office of Conservation. Wells that may be exempt from the application fee must be shown in the appropriate space. Any such wells must also be identified individually by circling the line number of the well on the application. Fee due for the application will be the total wells less total exempt wells multiplied by the applicable fee specified in Statewide Order No. 29-R or successor regulation

Wells must be listed by field in ascending chronological order by serial number. If necessary, use SUPPLEMENTAL PAGE for additional wells and indicate in the space provided the number of such supplemental pages. Also, if a well name/number amendment is requested for any well listed, such change must be identified by an * preceding the new name and/or number.

EFFECTIVE DATE OF CHANGE: ______ NEW OPERATOR NAME: ______ FIELD:

PAGE ____ of ____

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*Date well is equipped to produce, but due to no available market, no pipe line connection, etc., the well has been shut-in.

FORM WH-1(1-78)

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State of Louisiana



Department of Environmental Quality

KATHLEEN BABINEAUX BLANCO GOVERNOR SEP 2 8 2005

MIKE D. McDANIEL, Ph.D. SECRETARY

GENERAL PERMIT NUMBER LAG330000 AI 101080 PER20040001

GENERAL PERMIT FOR OIL & GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION FACILITIES LOCATED WITHIN COASTAL WATERS

TO: INTERESTED PARTIES

RE: LPDES General Permit for General Permit of Math from oil & gastick permit development, and production facilities located within coastal waters.

The Louisiana Department of Environmental Quality (LDEQ) has finalized the Louisiana Pollutant Discharge Elimination System (LPDES) General Permit Number LAG330000.

The Office of Environmental Services (Office) has published a public notice announcing the proposal to issue this general permit one time in the official state journal, THE ADVOCATE of Baton Rouge, and one time in each of the following local newspapers throughout the state: THE TIMES of Shreveport, THE AMERICAN PRESS of Lake Charles, THE TIMES PICAYUNE of New Orleans, THE NEWS-STAR of Monroe, THE TOWN TALK of Alexandria, THE ADVERTISER of Lafayette, and THE COURIER of Houma. Subsequent to publication of the public notice in these newspapers a 30 day public comment period began. A public notice was also mailed to all persons on the mailing list of this Division. All interested persons were invited to submit written comments to this Office within this 30 day comment period. Comments were received during this period and were addressed in a separate letter.

Coverage under this general permit shall be limited to facilities that discharge dewatering effluents from reserve pits which have not received drilling fluids and/or drill cuttings since December 15, 1996, deck drainage, formation test fluids, sanitary wastewater, domestic wastewater, hydrostatic test water, and miscellaneous discharges which are common to the Coastal Subcategory of the Oil and Gas Extraction Point Source Category (40 CFR part 435, Subpart D) classified under the Standard Industrial Classification (SIC) 1311.



OFFICE OF ENVIRONMENTAL SERVICES . P.O. BOX 4313 . BATON ROUGE, LOUISIANA 70821-4313

AN EQUAL OPPORTUNITY EMPLOYER



General Permit Number LAG330000 / AI 101080 Page Two

Oil & gas exploration, development, and production facilities desiring authorization to discharge under this general permit must submit a written Notice of Intent (NOI) by using form CWOGF-G. Form CWOGF-G may be obtained on the LDEQ website www.deq.state.la.us/permits/lpdes/index.htm or by calling (225) 219-3181.

Unless notified by the Secretary or his designee, all persons operating a source or conducting an activity that results in a discharge as described above are eligible for coverage under this general permit. Upon the submittal of a correctly completed NOI to the Office of Environmental Services, such persons will become permittees and will be authorized to discharge under this general permit after 14 calendar days of a hand-delivered NOI to LDEQ or 14 days after the postmark date on the envelope that contained the NOI.

Dischargers who are currently permitted under the LPDES version of this permit that expired on October 21, 1998 must submit an NOI within ninety (90) calendar days of the effective date of this permit. Any permittee covered by an individual permit may request that the individual permit be canceled if the permitted source or activity is also eligible for coverage by this general permit, and if a correctly completed NOI has been submitted. Permit coverage under this general permit will become effective upon the date of written notification from the Office of Environmental Services that the individual permit has been canceled.

An annual maintenance and surveillance fee will be assessed for each permit as allowed by regulations.

Should you have any questions concerning any part of the general permit, public notice requirements or procedures, please contact Jeffrey C. Ratcliff, Water and Waste Permits Division, at the address on the previous page, by telephone at (225) 219-3093, or by e-mail at jeffrey, ratcliff@la.gov.

Sincerely,

Karen K. Gautreaux Deputy Secretary

jcr

General Permit Number LAG330000 / AI 101080 Page Three

Enclosure: Final Permit and Addendum to Fact Sheet

c: cover letter and Final Permit:

Mr. William H. Temple, Chief Engineer Department of Transportation and Development Office of Highways

Ms. Claudia V. Hosch, Chief (6WQ-P) NPDES Permits Branch U. S. Environmental Protection Agency, Region VI

Ms. Doris White (6EN-WC) Water Enforcement Branch U.S. Environmental Protection Agency, Region 6

Mr. Douglas Vincent, P.E., Chief Engineer Department of Health and Hospitals Office of Public Health

Mr. Russell C. Watson, Supervisor U.S. Fish and Wildlife Service 646 Cajundome Blvd., Suite 400 Lafayette, LA 70506

Ms. Pam Breaux, State Historic Preservation Officer Department of Culture, Recreation & Tourism Office of Cultural Development/Division of Archaeology Post Office Box 44247 Baton Rouge, LA 70804-4247

All LDEQ Regional Offices Office of Environmental Compliance

Jeffrey C. Ratcliff Water and Waste Permits Division

IO-W



OFFICE OF ENVIRONMENTAL SERVICES Water Discharge Permit

GENERAL PERMIT NUMBER LAG330000 OIL & GAS EXPLORATION, DEVELOPMENT, & PRODUCTION FACILITIES LOCATED WITHIN COASTAL WATERS

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued. This permit authorizes persons who meet the requirements of Part I.A herein and who have been approved by this Office, to discharge to waters of the State dewatering effluent from reserve pits which have not received drilling fluids and/or drill cuttings since December 15, 1996, deck drainage, formation test fluids, treated sanitary wastewater, domestic wastewater, hydrostatic test water, and miscellaneous discharges from oil and gas facilities and their incorporated wells and appurtenances engaged in field exploration, drilling, well completion and treatment operations, and production activities located in the Coastal Subcategory of Louisiana in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III of this permit.

This permit shall become effective on Kecember 1, 2005

This permit and the authorization to discharge shall expire five (5) years from the effective date of the ... permit.

Getember 27, 2005 Issued on

Karen K. Gautreaux **Deputy Secretary**

GALVEZ BUILDING . 602 North 5th Street. P.O. BOX 4313 · BATON ROUGE, LA 70821-4313 · (225) 219-3181

PART I

SECTION A. APPLICABILITY

1. DISCHARGES COVERED

This permit regulates discharges from existing source and new source oil and gas facilities and their incorporated wells and appurtenances engaged in field exploration, drilling, well completion and treatment operations, and production activities located within the Coastal Waters of Louisiana. The wastewater discharges identified below are eligible for coverage under this general permit. Coverage under this permit extends only to dewatering effluents from reserve pits which have not received drilling fluids and/or drill cuttings since December 15, 1996, deck drainage, formation test fluids, sanitary wastewater, domestic wastewater, hydrostatic test water, and miscellaneous discharges which are common to the Coastal Subcategory of the Oil and Gas Extraction Point Source Category (40 CFR part 435, Subpart D) classified under the Standard Industrial Classification (SIC) 1311.

2. NOTICE OF INTENT (NOI) TO BE COVERED

Oil & gas exploration, development, and production facilities desiring authorization to discharge under this general permit must submit a written Notice of Intent (NOI) by using form CWOGF-G. Form CWOGF-G may be obtained on the LDEQ website www.deq.state.la.us/permits/lpdes/index.htm or by calling (225) 219-3181.

Dischargers who are currently permitted under the LPDES version of this general permit that expired on October 21, 1998 must submit an NOI in order to be authorized to discharge under this general permit. The NOI must be postmarked within ninety (90) calendar days of the effective date of this permit.

Proposed facilities and independent oil and gas wells (wells that will not tie into an existing production facility, wildcat wells, or wells that tie into an existing production facility that are operated by a different operator) desiring coverage under this permit subsequent to the effective date of this permit must submit a correctly completed NOI at least fourteen (14) calendar days prior to the anticipated commencement date of discharge to the Office of Environmental Services, Water and Waste Permits Division. Unless notified by the Secretary or his designee, all persons operating a source or conducting an activity that results in a discharge as described above are eligible for coverage under this general permit. Upon the submittal of a correctly completed NOI to the Office of Environmental Services, such persons will become permittees and will be authorized to discharge under this general permit after 14 calendar days of a handdelivered NOI to LDEQ or 14 days after the postmark date on the envelope that contained the NOI. Submission of an NOI is an acknowledgement that the conditions of this general permit are applicable to the proposed discharge, and that the applicant agrees to comply with the conditions of this general permit. The applicant's signature on the NOI legally certifies that the applicant qualifies for coverage under the permit and agrees to comply with all terms and conditions of the authorization to discharge to waters of the State of Louisiana. Operators who fail to notify this Office of intent to be covered or submit an incorrectly completed/ incomplete NOI are not authorized to discharge under this general permit.

The permittee must keep a copy of the NOI that was submitted to the Office of Environmental Services and a copy of the general permit at the permitted facility. If the permitted facility does not have the accommodations to keep these documents, then they may be kept at the nearest manned facility or nearest office, and must be made available to LDEQ upon request or within a reasonable amount of time, not to exceed 24 hours, unless the LDEQ personnel requesting these documents authorizes a time extension.

For facilities that are covered under this general permit, the operator must provide a verbal, faxed, and/or emailed notification to the appropriate regional office at least twenty - four (24) hours prior to drilling a new well, working over a well, or moving a rig to perform work on the production facility and/or the facility's wells and appurtenances.

Operators that have independent oil and gas wells that tie into another operator's permitted production facility can be automatically covered **provided** that the operator of the permitted production facility agrees to allow the discharges from those wells to be covered under the permitted production facility's permit. In this case, the operator of the permitted production facility must submit a letter to the Office of Environmental Services and the appropriate regional office authorizing such operators to discharge through their permitted production facility. If an existing permitted facility's operator does not wish to extend permit coverage to another operator's independent oil and gas well that does or is proposed to tie into the existing production facility, the operator of the independent well must obtain a separate permit for that individual well. The permit for that well must be obtained prior to drilling the well and maintained after the well is tied into the existing production facility.

All wells (existing and proposed) that tie into or will tie into a permitted production facility that are owned and/or operated by the permittee of the production facility are covered under the production facility's permit. Contractors performing drilling or other activities on any existing or proposed wells for the permittee/operator of the production facility are not required to obtain a separate discharge permit since the discharges associated with those activities are covered under the production facility's general permit.

For facilities applying for authorization to discharge reserve pit dewatering effluent from drilling fluids and drill cuttings dewatering activities, the NOI must certify that such reserve pit(s) have not received drilling fluids and/or drill cuttings after December 15, 1996.

Any permittee covered by an individual permit or other currently effective general permit(s) may request that those permits be canceled if the permitted sources or activities are also eligible for coverage by this general permit. Upon approval by this Office, the permittee will be concurrently notified of coverage by this general permit and of termination of the previous permit(s). Permittees that have a separate authorization under the Multi-Sector General Permit (MSGP) may request that the MSGP be terminated; however, the permittee would automatically be required to implement a Storm Water Pollution Prevention Plan (SWPPP) as required in Part II, Section M of this permit.

Should a Reportable Quantity (RQ) release of oil or a hazardous substance in stormwater (as defined in 40 CFR 110) occur or have occurred at the permitted production facility (including appurtenances) or independent well since November 16, 1987, the operator must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) as required in Part II, Section M of this permit within sixty (60) calendar days. During this interim period while the SWPPP is being prepared and implemented, the operator shall take all appropriate measures to limit the discharge of pollutants in the facility's storm water.

The definition of New Source is found at 40 CFR 122.2 and the criteria for New Source determination are found at 40 CFR 122.29. Additional definitions pertaining to Coastal Subcategory New Sources are found at 40 CFR 435, Subpart D. According to 40 CFR 435, Subpart D, exploratory facilities are never New Sources, although development and production facilities may be New Sources if they meet the criteria for New Source determination.

This general permit shall not apply to:

- 1. discharges from facilities classified as "Majors" in the LPDES permitting system,
- 2. discharges other than those authorized by this general permit,
- discharges authorized by this general permit that are mixed with other, non-covered discharge types unless those other discharges are in compliance with another LPDES permit,
- 4. discharges, or the potential for discharge, of substances that are not addressed by or would not be adequately detected by the effluent limitations in this permit, including any of the Organic Toxic Pollutants, Other Toxic Pollutants (Metals and Cyanide) and Total Phenols, and Toxic Pollutants and Hazardous Substances listed in Tables II, III, and V of LAC 33:IX.325 Appendix D, except as specifically listed in Part I of this permit for dewatering effluent from reserve pits and hydrostatic test wastewater,
- discharges of waste waters that have limits assigned to them in the Louisiana Water Quality Management Plan or an approved Waste Load Allocation that are different from those in this permit,
- discharges which are likely to have adverse effects upon threatened or endangered species, or on the critical habitat for these species as determined by the U.S. Fish and Wildlife Service,
- 7. discharges of wastewaters which adversely affect properties listed or eligible for listing in the National Register of Historical Places, unless they are in compliance with requirements of the National Historic Preservation Act and any necessary activities to avoid or minimize impacts have been coordinated with the Louisiana State Historic Preservation Officer; (for questions, the operator should contact the Section 106 Review Coordinator, Office of Cultural Development, P. O. Box 44247, Baton Rouge, LA 70804 or telephone (225) 342-8170).

- discharges of wastewater determined by this Office to present an environmental risk or potential risk of discharging pollutants other than is intended to be regulated by this permit,
- discharges resulting from the decontamination of equipment involved in remediation type activities,
- discharges associated with the disposal, storage, or treatment of hazardous (RCRA non-exempt) oilfield waste,
- 11. discharges of drilling fluids,
- 12. discharges of drill cuttings,
- 13. discharges of produced water,
- 14. discharges of produced sand,
- 15. discharges of dewatering effluent from reserve pits which have received drilling fluids and/or drill cuttings since December 15, 1996,
- 16. discharges of well treatment, completion, and workover fluids, and
- 17. discharges which cause or contribute to the violation of state water quality standards.

Authorization for this general permit may be denied under the following circumstances:

- facilities not in compliance with a previously issued individual or general LPDES permit,
- facilities which have previously been in violation of state water quality regulations, or
- facilities located in an environmentally sensitive area.

The Department may deny coverage under this permit and require submittal of an application for an individual LPDES permit based on a review of the NOI or other information. This Office reserves the right to issue such facilities an individual LPDES permit with more appropriate limitations and conditions.

3. TERMINATIONS

Operators shall submit a Notice of Termination (NOT) to the state administrative authority within sixty (60) calendar days after the permanent termination of all discharges from their facility. This NOT is a letter submitted to the administrative authority and must include the date that the discharges were terminated.

4. TRANSFER OF OWNERSHIP OF OPERATIONS

Coverage under this general permit is not transferable to any person except after notifying this Office. A written notification and a 1701 Addendum to Permit Application Form (for the new operator of the facility) must be submitted to the state administrative authority within thirty (30) calendar days of any transfer of ownership. This written notification must include a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between the operators. An authorized official from each operator that is involved in the transaction must sign this agreement.

SECTION B. EFFLUENT LIMITATIONS

During the period beginning with coverage under this general permit and lasting through the expiration date of this general permit, all permittees under this general permit are authorized to discharge dewatering effluents from reserve pits which have not received drilling fluids and/or drill cuttings since December 15, 1996, deck drainage, formation test fluids, sanitary wastewater, domestic wastewater, hydrostatic test water, and miscellaneous discharges in accordance with the conditions that follow.

Permittees shall not discharge nor shall they cause or allow the discharge of pollutants regulated under this general permit except in compliance with its limitations and terms. Operators of facilities generating pollutants regulated under this permit shall take reasonable positive steps to assure said pollutants are not unlawfully discharged to waters of the State by third parties and shall maintain documentation of those steps for no less than three years.

GUIDANCE TO UNDERSTANDING THE NEW PERMIT FORMAT

Components of the Permit Report

General Information Sheet - A summary of the facility information, such as facility address, latitude/longitude at front gate, facility contact and phone number, Source Classification Code (SCC), Standard Industrial Classification (SIC) and North American Industry Classification (NAIC) codes.

Inventory Sheet - Lists all subject items groups, and any relationships that may exist between subject items or subject item groups.

Facility Specific Requirements - All permit requirements placed on the Agency Interest (AI) and its Subject Items are stated by type. The five types of permit requirements are as follows: Limitation Requirement, Monitoring Requirement, Recordkeeping Requirement, Narrative Requirement, and Submittal/Action Requirement.

All applicable limitation requirements, all applicable monitoring requirements, and all applicable recordkeeping requirements for each Subject Item are stated in table form. All applicable narrative requirements for the entire Agency Interest (AI) appear in text form with the last narrative requirements being the applicable submittal/action requirements for each Subject Item. The narrative requirements are stated in order by regulatory citation. Note: Some permit requirements associated by a common subject may be separated.

Definitions

Agency Interest (AI) - Any entity that is being regulated or is of interest to LDEQ

Agency Interest (AI) ID . Numerical identifier of Agency Interest (AI)

Activity Number - Each action taken for an Agency Interest (AI). This identifier consists of a total of 11 characters, 3 letters represents the regulatory program followed by four digits representing the year the application was received by LDEQ, and four digits which are sequentially assigned. Example PER 19990001, this would identify the activity as the first permitting action taken for this Agency Interest (AI) in the year 1999.

Category - Broad terms used to define the Subject Item, such as Activity (ACT). Area (ARE), Equipment (EQT), Fugitives (FUG), Group (GRP), Release Point (RLP), and Treatment (TRT).

Phases - Periods during which the associated requirement applies to the particular parameter. For Example, if the permit contains a compliance schedule with interim limits, this column will state the phase in which the compliance schedule of the associated requirement is applicable.

Statistical Basis (Stat. Basis) - Calculation or direct measurement upon which the permit requirement is based.

Subject Item (SI) - Components or groups of components of an Agency Interest (AI), including the Agency Interest (AI) itself. Each Subject Item is defined by a category and a type. Note: The type does not appear in the Subject Item ID.

Subject Item ID - Identifier assigned sequentially to each Subject Item within an Agency Interest (AI). It is composed of three letters representing the category of the Subject Item and is followed by the sequentially assigned number. Example RLP 1.

Which Months ? - Denotes the months that have a particular parameter requirement.

	Master Al ID:	101080
	Permit #:	LAG330000
•	Activity ID: PI	ER 2004 0001

Subject Item: RLP 1 Outfall 001 - discharges of dewatering effluent from reserve pits which have not received drilling fluids and/or drill cuttings since December 15, 1996

COD (high level)			
Daily maximum		Which Months	Phases
COD (high lavel) <≍ 125 mg/l. [LAC 33:IX.2701.A]		All Year	ALL
Sample type and frequency			
COD (high lavel) monitored by grab sampling daily (STORET 00340). Sample when discharging. [LAC 33:IX.2701.J]		All Year	ALL
Record-Keeping COD (high level) recordkeeping by lab analyses daily. [LAC 33:IX.2701.J.2]			ALL
Chloride			
Dally maximum Limits		Which Months	Phases
Chloride <= 500 mg/l. [LAC 33:IX.2701.A]		All Year	ALL
Sample type and frequency			
Chloride monitored by grab sampling daily (STORET 00940). Sample when discharging. [LAC 33:IX.2701.J]		All Year	ALL
Record-Keeping Chloride recordkeeping by lab analyses dally. [LAC 33:IX.2701.J.2]			ALL
Chromium			
Daily maximum Limits	÷.	Which Months	Phases
Chromium <= 0.5 mg/l. [LAC 33:1X.2701.A]		All Year	ALL
Sample type and frequency		10) 1947 DAVIE DAVI	7787535
Chromium monitored by grab sampling daily (STORET 01034). Sample when discharging, [LAC 33:IX.2701.J]		All Year	ALL
Record-Keeping Chromium recordkeeping by lab analyses daily. [LAC 33:IX.2701.J.2]		а. ж	ALL
Flow			
Daily maximum Sample type and frequency		Which Months	Phases
Flow monitored by estimate daily (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - gallons/day	All Year	ALL
Monthly average Sample type and frequency		Which Months	Phases
Flow monitored by estimate daily (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - galions/day	All Year	ALL
Record-Keeping Flow recordkeeping by manual logging daily. [LAC 33:IX.2701.J.2]			ALL
Misc. Discharges, Free Oil			
Daily maximum Limits		Which Months	Phases
Misc. Discharges, Free Oil <= 0 # of days. No discharge of free oil as measured by the static sheen accordance with Appendix 1 to 40 CFR 435, Subpart A. [LAC 33:IX.2701.A]	test in	All Year	ALL

Page 1 of 20

	Master AI ID;	1010
2	Permit #:	LAG3300
	Activity ID: PER	R 2004 00
Subject Item: RLP 1 Outfall 001 - discharges of dewatering effluent from reserve pits wi fluids and/or drill cuttings since December 15, 1996	iich have not receiv	ed drillin
Sample type and frequency		<u>,</u>
Misc. Discharges, Free Oil monitored by grab sampling daily (STORET 49498). Sample when discharging, [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping		
Misc. Discharges, Free Oil recordkeeping by lab analyses daily. If free oil is detected, record the number of day present in the effluent. [LAC 33:IX.2701.J.2]	s that free oil is	ALL
Oil and grease		
Daily maximum Limits	Which Months	Phase
Oil and grease <= 15 mg/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency		
Oil and grease monitored by grab sampling daily (STORET 03582). Sample when discharging. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping Oil and grease recordkeeping by lab analyses daily. [LAC 33:IX.2701.J.2]		ALL
TSS (Total Suspended Solids)	3723 F	
Daily maximum Limits	Which Months	Phase
TSS (Total Suspended Solids) <= 50 mg/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency TSS (Total Suspended Solids) monitored by grab sampling daily (STORET 00530). Sample when discharging. [LAC 33:[X.2701.J]	Ali Year	ALL
Record-Keeping TSS (Total Suspended Solids) recordkeeping by lab analyses daily. [LAC 33:IX.2701.J.2]	÷	ALL
Zinc		
Daily maximum	Which Months	Phase
Limite	12073-1	225
Zinc <= 5 mg/l, [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency Zinc monitored by grab sampling daily (STORET 01092). Sample when discharging, [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping Zinc recordkeeping by lab analyses daily. [LAC 33:IX.2701.J.2]		ALL
рн		
Instantaneous maximum Limits	Which Months	Phase
pH <= 9 s.u. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency pH monitored by grab sampling daily (STORET 00400). Sample when discharging. [LAC	All Year	ALL
33:LX.2701.J]		14
Instantaneous minimum	Which Months	Phase

Page 2 of 20

			Master AI ID:	10108
•			Permit #:	LAG33000
	~ ~		Activity ID: PE	R 2004 000*
Subject Item:	RLP 1	Outfall 001 - discharges of dewatering effluent from reserve pite fluids and/or drill cuttings since December 15, 1996	s which have not recei	ved drilling
Limits				*
pH >= 6 s.u	J. LAC 33	:IX.2701.A]	All Year	ALL
Sample typ	pe and fre	quency		
pH monitor 33:1X.2701.		sampling daily (STORET 00400). Sample when discharging. (LAC	All Year	ALL
Record-Kee pH records	and an other states of the sta	manual logging daily. [LAC 33:IX,2701.J.2]		ALL
Narrative				Phases
month and subm 2) July 28th, for	nit all 3 rep monitoring	Monitoring Report (DMR): Due quarterty, by the 28th of January, April, July, and Octo orts quarterly. Postmark not later than 1) April 28 for monitoring in the months of Jan on the months of April, May, and June; 3) October 28th, for monitoring in the months y 28th, for monitoring in the months of October, November, and December. [LAC 33:]	uary, February, and March of July, August and	ALL
		e of floating or settleable solids or visible foam in other than trace amounts, nor of fre antitles such as to cause toxicity to aquatic organisms. (LAC 33:IX.1113.B]	e oll or other oily materials,	ALL
discharged, the	monitoring	for the above dewatering affluent limitations is once per day when discharging. Howe requirements for all effluent limitations shall be once per discharge event and flow m \C 33:IX.2701.J]		ALL
Monitored at the	point of d	Ischarge prior to mixing with other waters. [LAC 33:IX.2701.J.4]		ALL
specified in 40 C event at any of the copies) signed a Department of E	CFR 435). he monitor and certifier invironmen	ort: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an a Place an "X" in the No Discharge box located in the upper right comer of the DMR if t ring outfall(s) during the reporting period. Submit duplicate copies of DMRs (one set d as required by LAC 33:1X,2503.B, and all other reports (one set of originals) required tal Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office d the appropriate LDEQ regional office listed in the cover letter (one set of copies).	here is a "No Discharge" of originals and one set of d by this permit, to the	ALL
type) for the enti- in lieu of submitt Facility Name, L	ire quarteri ling actual PDES Ger	in the DMR for each outfall unless there has been absolutely no discharge from a pai y monitoring period being submitted. In these cases, a listing of the outfalls with no d DMRs for these particular outfalls. Include this list in the cover letter of the DMR sub- neral Permit Number, Al Number, and the outfall/discharge number and type of discha- sented in Part III.D.10.d of this permit and an original signature of the designated resp	Ischarges will be accepted, mittal and indicate the arge. Also include the	
		esting in accordance with the methods prescribed by the latest EPA approved edition and Wastewater.	of Standard Methods For	ALL
Make provisions	during the	installation of any treatment unit for obtaining a proper sample.		

Use proper sampling techniques to ensure that anelytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:1X.2701.L.4]

Page 3 of 20

Master Al ID:	101080
Permit #:	LAG330000

Activity ID: PER 2004 0001

Subject Item: RLP 2 Outfall 002 - discharges of deck drainage

Flow Phases Which Months Dally maximum Sample type and frequency Flow monitored by estimate monthly (STORET 50050). Sample when discharging and facility is Report Only -All Year ALL manned. [LAC 33:IX.2701.J] gallons/day Phases Which Months Monthly average Sample type and frequency Report Only -All Year Flow monitored by estimate monthly (STORET 50050). Sample when discharging and facility is ALL manned. [LAC 33:IX.2701.J] gallons/day Record-Keeping Flow recordkeeping by manual logging monthly. [LAC 33:IX.2701.J.2] ALL Misc. Discharges, Free Oil Phasas Which Months Daily maximum Limits Misc. Discharges, Free Oil <= 0 # of days. No discharge of free oil as determined by a visual sheen on the surface All Year ALL of the receiving water as specified in 40 CFR 435. [40 CFR 435.D] Sample type and frequency All Year ALL Misc. Discharges, Free Oll monitored by visual inspection/datermination daily (STORET 49498). Monitor when discharging, during conditions when an observation of a sheen is possible and the facility is manned. [LAC 33:IX.2701.J] Record-Keeping Misc. Discharges, Free Oll recordkeeping by manual logging daily. If a sheen is detected, record the number of days that the sheen is ALL observed. [LAC 33:IX.2701.J.2] Narrative Phases There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials. ALL nor of toxic materials in quantities such as to cause toxicity to aquatic organisms. [LAC 33:IX.1113.B] Submit Monthly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July, and October. Prepare one DMR par month and submit all 3 reports quarterly. Postmark not later than 1) April 28 for monitoring in the months of January, February, and March ALL 2) July 28th, for monitoring in the months of April, May, and June; 3) October 28th, for monitoring in the months of July. August and September, and 4) January 28th, for monitoring in the months of October, November, and December, [LAC 33:IX.2701.L.4] ALL Monitored at the point of discharge prior to mixing with other waters. [LAC 33:IX.2701.J.4] The discharge of free oil is prohibited as determined by a visual sheen on the surface of the receiving water. [40 CFR 435.D] ALL Discharge Monitoring Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an approved substitute as specified in 40 CFR 435). Place an *X* in the No Discharge box located in the upper right comer of the DMR if there is a *No Discharge event at any of the monitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:1X.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, ALL Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover latter (one set of copies). Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from a particular outfall (discharge type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls with no discharges will be accepted, in lieu of submitting actual DMRs for these particular outfalls. Include this list in the cover letter of the DMR submittal and indicate the Facility Name, LPDES General Permit Number, Al Number, and the outfall/discharge number and type of discharge. Also include the certification statement presented in Part III.D, 10.d of this permit and an original signature of the designated responsible official. [LAC 33:IX.2701.L.4] Conduct all sampling and testing in accordance with the methods prescribed by the latest EPA approved edition of Standard Methods For the Examination of Water and Wastewater. ALL Make provisions during the installation of any treatment unit for obtaining a proper sample.

Use proper sampling techniques to ensure that analytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:IX.2701.L.4]

Page 4 of 20

	Master Al ID: 101080
•	Permit #: LAG330000
	Activity ID: PER 2004 000

Subject Item: RLP 3 Outfall 003 - discharge of formation test fluids

Flow			
Daily maximum Sample type and frequency		Which Months	- Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - gallons/day	All Year	ALL
Monthly average Sample type and frequency		Which Months	Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - gallons/day	All Year	ALL
Record-Keeping Flow recordkeeping by manual logging monthly. [LAC 33:IX.2701.J.2]		*"	ALL
Misc. Discharges, Free Oll			
Daily maximum Limits		Which Months	Phases
Misc. Discharges, Free Oil <= 0 # of days. No discharge of free oll as measured by the static she accordance with Appendix 1 to 40 CFR 435, Subpart A. [40 CFR 435,D]	een test in	All Year	ALL
Sample type and frequency			
Misc. Discharges, Free Oil monitored by grab sampling daily (STORET 49489). Sample when discharging. [LAC 33:IX.2701.J]		All Year	ALL
Record-Keeping Misc. Discharges, Free Oil recordkeeping by lab analyses daily. If free oil is detected, record the present in the effluent. [LAC 33:IX.2701.J.2]	number of days that	l free oil is	ALL
рH			7201
Instantaneous maximum Limite		Which Months	Phases
pH <= 9 s.u. [LAC 33:IX.2701.A]		All Year	ALL
Sample type and frequency			
pH monitored by grab sampling daily (STORET 00400). Sample when discharging. [LAC 33:IX.2701.J]		All Year	ALL
Instantaneous minimum Limits		Which Months	Phases
pH >= 6 s.u. [LAC 33:IX.2701.A]		All Year	ALL
Sample type and frequency			
pH monitored by grab sampling daily (STORET 00400). Sample when discharging. [LAC 33:IX.2701.J]		All Year	ALL
PH record-Keeping pH recordseeping by manual logging daily. [LAC 33:IX.2701.J.2]			ALL
Narrative			Phases
There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms. [LAC 33:IX.1113.B]	nor of free oil or oth	er olly materials,	ALL
Submit Monthly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July month and submit all 3 reports quarterly. Postmark not later than 1) April 28 for monitoring in the mon 2) July 28th, for monitoring in the months of April, May, and June; 3) October 28th, for monitoring in the September; and 4) January 28th, for monitoring in the months of October, November, and December.	ths of January, Febri e months of July, Au	uary, and March gust and	ALL
Monitored at the point of discharge prior to mixing with other waters. [LAC 33:IX.2701.J.4]			ALL
Discharges of formation test fluids are only allowed to the Mississippi River below Venice, Atchafalaya	River below Morgan	City, Wax Lake	ALL

Discharges of formation test fluids are only allowed to the Mississippi River below Venice, Atchafalaya River below Morgan City, Wax Lake Outlet, and to waterbodies and adjacent wetlands in brackish or satine marsh areas. There shall be no discharge of formation test fluids to

Page 5 of 20

Master AI ID:	101080
Permit #:	LAG330000
Activity ID: P	R 2004 0001

Subject Item: RLP 3 Outfall 003 - discharge of formation test fluids

Narrative

lakes, rivers, streams, freshwater wetlands, or intermediate wetlands. Discharge is also prohibited to wildlife refuges, game preserves, scenic streams, or other specifically protected takes or waterbodies. [LAC 33:IX.2705.A]

Discharge Monitoring Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an approved substitute as specified in 40 CFR 435). Place an "X" in the No Discharge box located in the upper right corner of the DMR if there is a "No Discharge" event at any of the monitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:1X.2503.B, and ell other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Beton Rouge, Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover latter (one set of ocipies).

Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from a particular outfall (discharge type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls with no discharges will be accepted, in lieu of submitting actual DMRs for these particular outfalls. Include this list in the cover letter of the DMR submitted and indicate the Facility Name, LPDES General Permit Number, Al Number, and the outfall/discharge number and type of discharge. Also include the certification statement presented in Part III.D.10.d of this permit and an original signature of the designated responsible official. {LAC 33:IX.2701.L.4}

Conduct all sampling and testing in accordance with the methods prescribed by the latest EPA approved edition of Standard Methods For the Examination of Water and Wastewater.

Make provisions during the installation of any treatment unit for obtaining a proper sample.

Use proper sampling techniques to ensure that analytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:IX.2701.L.4]

ALL

ALL

•		Master Al ID: Permit #: Activity ID: PE	1010 LAG3300
ubject Item: RLP 4 Outfall 04A - discharge of treated sanitary waste water	(non-oyster pro		1 2004 00
BOD, 5-day (20 degrees C)			
Weekly average		Which Months	Phase
BOD, 5-day (20 degrees C) <= 45 mg/i. [LAC 33:IX.2701.A]		All Year	ALL
Sample type and frequency			
BOD, 5-day (20 degrees C) monitored by grab sampling quarterly (STORET 00310). [LAC 33:IX.2701.J]		All Year	ALL
Record-Keeping BOD, 5-day (20 degrees C) recordkeeping by lab analyses quarterly. [LAC 33:IX.2701.J.2]			ALL
Chlorine, total residual			el _{en} n
Weekly average Limits		Which Months	Phas
Chlorine, total residual >= 1.0 and <= 5.0 mg/l. TRC may be sampled in lieu of fecal coliform il utilizes chlorination as a treatment method as specified in 40 CFR 435. [LAC 33:IX.2701.A]	the treatment unit	All Year	ALL
Sample type and frequency Chlorine, total residual monitored by grab sampling weekly (STORET 50050). Sample when discharging. Sampling for TRC is only required if chlorination is used as a disinfection method.		All Year	ALL
[LAC 33:IX.2701.J] <u>Record-Keeping</u> Chlorine, total residual recordkeeping by lab analyses weekly. [LAC 33:IX.2701.J.2]			ALL
Fecal coliform, general			
Weekly average		Which Months	Phas
Fecal coliform, general <= 200 colonies/100 ml. TRC may be sampled in lieu of fecal coliform i utilizes chlorination as a treatment method. [LAC 33:IX.2701.A] Sample type and frequency	f the treatment unit	Ali Year	ALL
Fecal collform, general monitored by grab sampling weekly (STORET 74055). Sample when discharging. TRC may be sampled in lieu of fecal coliform if the treatment unit utilizes chlorinat as a treatment mothod. [LAC 33:IX.2701.J]	lon	All Year	ALL
Record-Keeping Fecal collform, general recordkeeping by lab analyses weekly. [LAC 33:IX.2701.J.2]			ALL
Flow			
Monthly average Sample type and frequency		Which Months	Phas
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - galions/day	All Year	ALL
Weekly average Sample type and frequency		Which Months	Phas
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - galions/day	All Year	ALL
Record-Keeping Flow recordkeeping by manual logging monthly. [LAC 33:IX.2701.J.2]			ALL
Solids-Floating-Visual Determination			
Weekly average		Which Months	. Phas
Solids-Floating-Visual Determination <= 0 # of days. No discharge of floating solids in accordance	nce with 40 CFR 435.	All Year	ALL

Page 7 of 20

* ±			10108 LAG33000
	24	Activity ID: PE	R 2004 000
Subject Item: RLP4 Outfal	04A - discharge of treated sanitary waste water (non-o	yster propagation area)	
Limits			2 80
[40 CFR 435.D]			
Sample type and frequency			
Solids-Floating-Visual Determin 78248). Sample when discharg	ation monIlored by visual inspection/determination dally (STORET ing. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping Solids-Floating-Visual Determin that floating solids are observed	ation recordkeeping by manual logging daily. If floating solids are detected. I. [LAC 33:IX.2701.J.2]	ed, record the number of days	ALL
TSS (Total Suspended Soli	ds)		
Weekly average Umits		Which Months	Phase
TSS (Total Suspended Solids)	<= 45 mg/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency TSS (Total Suspended Solids) when discharging, [LAC 33:IX.2	monitored by grab sampling quartarly (STORET 00530). Sample ?701.J]	All Year	ALL
Record-Keeping TSS (Total Suspended Solids)	recordkeeping by lab analyses quarterly. [LAC 33:IX.2701.J.2]		ALL
pН			
Instantaneous maximum		Which Months	Phase
pH <= 9 s.v. [LAC 33:IX.2701.A	1	All Year	ALL
Sample type and frequency		12 12	14.572
pH monitored by grab sampling 33:IX.2701.J]	quarteriy (STORET 00400). Sample whon discharging. [LAC	All Year	ALL
Instantaneous minimum Limits	×	Which Months	Phase
pH >= 8 s.u. [LAC 33:1X.2701.A	1	All Year	ALL
Sample type and frequency	AND		
pH monifored by grab sampling 33:IX.2701.J]	quarterly (STORET 00400). Sample when discharging. [LAC	All Yea r	ALL
Record-Keeping pH recordkeeping by manual log	gging quarterly. [LAC 33:IX.2701.J.2]		ALL
	g Report (DMR): Due quarterly, by the 28th of January, April, July, and Oc he months of January through June; and 2) January 28th, for monitoring I		Phases ALL
an and an and a state and a state of the sta	the facility discharges strictly to an oyster propogation area. [LAC 33:tX.3	2701]	ALL
There shall be no discharge of settle materials in quantities such as to cau	able solids or visible foam in other than trace amounts, nor of free oil or of ise toxicity to aquatic organisms. [LAC 33:IX.1113.B]	ther oily materials, nor of toxic	ALL
NO N D A 44 MOV N	rior to mixing with receiving waters. [LAC 33:IX.2701.J.4]		ALL
specified in 40 CFR 435). Place an event at any of the monitoring outfall	e and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an X" in the No Discharge box located in the upper right corner of the DMR is (s) during the reporting period. Submit duplicate copies of DMRs (one se d by LAC 33:1X.2503.B, and all other reports (one set of originals) requir	if there is a "No Discharge" at of originals and one set of	ALL

Page 8 of 20

		Master AI ID:	101080
• E		Permit #:	LAG330000
		Activity ID: PI	ER 2004 0001

Subject Item: RLP 4 Outfall 04A - discharge of treated sanitary waste water (non-oyster propagation area)

Narrative Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover letter (one set of copies).	Phases
Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from a particular outfall (discharge type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls with no discharges will be accepted, in lieu of submitting actual DMRs for these particular outfalls. Include this list in the cover letter of the DMR submittal and indicate the Facility Name, LPDES General Permit Number, Al Number, and the outfall/discharge number and type of discharge. Also include the certification statement presented in Part III.D.10.d of this permit and an original signature of the designated responsible official. [LAC 33;IX.2701.L.4]	
Conduct all sampling and testing in accordance with the methods prescribed by the latest EPA approved edition of Standard Methods For the Examination of Water and Wastewater.	ALL

Make provisions during the installation of any treatment unit for obtaining a proper sample.

Use proper sampling techniques to ensure that analytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of spacified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:1X.2701.L.4]

			Master AI ID:	101080
•			Permit #:	LAG330000
3	343	9	Activity ID: PE	R 2004 0001

Subject Item: RLP 5 Outfall 04B - discharge of treated sanitary wastewater (oyster propagation area)

BOD, 5-day (20 degrees C) Weekly average		Which Months	Phases
Limits			÷
BOD, 5-day (20 degrees C) <= 45 mg/l. [LAC 33:[X.2701.A]		All Year	ALL
Sample type and frequency			
BOD, 5-day (20 degrees C) monitored by grab sampling quarterly (STORET 00310). [LAC 33:IX.2701.3]		All Year	ALL
Record-Keeping BOD, 5-day (20 degrees C) recordkeeping by lab analyses quarterly. [LAC 33:IX.2701.J.2]			ALL
Chiorine, total residual			
Weekly average Limits		Which Months	Phases
Chiorine, total residual >= 1.0 and <= 5.0 mg/l. TRC may be sampled in lieu of facal coliform utilizes chiorination as a treatment method as specified in 40 CFR 435. [LAC 33:IX.2701.A]	if the treatment unit	All Year	ALL
Sample type and frequency			
Chlorine, total residual monitored by grab sampling weekly (STORET 50060). Sample when discharging. Sampling for TRC is only required if chlorination is used as a disinfection method [LAC 33:IX.2701.J]	l.	All Year	ALL
Record-Keeping Chlorine, total residual record/keeping by lab analyses weekly. [LAC 33:IX.2701.J.2]			ALL
Fecal coliform, general			
Weekly average Limits		Which Months	Phases
Fecal coliform, general <= 43 colonies/100 ml. TRC may be sampled in lieu of fecal coliform if utilizes chlorination as a treatment method. [LAC 33:IX.2701.A]	the treatment unit	All Year	ALL
Sample type and frequency			
Fecal collform, general monitored by grab sampling weekly (STORET 74055). Sample when discharging. TRC may be sampled in lieu of fecal colliform if the treatment unit utilizes chloring as a treatment method. [LAC 33:IX.2701.J]	ition	All Year	ALL
Record-Keeping Fecal coliform, general recordkeeping by lab analyses weekly. [LAC 33:IX.2701.J.2]		a. 14	ALL
Flow			
Monthly average Sample type and frequency		Which Months	Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging, [LAC 33:IX.2701.J]	Report Only - gallons/day	All Year	ALL
Weekly average Sample type and frequency		Which Months	Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging, [LAC 33:IX.2701.J]	Report Only - galions/day	All Year	ALL
Record-Keeping Flow recordkeeping by manual logging monthly. [LAC 33:IX.2701.J.2]			ALL
Solids-Floating-Visual Determination			
Weekly average Limits		Which Months	Phases
Solids-Floating-Visual Determination <= 0 # of days. No discharge of floating solids in accorda	nce with 40 CFR 435.	All Year	ALL

Page 10 of 20

	Activity ID: PEF	101080 LAG330000 2004 0001
Subject Item: RLP 5 Outfall 04B - discharge of treated sanitary wastewater (oyster pro	pagation area)	
Limits		
[40 CFR 435.D]		
Sample type and frequency		
Solids-Floating-Visual Determination monitored by visual inspection/determination daily (STORET 78246). Sample when discharging. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping Solids-Floeting-Visual Determination recordkeeping by manual logging daily. If floating solids are detected, re that floating solids are observed. [LAC 33:IX.2701.J.2]	cord the number of days	ALL
TSS (Total Suspended Solids)		
Weekly average	Which Months	Phases
TSS (Total Suspended Solids) <= 45 mg/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency TSS (Total Suspended Solids) monitored by grab sampling quarterly (STORET 00530). Sample when discharging. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping TSS (Total Suspended Solids) record keeping by lab analyses quarterly. [LAC 33:IX.2701.J.2]		ALL
pH		
Instantaneous maximum Limits	Which Months	Phases
pH <= 9 s.u. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency		
pH monitored by grab sampling quarterty (STORET 00400). Sample when discharging. [LAC 33:IX.2701.J]	All Year	ALL
Instantaneous minimum Umits	Which Months	Phasos
pH >= 6 s.u. [LAC 33:1X.2701.A]	All Year	ALL
Sample type and frequency		
pH monitored by grab sampling quarterly (STORET 00400). Sample when discharging. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping pH recordkeeping by manual logging quarterly. [LAC 33:IX.2701.J.2]		ALL
Marmathra		0
Narrative Submit Monthly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July, and Octobe than: 1) July 28th, for monitoring in the months of January through June; and 2) January 28th, for monitoring in the December. [LAC 33:IX.2701.L.4]		Phases ALL
Do not submit DMRs for this outfall if the facility discharges strictly to a non-oyster propogation area. [LAC 33:IX.27	01]	ALL
There shall be no discharge of settleable solids or visible foam in other than trace amounts, nor of free oil or other or materials in quantilies such as to cause toxicity to aquatic organisms. [LAC 33:IX.1113.B]	ily materials, nor of toxic	ALL
Monitored at the point of discharge prior to mixing with receiving waters. [LAC 33:1X.2701.J.4]		ALL
Discharge Monitoring Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an apprint specified in 40 CFR 435). Place an "X" in the No Discharge box located in the upper right corner of the DMR if there event at any of the monitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (one set of o copies) signed and certified as required by LAC 33:LX.2503.B, and all other reports (one set of originals) required by	e is a "No Discharge" riginals and one set of	ALL

Page 11 of 20

	Master Al ID:	101080
(1•)	Permit #:	LAG330000
	 Activity ID: PE	R 2004 0001

Subject Item: RLP 5 Outfall 04B - discharge of treated sanitary wastewater (oyster propagation area)

Narrative

Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover letter (one set of copies).

Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from a particular outfall (discharge type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls with no discharges will be accepted, in lieu of submitting actual DMRs for these particular outfalls. Include this list in the cover letter of the DMR submitted indicate the Facility Name, LPDES General Permit Number, AI Number, and the outfall/discharge number and type of discharge. Also include the certification statement presented in Part III.D.10.d of this permit and an original signature of the designated responsible official. [LAC 33:IX.2701.L.4]

Conduct all sampling end testing in accordance with the methods prescribed by the latest EPA approved edition of Standard Methods For the Examination of Water and Wastewater.

ALL

Phases

Make provisions during the installation of any treatment unit for obtaining a proper sample.

Use proper sampling techniques to ensure that analytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:IX.2701.L.4]

Master AI ID:	101080
Permit #:	LAG330000
Activity ID: Pl	ER 2004 0001

Subject Item: RLP 6 Outfall 005 - discharge of domestic waste water

Floating Solids or Visible Foam-Visual

12 12 12

Floating Solids of Visible Foam-Visual				
Daily maximum		Which Months	8	Phases
Floating Solids or VIsible Foam-Visual <= 0 # of days. No discharge of garbage or floating solids or accordance with 40 CFR 435. Garbage includes food wastes, incineration ash, and clinkers. Neithe debris from fish cleaning operations nor graywater is considered to be garbage under this definition.	r fish nor fish	All Year		ALL
Sample type and frequency				
Floating Solids or Visible Foam-Visual monitored by visual inspection/determination daily (STORET 45613). Monitor when discharging. Monitor the surface of the receiving water in the vicinity of outfall(s) during daylight and at the time of maximum estimated discharge, [LAC 33:IX.2701.J]		All Year		ALL
Record-Keeping				
Floating Solids or Visible Foam-Visual recordiscepting by manual logging daily. If garbage or floating record the number of days that garbage and floating solids are observed. [LAC 33:IX.2701.J.2]	solids or foam an	a detected,		ALL
Flow				
Daily maximum Sample type and frequency		Which Months		Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - gallons/day	All Year		ALL
Monthly average Sample type and frequency		Which Months		Phases
Flow monitored by estimate monthly (STORET 50050). Sample when discharging. [LAC 33:IX.2701.J]	Report Only - galions/day	All Year		ALL
Record-Keeping Flow recordkeeping by manual logging monthly. [LAC 33:IX.2701.J.2]				ALL
Narrative				Phases
Submit Monthly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July, ar month and submit all 3 reports quarterly. Postmark not later than 1) April 28 for monitoring in the months 2) July 28th, for monitoring in the months of April, May, and June; 3) October 28th, for monitoring in the mo September; and 4) January 28th, for monitoring in the months of October, November, and December. [LA	of January, Febr. onths of July, Au	ary, and March		ALL .
There shall be no discharge of settleable solids in other than trace amounts, nor of free oll or other olly ma quantitles such as to cause toxicity to equatic organisms. [LAC 33:IX.1113.8]	aterials, nor of tox	ic materials in		ALL
Monitored at the point of discharge prior to mixing with receiving waters. [LAC 33:IX.2701.J.4]				ALL
Discharge Monitoring Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 of specified in 40 CFR 435). Place an "X" in the No Discharge box located in the upper right corner of the D event at any of the monitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (or copies) signed and certified as required by LAC 33:1X.2503.B, and all other reports (one set of originals) in Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover letter (one set of copies).	MR if there is a "Me set of originals equired by this pe Office Box 4312,	lo Discharge" and one set of mit, to the		ALL
Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls wit in like of submitting actual DMRs for these particular outfalls. Include this list in the cover letter of the DM Facility Name, LPDES General Permit Number, Al Number, and the outfall/discharge number and type of certification statement presented in Part III.D.10.d of this permit and an original signature of the designate 33:IX.2701.L.4]	h no discharges v R submittel and in discharge. Also i	will be accepted, indicate the include the		
Conduct all sampling and testing in accordance with the methods prescribed by the latest EPA approved e the Examination of Water and Wastewater.	edition of Standar	d Methods For		ALL
Make provisions during the Installation of any treatment unit for obtaining a proper sample.				
Use proper sampling techniques to ensure that analytical results are representative of pollutants in the dis	charg o .			
If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement act	lon. Including civi	penalties, and	9	

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:IX.2701.L.4]

	Master Al ID: Permit #:	101080 LAG330000
	Activity ID: PE	R 2004 0001
ubject Item: RLP 7 Outfall 006 - discharge of hydrostatic test water		
Велгепе		
Daily maximum Limits	Which Months	' Phases
Benzene <= 50 ug/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency		
Benzene monitored by grab sampling once prior to discharge (STORET 34030). Measure on discharges from pipelines, flowlines, piping, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons. If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping		
Benzene recordkeeping by lab analyses once prior to discharge. [LAC 33:IX.2701.J.2]		ALL
Benzene, Ethylbenzene, Toluene, Xylene Combination (BTEX) Daily maximum Limits	Which Months	Phases
Benzene, Ethylbenzene, Toluene, Xylene Combination (BTEX) <= 250 ug/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency		
Benzene, Ethylbenzene, Toluene, Xylene Combination (BTEX) monitored by grab sampling once prior to discharge (STORET 30383). Measure on discharges from pipelines, flowlines, piping, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons. Measure BTEX as the sum of benzene, toluene, ethylbenzene, and total xylane (including ortho-, meta-, and para-xylene) as quantified by EPA methods 601, 602, 624, or 1624. If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]	All Year	ALL
Record-Keeping Benzene, Ethylbenzene, Toluene, Xylene Combination (BTEX) recordkeeping by lab analyses once prior to discharge 33:IX.2701.J.2]	. [LAC	ALL
Carbon, total organic		
Daily maximum	Which Months	Phases
Limits		
Cerbon, total organic <= 50 mg/l. [LAC 33:IX.2701.A]	All Year	ALL
Sample type and frequency		
Carbon, total organic monitored by grab sampling once prior to discharge (STORET 00580).	All Year	ALL
Measure only on discharges from pipelines, flowlines, piping, vessels, or tanks which have previously been in service; i.e., those which are not new. If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]		

 Flow

 Which Months
 Phases

 Sample type and frequency
 Flow monitored by estimate once prior to discharge (STORET 50050). If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC
 Report Only - gailons/day
 All Year
 ALL

 Monthly average
 Sample type and frequency
 Which Months
 Phases

 Flow monitored by estimate once prior to discharge (STORET 50050). If discharge extends beyond 33:IX.2701.J
 Report Only - gailons/day
 Which Months
 Phases

 Monthly average
 Sample type and frequency
 Flow monitored by estimate once prior to discharge (STORET 50050). If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC
 Report Only - gailons/day
 All Year
 ALL

 Sample type and frequency
 Flow monitored by estimate once prior to discharge (STORET 50050). If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC
 Report Only - gailons/day
 All Year
 ALL

 33:IX.2701.J]
 Sample type and frequency
 All Year
 ALL

Record-Keeping

Page 14 of 20

â la companya de la c	Master Al ID: Permit #:	101080 LAG330000	
	Activity ID: PE		
ubject Item: RLP 7 Outfall 006 - discharge of hydrostatic test water			
Record-Keeping			
Flow recordkeeping by manual logging quarterly. [LAC 33:IX.2701.J.2]		· ALL	
Lead			
Daily maximum Limits	Which Months	Phase	
Lead <= 50 ug/l. [LAC 33:IX.2701.A]	All Year .	ALL	
Sample type and frequency			
Lead monitored by grab sampling once prior to discharge (STORET 01051). Measure on discharges from pipelines, flowlines, piping, vessels, or tarks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons. If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:1X.2701.J]	All Year	ALL	
Record-Keeping Lead recordkeeping by lab analyses once prior to discharge. [LAC 33:IX.2701.J.2]		ALL	
Oll and grease			
Daily maximum Limits	Which Months	Phase	
Oll and grease <= 15 mg/l. [LAC 33:IX.2701.A]	All Year	ALL	
Sample type and frequency Oil and grease monitored by grab sampling once prior to discharge (STORET 03582). If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]	All Year	ALL	
Monthly average	Which Months	Phase	
Oil and grease <= 15 mg/l. [LAC 33:IX.2701.A]	All Year	ALL	
Record-Keeping Oil and grease recordkeeping by lab analyses quarterly. [LAC 33:IX.2701,J.2]	к	ALL	
TSS (Total Suspended Solids)			
Daily maximum Limits	Which Months	Phase	
TSS (Total Suspended Solids) <= 90 mg/l. (LAC 33:IX.2701.A)	All Year	ALL	
Sample type and frequency	AR 20		
TSS (Total Suspended Solids) monitored by grab sampling once prior to discharge (STORET 00530). The background concentration of Total Suspended Solids (TSS) will be allowed in the discharge if the effluent is being returned to the same water source from which the intake water was obtained. In these cases, the permit limitations will be 90 mg/L plus the concentration of TSS in the	All Year	ALL	
Intake water. Report the TSS concentration of the intake water on the Discharge Monitoring Report (DMR) along with the concentration of TSS in the effluent. If discharge extends beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]			
Record-Keeping TSS (Total Suspended Solids) recordkeeping by lab analyses once prior to discharge. [LAC 33:IX.2701.J.2]		ALL	
рН			
Instantaneous maximum Limits	Which Months	Phases	
pH <= 9 s.u. [LAC 33:1X.2701.A]	All Year	ALL	
Sample type and frequency	All Year		
pH monitored by grab sampling once prior to discharge (STORET 00400). If discharge extends	AN TOUR	ALL	

Page 15 of 20

	Master Al ID:	101080
	Permit #:	LAG330000
	Activity ID: PE	R 2004 0001
Subject Item: RLP 7 Outfall 006 - discharge of hydrostatic test water	14	and the second
Sample type and frequency		*
beyond one week in duration, continue sampling on a weekly basis until the discharge ends. [LAC 33:IX.2701.J]		
Instantaneous minimum	Which Months	Phises
Limits pH >= 6 s.u. [LAC 33:IX.2701.A]	All Year	ALL
Record-Keeping		
pH recordkeeping by manual logging quarterly. [LAC 33:IX.2701.J.2]		ALL
Narrative		Phases
Telephone the regional office prior to the initial discharge from a hydrostatic testing event and provide the regional office the proposed discharge; the approximate date of the proposed discharge; the effluent pathway into the receiving waters; utilized during the hydrostatic testing; the approximate volume of water to be discharged; Information regarding whether the from new or used equipment (pipe, tank, flowline, or other container); information atting if approved additives are to be water; and any ediditional information which the regional office representative deems necessary. Facilities that conduct he at their site on a regular basis may submit the above information along with a schedule of testing to the regional office for rather than notifying the regional office of each discharge if approved by the regional office.	the fill water to be he discharge is to e used in the test ydrostatic testing	ALL
In addition, submit written results of laboratory analyses conducted in accordance with the effluent limitations in Outfall 00 office at any time prior to commencing the discharge from the hydrostatic test. The sample analysis must have been per (30) working days of the proposed commencement of discharge. If approved by the appropriate regional office, this prior laboratory analyses will not be required for discharges from new pipes, pipelines, or tanks. In such instances, conduct sa purposes of DMR submittat at the time of the discharge in accordance with the effluent limitations in Outfall 006. [LAC 33	ormed within thirty submission of mpling for the	
There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or ot nor of toxic materials in quantities such as to cause toxicity to aquatic organisms. [LAC 33:IX.1113.B]	her olly materials,	ALL
Submit Monthly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July, and October. Pre month and submit all 3 reports quarterly. Postmark not later than 1) April 28 for monitoring in the months of January, Feb 2) July 28th, for monitoring in the months of April, May, and June; 3) October 28th, for monitoring in the months of July, A September; and 4) January 28th, for monitoring in the months of October, November, and December. [LAC 33:IX.2701.L.	ruary, and March ugust and	ALL
Monitored at the point of discharge prior to mixing with other waters. [LAC 33:IX.2701.J.4]	.20	ALL
Ensure that no discharge generates a flow condition within any drainage conveyance or water body, which, either alone o stormwater runoff, represents a threat to public safety by virtue of discharge velocity. [LAC 33:IX.2701.A]	r in concert with	ALL
Do not discharge hydrostatic teat water with additives such as comosion inhibitors, bactericides, and dyes to the test water without prior approval from the Office of Environmental Services. Submit toxicity data for each additive prior to approval. 33:IX.2701.A]		ALL
Do not discharge PCBs. Proof that PCBs are not present in the pipe is required for all pipelines that have been in use for natural gas. Such proof shall consist of a statement, signed by a responsible company official, stating that the pipeline ha and found to be free of PCBs, or that compressors or other equipment that contained PCBs were never used on the pipel certification cannot be furnished, test the discharge water for PCBs prior to any discharge, in accordance with EPA methor submit the results to DEQ. Analytical concentrations lass than 1ug/L are considered "non-detects" [LAC 33:IX.2701.A]	is been tested for, ine. If such	ALL
For discharges of wastewater from the hydrostatic testing of new pipelines, flowlines, piping, vessels, or tanks, if approve eppropriate regional office, the permittee may sample and run analysis for flow, pH, TSS (Total Suspended Solids), and C the time of discharge (i.e., not prior to discharge). [LAC 33:IX.2701.A]		ALL
Discharge Monitoring Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 or an approved s specified in 40 CFR 435). Place an "X" in the No Discharge box located in the upper right corner of the DMR if there is a event at any of the monitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (one set of original copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this p Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 431: Louisiana 70821-4312, and the appropriate LDEQ regional office listed in the cover letter (one set of copies).	"No Discharge" s and one set of vermit, to the	ALL

Complete all empty blanks in the DMR for each outfall unless there has been absolutely no discharge from a particular outfall (discharge type) for the entire quarterly monitoring period being submitted. In these cases, a listing of the outfalls with no discharges will be accepted, in lieu of submitting actual DMRs for those particular outfalls. Include this list in the cover letter of the DMR submittel and indicate the Facility Name, LPDES General Permit Number, At Number, and the outfall/discharge number and type of discharge. Also include the certification statement presented in Part III.D. 10.d of this permit and an original signature of the designated responsible official. [LAC

Page 16 of 20 TPOR0128

	Master Al ID:	101080	
51	Permit #:	LAG330000	
	Activity ID: PER 2004 0001		

Subject Item: RLP 7 Outfall 006 - discharge of hydrostatic test water

Narrative 33:1X.2701.L.4]	Phases
Conduct all sampling and testing in accordance with the methods prescribed by the latest EPA approved edition of Standard Methods For the Examination of Water and Wastewater.	ALL
Make provisions during the installation of any treatment unit for obtaining a proper sample.	

Use proper sampling techniques to ensure that analytical results are representative of pollutants in the discharge.

If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:IX.2701.L.4]

•			Master Al ID: Permit #: Activity ID: PEI	10108 LAG33000 R 2004 000
Subject item: RL	P 8 Outfall 007 - miscellaneous discharges - desallnization un uncontaminated ballast and bilge water, mud/ cuttings/ ce cement slurry, bolier blowdown, non-contact cooling wate uncontaminated water.	ment at the	sea floor or mu	dline, exce
Daily maximum			Which Months	Phases
Sample type an			122022-0192	
Flow monitored manned. [LAC 3	by estimate monthly (STORET 50050). Sample when discharging and facility is 3:IX.2701.J]	galions/day	All Year	ALL
Monthly average Sample type an	A PARTICIPATION AND A PARTICIPATICATICATICATICATICATICATICATICATICATIC		Which Months	Phases
	by estimate monthly (STORET 50050). Semple when discharging and facility is	Report Only - gallons/day	All Year	ALL
Record-Keepin Flow recordkeep	g ing by manual logging monthly. [LAC 33:IX.2701.J.2]			ALL
Misc. Discharge	s, Free Oil			
Daily maximum			Which Months	Phasen
	s, Free Oil <= 0 # of days. No discharge of free oil as determined by a visual sheen water. [LAC 33:IX.2701.A] d frequency.	on the surface	All Year	ALL
Misc. Discharge	s, Free Oll monitored by visual inspection/determination daily (STORET 49498). scharging and facility is manned. [LAC 33:IX.2701.J]		All Year	ALL
	s, Free Oil recordkeeping by manual logging daily. If a sheen is detected, record the	number of days	that the sheen is	ALL
observed. [LAC Narrative				Phases
	charge of floating or settleable solids or visible foam in other than trace amounts, no in quantities such as to cause toxicity to aquatic organisms. [LAC 33:IX.1113.B]	r of free oil or oth	er oily materials,	ALL
month and submit all 2) July 28th, for month	ange Monitoring Report (DMR): Due quarterly, by the 28th of January, April, July, and 3 reports quarterly. Postmark not later than 1) April 28 for monitoring in the months toring in the months of April, May, and June; 3) October 28th, for monitoring in the minuary 28th, for monitoring in the months of October, November, and December. [LA	of January, Febr	uary, and March gust and	ALL
Monitored at the poin	t of discharge. [LAC 33:IX.2701.J.4]			ALL
	oil is prohibited as determined by a visual sheen on the surface of the receiving wa visual sheen observation is possible. Discharges may occur at any time if the opera LAC 33:IX.2701.J]			ALL
specified in 40 CFR 4 svent at any of the m coples) signed and co Department of Enviro	Report: Prepare and submit DMRs for each outfall on DMR form (EPA No. 3320-1 of 35). Place an "X" in the No Discharge box located in the upper right corner of the D onitoring outfall(s) during the reporting period. Submit duplicate copies of DMRs (or rififed as required by LAC 33:IX.2503.B, and all other reports (one set of originals) r nmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post 2, and the appropriate LDEQ regional office listed in the cover letter (one set of occident)	MR If there is a ne set of originals equired by this po Office Box 4312	No Discharge" and one set of armit, to the	ALL
ype) for the entire qu n lieu of submitting a facility Name, LPDE	anks in the DMR for each outfall unless there has been absolutely no discharge from arterly monitoring period being submitted. In these cases, a listing of the outfalls wit clual DMRs for these particular outfalls. Include this list in the cover latter of the DM 3 General Permit Number, Al Number, and the outfall/discharge number and type of t presented in Part III.D.10.d of this permit and an original signature of the designate	h no discharges R submittal and discharge. Also	will be accepted, indicate the include the	
	and testing in accordance with the methods prescribed by the latest EPA approved ater and Wastewater.	edition of Standa	rd Melhods For	ALL
	g the installation of any treatment unit for obtaining a proper sample.			

Use proper sampling techniques to ensure that analytical results are representative of pollulants in the discharge.

Page 18 of 20

TPOR0128

		Master AI ID:	101080
- 9.1		Permit #:	LAG330000
		Activity ID: PE	R 2004 0001

 Subject Item:
 RLP 8
 Outfall 007 - miscellaneous discharges - desalinization unit discharge, blowout preventer fluid, uncontaminated ballast and bilge water, mud/ cuttings/ cement at the sea floor or mudline, excess cement slurry, boiler blowdown, non-contact cooling water, diatomaceous earth filter media, and uncontaminated water.

 Narrative
 Phases

It a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit. [LAC 33:1X.2701.L.4]

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Discharges of excess cament slurry are only allowed to the Mississippi River below Venice, Atchafataya River below Morgan City, Wax Lake Outlet, and to waterbodies and adjacent wetlands in brackish or saline marsh areas. Do not discharge formation test fluids to takes, rivers, streams, freshwater wetlands, or intermediate wetlands. Discharge is also prohibited to wildlife refuges, game preserves, scenic streams, or other specifically protected takes or waterbodies. [LAC 33:IX.2705.A]

ALL

Subject item: AI 101080

Narrative	Phases
Unpermitted discharge of waste all, produced water, drilling fluids, drill cuttings, or other wastes, or any uncontrolled discharges of wastewater, including stormwater runoff, from exploration and production sites is prohibited. [LAC 33:IX.708.C.1.a]	ALL
Prepare and implement a Spill Prevention and Control Plan in accordance with the provisions specified in LAC 33:IX.901-907. Establish in the plan a program for regular inspection of all storage tanks, separators, and related production and transfer equipment. Include provisions for, at a minimum, annual monitoring of flow line integrity through a combination of visual inspection and pressure testing or through the use of an approved alternate methodology. Maintain inspection and test records for a minimum of three years. Establish in the plan provisions for ready access to, and rapid deployment of, containment booms and ancillary spill containment and cleanup equipment. [LAC 33:IX.708.C.1.b]	ALL
Equip all workover and drilling barges, and production facilities, with pollution containment devices that under normal operating conditions prevent unauthorized discharges. [LAC 33:IX.708.C.1.b.l]	ALL
Install all storage tanks, separators, and related production and transfer equipment to be located in open water or wetland areas, where building dikes is impossible or impracticable, on Impervious decking provided with a system of curbs, gutters, and/or sumps capable of retaining spills of oll, produced water, or any other product or waste material, [LAC 33:tX.708.C.1,b.li]	ALL
Equip all drains from diked areas with valves that are kept in the closed position except during periods of supervised discharge. [LAC 33:IX.708.C.1.b.lii]	ALL
Immediately clean up and dispose of all spilled oil and other spilled wasts according to all applicable regulations. In the event that immediate cleanup is not considered to be an appropriate remedial measure, notify the Office of Environmental Compliance, Surveillance Division of the alternative remedial plan and promptly implement said plan upon approval by the Office of Environmental Compliance, Surveillance Division. [LAC 33:IX.708.C.1.b./v]	ALL
Do not use detergents, emulsifiers, or dispersants to clean up spilled oil unless the use has been specifically approved by the WPCD or is necessary to maintain a safe work environment (i.e., minimization of the potential for personnel injury due to slipping hazards). In all such cases, perform initial cleanup using physical removal. Do not employ detergents, emulsifiers, or dispersants to sink, obscure, or camouflage spilled materials or to in any way hinder observation of a spill event. [LAC 33:IX.708.C.1.b.v]	ALL
Maintain at least two feet of freeboard in all earthen pits at any time. Conduct any discharge of wastewater from earthen pits directed to waters of the state in accordance with the provisions of a valid Louisiana Water Discharge Permit System (LWDPS) permit. [LAC 33:IX.708.C.1.b.vi]	ALL
Maintain documentation detailing the nature and volume of all constituents added downhole in conjunction with drilling and workover operations. Make this documentation available for inspection on site during drilling and workover operations and thereafter in accordance with the provisions of LAC 33:IX.311.J.7. [LAC 33:IX.708.C.3.h]	ALL
Do not discharge free oil or other oily materials from any facility as evidenced by a visible sheen or residual oil deposits or stains in the drainage area downstream of the discharge point, [LAC 33:IX.708.C.4.c]	ALL
The treatment and discharge of water from off-site oil field waste disposal plts or pits containing waste other than nonhazardous oil field wastes are prohibited. [LAC 33:IX.708.C.5]	ALL
Report violations of daily maximum limitations for the pollutants listed in Other Conditions orally to the Office of Environmental Compliance within 24 hours from the time you became aware of the violation followed by a written report in five days, under the provisions of General Conditions Part D.6.e. (3) of this permit. [LAC 33:IX.2701]	ALL
If the flow measurement sample type indicated is specified as "estimate," flow measurements shall not be subject to the accuracy provisions established in this permit. The daily flow value may be estimated using best engineering judgment. [LAC 33:1X.2701]	ALL
Obtain prior approval from the Office of Environmental Services for any new proposed discharges at the site. [LAC 33:IX.2701]	ALL
Prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) as required in Part II, Section M of this permit within sixty (60) calendar days, should a Reportable Quantity (RQ) release in stormwater as defined in 40 CFR 110 occur at the permitted production facility or independent well. During this interim period while the SWPPP is being prepared and implemented, take all appropriate measures to limit the discharge of pollutants in the facility's storm water. [LAC 33:IX.2701]	ALL
Discharges of washwater from equipment involved in the disposal of hazardous (RCRA non-exempt) oil field waste are prohibited. [LAC 33:IX.2701]	ALL
Best Management Practices (BMP) - Washdown Waste Waters: Conduct all washing either without scaps and detergents or with blodegradable sceps used in minimal amounts. The use of non- biodegradable or emulsifying scaps and detergents, cleaners containing potentially hazardous chemicals, and solverits is prohibited; If the washing activity takes place on an impermeable surface (such as concrete or asphalt paving), sweep the area where the washing operation is to be conducted and the subsequent drainage path clean of dirt and other dry substances immediately prior to commencing the washing operation:	ALL

Pick up any splits, drips of flukds, or other contamination to the washing area and the subsequent drainage area by dry means prior to the beginning of the washing operation. [LAC 33:IX.2705]

Page 20 of 20

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PART II OTHER CONDITIONS

The Permittee must comply with all applicable provisions of the Louisiana Water Quality Regulations including all of the standard conditions found in LAC 33:IX.2701. This Office has established the following definitions and requirements in accordance with those regulations. The definition of other terms may be found in the Louisiana Water Quality Regulations (LAC 33:IX.2313).

SECTION A. DEFINITIONS

- <u>Activity</u>: any conduct, operation or process which causes or may cause the discharge of pollutants into the waters of the state.
- <u>Administrative Authority</u>: the secretary of the Department of Environmental Quality or his designee or the appropriate assistant secretary or his designee.
- <u>Ballast Water</u>: uncontaminated surface water used to maintain proper draft or to stabilize drilling or workover vessels.
- <u>Batch or Bulk Discharge</u>: any discharge of a discrete volume or mass of effluent from a pit, tank, or similar container that occurs on a one time or infrequent or irregular basis
- 5. Bilge Water: water that accumulates in the bilge area of drilling or workover vessels.
- 6. <u>Biochemical Oxygen Demand (BOD)</u>: means the amount of oxygen required by bacteria during the decay of organic and nitrogenous materials.
- 7. <u>Blowout Preventer Control Fluid</u>: fluid used to actuate the hydraulic equipment on the blowout preventer.
- 8. <u>BOD</u>₅: the five day biochemical oxygen demand.
- Boiler Blowdown: discharge from boilers necessary to minimize solids build-up in the boilers, including vents from boilers and other heating systems.
- 10. <u>Brackish Marshes</u>: those areas that are inundated or saturated by surface water or groundwater of moderate salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, emergent vegetation characterized by a prevalence of species typically adapted for life in these soil and contiguous surface water conditions. Typical vegetation includes wiregrass (Spartina patens), three-cornered grass (Scirpus olneyi), coco (Scipus robustus), and widgeon grass (Ruppia maritime). Interstitial water salinity normally ranges between seven and 15 parts per thousand.
- 11. <u>Cement</u>: Portland cement, either dry or in slurry form, including additives. Additives include such materials as accelerators (e.g., calcium chloride), retarders (e.g., lignosulfonates), weighting materials (e.g., barium sulfate), extenders (e.g., bentonite), and lost circulation materials (e.g., walnut shells).

PART II LAG330000 Page 2 of 13

- 12. <u>Clinkers</u>: small lumps of melted plastic.
- 13. Coastal: defined in 40 CFR 435.40.
- 14. <u>COD</u>: chemical oxygen demand.
- <u>Commingled Discharges</u>: waste streams that are mixed prior to final discharge and can not be sampled separately as internal outfalls.
- 16. <u>Completion Fluids</u>: salt solutions, weighted brines, polymers or various additives used to prevent damage to the well bore during operations which prepare the drilled well for hydrocarbon production. These fluids move into the formation and return to the surface as a slug with the produced water. Drilling muds remaining in the well bore during logging, casing, and cementing operations or during temporary abandonment of the well are not considered completion fluids and are regulated by drilling fluids requirements.
- 17. <u>Deck Drainage</u>: all waste resulting from platform washings, deck washings, spills, rainwater, and runoff from curbs, gutters, and drains, including drip pans and wash areas.
- 18. <u>Desalinization unit discharge</u>: wastewater associated with the process of creating fresh water from salt water.
- <u>Development facility</u>: any fixed or mobile structure subject to this permit that is engaged in the drilling of productive wells.
- 20. <u>Diatomaceous Earth Filter Media</u>: Filter media used to filter seawater or other authorized completion fluids and subsequently washed from the filter.
- <u>Domestic Waste</u>: materials discharged from sinks, showers, laundries, safety showers, eyewash stations, handwash stations, fish cleaning stations, and galleys.
- 22. Drill Cuttings: particles generated by drilling into subsurface geological formations.
- 23. <u>Drilling Fluids</u>: any fluid sent down the hole, including drilling muds and any specialty products, from the time a well is begun until final cessation of drilling in that hole.
- 24. <u>Drilling Mud</u>: a heavy suspension used in drilling a well, introduced down the drill pipe and through the drill bit.
- <u>Effluent Limitation</u>: any applicable state or federal quality or quantity limitation that imposes any restriction or prohibition on quantities, discharge rates, and concentrations of pollutants discharged into the waters of the State.
- <u>Excess Cement Slurry</u>: the excess cement including additives and wastes from equipment washdown after a cementing operation.

PART II LAG330000 Page 3 of 13

- 27. <u>Exploratory facility</u>: any fixed or mobile structure subject to this permit that is engaged in the drilling of wells to determine the nature of potential hydrocarbon reservoirs.
- 28. <u>Facility</u>: means a pollution source, or any public or private property or site and all contiguous land and structures, other appurtenances and improvements, where any activity is conducted which discharges or may result in the discharge of pollutants into waters of the State.
- <u>Fecal Coliform</u>: means a gram negative, non-spore forming, rod-shaped bacteria found in the intestinal tract of warm-blooded animals.
- 30. <u>Formation Test Fluids</u>: the discharge that would occur if hydrocarbons are located during exploratory drilling and tested for formation pressure and content.
- 31. <u>Free Oil</u>: oil that causes a sheen when discharges are released or when a static sheen test is used.
- 32. <u>Freshwater Swamps and Marshes</u>: those areas that are inundated or saturated by surface water or groundwater of negligible to very low salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, emergent vegetation characterized by a prevalence of species typically adapted for life in these soil and contiguous surface water conditions. Typical vegetation includes maiden cane (<u>Panicum hemitomon</u>), Hydrocotyl sp., water hyacinth (*Eichhornia crassipes*), pickerelweed (*Pontederia cordata*), alligatorweed (*Alternanthera philoxeroides*), and bulltongue (Sagittaria sp.). Interstitial water salinity is normally less than two parts per thousand.
- 33. <u>Garbage</u>: all kinds of victual, domestic, and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of coastal oil and gas facility and liable to be disposed of continuously or periodically, except dishwater, graywater, and those substances that are defined or listed in other Annexes to MARPOL 73/78.
- 34. <u>Graywater</u>: drainage from dishwater, shower, laundry, bath, and wash basin drains and does not include drainage from toilets, urinals, hospitals, and drainage from cargo areas.
- 35. <u>Hydrostatic Test</u>: is a leakage determination test that is conducted on a hollow object or piece of equipment by filling the tested item with water and subjecting it to pressure.
- 36. Hydrostatic Test Wastewater: water that has been used to conduct a hydrostatic test.
- 37. <u>Intermediate Marshes</u>: those areas that are inundated or saturated by surface water or groundwater of low salinity at a frequency and duration sufficient to support, and that under normal circumstances do support, emergent vegetation characterized by a prevalence of species typically adapted for life in these soil and contiguous surface water conditions. Typical vegetation includes wiregrass (*Spartina patens*), deer pea (*Vigna repens*), bulltongue (*Sagittaria sp.*), wild millet (*Echinochloa walteri*), bullwhip (*Scirpus californicus*), and sawgrass (*Cladium jamaicense*). Interstitial water salinity normally ranges between three and six parts per thousand.

PART II LAG330000 Page 4 of 13

- <u>Major Facility</u>: any LPDES facility or activity classified as such by the EPA regional administrator, or, in the case of approved state programs, the EPA regional administrator in conjunction with the state administrative authority.
- <u>Muds, Cuttings, and Cement at the Cement Floor</u>: discharges which occur at the sea floor prior to installation of the marine riser and during marine riser disconnect and well abandonment and plugging operations.
- <u>Non-contact Cooling Water</u>: means that water used for the purpose of heat removal and which does not come in contact with any raw materials, intermediate or finished products, or any spilled materials in conveyances.
- 41. <u>Office</u>: means the Office of Environmental Services within the Department of Environmental Quality.
- 42. <u>Pollutant</u>: any substance introduced into the waters of the State by any means that would tend to degrade the chemical, physical, biological, or radiological integrity of the environment.
- <u>Pollution Source</u>: the immediate site or location of a discharge or potential discharge, including such surrounding property as is necessary to secure or quarantine the area from access by the general public.
- 44. Produced Sand: sand and other solids removed from produced water, oil, or gas.
- 45. <u>Produced Water</u>: liquid and suspended particulate waste material generated by the processing of fluids brought to the surface in conjunction with recovery of oil or natural gas from underground geological formations or with underground storage of hydrocarbons.
- 46. <u>Production Facility</u>: any fixed or mobile structure that is either engaged in well completion or used for active recovery of hydrocarbons from producing formations. It includes facilities that are engaged in hydrocarbon fluids separation even if located separately from wellheads.
- 47. <u>Reportable Quantity (RQ) Release</u>: as defined at 40 CFR Part 110, "the amount of oil that violates applicable water quality standards or causes a film or sheen upon or a discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines."
- 48. <u>Saline Marshes</u>: those wetland areas that are inundated or saturated by surface water or groundwater of salinity characteristic of near Gulf of Mexico ambient water at a frequency and duration sufficient to support, and that under normal circumstances do support, emergent vegetation characterized by a prevalence of species typically adapted for life in these soil and contiguous surface water conditions. Typical vegetation includes oystergrass (*Spartina alterniflora*), glasswort (*Salicornia sp.*), black rush (*Juncus roemerianus*), Batis maritime, black mangrove (*Avicennia nitida*), and saltgrass (*Distichlis spicata*). Interstitial water salinity normally exceeds 16 parts per thousand.
- 49. <u>Sanitary Wastewater</u>: the human body waste discharged from toilets and urinals located within facilities subject to this permit.
- 50. <u>Source Water and Sand</u>: water, including the entrained solids, from non-hydrocarbon bearing formations used for the purpose of pressure maintenance or secondary recovery.

PART II LAG330000 Page 5 of 13

- 51. <u>Storm Water Runoff</u>: aqueous surface runoff including any soluble or suspended material mobilized by naturally occurring precipitation events.
- 52. Storm Water Discharge Associated with Industrial Activity: defined at LAC 33:IX. 2511.B.14.
- 53. Static Sheen: defined in the static sheen test in Appendix 1 to 40 CFR 435, Subpart A.
- 54. <u>Territorial Seas</u>: the belt of the seas measured from the line of ordinary low water along that portion of the coast in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles (as defined at 33 U.S.C. 1362.8).
- 55. <u>Total Suspended Solids (TSS)</u>: the amount of solid material suspended in water commonly expressed as a concentration in terms of mg/L.
- 56. <u>Unauthorized Discharge</u>: a continuous, intermittent or one-time discharge, whether intentional, anticipated, or unanticipated, from any source, permitted or unpermitted, which is in contravention of any provision of the Act or of any permit terms and conditions, or of any applicable regulation, compliance schedule, variance or exception of the administrative authority.
- 57. <u>Uncontaminated Water</u>: freshwater or saltwater that is returned to the receiving water without the addition of any chemicals. Included are (1) discharges of excess water that permit the continuous operation of fire control and utility lift pumps, (2) excess water from pressure maintenance and secondary recovery projects, (3) water released during the training and testing of personnel in fire protection, (4) once-through, non-contact cooling water, (5) potable water released during transfer and tank emptying operations, (6) condensate from air conditioning units, (7) seawater cooling overboard discharge, (8) chain locker effluent, and (9) fire main system discharge.
- 58. <u>Utility Wash Water</u>: Wash water, excluding internal and external vehicle wash water. This wastewater may include wash water from the washing of uncontaminated tanks or vessels, items at a rental store, warehouse floors, etc. with or without soaps and/or detergents.
- <u>Visible Sheen</u>: a "silvery" or "metallic" sheen, gloss, or increased reflectivity, visual color, or iridescence.
- 60. <u>Waters of the State</u>: means all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending there from three miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as "waters of the United States" in 40 CFR 122.2 and tributaries of all such waters. "Waters of the state" does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.
- 61. <u>Well Treatment Fluid</u>: fluids used to restore or improve productivity by chemically or physically altering hydrocarbon bearing strata after a well has been drilled. These fluids include substances such as acids, solvents, and propping agents.

PART II LAG330000 Page 6 of 13

62. <u>Workover Fluid</u>: salt solutions, sometimes containing specialty additives, which are used in a producing well to allow safe repair and maintenance procedures. High solids drilling fluids used during workover operations are not considered workover fluids by definition and therefore must meet drilling fluid effluent limitations before discharge may occur. Packer fluids, low solid fluids between the packer, production string and well casing, are considered to be workover fluids.

SECTION B. COMPLIANCE SCHEDULE

The permittee shall be in compliance with the effluent limitations and monitoring requirements specified herein on the date of authorization of coverage under this general permit. If a discharge is found to be in violation of specified limits, the permittee will be subject to enforcement action, including civil penalties, and may be required to obtain an individual permit.

SECTION C. OTHER DISCHARGES

This permit does not in any way authorize the permittee to discharge a pollutant not authorized in the permit.

SECTION D. COVERAGE UNDER SUBSEQUENT PERMITS

Should this permit expire before it is reissued, this Office will administratively extend the authorization to discharge until such time that a new permit is issued. Current permit holders will be notified of the instructions for obtaining coverage under the reissued permit.

SECTION E. TERMINATION OF AUTHORIZATION TO DISCHARGE

This Office reserves the right to revoke the authorization to discharge in accordance with this general permit as it applies to any person and/or require such person to apply for and obtain an individual permit if:

- the covered source or activity is a significant contributor to pollution or creates other environmental problems;
- the permittee is not in compliance with the terms and conditions of this general permit;
- conditions or standards have changed so that the source or activity no longer qualifies for this general permit, or
- 4. the discharge limitations contained in this permit are not in accordance with the Water Quality Management Plan.

SECTION F. STATE WATER QUALITY STANDARDS

LAC 33:IX.1113 describes numerical and general criteria that apply to all water bodies of the State. Criteria are elements of the water quality which set limitations on the permissible amounts of a substance or other characteristics of state waters. The General Criteria, as described in the Louisiana Administrative Code, limit discharges to maintain aesthetics, color, turbidity, the biologic and aquatic community integrity, and many other elements in the receiving water body. Any noncompliance with the General or Numerical Criteria is not authorized under this permit.

PART II LAG330000 Page 7 of 13

To comply with the requirements of LAC 33:IX.2317.A.9, this permit does not authorize any discharge from a facility which is classed as a new source or new discharge, as defined at LAC 33:IX.2313, if the discharge will cause or contribute to the violation of water quality standards. Discharges from facilities permitted under LPDES general permits typically consist of low volume flows, and discharges that are intermittent in nature. This general permit is applicable to very specific types of facilities and allows very limited types of discharges that specifically occur at facilities that are eligible for coverage under this permit. The effluent limitations and other conditions are determined to be sufficient to assure protection to state waters. New source discharges or new discharges of wastewater from a facility whose discharges are in compliance with the general permit requirements should not adversely impact water quality of 303(d) listed impaired water bodies nor should they cause or contribute to the violation of state water quality standards in receiving water bodies throughout the state, including 303(d) impaired water bodies. Allowing permit coverage under this general permit will not negatively impact the water quality of receiving streams because permitted facilities are required to be in compliance with the general permit requirements immediately upon coverage by the permit. In accordance with Part II,K and II,V,1 measures can be taken by the permitting authority to prohibit any discharge that is not protective of state water quality standards.

SECTION G. COMBINED OUTFALLS

If different wastewater types that are subject to separate effluent limitations and monitoring requirements are to be discharged from a single outfall point, then that outfall shall be subject to all the effluent limitations and monitoring requirements which apply to each of the different wastewater types. If an effluent limitation is listed for more than one type of wastewater discharge, then the more stringent numerical effluent limitation for that parameter must be met.

SECTION H. PROPERTY RIGHTS

Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.

SECTION I. REMOVED SUBSTANCES

Solids, sludges, biosolids, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be properly disposed of in compliance with applicable state laws, regulations, and permit requirements, and in a manner such as to prevent any pollutant from such materials from entering the waters of the state. The permittee may need to contact the Municipal and Commercial Waste Unit of the Office of Environmental Services for information on regulations and permits to dispose of this material.

SECTION J. SANITARY DISCHARGE

Future water quality studies may indicate potential toxicity from the presence of residual chlorine in the treatment facility's effluent. Therefore, the permittee is hereby advised that a future Total Residual Chlorine Limit may be required if chlorine is used as a method of disinfection. In many cases, this becomes a <u>NO MEASURABLE</u> Total Residual Chlorine Limit. If such a limit were imposed, the permittee would be required to provide for dechlorination of the effluent prior to discharge. Please be aware, concentrations of Total Residual Chlorine above 0.01 mg/L can cause or contribute to significant toxicity in receiving streams and biomonitoring testing. It is the permittee's responsibility to assure that no Total Residual Chlorine remains in the effluent after dechlorination in order to prevent toxicity in the receiving stream.

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain water quality integrity and the designated uses of the receiving water bodies based upon water quality studies. These studies may indicate the need for more advanced wastewater treatment. Studies of similar discharges and receiving water bodies have resulted in monthly average effluent limitations of 5 mg/L CBOD₅ and 2 mg/L NH₃-N. Therefore, prior to upgrading or expanding any permitted sewage treatment method at the facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

SECTION K. PERMIT REOPENER CLAUSE

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2907, and 6509. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. This Office reserves the right to reopen and modify this permit to conform to those standards necessary to maintain the water quality in order to support uses of the receiving water bodies.

SECTION L. MINIMUM QUANTIFICATION LEVEL (MQL)

If any individual analytical test result is less than the minimum quantification level listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting.

METALS	MQL ($\mu g/L$)
Lead (Total)	5
Chromium (Total)	10
Chromium (3+)	10
Chromium (6+)	10
Zinc (Total)	20
VOLATILE COMPOUNDS	MQL (µg/L)
Benzene	10
Ethylbenzene	10
Toluene	10
Xylene	10

PART II LAG330000 Page 9 of 13

SECTION M.STORMWATER DISCHARGES

- * This section only applies to those facilities that have had a Reportable Quantity (RQ) release of oil or a hazardous substance in stormwater as defined in 40 CFR 110.
- This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The purpose of the pollution prevention plan is to identify potential sources of pollution that would reasonably be expected to affect the quality of stormwater and identify the practices that will be used to prevent or reduce the pollutants in stormwater discharges.
- 2. In accordance with LAC 33:1X.708.C.4, any runoff leaving the developed areas of the facility, other than the permitted outfall(s), exceeding 100 mg/L COD, 50 mg/L TOC, 15 mg/L Oil and Grease, having a pH less than 6.0 or greater than 9.0 standard units, a chlorine concentration two times the ambient concentration of the receiving water in brackish marsh areas, or a chlorine concentration of 500 mg/L in freshwater or intermediate marsh areas and upland areas shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit. A visual inspection of the facility shall be conducted and a report made annually as described in Paragraph 4 below.
- 3. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within 60 calendar days after the first knowledge of a discharge of a reportable quantity of oil or a hazardous substance in stormwater. The terms and conditions of the SWP3 shall be an enforceable Part of the permit. If the permittee maintains other plans that contain duplicative information, that plan could be incorporated by reference into the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasure Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. EPA document 833-R-92-006 (Storm Water Management for Industrial Activities) may be used as a guidance and may be obtained by writing to the Water Resource Center (RC_4100), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington D.C. 20460 or by calling (202) 566-1729 or via the Wetlands Helpline (800) 832-7828.
- The following conditions are applicable to all facilities and shall be included in the SWP3 for the facility.
 - a. The permittee shall conduct an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed.
 - b. The permittee shall develop a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3. The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff.

PART II LAG330000 Page 10 of 13

- c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
- d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3, and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspector(s), conditions found, and changes to be made to the SWP3.
- e. The summary report and the following certification shall be signed in accordance with LAC 33:IX.2503. The summary report is to be attached to the SWP3 and provided to the Department upon request.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signatory requirements for the certification may be found in Part III, Section D.10 of this permit.

- f. The permittee shall make available to the Department, upon request, a copy of the SWP3 and any supporting documentation.
- 5. The following shall be included in the SWP3, if applicable.
 - a. The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:
 - maintaining adequate roads and driveway surfaces;
 - ii. removing debris and accumulated solids from the drainage system; and
 - iii. cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.
 - b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.

PART II LAG330000 Page 11 of 13

- d. All waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.
- e. All storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.
- f. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All drains from diked areas shall be equipped with valves which shall be kept in the closed condition except during periods of supervised discharge.
- g. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.
- h. The permittee shall assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (L.R.S. 30:2151, etc.). Management practices required under above regulations shall be referenced in the SWP3.
- i. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
- j. If the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

SECTION N. REQUIRING AN INDIVIDUAL PERMIT OR AN ALTERNATIVE GENERAL PERMIT

1. The State Administrative Authority may require any person authorized by this permit to apply for and/or obtain either an individual LPDES permit or an alternative LPDES general permit. Any interested person may petition the State Administrative Authority to take action under this paragraph. Where the State Administrative Authority requires a discharger authorized to discharge under this permit to apply for an individual LPDES permit, the State Administrative Authority shall notify the discharger in writing that a permit application or alternative general permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of issuance or denial of the individual LPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. The State Administrative Authority may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an application as

PART II LAG330000 Page 12 of 13

required by the State Administrative Authority under this paragraph, then the applicability of this permit to the permittee is automatically terminated at the end of the day specified by the State Administrative Authority for application submittal.

2. Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of LAC 33:IX.2515.B.3.c., with reasons supporting the request, to the State Administrative Authority at the Louisiana Department of Environmental Quality, Office of Environmental Services, P. O. Box 4313, Baton Rouge, LA 70821-4313, ATTN: Water and Waste Permits Division. The request may be granted by issuance of an individual permit or an alternative general permit if the reasons cited by the permittee are adequate to support the request.

3. In order to appropriately cover all discharges that might occur at a facility, a permittee authorized to discharge under this LPDES permit might also need coverage under an individual LPDES permit or other LPDES general permits for discharge that occur at the facility/site that are not authorized by this general permit. The permittee shall maintain appropriate permit coverage for the permitted facility/site and shall maintain compliance with all effective LPDES permits issued to the facility/site.

4. When an individual LPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative LPDES general permit, the applicability of this permit to that LPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual LPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied for coverage under an alternative LPDES general permit, the applicability of this permit to the individual LPDES permit general permit, the applicability of this permit to the individual LPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the State Administrative Authority.

SECTION O. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

Pollutants: Benzene, Total BTEX, Total Chromium, Lead, and Zinc

PART II LAG330000 Page 13 of 13

SECTION P. DMR SUBMITTAL

In accordance with LAC 33:IX.2503.B, DMR's must be signed and certified by an authorized person. Discharge Monitoring Reports shall be submitted to the Enforcement Division of the Office of Environmental Compliance, and the appropriate regional office at the following addresses:

Enforcement Division Office of Environmental Compliance Department of Environmental Quality Post Office Box 4312 Baton Rouge, Louisiana 70821-4312

Mailing Addresses for Regional Offices

Acadiana Regional Office Surveillance Division Office of Environmental Compliance 111 New Center Drive Lafayette, Louisiana 70508 (337) 262-5584

Bayou Lafourche Regional Office Surveillance Division Office of Environmental Compliance 110 Barataria Street Lockport, LA 70374 (985) 532-6206

Capital Regional Office Surveillance Division Office of Environmental Compliance Post Office Box 4312 Baton Rouge, Louisiana 70821 (225) 219-3600

Northeast Regional Office Surveillance Division Office of Environmental Compliance 1823 Highway 546 West Monroe, Louisiana 71292 (318) 362-5439 Northwest Regional Office Surveillance Division Office of Environmental Compliance 1525 Fairfield Avenue, Room 520 Shreveport, Louisiana 71130 (318) 676-7476

Southeast Regional Office Surveillance Division Office of Environmental Compliance 201 Evans Rd, Bldg 4, Suite 420 New Orleans, Louisiana 70123-5230 (504) 736-7701

Southwest Regional Office Surveillance Division Office of Environmental Compliance 1301 Gadwall Street Lake Charles, Louisiana 70615-5176 (337) 491-2667

PART III STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction

In accordance with the provisions of LAC 33:IX.2701, et. seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and relssuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions

- a. LA. R. S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. LA. R. S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details).
- b. Any person may be assessed an administrative penalty by the State Administrative Authority under LA. R. S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants

a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply

- a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.
- b. General Permits. General permits expire five years after the effective date. Unless otherwise specified in the general permit, or notified by the Secretary or his designee, a permittee must submit an NOI/application for the permitted activity.

6. Permit Action

This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105 and 6509. The causes may include, but are not limited to, the following:

- a. Noncompliance by the permittee with any condition of the permit;
- b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant acts, or the permittee's misrepresentation of any relevant facts at any time;
- c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;
- A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge; or
- e. Failure to pay applicable fees under the provisions of LAC 33: IX. Chapter 13;
- f. Change of ownership or operational control;

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

8. Duty to Provide Information

The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to La. R.S. 30:2025.

10. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Severability

If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution

A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

SECTION B. PROPER OPERATION AND MAINTENANCE

1. Need to Halt or Reduce not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and other functions necessary to ensure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities

- a. Bypass. The intentional diversion of waste streams from any portion of a treatment facility.
- b. <u>Bypass not exceeding limitations</u>. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and 4.d of these standard conditions.
- c. Notice
 - <u>Anticipated bypass</u>. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water and Waste Permits Division, if possible at least ten days before the date of the bypass.
 - (2) <u>Unanticipated bypass</u>. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6, (24-hour notice) and Section D.6.e. of these standard conditions.
- d. Prohibition of bypass
 - (1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

Page 4 of 17

- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
- (c) The permittee submitted notices as required by Section B.4.c of these standard conditions.
- (2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions

- a. <u>Upset</u>. An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. <u>Effect of an upset</u>. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. <u>Conditions necessary for a demonstration of upset</u>. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated; and
 - (3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii. and Section D.6.e.(2) of these standard conditions; and
 - (4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.
- d. <u>Burden of proof</u>. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances

Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal

For publicly owned treatment works, the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3. and B.3.

REVISED 6/6/05	Page 5 of 17
SECTION C. MONITORING AND RECORDS	

1. Inspection and Entry

The permittee shall allow the state administrative authority, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than thirty (30) minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of thirty (30) minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the Administrative Authority determines that the circumstances warrant such action; and

- b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;
- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.
- e. Sample Collection
 - (1) When the inspector announces that samples will be collected, the permittee will be given an additional thirty (30) minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.
 - (2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a. above) and the inspector shall supply the permittee with a duplicate sample.
- f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b. of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.
- g. Upon written request copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

2. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) will be subject to modification, revocation and reissuance in accordance with LAC 33:IX.2903.

3. Retention of Records

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

4. Record Contents

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were begun and ended
- e. The individual(s) who performed the analyses;
- f. The analytical techniques or methods used;
- g. The results of such analyses; and
- h. The results of all quality control procedures.

5. Monitoring Procedures

- a. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use or disposal, approved under 40 CFR part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR part 503, unless other test procedures have been specified in this permit. This includes procedures contained in the latest EPA approved edition of the following publications:
 - "Standard Methods for the Examination of Water and Waste Water". This publication is available from the American Public Health Association, Publication Sales, P. Q. Box 753, Waldorf, MD 20604-0573, Phone number (301) 893-1894, Fax number (301) 843-0159.
 - (2) "Annual Book of Standards, Vols 1101-1103, Water I, Water II, and Atmospheric Analysis". This publication is available from the American Society for Testing Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, Phone number (610) 832-9500.
 - (3) "Methods for Chemical Analysis of Water and Wastes, Revised, March 1983," U.S. Environmental Protection Agency, Analytical Quality Control Laboratory, Cincinnati, Ohio. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-84-128677.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory. General sampling protocol shall follow guidelines established in the "Handbook for Sampling and Sample Preservation of Water and Wastewater, 1982" U.S. Environmental Protection Agency. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS

Page 7 of 17

publication number PB-83-124503. General laboratory procedures including glassware cleaning, etc. can be found in the "Handbook for Analytical Quality Control in Water and Wastewater Laboratories, 1979," U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory. This publication is available from the Environmental Protection Agency, Phone number (513) 569-7562. Order by EPA publication number EPA-600/4-79-019.

6. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to Insure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

- a. "A Guide to Methods and Standards for the Measurement of Water Flow, 1975," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number COM-75-10683.
- b. "Flow Measurement in Open Channels and Closed Conduits, Volumes 1 and 2," U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-273 535.
- c. "NPDES Compliance Flow Measurement Manual," U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, Phone number (800) 553-6847. Order by NTIS publication number PB-82-131178.

7. Prohibition for Tampering: Penalties

- a. LA R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.
- b. LA R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non compliance.
- 8. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (See LAC 33:IX.4901) or, in the case of sludge use and disposal, approved under 40 CFR part 136 (See LAC 33:IX.4901) unless otherwise specified in 40 CFR part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation

- a. LAC 33:I.Subpart 3, Chapters 45-59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:
 - (1) Submitted on behalf of any facility, as defined in R.S.30:2004;
 - (2) Required as part of any permit application;

- (3) Required by order of the department;
- Required to be included on any monitoring reports submitted to the department;
- (5) Required to be submitted by contractor
- (6) Otherwise required by department regulations.
- b. The department laboratory accreditation program is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not accredited under these regulations will not be accepted by the department. Retesting of analysis will be required by an accredited commercial laboratory.

Where retesting of effluent is not possible (i.e. data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

c. Regulations on the Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation, are available on the department website located at:

http://www.deg.state.la.us/laboratory/index.htm.

Questions concerning the program may be directed to (225) 765-0582.

SECTION D. REPORTING REQUIREMENTS

1. Facility Changes

The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under LAC 33:IX.2703.A.1.
- c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301, or 306 of the CWA if it were directly discharging those pollutants; and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. Anticipated Noncompliance

The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

a. Transfers by modification. Except as provided in LAC 33: IX.2901.B, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under LAC 33:IX.2903. A.2.b), or a minor modification made (under LAC 33:IX.2905) to identify the

Page 9 of 17

new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.

- b. Automatic transfers. As an alternative to transfers under LAC 33:IX.2901.A, any LPDES permit may be automatically transferred to a new permittee If:
 - The current permittee notifies the state administrative authority at least 30 days in advance of the proposed transfer date in Section D.3.b.(2) below;
 - (2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them;
 - (3) The state administrative authority does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subsection may also be a minor modification under LAC 33:IX.2905. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Section D.3.b.(2) of these standard conditions.

4. Monitoring Reports

Monitoring results shall be reported at the intervals and in the form specified in Part I or Part II of this permit.

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) on the form specified in the permit. Preprinted DMRs are provided to majors/92-500's and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to:

Supervisor, Permit Compliance Unit Office of Environmental Compliance Post Office Box 4312 Baton Rouge, LA 70821-4312

Copies of blank DMR templates, plus instructions for completing them, and EPA's LPDES Reporting Handbook are available at the department website located at:

http://www.deg.state.la.us/enforcement/index.htm

5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

6. Requirements for Notification

a. Emergency Notification

As required by LAC 33.1.3915, in the event of an unauthorized discharge that does cause an emergency condition, the discharger shall notify the hotline (DPS 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c. of these standard conditions.

Page 10 of 17

A written report shall be provided within seven calendar days after the notification. The report shall contain the information listed in Section D.6.d. of these standard conditions and any additional information in LAC 33:1.3925.B.

b. Prompt Notification

As required by LAC 33:1.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:1.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify the department within 24 hours after learning of the discharge. Notification should be made to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) in accordance with LAC 33:1.3923.

In accordance with LAC 33:1.3923, prompt notification shall be provided within a time frame not to exceed 24 hours and shall be given to the Office of Environmental Compliance, Surveillance Division Single Point of Contact (SPOC) as follows:

- by the Online Incident Reporting screens found at
 - http://www.deg.louisiana.gov/surveillance/irf/forms/;or
- (2) by e-mail utilizing the Incident Report Form and instructions found at http://www.deq.louisiana.gov/surveillance;or
- (3) by telephone at (225) 219-3640 during office hours, or (225) 342-1234 after hours and on weekends and holidays.
- c. <u>Content of Prompt Notifications</u>. The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:
 - the name of the person making the notification and the telephone number where any return calls from response agencies can be placed;
 - (2) the name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;
 - (3) the date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;
 - (4) the extent of any injuries and identification of any known personnel hazards that response agencies may face;
 - (5) the common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants;
 - (6) a brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.
- d. Written Notification Procedures. Written reports for any unauthorized discharge that requires notification under Section D.6.a. or 6.b., or shall be submitted by the discharger to the Office of Environmental Compliance, Surveillance Division SPOC in accordance with LAC 33:IX.3925 within seven calendar days after the notification required by D.6.a. or 6.b., unless otherwise provided for in a valid permit or other department regulation. Written notification reports shall include, but not be limited to, the following information:
 - (1) the name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by this section;

Page 11 of 17

- (2) the time and date of prompt notification, the state official contacted when reporting, the name of person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred;
- (3) date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;
- (4) details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:
 - (a) the current permitted limit for the pollutant(s) released; and
 - (b) the permitted release point/outfall ID.
- (5) the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all released pollutants (total amount of each compound expressed in pounds, including calculations);
- a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted;
- (7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.
- (8) Written notification reports shall be submitted to the Office of Environmental Compliance, Surveillance Division SPOC by mail or fax. The transmittal envelope and report or fax cover page and report should be clearly marked "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT."

Please see LAC 33:1.3925.B for additional written notification procedures.

- e. <u>Twenty-four Hour Reporting</u>. The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and; steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24hours:
 - Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33;IX.2701.M.3.b.);
 - (2) Any upset which exceeds any effluent limitation in the permit;
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G.).

7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Section D.4., 5., and 6., at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances

In addition to the reporting requirements under Section D.1-8, all existing manufacturing, commercial, mining, and sllvicultural dischargers must notify the Office of Environmental Services, Water and Waste Permits Division as soon as they know or have reason to believe:

- That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant;
 - listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4 -dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC33:IX.2501.G.7; or
 - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F.; or
 - which exceeds the reportable quantity levels for pollutants at LAC 33:1. Subchapter E.
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:
 - i. listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 µg/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
 - (4) The level established by the state administrative authority in accordance with LAC 33:IX.2707,F.; or
 - which exceeds the reportable quantity levels for pollutants at LAC 33:I. Subchapter E.

10. Signatory Requirements

All applications, reports, or information submitted to the state administrative authority shall be signed and certified.

- a. All permit applications shall be signed as follows:
 - (1) For a corporation by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
 - (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and

Page 13 of 17

accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- <u>NOTE</u>: DEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a.(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a.(1)(b). rather than to specific individuals.
 - (2) For a partnership or sole proprietorship by a general partner or the proprietor, respectively; or
 - (3) For a municipality, state, federal, or other public agency by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
 - b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - The authorization is made in writing by a person described in Section D.10.a. of these standard conditions;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
 - (3) The written authorization is submitted to the state administrative authority.
 - c. <u>Changes to authorization</u>. If an authorization under Section D.10.b. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b. must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.
 - d. <u>Certification</u>. Any person signing a document under Section D.10. a. or b. above, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

- a. The name and address of any permit applicant or permittee;
- b. Permit applications, permits, and effluent data.
- c. Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITION

1. Criminal

a. Negligent Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit Issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by Imprisonment for not more than 1 year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$50,000 per day of violation, or imprisonment of not more than two years, or both.

b. Knowing Violations

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.

c. Knowing Endangerment

The Louisiana Revised Statutes LA, R. S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements

The Louisiana Revised Statutes LA. R. S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than \$10,000, or imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than 4 years, or both.

2. Civil Penalties

The Louisiana Revised Statutes LA. R. S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by

Page 15 of 17

such violation which is not voluntarily paid by the violator, and a penalty of not more than \$32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(PLEASE NOTE: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:

- <u>Clean Water Act</u> (CWA) means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972) Pub.L.92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et. seq.).
- <u>Accreditation</u> means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.
- 3. <u>Administrator</u> means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.
- 4. <u>Applicable Standards and Limitations</u> means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including, effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308 and 403.
- Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.
- 6. <u>Commercial Laboratory</u> means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health and Hospitals in accordance with R.S.49:1001 et seq.
- 7. <u>Daily Discharge</u> means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.
- 8. Daily Maximum discharge limitation means the highest allowable "daily discharge".
- 9. <u>Director</u> means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.
- 10. <u>Domestic septage</u> means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.

Page 16 of 17

- <u>Domestic sewage</u> means waste and wastewater from humans, or household operations that is discharged to or otherwise enters a treatment works.
- 12. Environmental Protection Agency or (EPA) means the U.S. Environmental Protection Agency.
- 13. <u>Grab sample</u> means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.
- 14. <u>Industrial user</u> means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
- 15. LEQA means the Louislana Environmental Quality Act.
- 16. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.
- 17. <u>Monthly Average</u> (also known as Daily Average), other than for fecal coliform bacteria, discharge limitations are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + ... + C_nF_n}{F_1 + F_2 + ... + F_n}$$

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.

- <u>National Pollutant Discharge Elimination System</u> means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.
- 19. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- 20. <u>Sewage sludge</u> means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; portable toilet pumpings, type III marine sanitation device pumpings (33 CFR part 159); and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge inclureator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.
- 21. <u>Treatment works</u> means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works,

Page 17 of 17

including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof. (See Part 212 of the Clean Water Act)

22. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

23. The term MGD shall mean million gallons per day.

- 24. The term mg/L shall mean milligrams per liter or parts per million (ppm).
- 25. The term ug/L shall mean micrograms per liter or parts per billion (ppb).

26. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).

27. Weekly average, (also known as 7-day average), other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all "daily discharge(s)" measured during a calendar week divided by the number of "daily discharge(s)" measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

28. Sanitary Wastewater Term(s):

- a. <u>3-hour composite sample</u> consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.
- b. <u>6-hour composite sample</u> consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.
- c.<u>12-hour composite sample</u> consists of 12 effluent portions collected no closer together than one hour over the 12-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 12-hour period. The daily sampling intervals shall include the highest flow periods.
- d. <u>24-hour composite sample</u> consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample continuously collected in proportion to flow over the 24-hour period.



Prospective Applicants for Oil and Gas To: Exploration, Development, & Production Facilities Located Within Coastal Waters General Permit

Attached is a **Coastal Waters Oil and Gas Facility General Permit Notice of Intent (NOI) CWOGF-G,** for a Louisiana Pollutant Discharge Elimination System (LPDES) permit, authorized under EPA's delegated NPDES program under the Clean Water Act. To be considered complete, <u>every item</u> on the form must be addressed and the last page signed by an authorized company agent. If an item does not apply, please enter "NA" (for not applicable) to show that the question was considered.

Two copies (one original and one copy) of your **completed NOI**, <u>each</u> with a marked **U.S.G.S. Quadrangle map** or equivalent attached, and the **site/flow diagrams** listed in Section VI of the NOI, should be submitted to:

Mailing Address:

Department of Environmental Quality Office of Environmental Services Post Office Box 4313 Baton Rouge, LA 70821-4313 Attention: Water Permits Division Physical Address (if NOI is hand delivered): Department of Environmental Quality Office of Environmental Services 602 N Fifth Street Baton Rouge, LA 70802 Attention: Water Permits Division

Unless notified otherwise by the Secretary or his designee, owners/operators are authorized to discharge wastewater under the terms and conditions of the permit 14 days from the receipt of a hand-delivered, properly completed NOI to the Office of Environmental Services, Permits Division or 14 days from the postmarked date stamped on the envelope that contains the properly completed NOI. The permittee is required to keep a copy of the NOI submitted to the Water and Waste Permits Division at the permitted facility. It should be kept with other records related to the permit and permit compliance.

According to L. R. S. 48:385, any discharge to a state highway ditch, cross ditch, or right-of-way shall require approval from:

Louisiana DOTD Office of Highways Post Office Box 94245 Baton Rouge, LA 70804-9245 (225) 379-1927 Louisiana DHH Office of Public Health Center for Environmental Health Services Post Office Box 4489 Baton Rouge, LA 70821-4489 (225) 342-7395

In addition, the plans and specifications for sanitary treatment plants must be approved by the Louisiana DHH, Office of Public Health at the address above.

AND

A copy of the LPDES regulations may be obtained from the Department's website at http://www.deq.state.la.us/planning/regs/index.htm or by contacting the Office of Environmental Assessment, Regulations Development Section, Post Office Box 4314, Baton Rouge, Louisiana 70821-4314, phone (225) 219-3550.

For questions regarding this NOI please contact the Water Permits Division at (225) 219-3181. For help regarding completion of this NOI please contact DEQ, Small Business/Small Community Assistance at 1-800-259-2890.

form_7065_01 03/30/2009 Page 1 of 9 CWOGF-G

	Please check:		Initial Permit
Al			Permit Modification
LA			Permit Renewal
			Existing Facility
		AI	AI

STATE OF LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Office of Environmental Services Post Office Box 4313 Baton Rouge, LA 70821-4313 PHONE#: (225) 219-3181

LPDES NOTICE OF INTENT TO DISCHARGE WASTEWATER FROM OIL AND GAS EXPLORATION, DEVELOPMENT, & PRODUCTION FACILITIES LOCATED WITHIN COASTAL WATERS (Attach additional pages if needed.)

SECTION I - FACILITY INFORMATION

- A. Permit is to be issued to the following: (must have operational control over the facility operations - see LAC 33:IX.2501.B and LAC 33:IX.2503.A and B).
- 1. Legal Name of Applicant (Company, Partnership, Corporation, etc.)

Facility Name

Mailing Address

Zip Code:

If applicant named above is not also the billing party for the production facility, please state the billing contact name, phone # and address.

Please check status:	Federal	Parish	Municipal	C	
Please check status:	State	Public	Private	Other:	

2. Location of facility. Please provide a specific street, road, highway, interstate, and/or River Mile/Bank location of the facility for which the NOI is being submitted.

		Parist	า		
min	sec.	Longitude-	deg	min	sec.
e Determination:				2	
on Indian Lands'	? Yes	(Quad Map, Pre	vious Permit, we	ebsite, GPS)	
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65				CWOGF-G	
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SECTION I - FACILITY INFORMATION (cont.)

3.	Name & Title of Contact Person at Facility	t		ž.
	Phone	Fax	e-mail	
В.	Name and address of respo Name & Title	nsible representativ		
	Phone	Fax	e-mail	
	Address	· · · · · · · · · · · · · · · · · · ·		
C.	Section 106 Review Coordina Box 44247, Baton Rouge, L activities or the proposed disc National Register of Historic This is an existing facility This is a proposed facility approval from the State (You must keep a copy compliance records.) NOTE: If you have proposed Section 106 Review Coordina ELIGIBLE for automatic cover	I for a facility that has ator in the Office of C A 70404 or telephon charges will adversely Places and no construction ad y and construction ad Historic Preservation of the approval lette d construction and has ator for proposed cor erage under this gen written approval fr	on of Historic Preservation: not yet been constructed, you cultural Development, Archaeco ne (225) 342-8170) to deterry affect properties listed or elig activities related to this NOI and cultivities are not yet complete nofficer for the proposed con- er on file with your facility's ave not obtained the necessar instruction activities at this site eral permit. LPDES permit co- om the State Historic Prese	blogy Division (P. O. mine if construction gible for listing in the re proposed. but I have obtained nstruction activities. permit records and y approval from the , then you are NOT coverage cannot be
D.	Facility Information			
1.	workover, or completion b Individual Well (i.e., a we existing production facility by another operator)	cility (mobile production i barges) Il located in an existir (, or a well that will tig	rigs or platforms, does not inc ing oil & gas producing area th e into an existing production fa area where oil & gas producti	at will not tie into an acility, but is operated
2.	"the amount of oil that violates discoloration of, the surface of deposited beneath the surfa substances are listed in 40 C	applicable water qua f the water or adjoinin the water or u FR 117.3 and 302.4.	R 110, a Reportable Quantity (ality standards or causes a film og shorelines or causes a sludg pon adjoining shorelines." Has there been a RQ release ember 16, 1987, by the current	or sheen upon, or a ge or emulsion to be The RQs for other of oil or hazardous

form_7065_01 03/30/2009 Page 3 of 9 CWOGF-G

SECTION II – SITE HISTORY

- A. If this is an existing facility, please provide the date (to the best of your knowledge) that the applicant began operations at this site:
- B. Is the current operator the original operator?

No

If no, give a <u>reverse</u> chronological list of previous operators. Include the company name and telephone number (if available), and the dates through which the company operated this facility. Please note: This portion of the NOI is for data collection purposes only and will be used for an LDEQ records cleanup project; therefore, this list is not a mandatory requirement to be filled out by the applicant. However, LDEQ respectfully requests the applicant provide any of this information if it is known.

Yes

Company	Dates of C	Operation	Tolophono Number	
Company	From	То	Telephone Number	
		<u> (m) (m) (</u>		
		т.		

SECTION III - DISCHARGE INFORMATION

A. Provide the following discharge information:

- 1. If a new discharge, when do you expect to begin discharging?
- 2. Indicate how the wastewater reaches state waters (named water bodies). This will usually be either directly, by open ditch (if it is a highway ditch, indicate the highway), or by pipe. Please specifically name all of the minor water bodies that your wastewater will travel through on the way to a major water body. This formation can be obtained from U.S.G.S. Quadrangle Maps (See Section VI). Include river mile of discharge point if available.

Ву	(effluent pipe, ditch, etc.);
thence into	(Parish drainage ditch, canal, etc.);
thence into	jnamed bayou, creek, stream, etc.);
thence into	(river, lake, etc.).

3. Discharges of Reserve Pit Dewatering Effluent.

I hereby certify that the facility's reserve pit(s) have NOT received drilling fluids and/or drill cuttings on or after December 15, 1996.

I hereby certify that the facility's reserve pit(s) have received drilling fluids and/or drill cuttings on or after December 15, 1996.

Does not apply to this facility.

4. Will the discharge be directly into a waterbody designated as an Oyster Propagation area in LAC 33:IX.1123.Table 3? This applies only to those waterbodies specifically named in Table 3 and does not apply to any tributaries or distributaries unless so specified.

Yes

form_7065_01 03/30/2009 Page 4 of 9 CWOGF-G

SECTION IV – COMPLIANCE HISTORY

Report the last three year history of all violations and enforcement actions for the facility, as operated by the current permittee, a summary of all permit excursions including effluent violations reported on the facility's Discharge Monitoring Reports (DMRs) and bypasses which exceeded permit limitations. Using a brief summary, report on the current status of all administrative orders, compliance orders, notices of violation, cease and desist orders, and any other enforcement actions either already resolved within the past 3 years or currently pending. The state administrative authority may choose, at its discretion, to require a more in-depth report of violations and compliance actions for the applicant covering any law, permit, or order concerning pollution at this or any other facility owned or operated by the applicant.

SECTION V – LAC 33.I.1701 REQUIREMENTS

Does the applicant have federal or state environmental permits identical to, or of a similar nature(i.e. A. oil and gas E & P Operations), the permit for which you are applying, in other states? (This requirement applies to all individuals, partnerships, corporations, or other entities who own a controlling interest of 50% or more in your company, or who participate in the environmental management of the facility for an entity applying for the permit or an ownership interest in the permit.)

If yes, list the states:

No

Yes

- No Yes В. Do you owe any outstanding fees or final penalties to the Department? If yes, please explain.
- Is your company a corporation or limited liability company? Yes No C. No

If yes, is the corporation or LLC registered with the Secretary of State?

form_7065_01 03/30/2009

Yes

SECTION VI – MAPS/DIAGRAMS

A Topographic Map MUST be provided with all NOIs.

Attach to this NOI a map or a copy of a section of the map which has been highlighted to show the location of your facility and the first named waterbody. Include on the map the area extending at least one mile beyond your property boundaries. Indicate the oil & gas field name and/or State Lease number, coordinates of the facility, and the facility name.

A U.S.G.S. 1:24,000 scale map (7.5' Quadrangle) would be appropriate for this item. Appropriate maps can be obtained from local government agencies such as DOTD or the Office of Public Works. Maps can also be obtained online at <u>http://map.deg.state.la.us/ or www.topozone.com</u>. Private map companies can also supply you with these maps. If you cannot locate a map through these sources you can contact the Louisiana Department of Transportation and Development at:.

1201 Capitol Access Road Baton Rouge, LA 70802 (225) 379-1107 maps@dotd.louisiana.gov

form_7065_01 03/30/2009 Page 6 of 9 CWOGF-G According to the Louisiana Water Quality Regulations, LAC 33:IX.2503, the following requirements shall apply to the signatory page in this application:

Chapter 25. Permit Application and Special LPDES Program Requirements

- 2503. Signatories to permit applications and reports
 - A. All permit applications shall be signed as follows:
 - 1. For a corporation by a responsible corporate officer. For the purpose of this Section responsible corporate officer means:
 - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

[NOTE: The department does not require specific assignments or delegations of authority to responsible corporate officers identified in Subparagraph A.1.a of this Section. The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Subparagraph A.1.b of this Section rather than to specific individuals.]

- For a partnership or sole proprietorship by a general partner or the proprietor, respectively; or
- For a municipality, parish, State, Federal or other public agency either a principal executive officer or ranking elected official. For the purposes of this Section a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).
- B. All reports required by permits, and other information requested by the state administrative authority shall be signed by a person described in LAC 33:IX.2503.A, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - 1. The authorization is made in writing by a person described in LAC 33:IX.2503.A.
 - 2. The authorization specifies either an Individual or a position having responsibility for the overall operation of the regulated facility or activity, such as a position of plant manager, operator of a well or well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - 3. The written authorization is submitted to the state administrative authority.
- C. Changes to authorization. If an authorization under LAC 33:IX.2503.B is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of LAC 33:IX.2503.B must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

form_7065_01 03/30/2009 Page 7 of 9 CWOGF-G D. Any person signing any document under LAC 33:IX.2503.A or B shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

form_7065_01 03/30/2009 Page 8 of 9 CWOGF-G

SIGNATORY AND AUTHORIZATION

Pursuant to the Water Quality Regulations (specifically LAC 33:1X.2503) promulgated September 1995, the state permit application must be signed by a responsible individual as described in LAC 33:1X.2503 and that person shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Signature	
Printed Name	
Company	
Title	
Date	
Telephone	2

CHECKLIST

To prevent any unnecessary delay in the processing of your notice of intent to be covered under the general permit, please take a moment and check to be certain that the following items have been addressed and enclosed:

- <u>ALL</u> questions and requested information have been answered (N/A if the question or information was not applicable).
- 2. <u>ALL</u> required maps, drawings, lab analysis, and other reports are enclosed.
- 3. The <u>appropriate</u> person has signed the signatory page.
- 4. Please forward the original and one copy of this application and all attachments.

ANY APPLICATION THAT DOES NOT CONTAIN ALL OF THE REQUESTED INFORMATION WILL BE CONSIDERED INCOMPLETE. APPLICATION PROCESSING WILL NOT PROCEED UNTIL ALL REQUESTED INFORMATION HAS BEEN SUBMITTED.

NOTE: UPON RECEIPT AND SUBSEQUENT REVIEW OF THE APPLICATION BY THE PERMITS DIVISION, YOU MAY BE REQUESTED TO FURNISH ADDITIONAL INFORMATION IN ORDER TO COMPLETE THE PROCESSING OF THE PERMIT.

form_7065_01 03/30/2009 Page 9 of 9 CWOGF-G

	2	State	WORK I of Louisiana / Of Engineerin	fice of Cons	servation	0
ACE OF CONSERVATION	Work	Permit No.				
Operator's Name and Address:				Permit Seri	ial No.	
	*			Operator C	ode No.	
Well Name and Number:			19 (Phone No.		
			No.	Fax No.		
Field:	Code:	Parish	Code:	Sec.	Twp.	Rng.
		DESCRIPTION (OF WORK	2		
Sand & Reservoir to be Tested			1- 1- 141-1- (NI	MD/TVD:		
Verbal Work Permit Approved of	-	Engineer	's Initials / Name:	Dhamai		
Permit Requested By (Type Na	me):			Phone:		
Signature:				Date:		*
Permit Authorized By:				Date:		
A single application will suffice for on- must be performed consecutively. If a requested. An original and one copy o	dditional applicati	ons for Work Permits are ne	rovided that if more tha ecessary on any one we	ell, each should	be numbered 1	, 2, etc. in the order
			Mail all Wo	ork Permits to th	e District when	e the well is located:
1. Plug and Abandon	7. Pull Casing	- Colorador Constant			06	
(Provide Well Schematic) 2. Deepen		of Selective Completion v BHL (Existing Well)	Office of Con	servation St., Room 228	Office of Con 1525 Fairfield	Ave., Ste 668
3. Perforate	10. Deepen (Drill		P. O. Drawer	and the second		.a. 71101-4388
4. Squeeze	11. Deepen (Exist	ting Well)	Monroe, La.			
5. Plugback	12. Acidize / Stim	ulate			1000-070-00	
6. Sidetrack (Drilling) 13. Repair (Except ordinary maintenance o				Office of Con 825 Kaliste S		
				Brandywine	9479 989 9 C C	
To perfor FORM DM-4R Rev. (7/08)		e work types without first o)5.), which carries with it po			the law	4 5

		P	OFFICE O	OF LOUISIA F CONSERV ABANDON F	ATION		547 0	
WORK PERMIT NO				WELI	SERIAL NO.			
TOTAL DEPTH	DTAL DEPTH PBTD DATE WORK FINISHED (MM-DD-YY)						_	
		(Submit Orioir	al and 2 Copies	to Appropriate Divis	DIST	RICT	a.	
	NOTE	19-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			perly Completed	And Signed		
Field					Sec		Rng	
Operator			OP CODE				Well No.	
Check Appropriate E	Check Appropriate Box 29 DRY HOLE 30 FORMERLY ACTIVE 18 TEMPORARILY ABANDONED INJECTION WELL 0THER (All But Top Plug Set)							
Depth Casing Cut B	elow Mud Li	ne Or Land S	urface	Weig	ght Of Mud Left I	n Well After A	bandonment	-
Bridge Plugs: Pipe	Size			De	pth Set		-	
Cement Retainers:	Pipe Size			De	pth Set		-	
Is This Well A Multip Serial No(s) In Spac	•	on?Yes 🗌	No 🗌	If Yes, Submit A	dditional Report	For Other We	II(s) And Indicate Othe	r
CASING* I	TOF			No. of Concession, Name of Street or other Designation, or other D	MENT PLUGS			
SIZE CAS	SING	CASING* SIZE	TOP OF PLUG	BOTTOM OF PLUG	NUMBER OF SACKS	SLURRY WEIGHT	PLACEMENT METHOD	
								-
								7
		Al lot Casin	- Cines And	Diug Denthe In	Descending Or			
Remarks:		List Casing	g Sizes And	Plug Deptits in	Descending Of			
	5							
						i.		
Гт	his work wa	s done accord	ding to the Ru	ules and Regula	tions of the Offic	e of Conserva	ition.	-
							ж Ж	

WITNESS

OPERATOR (Company Name)

FORM P&A (REV. 11/03)

REPRESENTATIVE (SIGNED)



Annular Saltwater Disposal Well Permit Application Office of Conservation Injection & Mining Division P.O. Box 94275 Baton Rouge, LA 70804-9275

UIC-9	ŝ		ΤY	PE ONLY			*
1. Application	on to:	InitialRepe					
2. Operator	's Name and A	ddress:			3. Operat	or Code:	
					4. Phone	()	9
			WELL I	NFORMATION	 I		
5. Well Nan	ne and Number	1	jā.	я. 19	6. Serial I	No.	v.
7. Field:			8. Parish:		9. Sec.	Twp.	Rng.
10. Location	n Description:	TTT			I		
	tude:				bert Coordinate dinate Zone)	es (NAD 27) North Zone 🗍 : Y:	South Zone
12. WELL D	ATA						
Casing Size	Hole Size	Casing	De	epth Set	Sacks Cement	Type Cement	Top of
Size	Size	Weight	Тор	Bottom	Cement	Cement	Cement
13. Method	of Production			a.			
Flowing	🗖 Beam I	Pump 🗍 🕄	Submersible P	rump 🖸 Othe	er		
			WELL	ECONOMICS			
14. Hydroca	arbon Productio bbls oil or o Mcf gas/da	condensate/day	/	15. Saltwate	er Production P bbls saltwa		×
	e potentially pr identify:	oductive zones	in this well the	at have not been t	ested or produ	ced?	□ Yes □ No

] Yes] No				
) Yes) No				
] Yes] No				
	l Yes I No				
] Yes] No				
ALTERNATIVE METHODS					
	Yes No				
23. Cost of drilling on-site saltwater disposal well (Attach AFE to substantiate cost)					
	l Yes I No				
	Yes No				
26. Cost of Off-Site Disposal: A. Trucking/Shipping CostPer month B. Disposal CostPer month					
27. Agent or contact authorized to act for the operator during processing of this Application Name:					
The signature below authorizes this agent or contact to submit additional information as requested and to give oral statements in support of this application.					
CERTIFICATION BY OPERATOR					
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my personal knowledge or inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.					
28. Name 29. Title					
30. Signature 31. Date					

ANNULAR SALTWATER DISPOSAL WELL PERMIT APPLICATION PROCEDURES FOR FORM UIC-9

• These procedures are intended to provide applicants a checklist to be sure all information is provided.

Supporting documentation will be required in the form of attachments. Label each of the attachments by number in the <u>lower right-hand corner</u>; example: "Attachment 2A"

 After the Application is reviewed and found to be complete by the Office of Conservation (OC), Injection & Mining (IMD), the applicant will then be notified of the calculated Maximum Authorized Surface Injection Pressure (MASIP) for the well and notified to run the required Radioactive Tracer Survey (RTS). Notification will include OC's Guidelines and Procedure to be used in running the RTS.

The applicant will submit the results of the RTS to OC/IMD for review. If found to be acceptable, a permit to inject fluids will be issued. The permit will also include the "Reporting Requirements" which will tell you what you need to file with the OC/IMD during the operation of the well.

PUBLIC NOTICE: AT LEAST FIFTEEN DAYS PRIOR TO FILING AN APPLICATION, notice of the Application shall be published one time by the applicant in the official state journal, <u>The Advocate</u> (in Baton Rouge). Acceptable wording for such notice is included in this application package as an attachment. <u>Prior to the approval of the permit, the applicant shall submit proof of publication of such notice (Attachment 8) with the OC/IMD.</u>

SUBMIT THE FOLLOWING IN ORDER:

Filing Fee

- Check made payable to "Office of Conservation",
 - □ a. Initial Permit \$252
 - □ b. Repermit \$252
- APPLICATION -- Annular Saltwater Disposal Well Permit Application
 - □ Form UIC-9 with original □ signature of operator. All items must be answered or noted "N/A"--not applicable. Include pages 1 to 11 as part of the Application.
 - For Repermit wells, file pg. 1 & 2 of the Form UIC-9 along with current AFE.

ATTACHMENT 1 -- Location Plat

Include the drilling location plat, labeled "Attachment 1." It may be a photocopy. This plat may be combined with Attachment 2.

ATTACHMENT 2 -- Area of Review

- A. An Area of Review (AOR) map, labeled "Attachment 2A" of a scale no smaller than 1"=1000'. The AOR map must identify, within a one-quarter-mile (1320-ft.) radius of the proposed disposal well, the locations for the following:
 - □ The proposed disposal well

- □ All producing wells
 - All disposal/injection wells
- □ All shut-in wells

- All plugged and abandoned wells
- □ All dry holes
- All source water wells (for enhanced recovery)
- All freshwater wells
- Include a legend to <u>identify each well</u> and to otherwise clarify the AOR map. Except for freshwater wells, only information on file with the Office of Conservation and pertinent information known to the applicant is required to be included on this map.
- B. An "Area of Review Well List" (Attachment 2B) that identifies all wells in the AOR except freshwater wells. Use the enclosed Attachment 2B or you may make up your own list, as long as all the information is included; label the list, "Attachment 2B". If no wells are found within the AOR indicate with "no wells found" on "Attachment 2B".
- C. A "Freshwater Well List" (Attachment 2C) identifying the freshwater wells within the AOR. Each freshwater well shall be identified by owner, type of well, and status of well. If unclear on the AOR map (Attachment 2A), also describe how each freshwater well can be located in the field. Use the enclosed Attachment 2C or you may make up your own list, as long as all the information is included; label the list, "Attachment 2C". If no fresh water wells are found within the AOR, indicate with "No wells found" on "Attachment 2C".

A DILIGENT SEARCH MUST BE ATTEMPTED TO LOCATE ALL FRESHWATER WELLS WITHIN THE AOR.

- □ D. Include a laboratory analysis of a water sample from EACH freshwater well, if obtainable, labeled "Attachment 2D", "Attachment 2E", "Attachment 2F", etc. for each freshwater well. <u>The analysis sheet(s) must identify □ the freshwater well sampled, and, at a minimum, include measurement of:</u>
 - □ Chloride (mg/1)
 - □ Total Dissolved Solids (mg/1)

Provide an explanation if samples are not obtainable.

ATTACHMENT 3 -- Facility Diagram

- A surface facility diagram that shows the following, where applicable:
 - Proposed well
 - Tanks
 - Pits
 - Containment levees
 - □ Flow lines entering and leaving the facility
 - Rig supply well
 - Pertinent buildings
 - □ Landmarks and other significant structures or features

The diagram should be to scale or reasonably close, preferably on 8 1/2" x 11" paper, and labeled, "Attachment 3".

ATTACHMENT 4 -- Well Schematic Diagram

Attach a schematic diagram of the well, labeled "Attachment 4A".

The schematic diagram(s) should show the following:

- A. Surface equipment:
 - Well head
 - Pressure gauges
 - □ Flow line diameters at wellhead
 - Monitoring equipment, if used

B. Subsurface equipment:

- 1. All casing strings:
 - Diameter
 - Weight (per foot)
 - Depth set (top and bottom) Surface casing must extend at least 100 feet below the USDW.
- Cement specifications:
 - Type of class
 - Number of sacks
 - Tops of cement (indicate whether calculated/logged, or to be logged)
- Cement squeeze(s), if any:
 - Type or class
 - Number of sacks
 - □ Calculated top of cement (to be logged)
- 5. Depths (where applicable):
 - □ Total Depth
 - Drilled-out depth
 - Plugged-back depth

ATTACHMENT 5 -- Sources of Produced Water

A list of all sources of produced water that is to be disposed in the proposed well. Use the enclosed Attachment 5 or you may make up your own list, as long as all the information on the enclosed list is included on it and is labeled, "Attachment 5".

ATTACHMENT 6 -- Disposal Fluid Analysis

- □ A laboratory analysis of a representative sample of the fluid to be injected in the proposed well, labeled "Attachment 6". The analysis sheet must indicate the source □ of the sample and, at a minimum, include measurement of :
 - □ Chloride (mg/l)
 - Total Dissolved Solids (mg/l)
 - □ Specific gravity or density (g/cc or ppg)

Temperature of sample when specific gravity was measured

ATTACHMENT 7 -- Electric Logs

- A copy or continuous folded photocopy of an electrical log. The log must be complete from the log heading to depth logged: the 5-inch/100-ft-scale portion is not necessary.
- The Serial Number of the well must be written on the log.
- Attach one copy of the electrical log of the subject well and one copy of an electrical log of a nearby well which shows the base of the deepest USDW. The log should **be shallow enough** to show the base of the USDW and **deep enough** to show the proposed disposal zone. Logs of more than one well may be included, if necessary, to show both the lowermost USDW and proposed disposal zone. A diligent search must be made to locate at least one log within two miles of the proposed well. If a log is not available, use a sheet of paper labeled, "Attachment 7" which states, "No well logs are available within a two-mile radius of the proposed well".

Indicate the following on each log:

A. The base of the lowermost Underground Source of Drinking Water (USDW).

The USDW can be determined by the deep induction curve, generally the dotted curve, on the electric log. Since resistivity changes with temperature and, therefore, depth, an approximate rule that can be followed to determine the lowermost USDW is:

3 ohms from surface to 1000 feet;

2 1/2 ohms from 1000 feet to 2000 feet;

2 ohms below 2000 feet.

That is, all sands that indicate higher resistivities than these are considered to be USDW's. Clay or shale intervals with resistivities higher than these are not considered USDW's.

C. The proposed initial perforated interval.

ATTACHMENT 8 -- Public Notice

An original copy of proof of publication of the legal notice.

You will be billed by the Morning Advocate for the ad.

Complete the legal notice attachment and send the notice to:

The Advocate Legal Ad Department P.O. Box 588 Baton Rouge, LA 70821 (225) 388-0128

The Advocate will send you a notarized "Proof of Publication", which is to be labeled, "Attachment 8", and included as part of the Application. If the Proof of Publication is not received when the Application is sent to the OC/IMD, it may be sent later provided you also write the Application No. on Attachment I. The "Application No." can be found on your receipt letter, which you should receive with in two weeks after your Application reaches the

OC/IMD.

ATTACHMENT 9 -- Well History and Work Resume Report

Include a photocopy of <u>each</u> Well History and Work Resume Report (Form WH-1) that have previously been filed with the Office of Conservation.

AREA OF REVIEW WELL LIST

Operator		Well Status*:	
Well Name:	<u></u>	Serial No.:	,
Total Depth:	feet, Perforated Interval:	to	
Operator	·	Well Status*:	
Well Name:		Serial No.:	
Total Depth:	feet, Perforated Interval:	to	
Operator		Well Status*:	
Well Name:		Serial No.:	
Total Depth:	feet, Perforated Interval:	to	
Operator		Well Status*:	
	•		
	feet, Perforated Interval:		
Operator		Well Status*:	
Well Name:		Serial No.:	
Total Depth:	_feet, Perforated Interval:	to	
Operator		Well Status*:	
Well Name:		Serial No.:	
Total Depth:	feet, Perforated Interval:	to	
*Well Status: Producing, SV	VD, EOR Injection, Shut-in (futu	ire utility) P&A's, etc.	
UIC-9 Office of Conservation	(Attach additional lis -8-	its if needed)	Attachment 2B Injection & Mining

FRESHWATER WELL LIST

- A diligent search was made to all freshwater wells within a 1/4 mile of the proposed well and no wells were located.
- □ A diligent search was made to all freshwater wells within a 1/4 mile of the proposed well and the following wells were located.

Owner:			
Туре:*	Status:**	Depth:	
Location:			
Owner:			
8)	Status:**		
Owner:			
Туре:*	Status:**	Depth:	
Location:			÷
Owner:			
Туре:*	Status:**	Depth:	
Location:	ante atras callo d'a		
*Type of Well:	IRRIGATION (including catfish & crawfish fa	a few homes), INDUSTRIAL (including commercial), LIVE arming), MONITORING, RIG SUPPLY, HEAT PUMP S ny), AQUIFER DEWATERING, RECOVERY (of contaminan	SUPPLY,
**Status of Well:	ACTIVE (used at least once a month), STANDE (but not plugged).	BY, INACTIVE (but useable with minor work or effort, ABAN	IDONED
	9 o z	u a	

UIC-9 Office of Conservation Attach additional list if needed) -9Attachment 2C Injection & Mining

INJECTION FLUID SOURCE WELL LIST

Operator		Operator Code:
Well Name:		Serial No.:
Field:		Formation:
Perforated Interval:	to	
Operator		Operator Code:
Well Name:	Barto franciska M	Serial No.:
		Formation:
Perforated Interval:	to	
Operator		Operator Code:
Well Name:		Serial No.:
Field:		Formation:
Operator		Operator Code:
Well Name:	1 3 (65	Serial No.:
Field:		Formation:
Perforated Interval:	to	2
Operator		Operator Code:
Well Name:	ware the second second	Serial No.:
Field:		Formation:
Perforated Interval:	to	

PUBLIC NOTICE

In accordance with the laws of the State of Louisiana and the particular reference to the provisions of LA R. S. 30:4, and the provisions of Statewide Order No. 29-B as amended and adopted by the Office of Conservation of the State of Louisiana

(Company Name and Address)

is applying to the Injection and Mining Division of the Office of Conservation for a permit to dispose of saltwater generated from oil and gas production by means of annular injection into

_____, Serial No._____, with subsurface injection at

minimum depth (surface casing depth) of ______feet.

Subject well is located in Section _____, Township _____, Range_____,

_____Field,______Parish, Louisiana.

All interested parties are hereby given an opportunity to submit written comments no later than fifteen (15) days from the date of this publication. Comments should be directed to:

Office of Conservation Injection & Mining Division P.O. Box 94275 Baton Rouge, LA 70804-9275 Re: Annular Disposal Permit Application

UIC-9 Office of Conservation (Attach additional lists if needed) -11Attachment 5 Injection & Mining



COMMUNITY SALTWATER DISPOSAL SYSTEM APPLICATION

MAILING ADDRESS: OFFICE OF CONSERVATION INJECTION & MINING DIVISION P.O. BOX 94275-CAPITOL STATION BATON ROUGE, LA 70804-9275 PHYSICAL ADDRESS: OFFICE OF CONSERVATION INJECTION & MINING DIVISION 617 N. THIRD ST., SUITE 817 BATON ROUGE, LA 70802

UIC-13	1.102-32	PLEASE READ APPLI	CATION PROC	CEDU	RES				TYPE ONLY
		OPERATOR I	NFORMATION	1					
1. OPERATOR NAME: ADDRESS: CITY, STATE, ZIP: EMAIL:	2				PPERATOR C	ODE		FAX:	
		WELL INF	ORMATION						
4. PROPOSED COMMUNITY WELL WELL NO.	NAME AND NU	MBER:		5.	SERIAL NO.	(CO)	NVERSION &	RE-PERMIT C	NLY)
6. FIELD:	7. 1	PARISH:		8. S	EC.	τw	IP.	RNG.	
Provide the following Information for	each producing	FLUID SO well that will be utilizing the	URCE LIST above-listed com	munity	disposal well	and	system. Chec	k if continue (on back: 🔲
9. OPERATOR		WELL NAME & NO.	SERIAL	NO.	BBL SW/ M	0.	TRA	NSPORTATIO	N BY
UPERATOR							TRUCK	PIPELINE	OTHER
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1 									
<u></u>		CERTIFICATION	BY OPERATO	OR					
I (C hereby certify that the information com system Identified above is a noncome storage tanks, and equipment. Attach for disposel of produced saltwater.	nerclal operation	accuratE and complete to t and that operators using t	he system share	only i	n the cost of a	opera	ating and mail	ntaining the we	ell(s), related
10. NAME (PRINT):				11	. PHONE:				
12. SIGNATURE:				13	. DATE:				

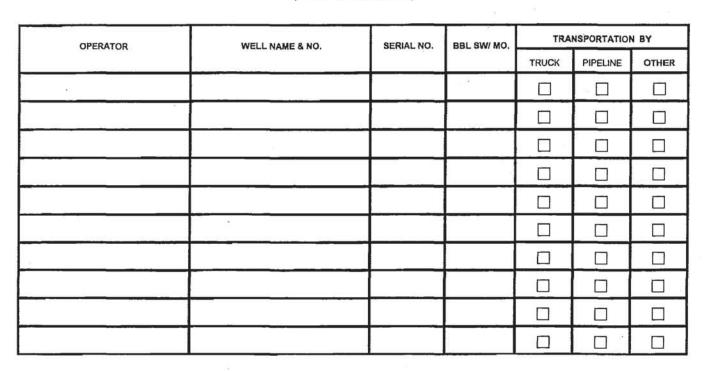
http://dnr.louisiana.gov/cons/documents.ssi

INSTRUCTIONS

- 1. Submit the non-refundable application fee per LAC 43:XIX.Chapter 7.
- 2. Form UIC-13 must be completed and submitted to the Injection and Mining Division for review and approval before a well may be utilized as a Community Saltwater Disposal Well.
- 3. For each producing well identified in Part 5, indicate which method of transportation is used to transport the saltwater to the community well.
- Sign and date the certification at the bottom of the form prior to mailing to the following address: Office of Conservation

Injection and Mining Division P O Box 94275 Baton Rouge, Louisiana 70804-9275

5. Attach a copy of each <u>operating agreement</u> for each operator wishing to utilize the community disposal well and system. Each agreement must be signed by both parties.



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(Continued from front)



APPLICATION FOR SUBSURFACE DISPOSAL OF RESERVE PIT FLUIDS

(Waste Fluids Produced During Drilling or Workovers)

MAILING ADDRESS: OFFICE OF CONSERVATION INJECTION & MINING DIVISION P.O. BOX 94275-CAPITOL STATION BATON ROUGE, LA 70804-9275

PHYSICAL ADDRESS: OFFICE OF CONSERVATION INJECTION & MINING DIVISION 617 N. THIRD ST., SUITE 817 BATON ROUGE, LA 70802

UIC-14				P	LEASE	READ APP	LICATION PR	OCEDU	JRES					TYPE	ONL
OPERATOR	NAME:				(CODE:)	CONTACT:			E	EMAIL:				
MAILING AD	DRESS:		2							F	HONEN	10:	•		
CITY, STATI	E, ZIP CODE:									F	AX NO:				
WELL NAME	:					WELL NC),	5		v	VELL SE	RIAL NO:			
PARISH:		(CODE)	FIELD NA	ME:		(CODE:)		ZONE	Ds	ORDINATES:			
SEC:	TWN:	RNG	:	LATITUDE		LONG	ITUDE:		(Check On X:	e Coord	linate Zor	пө) Y:			
METHOD O	F DISPOSAL (C	heck One): [SURFACE	CASING A	NNULUS			PERFOR		OTHER	R, EXPLA	IN:			
DISPOSAL 2	ZONE(S):							REQU	ESTED MAX		NJECTIC	ON PRESSUR	E (PSI):		
ESTIMATED	FLUID VOLUM	E TO BE DIS	POSED (BAF	RRELS):	ESTIMA	TED TIME D	URATION OF [DISPOSA	L (DAYS):		DISPOS	AL FLUID DE	NSITY	(PPG):	
DEPTH TO E	BASE OF USDV	(FEET);	SP	ECIFY TYPE	E FLUID F	OR DISPOS	AL (Oll-based fit	ulds or cu	uttings are NC	DT AUTH	HORIZED	>/):			
CASING SIZE	CASING WEIGHT	HOLE SIZE	CASIN	G/LINER DE		SAC LEAD	KS CEMENT TAIL	0	LEAD		(SACK) AIL	TOTAL SAC OF CEMEN		CEMEN	
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	ASING INTEGR		RE TEST DA	TA: (Casing	lest must be	e conducted at	a minimum pressu	re of 1000	PSI and may n	ot lose m	ore than 5	% for a lest dur	alion of 30	0-minutes)	
	T DATE & TIME:		START TE	STPRESSU	JRE:		TEST END DAT	TE & TIM	E:		ENDTE	EST PRESSU	RE:		
SECOND CASH	NG INTEGRITY TE	ST									L	· · · · ·			
TEST STAR	T DATE & TIME:	1	START TE	STPRESSU	JRE:		TEST END DA	TE & TIM	E:		END TE	EST PRESSU	RE:		
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	PRII	NT NAME OF	COMPANY	OFFICIAL					דוד	LE					
	SIGN	ATURE							Dł	TE	***				
JSDW		FT @ SM	۹		FOR CO	ONSERVAT	ION USE ON	LY			AOR F	Review:	PASS		
PERATOR	NOTIFICATION	- MAXIMUM	AUTHORIZE	D SURFACI	EINJECTI	ON PRESSU	RE (MASIP): _			PSI	Well H	ction Review: as Integrity: Date	YES	D NO	
											Spug L	Jaile			
	N APPROVED		TION DENIE	D 🗌 : By	.			Da	te		TD Dat	te r Depth			

INSTRUCTIONS

GENERAL: The permittee must receive authorization from the Louisiana Office of Conservation, Injection & Mining Division (IMD) before beginning fluid injection operations. The general provisions of Statewide Order No. 29-B, LAC 43:XIX.315 shall apply to the subsurface disposal (injection) of reserve pit fluids. Form UIC-14 must be completed in its entirety and submitted with all required attachments. Form UIC-14 may be submitted with the application (Form MD-10-R) to drill a new well. An original and one copy of Form UIC-14 with all attachments should be sent to the address on the front of the application.

II. SUBMIT THE FOLLOWING AS ATTACHMENTS TO FORM UIC-14:

OIL-BASED FLUIDS OR CUTTINGS ARE NOT AUTHORIZED FOR ANNULAR DISPOSAL.

- A. Application Fee: Submit the non-refundable application fee per LAC 43:XIX.Chapter 7.
- B. Certified well location plat with NAD 27 Louisiana Lambert X- & Y-coordinates for the surface hole location. A photocopy of the plat submitted with the well's permit to drill is acceptable.
- C. Schematic diagram of well. Schematic must be properly labeled identifying: drilled hole diameters, depths and sizes all casing strings, disposal zone depths (and disposal perforations, if any), total well depth, depths of cemented tops of all casing strings, depth of occurrence of the lowermost underground source of drinking water (USDW).
- D. Well Logs. Electric log of subject well or of a nearby well (within 1/4 mile) shallow enough to show the USDW. Cement Bond Log or cement evaluation log if run on the well.
- E. Documentation of casing integrity tests. Between the hours of 8:00AM and 4:30PM Monday through Friday and at least 48 hours in advance, contact the District Office or Injection & Mining Division so that an inspector may witness the required second casing test.

IF THE INSPECTOR DOES NOT WITNESS THE REQUIRED SECOND TEST, A PROPERLY DOCUMENTED PRESSURE CHART RECORDING MUST BE PROVIDED OR A RADIOACTIVE TRACER SURVEY (RTS) MUST BE CONDUCTED.

- For the first and second casing pressure tests, documentation may be submitted on Form Cag. T (Affidavit of Test of Casing in Well obtained from the District Office) or properly documented pressure chart recordings. Pressure chart recordings must be fully legible, clearly labeled with the <u>well name, well</u> serial number, casing size, packer depth, test start time and stop time, dated, and signed. Illegible, mislabeled, or improper documents will not be accepted. For the affidavit or pressure chart to be acceptable, the pressure must be held at 1000 psi or greater for at least 30 minutes, and the pressure must not drop more than 5%.
- 2. Test packer must be set within 50 feet of the casing shoe.
- 3. An inspector-witnessed radioactive tracer survey (RTS) with a time-drive supplement that proves well mechanical integrity must be performed in lieu of the second pressure test If well construction is such that a casing pressure test is not feasible. Guidelines are available.
- E. Morning reports. Provide two morning reports. The first moming report must prove that a jug test was conducted, in which the surface casing shoe held pressure to an Equivalent Mud Weight (EMW) that comes within 15% of the Eaton 9# curve, for a minimum of thirty (30) minutes. The second morning report must indicate when the long string was run.
- III. CRITERIA FOR APPROVAL (Except as Provided in Writing by the Injection & Mining Division):
 - A. Annulus or open-hole disposal (surface, intermediate, or long-string casings):
 - 1. The disposal zone is defined from the base of the injection casing to the top of cament of the next camented casing or cament plug.
 - 2. Surface casing is set at least 200 feet below the base of the lowermost USDW and cemented to surface.
 - 3. The disposal casing must pass the second casing integrity pressure test (re-test of casing) or Radioactive Tracer Survey (RTS).
 - i. Contact the District Office or Injection & Mining Division in Baton Rouge so that an Inspector may witness the required second casing pressure test.
 - ii. The maximum surface injection pressure requested on Form UIC-14 shall not exceed the second casing test pressure.
 - B. Disposal through perforations (intermediate or long-string casings only):
 - 1. Surface casing is set at least 200 feet below the base of the lowermost USDW and cemented to surface.
 - 2. A cement bond log or cement evaluation log showing adequate cement isolation above the perforations shall be run.
 - The casing is pressure tested before perforating (or with a bridge plug if already perforated). A radioactive tracer survey with a time-drive supplement shall also be run. The time-drive supplement must be run at least at the requested maximum surface injection pressure.
 - I. Contact the District Office or Injection and Mining Division In Baton Rouge so that an inspector may witness the required second test.
 - ii. The maximum surface Injection pressure requested on Form UIC-14 shall not exceed the test pressure.
 - C. Area of Review: This section shall be applicable to Part III.A and Part III.B of these instructions.
 - 1. Disposal of fluids into any potential hydrocarbon bearing or current hydrocarbon producing zone(s) within the proposed disposal zone is prohibited. The area of review for this criterion shall at a minimum be a one-quarter (¼) mile radius around the proposed disposal well.
 - All wells within a minimum one-quarter (¼) mile radius of the proposed disposal well shall have casing set below and commented across the base of the lowermost USDW.
- IV. DURATION OF PERMIT: Approval of a Form UIC-14 shall be limited to the specific project for the well indicated. An approved Form UIC-14 shall be valid for a period not to exceed six (6) calendar months from its approval date. Subsurface disposal of fluids beyond the expiration date shall be a violation of the regulations and shall result in appropriate enforcement action. Any subsequent injection after the expiration date of a Form UIC-14 will regulire submission and review of a new Form UIC-14.



Work Permit To Perform a NORM Plug & Abandonment

DNR, Office of Conservation, Injection & Mining Division P.O. Box 94275, Baton Rouge, LA 70804-9275

Overnight: DNR, Office of Conservation, Injection & Mining Division 617 North 3rd Street, Baton Rouge, LA 70802

UIC-30

Mail:

TYPE ONLY

Work Permit No	D. :				Appro	oximate Date W	ork to Begin:		
Operator's Nam	ne and Address	s:					Operator	Code:	
							Phone ()	
Well Name and	Number:			_			Serial No.	(Conversi	on)
Field:			Parish:				Sect.	Twp.	Rng.
Perforated Inter	val(s):				5°		Total Depth:		
	Existing Casin	g Program	(2)			Propos	ed Cement Plu	ugs (2)	
0 1 0		D. II O	Top of		Depth	of Plugs	# of Ce		U DI 10
Casing Size	Hole Size	Depth Se	et Cement (1)	Fro	m	То	Sack	s	How Placed?
									- 35°.
			2.4						
2. L	of Lowermost U	JSDW:	Depth:				ource		ol well on back of this form.
D NORM CO Point of Origin:	ONTAMINATE	D TUBING							
		om	To	From	·	To		0	
			To					N. 653	29
Total Footage:_	Ft	Maximur	m Level:	micro	oR/hr	Average Level:		microR/	ĥr
D NORM SC Point of Origin:							12		
		rom	To		Tot	al Volume:	BBL	s	
Average Specifi				20	Tot	al Radium activ	vity: p	Ci/g	
Proposed Mud-	Laden Fluid:	ppg			Vise	cosity	ср		
21			personally examine sonal knowledge of is true, accurate ar of fine and impriso						
Permit Request	ed By	Typed	/	Signature			Date		
FOR CONSER									
the second s	Satta-ca					1	Date:	<i></i>	
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FORM UIC-30

WWW.DNR.STATE.LA.US/CONS/DOCUMENTS.SSI

Schematic Diagram of Well: (indicate location and depths of casing strings, cement plugs, NORM solids and/or tubing equipment, etc.)

- Application to plug and abandon any well under the jurisdiction of the Office of Conservation which is to utilized for downhole disposal of NORM solids and/or NORM contaminated tubing/equipment, shall be made on Form UIC-30, Work Permit to Plug and Abandon a Well Utilized for NORM Disposal. Form UIC-30 is to be submitted to the Injection and Mining Division, P.O. Box 94275, Baton Rouge, Louisiana 70804-9275 for review. Call 504/342-5515 if you have any questions about completion of Form UIC-30.
- 2. This work shall be done according to the recommended practices in the LRPD Implementation Manual of Management of NORM in Louisiana and DNR/OC Statewide Order No. 29-B, LAC 43:XIX.137.
- 3. This application will be returned if not properly completed and signed.
- 4. The Department of Environmental Quality (DEQ), Office of Air Quality and Radiation, Radiation Protection Division, will be sent a copy of Form UIC-30 upon approval. If approved, a copy of Form UIC-30 must be attached to the application to DEQ to perform jobsite (NORM disposal) activities.

FORM UIC-30 WWW.DNR.STATE.LA.US/CONS/DOCUMENTS.SSI

Well Serial Number: _

NORM CHECK LIST Form UIC-30

1.	Is well information correct and is the signature original?
2.	Is there a before and after well sketch?
3.	If casing is to be removed, will it expose any open hole?
4.	Is the shoe of the surface casing at least 100-feet below the base of the lowermost underground source of drinking water (USDW)?
5.	Will each set of production perforations be plugged with a 100-foot cement plug (minimum)?
	If a Cast Iron Bull Plug (CIBP) is to be used, will there be 10-feet of cement on top of the CIBP?
6.	Will the bottom plug be tagged and the casing and bottom plug be tested to 1000 PSIG for 30 minutes with less than 100 PSI loss?
7.	Will the top of the NORM plug and/or NORM tubing be deeper than 100-feet below the shoe of the surface casing?
8.	Will the CIBP above the NORM plug be placed at least 50-feet below the shoe of the surface casing?
9,	Will the middle cement plug in the production/surface casing annulus and inside the production casing be 100-feet or greater and be 50/50 with the surface casing shoe?
	If cement can not be circulated, will the production casing/surface casing annulus be squeezed and a 100-foot cement plug be placed on top of the CIBP?
	If the annulus can not be squeezed, will 200-feet of cement be placed on top of the CIBP?
10.	Will the middle plug be tested to 1000 PSIG for 30 minutes with less than 100 PSI loss?
11.	Will the fluid between the cement plugs be 9.0 PPG or greater?
12.	Will the top plug be 100-feet or greater?
13.	Will the casing be cut 2-feet below ground level or 10-feet below the mud line?

FORM UIC-30 WWW.DNR.STATE.LA.US/CONS/DOCUMENTS.SSI

Department of Natural Resources Office of Conservation Injection and Mining Division

NORM Disposal Guidelines Plugging and Abandonment Procedures

Application to plug and abandon any well under the jurisdiction of the Office of Conservation which is to be utilized for downhole disposal of NORM solids and/or NORM contaminated tubing, shall be made on Form UIC-30, **Work Permit to Perform a NORM Plug and Abandonment**. Form UIC-30 is to be submitted to the Injection and Mining Division, P. O. Box 94275, Baton Rouge, Louisiana 70804-9275 for review.

The Department of Environmental Quality (DEQ), Office of Air Quality and Radiation, Nuclear Energy Division, will be sent a copy of Form UIC-30 upon completion of the review. If approved, a copy of Form UIC-30 must be attached to the application to DEQ to perform jobsite (NORM disposal) activities.

The following procedures shall be utilized by oil and gas operators for the disposal of NORM contaminated tubing and/or NORM solids into a well that is to be plugged and abandoned:

a. Cement plugs in addition to those specified in the following procedure shall be placed in the well to contain high pressure sands, freshwater sands and as may be required by the Office of Conservation.

b. A bottom cement plug of at least one hundred (100) feet in length shall be placed immediately above the uppermost perforated interval in the well. In multiple completed wellbores, sufficient cement shall be used to adequately isolate each perforated pool, one from the other. A cast iron bridge plug with a minimum of ten (10) feet of cement on top is acceptable in lieu of the one hundred (100) foot cement plug.

c. The bottom cement plug shall be tagged and both the cement plug and production casing pressure tested to one thousand (1000) PSIG for thirty (30) minutes for integrity. More than 100 psi pressure loss in thirty (30) minutes constitutes loss of integrity. If loss of integrity cannot be corrected, the well is not a candidate for disposal of NORM contaminated tubing and/or NORM solids.

d. Once mechanical integrity of the bottom cement plug and production casing is established, NORM contaminated tubing and/or NORM solids may be placed in the well. NORM solids shall be placed by the circulation method and spotted beginning at the top of the bottom casing plug. NORM solids may be placed as per above with NORM contaminated tubing, which may then be left in the well. NORM contaminated tubing shall be placed in the well so as not to disturb the integrity of the cement plug.

e. NORM contaminated tubing and/or NORM solids shall be placed inside the production casing at a depth deeper than one hundred (100) feet below the surface casing shoe. A cast iron bridge plug shall then be placed at least fifty (50) feet below the base of the surface casing shoe.

FORM UIC-30

WWW.DNR.STATE.LA.US/CONS/DOCUMENTS.SSI

NORM Disposal Guidelines PAGE 2

f. A cement plug of at least one hundred (100) feet in length shall be placed in the production/surface casing annulus and inside the production casing so that cement shall extend at least fifty (50) feet below the surface casing shoe. This cement shall be placed by pumping down the annulus using a calculated displacement. In the event that cement cannot be pumped down the annulus, the cement shall be placed by perforating the production casing at least fifty (50) feet below the surface casing shoe and circulating, if possible or if not, by squeezing the outer cement plug into the annulus. A cement plug of at least one hundred (100) feet in length shall then be placed in the production casing above the bridge plug. The production casing cement plug shall be tagged and pressure tested to one thousand (1000) PSIG for thirty (30) minutes. In the event that cement cannot be circulated or squeezed into the annulus, a cement plug of at least two hundred (200) feet in length shall be placed immediately above the cast iron bridge plug in the production casing. The production casing cement plug shall be tagged and pressure tested to one thousand (1000) PSIG for thirty (30) minutes for integrity (more than 100 psi pressure loss in thirty (30) minutes constitutes loss of integrity).

g. A top cement plug of at least one hundred (100) feet in length shall be placed at the top of the well in the production/surface casing annulus and inside the production casing.

- h. General Requirements:
 - i. Mud-laden fluid between cement plugs shall be of a density of at least nine (9.0) pounds per gallon.
 - ii. NORM contaminated tubing and/or NORM solids shall not be placed in any well where production casing has been retrieved or in any open hole. NORM contaminated tubing and/or NORM solids shall not be disposed of in any wells where the bottom cement plug or casing fails the pressure integrity test. NORM contaminated tubing and/or solids shall not be placed in any well in which the surface casing is not set at least one hundred (100) feet below the base of the lowermost USDW.
 - iii. Well casing(s) shall be cut a minimum of two (2) feet below plow depth on all land locations and a minimum of ten (10) feet below the mud line on all water locations. Explosives shall not be used to remove the casing(s)/wellhead.
 - iv. NORM contaminated solids shall not be mixed with any cement slurry that is to be used as a plug.
 - v. Except where otherwise provided in this procedure all cement plugs shall be placed by the circulation method and hydrostatically balanced. The well must be in a static condition at the time cement plugs are placed in the well.

FORM UIC-30

WWW.DNR.STATE.LA.US/CONS/DOCUMENTS.SSI

DNR/OFFICE OF CONSERVATION ENGINEERING DIVISION PIT ID# ____ P ____

Status Date Review By

ENG-15

(formerly UIC-15)	ą.	
TYPE OR PRINT		

E & P WASTE CONTAINMENT STRUCTURE NOTIFICATION

Operator Nat	ne:	Operator Code :
Address:		
Contact:		Phone ()
Facility Iden	tification:	
Well Name &	& Number of Nearest Associated We	11: Serial No
Field:		Field Code:
Sec	Twp, Rge, Paris	sh:Parish Code:
Location Der	scription of Center of Structure in La	mbert Coordinates 1927 datum:
X =	Y=	
Dimensions:	Length: ft., Width: ft.,	Average Depth: ft.
Type of Pit:	Produced Water Test Burn Compressor Sta Vacuum Truck Washout N Onshore Terminal Salt Do Other (specify):	ation Natural Gas Processing Plant ome Cavern
Type of Line	r (if applicable):	
		e Re-compacted Clay
Combin	nation of:	
Other:		
Status of Stri	icture:	
time criter opera		dence (closure letter, lab results,
struct	ing Pit to be Utilized or New Constru- ure conforms to the requirements LA nenting evidence if applicable that th	

(Signature of Responsible Party)

of LAC 43:X1X 307 are met. If new construction, I will notify the Office of

(Date)

(Print or Type Name)

Conservation before first use.

(Date)

DNR/OFFICE OF CONSERVATION ENGINEERING DIVISION

ENG-15c Rev 01/2007 TYPE OR PRINT

For Office Use Only (If Land Treatment/Burial Method Used) ID#___P____ Status Date Reviewed By

EXPLORATION & PRODUCTION WASTE UNAUTHORIZED DISCHARGE/DISPOSAL NOTIFICATION

PART I	GENERAL INFO	ORMATION		
Operator Name: Operator Address: _ -			Ope ct Name: : No.: ()	
	n: er of Nearest Well: Field Name:			Field Code:
Parish:	Township: of Area: LATdeg min	Parish	Code:	
PART II	DISCHARGE INFOI			300
Discharge Date: Report Date: Additional Comment	(Sce Back Page f	for Dctails)	LATd	of Discharge: cgminscc cgminscc
Oil: Saltwater: Other: (Description)	heck all that apply/Circle appro. un Volgal. / bb Volgal. / bb ribc)Volgal. / bbl gal. / bbl. / cu, yds.	1. / cu. yds. 1. / cu. yds.	Longth: Width:	of Impact: fcet fcet pth:fcet
if necessary):	es Resulting in the Accumulations of mediately Control/Contain Spill (Atta			
Measures Taken to P	revent Future Spills:			
PART III	CLEANUP M	ETHOD(S)		
Burial/Trenet Land Treatme Return to Pro Commercial Note: A list o	ized in Cleanup: (Check Method(s) ing (Must Submit Closure Data - Sec ent (Must Submit Closure Data - Sec duction Facility Waste Facility (Must Submit Form U f approved offsite commercial waste fi n by calling (225) 342-5515.	Back Page) Back Page)	Vol Vol Vol Vol	_ gal. / bbl. / cu. yds. _ gal. / bbl. / cu. yds.
(5	ignature of Responsible Party)		(Date	2)
	(Print or Type Name)		(Dat	e)
43:XIX.311 a least five (5)	bove I attest that the cleanup in quest and 313. If burial/trenching is checked feet above the seasonal high water is vered with native soil.	ed above, I als	o attest that the	burial cell is at

INSTRUCTIONS ON BACK

MAIL TO: DNR/OFFICE OF CONSERVATION, ENGINEERING DIVISION P.O. BOX 94275, BATON ROUGE, LA 70804-9275

Instructions For Submitting E & P Cleanup Datum

Submit certified copies of laboratory analysis*. (Signed Originals) *Please note that all analytical tests submitted in accordance with LAC 43:XIX.Subpart 1 must be performed by Department of Environmental Quality (LDEQ) Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratories. Further, the laboratories must be accredited for each parameter and corresponding method referenced in the Department of Natural Resources (DNR) lab manual entitled "Laboratory Procedures for Analysis of Exploration & Production Waste".

LIMITATIONS:	LAND TREATMENT	BURIAL/TRENCHING	
<u>рН</u>	6-9	6-9	
<u>Oll& Greuse</u>	< 1 %	<3%	
Total Metals C	ontent (ppm)		
Arsenic (AS)	10	10	
Bariun (BA)	40,000 * 20,000 ** 20,000 ***	40,000	
Cadmium (CI	9) 10	10	
Chromium (C	R) 500	500	
Lead (PB)	500	500	
Mercury (HG	10	10	
Selenium (SE)	10	10	
Silver (AG)	200	200	
Zinc (ZN)	500	500	
Soluble Salts	k Cantionic Distributions		
EC (mmhos/cn	n) <4 *	<12	
	<8 **		
SAR	<12 *	N/A	
	<14**		(a):
ESP%	<15 *	N/A	
	<25**		
Molsiure Conto	ni N/A	<50% by weight	
* Upland ** I	levated, Freshwater Wetland	*** Submerged Wetland	

Mandatory Phone Notification^

OFFICE & PHONE NUMBER (Select appropriate District Office)	NOTIFICATION DATE & TIME	PERSON(S) NOTIFIED
Lafayette District Office of Conservation (337) 262-5777	Date:AM / PM	Contact:
Shreveport District Office of Conservation (318) 676-7585	Date:AM / PM	Contact:
Monroe District Office of Conservation (318) 362-3111	Date:AM / PM	Contact:
Office of State Police (225) 925-6595	Date:AM / PM	Contact:
Dept. of Environmental Quality (225) 342-1234	Date:AM / PM	Contact:
National Response Center 1-800-424-8802	Date:AM / PM	Contact:

[^] <u>Be prepared to report the following</u>: Your Name/Location/Organization/Telephone Number, Name/Address of Parry Responsible for Incident, Date/Time of Incident, Incident Location, Source/Cause of Incident, Material Released, Quantity Released, Danger or Threat Posed by Release, Number/Types of Injuries, Weather Conditions.

DNR/OFFICE OF CONSERVATION ENGINEERING DIVISION

File In Duplicate With DISTRICT OFFICE Type or Print (Instructions on Back)

ENG-16	OILFIELD WASTED	ISPOSITION	N	
OPERATOR NAME				
PHONE	/CON	TACT		
WELL NAME/NO	// or		SERIAL NO.	
SECTWP	RGEFIEL	.D	C	ODE
UPLAND				
WATER LOCATIO				
NEW WELL	WORKOVER			
IF NEW WELL, DATE TOT	AL DEPTH REACHED?			
IF EXISTING WELL, DATE	WORKOVER COMPLETE	D?		
WAS A CLOSED MUD SYS	TEM UTILIZED? YES	NO		
WAS A RESERVE PIT CON	ISTRUCTED? YE	S NO)	
Overall Dimensions: Length				
Was pit closed?				
WAS A SEPARATE WATE				
Dimensions: Length				ft.
Was pit closed?	YES NO Date	Closed:		
WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO	5 LBS/BBL CAUSTIC SOD	A OR LIME, A		we as the the summarian decise. I
WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO TYPE, VOLUME, & DISPOS	5 LBS/BBL CAUSTIC SOD	A OR LIME, A RATED: TEM	AND 50 LBS/BBL	BARITE?
WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO TYPE, VOLUME, & DISPOS TYPE	5 LBS/BBL CAUSTIC SOD	A OR LIME, A RATED: TEM	AND 50 LBS/BBL	BARITE?
WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, . YESNO TYPE, VOLUME, & DISPOS TYPE WATER BASE MUD	5 LBS/BBL CAUSTIC SOD ITION OF WASTES GENEI CLOSED SYS VOLUME	A OR LIME, A RATED: TEM DISP.*	AND 50 LBS/BBL RESE VOLUME	BARITE? RVE PIT DISP.
WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, . YES NO TYPE, VOLUME, & DISPOS TYPE WATER BASE MUD CUTTINGS (water base)	5 LBS/BBL CAUSTIC SOD ITION OF WASTES GENEI CLOSED SYS VOLUME	A OR LIME, A RATED: TEM DISP.*	AND 50 LBS/BBL RESE VOLUME	BARITE? RVE PIT DISP.
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WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO TYPE, VOLUME, & DISPOS TYPE WATER BASE MUD CUTTINGS (water base) OIL BASE MUD CUTTINGS (oil base)	5 LBS/BBL CAUSTIC SOD ITION OF WASTES GENEI CLOSED SYS VOLUME	A OR LIME, A	AND 50 LBS/BBL RESE VOLUME	BARITE?
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WAS THE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO TYPE, VOLUME, & DISPOS	5 LBS/BBL CAUSTIC SOD ITION OF WASTES GENEI CLOSED SYS VOLUME	A OR LIME, A	AND 50 LBS/BBL. RESE VOLUME	BARITE?
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WASTHE WELL DRILLED 25 LBS/BBL BENTONITE, YESNO TYPE, VOLUME, & DISPOS TYPE WATER BASE MUD CUTTINGS (water base) OIL BASE MUD CUTTINGS (oil base) COMPLETION FLUIDS WORKOVER FLUIDS SAND SALT WATER WASH WATER	5 LBS/BBL CAUSTIC SOD ITION OF WASTES GENEI CLOSED SYS VOLUME	A OR LIME, A	AND 50 LBS/BBL. RESE VOLUME	BARITE?
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CERTIFY UNDER PENALTY OF LAW THAT I AM PERSONALLY FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND THAT THE DISPOSITION OF ALL ABOVE-LISTED OILFIELD WASTE GENERATED AT THIS WELL LOCATION WAS CONDUCTED IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS OF THE OFFICE OF CONSERVATION.

(SIGNATURE) Form ENG-16 (formerly UIC-16) (DATE)

INSTRUCTIONS

Within six (6) months of the completion of the drilling or workover of any permitted well, the operator (generator) shall certify to the Commissioner by filing Form ENG-16 (formerly UIC-16) the types and number of barrels of nonhazardous oilfield waste (NOW) generated, the disposition of such waste, and further certify that such disposition was conducted in accordance with applicable rules and regulations of the Office of Conservation. Such certification shall become a part of the well's permanent history.

LAC 43:XIX.303.L

TYPE OF WASTE:

In the space provided indicate the volume, and disposition of the wastes generated.

- <u>Water-Based Drilling Mud</u> Any water-based fluid composed of fresh waster and naturally
 occurring clays which may contain additives for fluid loss control, viscosity, thinning, PH control,
 weight control, etc., for down-hole rheoloogy and stability.
- b. <u>Cuttings (water base)</u> Solids which have been dislodged by the bit and brought to the surface in the drilling mud.
- c. <u>Oil-Based Drilling Mud</u> Any oil-based drilling fluid composed of a water in oil emulsion and orgnaophillis clays which may contain additives for down-hole rheology and stability such as fluid loss control materials, thinners, weighing agents, etc.
- <u>Cuttings (oil base)</u> Solids which have been dislodged by the bit and brought to the surface in the drilling mud.
- <u>Completion Fluids</u> Any fluid utilized to complete the well, which is primarily composed of water and depending on downhole conditions various additives.
- f. <u>Workover Fluids</u> Any fluid utilized to workover the well, which is primarily composed of water and depending on downhole conditions various additives.
- g. <u>Sand</u> Loose granular material which has been brought to the surface in completion or workover fluids and as a result of well testing activities.
- h. Salt Water Produced water from an oil or gas well with a chloride content greater than 500 ppm.
- Wash Water Liquids generated from the cleaning of vessels, barges, rig equipment, drill pipe, etc. which is not contaminated by hazardous waste.
- j. <u>Rainwater</u> Liquids retrieved from ring levees and pits at production and drilling facilities.
- k. Other Any waste not described above.

VOLUME:

In the space provided indicate the number of barrels (in 42 U.S. gallon barrels) produced of each type of waste.

DISPOSITION CODES:

For each type waste generated, indicate the proper disposition in the column provided in Section No. 8:

- 01 -- Onsite Land Treatment
- 02 -- Onsite Burial
- 03 -- Onsite Solidification/Burial
- 04 -- Onsite Annular Injection
- 05 -- Onsite Open Hole Injection
- 06 -- Onsite Class II Injection
- 07 -- Turned Into Production Stream
- 08 -- DEQ Permitted Discharge
- 09 -- Offsite Commercial Facility After disposition code indicate facility site code number (i.e., 09/0101)
- 010 -- Onsite/Offsite Reuse **
- 011 -- Permitted Salvage Oil Reclamation Facility

** Must comply with LAC 43:XIX.565

NEW MEXICO

District I 1625 N. French Dr., Hobbs, NM 88240 District II	State of New Mexico Energy Minerals and Natural Resources	Form C-10 June 16, 200
1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Submit to appropriate District Office
	IIT TO DRILL, RE-ENTER, DEEPEN, PLU	JGBACK, OR ADD A ZONE

			Operator Name	and Address		- OGRID Number						
							30 -	'API Number				
⁹ Рторх	rty Code				³ Property Name	verty Name "Well No.						
	<u> </u>		Proposed Pool 1			1	*º Pro	posed Pool 2				
					⁷ Surface Lo	cation						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County			
			⁸ Pro	posed Bottom	Hole Location	If Different From	n Surface					
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County			
	L			Add	itional Well In	nformation		1				
" Work	Type Code		12 Well Type Cod	e	13 Cable/Rotary	1	Lease Type Code	15 Ground	Level Elevation			
¹⁶ Multiple		17 Proposed Dept	<u>, </u>	18 Formation		19 Contractor	31	Spud Date				
		1		1		1						

²¹ Proposed Casing and Cement Program

Holc Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC			
	·							
2 D 11 11 1	1041							
		n is to DEEPEN or PLUG BAC se additional sheets if necessary.		at productive zone and pro	posed new productive zone.			
1								
			3					
					-160 1			
¹³ I hereby certify that the inf of my knowledge and belief.	ormation given above is	true and complete to the best	OIL CONSERVATION DIVISION					
Signature:			Approved by:					
Printed name:	1. · · ·		Title:		2			
Title:			Approval Date: Expiration Date:					
E-mail Address:								
Date:	Phone:	40.	Conditions of Approval Attac	shed 🗌				
					the second of the second se			

District 1	
1625 N. French Dr., Hobbs, NM 88240	
District II	
1301 W. Grand Avenue, Artesia, NM 88210	
District III	
1000 Rio Brazos Rd., Aztee, NM 87410	
District IV	
1220 S. St. Francis Dr., Santa Fe, NM 87505	

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

□ AMENDED REPORT

,	API Number	r		' Pool Code		ACREAGE DEDICATION PLAT							
' Property	Code		_!		⁵ Property Na	me		'Well N	umber				
'OGRID	No.		-	"Operator Name 'Eleva									
					¹⁰ Surface L	ocation							
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
	L		¹¹ Bot	tom Hole	Location If]	Different From	Surface						

UL or lot no.	Scetion	Township	Range	Lot Idn	Fect from the	North/South line	Feet from the	East/West line	County
" Dedicated Acres	" Joint or	Infill "C	Consolidation C	ode ¹⁵ Orde	r No.				

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16			¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either awas a working interest ar unlessed numeral interest in the knud including the proposed bottom hole location or has a right to drill this well at this location pursuant to a construct with an owner of such a mineral or working interest, or to a voluntury pooling agreement or a compulsory pooling order herotogore entered by the division.
	*		Signature Date
			¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
			Date of Survey Signature and Seal of Professional Surveyor:

New Mexico Oil Conservation Division C-102 Instructions

IF THIS IS AN AMENDED REPORT, CHECK THE BOX LABELED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the appropriate OCD district office. Independent subdivision surveys will not be acceptable.

- 1. The OCD assigned AP1 number for this well.
- 2. The pool code for this (proposed) completion.
- 3. The pool name for this (proposed) completion.
- 4. The property code for this (proposed) completion.
- 5. The property name (well name) for this (proposed) completion.
- 6. The well number for this (proposed) completion.
- 7. Operator's OGRID number.
- 8. The operator's name.
- 9. The ground level elevation of this well.
- 10. The surveyed surface location of this well measured from the section lines. NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD unit letter.
- 11. Proposed bottom hole location. If this is a horizontal hole indicate the location of the end of the hole.
- 12. The calculated acreage dedicated to this completion to the nearest hundredth of an acre.
- 13. Put a Y if more than one completion will be sharing this same acreage or N if this is the only completion on this acreage.
- 14. If more than one lease of different ownership has been dedicated to the well show the consolidation code from the following table:
 - C Communitization
 - U Unitization
 - F Forced pooling
 - O Other
 - P Consolidation pending

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION!

- 15. Write in the OCD order(s) approving a non-standard location, non-standard spacing, or directional or horizontal drilling.
- 16. This grid represents a standard section. You may superimpose a non-standard section over this grid. Outline the dedicated acreage and the separate leases within that dedicated acreage. Show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. (Note: A legal location is determined from the perpendicular distance to the edge of the tract.) If this is a high angle or horizontal hole, show that portion of the well bore that is open within this pool.

Show all lots, lot numbers, and their respective acreage.

If more than one lease has been dedicated to this completion, outline each one and identify the ownership as to both working interest and royalty.

- 17. The signature, printed name, e-mail address, and title of the person authorized to make this report, and the date this document was signed.
- 18. The registered surveyors certification. This section does not have to be completed if this form has been previously accepted by the OCD and is being filed for a change of pool or dedicated acreage.

Submit To Appropriate District Office Two Copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240				State of New Mexico Energy, Minerals and Natural Resources						Form C-105 July 17, 2008							
1625 N. French Dr., District II 1301 W. Grand Ave District III			11 J		Oi	l Conservat	tion	Divi	sio	on		WELL API NO. Type of Lease					
1000 Rio Brazos Rd., Aztec, NM 87410 District IV							r.		2. Type of Lease								
1220 S. St. Francis	1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505									3. State Oil &	Gas		0.				
WELL COMPLETION OR RECOMPLETION REPORT AND LOG													4. 				
4. Reason for fili		ORT (Fill i	n boxes #	1 throug	h #31	for State and Fee	e wells	s only)				 Lease Name Well Numb 		nit Agre	ement Na	ame	
C-144 CLOS #33; attach this ar	nd the plat	ACHME	NT (Fill 4 closure	in boxes report i	#1 thr n acco	ough #9, #15 Da rdance with 19.1	ate Rig 5.17.1	g Releas	sed MA	and #32 and C)	/or					î.	
7. Type of Comp NEW V 8. Name of Opera	WELL 🗆	WORKO	VER 🗌	DEEPEI	NING	PLUGBACH	K 🔲 1	DIFFEI	REN	IT RESERV	/OIR	9. OGRID					
10. Address of Opera												11. Pool name	or Wi	Idcat			
10. Audicas of Of	Jerator												0	lucur			
12.Location	Unit Ltr	Sectio	n	Townsh	ip	Range	Lot			Feet from t	the	N/S Line	Feet	from th	e E/W	Line	County
Surface:							1										
BH:	1			1													
13. Date Spudded		e T.D. Rea	ched			Released				040		I (Ready to Prod	- 20	1	RT, GR, o	etc.)	and RKB,
18. Total Measure				14100-00-00		ck Measured Dep	pth		20.	Was Direct	tiona	Il Survey Made?		21. Ty	pe Electr	ic and Ot	her Logs Run
22. Producing Int	erval(s), of	this comp	letion - T		5 526												
23.				CASING RECORD (Report all strin						ring							
CASING SI	ZE	WEIGI	IT LB./F	3./FT. DEPTH SET				HOLE SIZE		CEMENTING RECORD		CORD	AMOUNT PULLED		PULLED		
								_							-		
												1	- 1				
24.					LIN	ER RECORD	- 202	-	- 200		25.			IG RE		4	
SIZE	TOP		BOT	ТОМ		SACKS CEM	ENT	SCRI	EEN	1	SIZ	ZE	DE	EPTH SI	<u> </u>	PACK	ER SET
								<u> </u>			-		+-	_		-	
26. Perforation	record (int	erval, size,	and num	ber)				27.	AC	ID. SHOT.	FR	ACTURE, CE	MEN	T. SOI	JEEZE.	ETC.	
1			100000000000000000000000000000000000000	,						INTERVAL		AMOUNT A					
i i														1	24		
			<u> </u>		-			L	1				-				
28.										TION		1					
Date First Produc	tion		Production	on Meth	od (Fla	owing, gas lift, p	umpin	ig - Size	e an	d type pump	9	Well Status	(Prod	t or Shi	u-in)		8
Date of Test	Hours	Tested	Chol	ke Size		Prod'n For Test Period		Oil -	Bbl		Ga	s - MCF	w:	ater - Bt	ol.	Gas - C	Dil Ratio
Flow Tubing Press.	Casing	Pressure	1.5.5.5	ulated 2 Rate	4-	Oil - Bbl.			Gas ·	- MCF	1	Water - Bbl.		Oil G	ravity - A	PI - (Cor	r.)
29. Disposition of	f Gas (Sold	, used for j	iiel, vente	ed, etc.)									30. T	est Witt	nessed By	'	
31. List Attachme	ents								_		_					2	+
32. If a temporary	pit was us	sed at the v	ell, attac	h a plat '	with th	e location of the	tempo	orary pi	t,								
33. If an on-site b	urial was u	ised at the	well, repo	ort the ex	act loc	cation of the on-s	site bu	rial:							÷		
I hereby certij	fy that the	e inform	ation sh	own o	n boti	Latitude h sides of this	forn	n is tri	ue a	and comp	lete	Longitude to the best of	f my	knowle	edge an	NA d beliej	D 1927 1983
Signature	<u>n</u>	10]	Printed Name				Tit		8				Date	
E-mail Addre	SS											14 					

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southea	astern New Mexico	Northy	Northwestern New Mexico					
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"					
T. Salt	T. Strawn	T. Kirtland	T. Penn. "B"					
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"					
T. Yates	T. Miss	T. Pictured Cliffs	T. Penn. "D"					
T. 7 Rivers	T. Devonian	T. Cliff House	T. Leadville					
T. Queen	T. Silurian	T. Menefee	T. Madison					
T. Grayburg	T. Montoya	T. Point Lookout	T. Elbert					
T. San Andres	T. Simpson	T. Mancos	T. McCracken					
T. Glorieta	T. McKee	T. Gallup	T. Ignacio Otzte					
T. Paddock	T. Ellenburger	Base Greenhorn	T.Granite					
T. Blinebry	T. Gr. Wash	T. Dakota						
T.Tubb	T. Delaware Sand	T. Morrison						
T. Drinkard	T. Bone Springs	T.Todilto						
T. Abo	Τ.	T. Entrada						
T. Wolfcamp	T.	T. Wingate						
T. Penn	Τ.	T. Chinle						
T. Cisco (Bough C)	T.	T. Permian						

OIL OR GAS SANDS OR ZONES

No. 1, from	No. 3, fromtoto
No. 2, fromtoto	No. 4, fromtoto

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.	toto	feet	
No. 2, from.	toto	feet	
No. 3, from.	to	feet	

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	То	Thickness In Feet	Lithology	From	То	Thickness In Feet	Lithology
÷			71 	đ			
			2				
ф 37			2				<i>a</i>
					1		
			<i>x</i> *				

District 1 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

Form C-144 July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit
Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the
environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
1. Operator:
Address:
Facility or well name:
API Number: OCD Permit Number:
U/L or Qtr/Qtr Section Township Range County:
Center of Proposed Design: Latitude Longitude NAD: 1927 1983
Surface Owner: 🗌 Federal 🗋 State 🛄 Private 🗋 Tribal Trust or Indian Allotment
2. 2. Pit: Subsection F or G of 19.15.17.11 NMAC Temporary: Drilling Workover Permanent Emergency Cavitation P&A Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other String-Reinforced Liner Searns: Welded Factory Other Volume:bbl Dimensions: L x W x D 3.
Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
Drying Pad Above Ground Steel Tanks Haul-off Bins Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE VC Other
Liner Seams: Welded Factory Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection 🗌 Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
Visible sidewalls and liner Visible sidewalls only Other
Liner type: Thicknessmil HDPE PVC Other
s. Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
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Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)

Four foot height, four strands of barbed wire evenly spaced between one and four feet

Alternate. Please specify_

7.

10.

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other

Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.3.103 NMAC

Administrative	Approvals a	and Exception	ons:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	priate district pproval.
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🗌 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗌 Yes 🗌 No

Within a 100-year floodplain.

FEMA map

Ves No

11. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number:
13. Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Reregency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Errosion Control Plan Closure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14. Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

facilitics are required. Disposal Facility Permit Number: Disposal Facility Name: Disposal Facility Permit Number: Up or the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations: Coil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Subsection I of 19.15.17.13 NMAC Site Reclamation Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection I of 19.15	^{16.} Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if m) NMAC) nore than two
Disposal Facility Name:	facilities are required.	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations? We (If yes, please provide the information below) No Reverged for inpacted areas wither will not be used for future service and operations? Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection 10 in 19.15.17.13 NMAC Reverged upon the appropriate requirements of Subsection 0 in 19.15.17.13 NMAC Sting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting orderia requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requess regarding charges to certain sting, criteria may require administrative approval from the appropriate damits office or may be demonstrations of genvinelary are required. Provided below of the bottom of the buried waste. Image: Criteria frequent frequence frequence. Please refer to 19.15.17.10 NMAC for guidance: Cround water is less than 50 feet below the bottom of the buried waste. No NM Office of the State Engineer - iWATERS databases earch; USGS; Data obtained from nearby wells No Ground water is more than 100 feet below the bottom of the buried waste. No NM Office of the State Engineer - iWATERS databases earch; USGS; Data obtained from nearby wells No Intermed to the state Engineer - iWATERS databases earch; USGS; Data obtained from nearby wells No	Disposal Facility Name: Disposal Facility Permit Number:	
□ Yes (If yes, please provide the information below) □ No Required for impacted areas which will not be used for fature service and operations: □ Soli Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC □ Soli Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC □ Soli Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC □ Soli Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC □ Soli Backfill and Cover Design Specifications based upon the appropriate required endinistrative approval from the appropriate required endinistrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance. Ground water is less than 50 feet below the bottom of the buried waste. □ Yes □ No NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells □ Yes □ No Cround water is between 50 and 100 feet below the bottom of the buried waste. □ Yes □ No NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells □ Yes □ No Cround water is between 50 and 100 feet below the bottom of the buried waste. □ Y	Disposal Facility Name: Disposal Facility Permit Number:	
Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection J of 19.15.17.13 NMAC The state of the state of the state losure methods only: 19.15.17.10 NMAC Instructions: Each stiling criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain stiling criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of quivalency are required. Places refer to 19.15.17.10 NMAC for guidance. Ground water is less than 50 feet below the bottom of the buried waste. Image: Place refer to 19.15.17.10 NMAC for guidance. Ground water is between 50 and 100 feet below the bottom of the buried waste. Image: Place refer to 19.5.17.10 NMAC for guidance. M Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Image: Place refer to 19.5.17.10 NMAC for guidance. Ground water is more than 100 feet below the bottom of the buried waste. Image: Place refer to 19.5.17.10 NMAC for guidance. NA Image: Place refer to 19.5.17.10 NMAC for guidance. Image: Place refer to 19.5.17.10 NMAC for guidance. Ground water is between 50 and 100 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS da	Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future servi	
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- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells NA Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa Yes No lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site Within 300 feet of a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Yes No - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Yes No Within 500 horizontal feet of a private, domestic fresh water well or spring, in existence at the time of initial application. Yes No - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site Yes No Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a nunicipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality Yes No Within 100 feet of a welland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No Within a unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Yes No Within a		
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 Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. Written confirmation or verification from the municipality; Written approval obtained from the municipality Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within a unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Within a 100-year floodplain. FEMA map 	lake (measured from the ordinary high-water mark).	🗌 Yes 🗌 No
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. . NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. . Yes No - Written confirmation or verification from the municipality; Written approval obtained from the municipality Yes No Within 500 feet of a wetland. . Yes No - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Within the area overlying a subsurface mine. . Yes No - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Yes No Within a nunstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Yes No Within a 100-year floodplain. - Yes No No - FEMA map . Yes No 18. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.		🗌 Yes 🗌 No
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 Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Within a 100-year floodplain. 		🗌 Yes 🗌 No
 Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Within a 100-year floodplain. FEMA map Yes No Yes No 	Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗌 Yes 🗌 No
- FEMA map 18. <u>On-Site Closure Plan Checklist</u> : (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.	- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	🗌 Yes 🗌 No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.		🗌 Yes 🗌 No
by a check mark in the box, that the documents are attached.		
 Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) 	 by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC 	5.17.11 NMAC

Soli Cover Design - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): Title:
Signature: Date:
e-mail address: Telephone:
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: Approval Date:
Title: OCD Permit Number:
21. <u>Closure Report (required within 60 days of closure completion</u>): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.
Closure Completion Date:
 22. <u>Closure Method:</u> Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
33. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the llquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized. Disposal Facility Name:
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and
belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print): Title:
Signature: Date:
e-mail address: Telephone:

 $(g_{1})_{1 \leq i \leq i} \in (a_{1},a_{2}) \neq (a_{1},a_{2})$

OHIO

APPLICATION FOR A PERMIT (Form 1)

OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINERAL RESOURCES MANAGEMENT 2045 Morse Road, Building H-3 COLUMBUS, OHIO 43229-6693 (814) 265-6633

SEE INSTRUCTIONS ON PAGE 2 (BACK)	
1. I, We (applicant)	2. Owner #:
(address)	Phone #:
hereby apply this date	for a permit to:
Drill New Well Plug I Drill Directionally Plug I	ed Location & Reissue Back Convert and Abandon Deepen an Well Program Reopen
3. TYPE OF WELL: Dil & Gas Stratigraphic Test Other (explain):	Annular Disposal Saltwater Injection Storage of:
Solution Mining*	Enhanced Recovery* * check appropriate box below
Input/Injection Water Supply	Production/Extraction Observation
4. MAIL PERMIT TO:	20. TYPE OF TOOLS:
5. COUNTY:	21. PROPOSED CASING PROGRAM:
6. CIVIL TOWNSHIP:	-
7. SECTION: 8. LOT:	
9. FRACTION: 10. QTR TWP:	
11. TRACT/ALLOT:	
12. WELL #:	
13. LEASE NAME:	
14. PROPOSED TOTAL DEPTH:	
15. PROPOSED GEOLOGICAL FORMATION:	22. FIRE AND MEDICAL DEPARTMENT TELEPHONE NUMBERS: (closest to well site)
16. DRILLING UNIT IN ACRES (must be same as acres	Fire:
indicated on plat):	Medical:
17. IF PERMITTED PREVIOUSLY:	23. MEANS OF INGRESS & EGRESS:
API#:	Township Road:
OWNER;	County Road:
WELL #:	Municipal Road:
LEASE NAME:	State Highway:
TOTAL DEPTH:	24. IS THE WELL LOCATION OR PRODUCTION FACILITIES
GEOLOGICAL FORMATION:	WITHIN AN URBANIZED AREA AS DEFINED BY 1509.03 ?
18. IF SURFACE RIGHTS ARE OWNED BY THE OHIO	Yes No
DEPARTMENT OF NATURAL RESOURCES:	25. WILL THE PROPOSED LOCATION OF THIS WELL
Division Name:	REQUIRE THE NOTICE SPECIFIED UNDER 1509.06 (I) ?
Division Phone:	Yes (Submit Copies)
19. LANDOWNER ROYALTY INTEREST:	
Is There An Attached List ?	🗋 No
Name:	
Address:	
Name:	
Address:	
Name:	
Address:	

I, the undersigned, being first duly sworn, depose and state under penalties of law, that I am authorized to make this application, that this application was prepared by me or

under my supervision and direction, and that the facts stated herein are true, correct, and complete, to the best of my knowledge.

I, the undersigned, further depose and state that I am the person who has the right to drill on the tract or drilling unit and to drill into and produce from a pool and to appropriate the oil or gas that I produce therefrom either for myself or others as described in this application. And furthermore, I the undersigned, being duly sworn, depose and state at this time that I am not liable for any final nonappealable order of a court for damage to streets, roads, highways, bridges, culverts, or drainage ways pursuent to section 5577.12 of the Ohio Revised Code (ORC), and that the notice required under section 1509.06 (I), ORC has been given. If applying for a permit to plug and abandon a well, I hereby certify that the written notices, as required in Section 1509.13, ORC, have been given.

That I hereby agree to conform with all provisions of Chapter 1509., ORC, and to all orders and rules issued by the Chief, Division of Mineral Resources Management.

Signature of Owner/Authorized Agent _

Name (Type or Print)

Title

20

If signed by Authorized Agent, a certificate of appointment of agent must be on file.

Swom to and subscibed before me this the _____ day of ____

(Notary Public)

DNR 5619 (Rev. 01/07)

(Date Commission Expires)

Before this application can be processed, a Form 9 (Authority and Organization Form), indicating the exact owner name on this Form 1, and proof of compliance with the surety requirements of Chapter 1509.07, Ohio Revised Code, must be on file with the Division of Mineral Resources Management. If a new owner name (i.e., one not currently on file with the Division) is used, a Form 9 and evidence of meeting the surety and insurance requirements must be filed with this application. The signature of owner/authorized agent must correspond with the signature of listing provided with the Form 9 on file with the Division.

All information requested on this form must be provided unless exempted by the instructions below. Incomplete applications may be returned to the applicant. An application for a permit requires the following:

Drill, Reissue, Reopen, Deepen and Plug Back an <u>Oil and Gas Well</u>

a. Original and two (2) copies of Application for a Permit (Form 1);

b. Original and four (4) copies of an Ohio registered surveyor's plat;

c. Original and one (1) copy of the Restoration Plan (Form 4);

d. Reopen, deepen, plug back and convert will require three (3) copies of the Well Completion Record (Form 8); e. \$250.00 check or money order payable to the Division of Mineral Resources Management and;

f. If requesting an expedited review, an additional \$500 fee is required; and an Oil & Gas Affidavit (if the

2. Urbanized Area Drilling Fees

For an urbanized area new well drilling permit, the fee is as follows: \$500 for a township with a population of 5,001 to 9,999; \$750 for a township with a population of 10,000 to 14,999; \$1,000 for a township with a population exceeding 15,000; and \$1,000 for all municipal corporations regardless of population. These fees do not apply to revised drilling units, re-issues of permits already issued and plug-backs.

3. Plug and Abandon

a. Original copy of Application for a Permit (Form 1);

proposed well location is in a coal-bearing township).

b. Two (2) copies of the Ohio registered surveyor's plat originally filed, or modified, if available;

c. Three (3) copies of the Well Completion Record (Form 8) if available; if there is no Well Completion Record on file with the Division, provide any drilling information that is available;

d. \$50 check or money order payable to the Division of Mineral Resources Management;

e. If requesting an expedited review, an additional \$250 fee is required.

4. Drill, Reissue, Reopen, Deepen, Plug Back or Convert a Well to <u>Saltwater Injection</u> a. Same as above: 1(a), (b), (c), (d); and

b. \$100 check or money order payable to the Division of Mineral Resources Management.

Item 1. Permit holder's name - as it appears on Form 9. Indicate the type of or combination of activities to be permitted.

Item 2. Indicate owner number, if the owner number is not known, please contact the Division.

Item 3. Indicate the type of well for which the application is being submitted.

Item 4. Provide name, address, city, state and zip code where the permit is to be mailed.

Items 5-11. Indicate drilling location.

Items 12-16. Provide requested information.

Item 17. Complete when application is for a permit to reopen, deepen, reissue, plug back, convert, or plug and abandon. If the well was never permitted, list "NONE" under permit #; all other wells require the permit number.

Item 18. Complete if surface rights are owned by the Ohio Department of Natural Resources.

Item 19. List names and addresses of all landowner royalty interest holders. Names must coincide with those shown on the designated unit or subject tract on the surveyor's plat or an explantion must be included. Additional sheets may be attached (overriding royalty and working interests are not required).

Item 20. Indicate type of tools that may be used.

Item 21. Indicate size and amount of casing to be used, and/or formations to be cased off.

Item 22. Indicate fire and medical department emergency telephone numbers closest to the well site.

Item 23. List all county, township, and/or municipal roads, streets and highways by name or number that applicant anticipates to use as means of ingress and egress to and from the well site.

Item 24. An "urbanized area" is a municipal corporation or a township that has an unincorporated population of more than five thousand, as defined under Section 1509.03 of the Ohio Revised Code.

Item 25. If yes, copies of the notices required under Section 1509.06 (I) of the Ohio Revised Code must be provided. For an application for a permit to drill a new well, a sworn statement that the applicant has provided notice of the application to the owner of each occupied dwelling unit that is located within five hundred feet of the surface location of the well if the surface location will be less than five hundred feet from the boundary of the drilling unit and more than fifteen occupied dwelling units are located less than five hundred feet from the surface location of the well, excluding any dwelling that is located on real property all or any portion of which is included in the drilling unit. The notice shall contain a statement that an application has been filed with the Division of Mineral Resources Management, identify the name of the applicant and the proposed well location, include the name and address of the Division, and contain a statement that comments regarding the application may be sent to the division. The notice may be provided by hand delivery or regular mail. The identity of the owners of occupied dwelling units shall be determined using the tax records of the municipal corporation or county in which the dwelling unit is located as of the date of the notice.

SUPPLEMENT TO APPLICATION FOR A PERMIT (Form 1A) Required by Amended HB 278/299

OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINERAL RESOURCES MANAGEMENT 2045 Morse Road, Building H-3 Columbus, OH 43229-6693 (614) 265-6633 http://www.dnr.state.oh.us/mineral/index.html

	Columbus,	OH 43229-6693
	(614) 265-6633 http://www	.dnr.state.oh.us/mineral/index.html
		Application No.:
		(To be filled in by the Division)
Information from the Submitted	Application (Form 1):	
Applicant:		Owner #:
County:		Lease Name:
Civil Township:		Well #:
24. IS THE WELL LOCATION OF	DODUCTION FACILITIES	25. WILL THE PROPOSED LOCATION OF THIS WELL
	REA AS DEFINED BY 1509.03 ?	REQUIRE THE NOTICE SPECIFIED UNDER 1509.06 (I) ?
Yes		
Signature of Owner/Authorized Age	nt	
Name (Type or Print)		Title
If signed by Authorized Agent, a cer	tificate of appointment of agent must be o	on file with the Division.
Sworn to and subscibed before me	this the day of	
		(Notary Public)
		(Date Commission Expires)
		(but our integration
	a municipal corporation or a townsh inder Section 1509.03 of the Ohio Ro	ip that has an unincorporated population of more
and the allousario, as delified u	ider Section 1503.03 of the Ohlo Ri	wiscu ooud.
		6 (I) of the Ohio Revised Code must be provided.
		that the applicant has provided notice of the application to the owner o f the surface location of the well if the surface location will be less than

For an application for a permit to drill a new well, a sworn statement that the applicant has provided notice of the application to the owner of each occupied dwelling unit that is located within five hundred feet of the surface location of the well if the surface location will be less than five hundred feet from the boundary of the drilling unit and more than fifteen occupied dwelling units are located less than five hundred feet from the surface location of the well, excluding any dwelling that is located on real property all or any portion of which is included in the drilling unit. The notice shall contain a statement that an application has been filed with the Division of Mineral Resources Management, identify the name of the applicant and the proposed well location, include the name and address of the Division, and contain a statement that comments regarding the application may be sent to the division. The notice may be provided by hand delivery or regular mail. The identity of the owners of occupied dwelling units shall be determined using the tax records of the municipal corporation or county in which the dwelling unit is located as of the date of the notice.

DNR 744-7005 (Rev. 10/05)

RESTORATION PLAN (Form 4)

Ohio Department of Natural Resources

Division of Mineral Resources Management, 2045 Morse Road, Bldg. H-3, Columbus OH 43229-6693

1. DATE OF APPLICATION:	
2. OWNER NAME, ADDRESS, & TELEPHONE NO .:	3. API#:
	4. WELL #:
	5. LEASE NAME:
	6. PROPERTY OWNER:
	7. COUNTY:
	8. CIVIL TOWNSHIP:
	9. SECTION: 10. LOT:
11. CURRENT LAND USE: Cropland Commercial Pasture Idle Land	17. TYPE OF WELL:
Wetlands Recreational	18. STEEPEST SLOPE GRADIENT CROSSING SITE:
Residential Industrial	0 to 2% 2.1 to 8%
Unreclaimed strip mine	8.1 to 10%
Woodland: Broadleaf Needlelike	□ 10.1 to 24% □ greater than 24%
12. SLOPE GRADIENT & LENGTH DETERMINED FROM:	19. LENGTH OF STEEPEST SLOPE CROSSING SITE:
U.S. Geological Survey Topographical Maps	☐ 1 to 100 ft. ☐ 101 to 200 ft.
Other: (explain)	□ 201 to 400 ft. □ greater than 400 ft.
13. TYPE OF FALL VEGETAL COVER:	20. RESTORATION OF DRILLING PITS: **
Little or no vegetal cover	Haul drilling fluids and fill pits
Short grasses	Use steel circulating tanks
Tall weeds or short brush (1 to 2 ft.)	Proposed alternative
Brush or bushes (2 to 6 ft.)	
Agricultural crops	21. BACKFILLING AND GRADING AT SITE:
Trees with sparse low brush	Construct diversions channeled to naturally established
Trees with dense low brush	drainage systems
14. SOIL & RESOILING MATERIAL AT WELLSITE:	Construct terraces across slopes
Stockpile and protect topsoil to be used when preparing	Grade to approximate original contour
seedbed	Grade to minimize erosion & control offsite runoff
Use of soil additives (e.g., lime, fertilizer)	Proposed alternative
No resoiling planned	22. VEGETATIVE COVER TO BE ESTABLISHED AT SITE:
Proposed alternative	Seeding plan Sod
15. DISPOSAL PLAN FOR TREES AND TREE STUMPS:	Agricultural crops Trees and/or Bushes
No trees disturbed Haul to landfill	Proposed alternative
Cut into firewood Sell to lumber	23. ADDITIONAL HOLES:
Bury with landowner's approval company	Rat/Mouse, if used, will be plugged
Mulch small trees and branches, erosion control	24. PROPOSED OR CURRENT LENGTH OF ACCESS ROAD:
Use for wildlife habitat with landowner approval	☐ 100 ft. or less ☐ 101 to 500 ft.
Proposed alternative	501 to 1500 ft. greater than 1500 ft.
16. SURFACE AND SUBSURFACE DRAINAGE FACILITIES:	25. CURRENT LAND USE OF PATH OF ACCESS ROAD:
No existing drainage facilities for removal of surface and/	Cropland Pasture Commercial
or subsurface water	Idle land Wetlands Recreational
Tile drainage system underlying land to be disturbed	Industrial Residential
Drain pipe(s) underlying land to be disturbed	Unreclaimed strip mine
Surface drainage facilities on land to be disturbed	Woodland: Broadleaf Needlelike

**PITS MUST BE FILLED WITHIN FIVE MONTHS AFTER COMMENCEMENT OF THE WELL. REQUIRED BY SECTION 1509.06 (L), OHIO REVISED CODE -- FAILURED TO SUBMIT MAY RESULT IN AN ASSESSMENT OF CRIMINAL FINES NOT LESS THE \$100.00 NOR MORE THAN \$2,000.00 OR CIVIL PENALTIES NOT LESS THEN \$4,000.00.

26. SURFACING MATERIAL FOR ACCESS ROAD: Gravel Brick and/or tile waste Slag Crushed stone No surfacing material to be used Proposed alternative	29. STEEPEST SLOPE GRADIENT ON ACCESS ROAD:
27. PATH OF ACCESS ROAD TO BE DETERMINED BY: Landowner Existing access road Operator	30. APPROXIMATE LENGTH OF STEEPEST SLOPE ON ROAD; 0 to 100 ft. 101 to 200 ft. 201 to 400 ft. greater than 400 ft.
28. GRADING AND EROSION CONTROL PRACTICE ON ROAD: Diversions Filter strips Drains Open top culverts Outsloping of road Pipe culverts Proposed alternative	31. HAS LANDOWNER RECEIVED A COPY OF THIS RESTORATION PLAN?
The undersigned hereby agrees to implement all restoration operations ide the Ohio Revised Code, and to all Orders and rules issued by the Chief, Di	
Signature of Owner/Authorized Agent	a 2
Name (Typed or Printed)	Date

RESTORATION PLAN MUST BE SUBMITTED TO THE DIVISION IN DUPLICATE.

LANDOWNER WAIVER (Form 5)

Ohio Department of Natural Resources

Division of Mineral Resources Management, 2045 Morse Road, Bldg. H-3, Columbus OH 43229-6693

1. API#: 34 0000	
county (3 digits) permit (5 digits)	in the first of the second
	SHES TO ASSUME RESPONSIBILITY FOR CHANGES TO ORIGINAL ATION PLAN
2.	
l (We),	, being the surface owner(s) of the land located in
County,	Township, and further described as
the receipt of the restoration plan submitted to the Division of Mineral R tion work on said land, as described in Item 3 below, pursuant to the co	
3. The following restoration work on well number	of the lease is waive
(Surface landowner's initials must appear before each item waived):	
Cill delline elle	Detailed explanation of restoration work waived:
Fill drilling pits Backfill and grade wellsite	
Establish vegetative coverage at the wellsite	
Disposal of trees and tree stumps	
Backfill and grade access road	
Establish vegetative coverage on access road	
Remove production facility equipment	
Other	
tion operations waived, I, the surface landowner will meet the guidelines constitute a waiver of any duties or rights of the parties as otherwise rec and other state and local statutes and ordinances. I, the surface landow	quired by law including, but not imited to, actions at common law, wner, further intend this waiver to bind my heirs, and assigns.
Surface Landowner's Signature:	Date:
Name (Typed or Printed):	Telephone Number:
Address:	
Witness Signature:	Date:
*****	******
FOR DIVISION USE ONLY	
Approved	Remarks:
Disapproved	
FOR THE CHIEF, DIVISION OF MINERAL RESOURCES MANAGEMENT	cc:, Landowner
DATE	, Chief

DNR 744-7006 (Rev. 10/05)

Ohio Department of Natural Resources Division of Mineral Resources Management 2045 Morse Road, Bldg. H-3, Columbus, OH 43229-6693 Telephone: 614-265-6633 Fax: 614-265-7998 This report is due in duplicate 30 days after completion of the well. If the permit has expired and the well was not drilled, check the box below, sign on reverse side, and return to our office within 30 days after expiration.

1. Owner #:				3. API #;			
2. Owner name, address and telephone numbers:			4. Type of Permit:				
				5. County:			
				6. Civil Towns	hip:		
				7. Footage:			
8. Type of Well:				-			
9. X:	Y:			21. Date drilling	a commenced:		
10. Quad:				22. Date drilling			<u> </u>
11. Section:	12. Lot:			23. Date put in	States and the second	<u> </u>	
13. Fraction:	14. Qtr.Twp:			24. Date plugg	2		<u> </u>
15. Tract:				25. Producing			- 72
16. Allot:				26. Deepest fo	energennes and sterr.		
17. Well #:				27. Driller's tota		· · · · · · · · · · · · · · · · · · ·	14
18. Lease Name:				28. Logger's to	12		
19. PTD:	20. Drilling Ur	nit:		29. Lost hole a			
	~			1		feet.	
30. Type of tools:	_			31. Type of cor		32: Elevation:	
Cable	Air Rotary			Open Ho		Ground Level	
Fluid Rotary	Air/Fluid Rot	ary				Derrick Floor	
Cable/Fluid Rotary	Service Rig			Slotted	Liner	Kelly Bushing	
33. Perforated intervals and			ry		lt		
55. Feriorateo intervais arto	number of sho	15.				10	
34. Method of shot, acid, or	fracture treatme	ents, product	ion tests, pressu	res, etc.:			
SHOT:	ACID:		FLUIDS:		SAND:	PRESSURES (psi)	:
Lbs.	Gals.		Gals.		Lbs.	Breakdown:	
Qts.	Туре:		Bbl.		Sx.	ATP:	
Туре:	Percent:		CO2 (tons):			ISIP:	
			N2 (mscf):			5 min. SIP:	
						Avg. Rate: _	
35. Mouse hole plugged:				Rat hole plugge	ed:		
Yes No		Sacks		Yes	No	Sacks	
36. Amount of initial product	ion per day:		(MCF.)		(Bbls.)	(Bbls.)	
Natural:	81 - A	Gas	R. 15	Oil	0.00	Brine	
After Treatment:		Gas		Oil -		Brine	
SERC Data:	Nur	nber of Tank	s:	Max	imum Storage C	apacity of all Tanks (bbls.)	
37. Casing and tubing record	d: Please ir	dicate which	is used (cement	t or mudding)			
Type	Size		et Used in Drilling		f Cement or Mud	Feet Left in Well	e.
Conductor/Drive Pipe:							
đ							
Surface:	1 <u>25000000000000000000000000000000000000</u>						
ntermediate:				2			
Production:		10 40		_			
Required by Section 1509.1	0. Ohio Revised (Code	Page	- – 1 of 2		DNR 5607	(Rev 4/04)

Tubing:				
Comments:	8 			
38. Name of drilling co	ntractor:			
				* .
39. Type of electrical a (all logs must be subm	nd/or radioactivity logs itted)	run:	-	2
40. Name of logging co	moany:			

DIVISION USE ONLY:

Log Submitted: Y / N Confidential: Y / N

1

Well Class:

A/D:

Ohio Department of Natural Resources Division of Mineral Resources Management 2045 Morse Road, Bldg. H-3, Columbus, OH 43229-6693 Telephone: 614-265-6633 Fax: 614-265-7998

This report is due in duplicate 30 days after completion of the well. If the permit has expired and the well was not drilled, check the box below, sign on reverse side, and return to our office within 30 days after expiration.

1. Owner #:			3. API #:				
2. Owner name, addr	ess and telephone numbers:		4. Type of Pe	rmit:		2	_
			5. County:				
			6. Civil Towns	ship:			
			7. Footage:				
8. Type of Well:	· · · · · · · · · · · · · · · · · · ·		1				
9. X:	Y:		21. Date drillin	g commenced:			
10. Quad:			22. Date drillin	g completed:			
11. Section:	12. Lot:		23. Date put in	to production:			
13. Fraction:	14. Qtr.Twp:		24. Date plugg	ged if dry:			
15. Tract:			25. Producing	formation:			
16. Allot:			26. Deepest fo	ormation:			
17. Well #:			27. Driller's to	al depth:			
18. Lease Name:			28. Logger's to	otal depth:			-
19. PTD:	20. Drilling Unit:		29. Lost hole a	at	fe	ət.	
30. Type of tools:			1 31. Type of co	mpletion:	32: Eleva		
Cable	Air Rotary		Open H			ound Level	
Fluid Rotary	Air/Fluid Rotary		Through			Tick Floor	
Cable/Air Rotary	Service Rig		Slotted			ly Bushing	
Cable/Fluid Rotary	Cable/Air Rotary/Fluid	Rotary		11			
SHOT: Lbs. Qts. Type:	ACID: Gals. Type: Percent:	FLUIDS; Gals. Bbl. CO2 (tons): N2 (mscf):		SAND: Lbs Sx	Bi	ESSURES (psi): reakdown: ATP: ISIP: min. SIP:	
					A	vg. Rate:	
35. Mouse hole plugge	ed:		Rat hole plugg	ed:			
Yes 1	No Sacks		Yes	No	Sa	cks	□ NA
36. Amount of initial pr Natural: After Treatment: SERC Data:	oduction per day: Ga Ga Number of 1	s	Oil Oil Mai	(Bbls.) ximum Storage (Brine Brine Capacity of all Ta	(Bbls.)	
37. Casing and tubing	record: Disease indicate to	high is used (some	or mudding)				
		hich is used (cement		Comentarilist	6.11.5	a Mar	
Туре	Size	Feet Used in Drilling	Amount	of Cement or Mud	Feet Left is	n Well	
Conductor/Drive Pipe:			2	12	.7	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	
Surface:			-				
Intermediate:							
Production:			; ;				
Required by Section	1509.10, Ohio Revised Code	Page	1 of 2		3	DNR 5607 ((Rev.4/04)

Tubing:		· · · · · · · · · · · · · · · · · · ·	
Comments:		````````````````````````````````	
00 Nome of deilling og			
38. Name of drilling co	ontractor.		
39. Type of electrical a all logs must be subm	and/or radioactivity logs run: hitted)		
	ompany:		

A/D:

Well Class:

Log Submitted:

Confidential:

Y/N

Y/N

Required by Section 1509.10, Ohio Revised Code

FORMATION	ТОР	BASE	Shows of oil, gas, fresh water, or brine; indicate depth or interval	REMARKS
Freshwater Strata				
Glacial Deposits				
Coal Seams				
1st Cow Run				
Buell Run				
2nd Cow Run				
Salt Sand				
Maxton Sand				
Keener Sand				
Big Injun Sand				
Squaw Sand				
Mississippian Shale				
Weir Sand				
Berea Sand				
Bedford Shale				
2nd Berea				
Ohio Shale			AND A STOCK	
Gantz				
Thirty Foot				
Gordon	-			
Cinnamon				-
Big Lime				
Sylvania				
Oriskany				
Bass Island	10			
Salina	- 192 - 192 192			
Salt Section				
Newburg				
Lockport				
Little Lime				
Packer Shell				
Stray Clinton				
Red Clinton				
White Clinton				
Medina				
Queenston			1975 - 1977 - 19	
Utica				
Trenton				
Black River				
Gull River				
Glenwood Shale				
Knox Unconformity				<i>v</i>
Beekmantown				
Rose Run				
Trempealeau/Copper Ridge				
"B" Zone				
Krysik	*			

Page 2 of 2

DNR 5607 (Rev. 4/04)

Kerbel		
Conasauga		
Rome		
Mt. Simon		
Granite Wash		
Middle Run		
Granite		
(SIC	GNATURE)	(DATE)
(NAME I	typed or printed)	(TITLE)

SURFACE APPLICATION ANNUAL REPORT (Form 15)

I.	NAME OF ENTITY WHO OWNS OR HAS A LEGAL RIGH	T OR OBLIGATION TO MAINTAIN RC	DAD:
	ADDRESS:		
	ADDRESS:(Street)	(City)	
	(State) (Zip)	PHONE NUMBER: ()	
8	(State) (Zip)	(Area Code)
	COUNTY:	TOWNSHIP/MUNICIPALITY:	
	OTHER:		
П.	APPLICATION POINTS:		DATES OF PLICATION
	EXAMPLE: Clark County - Wayne Township - Township between Township Road 166 and David Road		Bonnon
. 1	1)		
	· · · · · · · · · · · · · · · · · · ·		
2	2)		
в	3)		
4	4)		
	5)		
6	5)		
5	7)	·	
11 - 12			
8	3)		
5	MUST BE SUBMITTED BY APRIL 15TH FOR THE PRECE	u vitik - nitrauritaripanjani - tinu - tinu - 1	
105	REQUIRED BY SECTION 1509.226, OHIO REVISED CODE THE ASSESSMENT OF CRIMINAL FINES OF NOT LESS T OR CIVIL PENALTIES NOT MORE THAN \$4,000.00.		

III. BRINE H	*1		
1)	NAME	REGISTRA	TION NUMBER
1)			
2)			
		<u> </u>	
J			
IV. SOURCE	S:		
Permit #	Well Owner Name	County/Township	Quantities (Bbls.)
	-	/	
		//	
		/	
		1	
		//	
		/	
		/	
		//	
		1	
		/	
	··-	1	-
		1	
INSTRU	CTIONS:		
Item I.	Supply requested information. The nam unit that is responsible for the maintena		
Item II.	Supply county, township, and actual point	int of application of brine. A barrel ec	juals 42 U.S. gallons.
Item III.	Hauler(s) name and registration number If the county, township, or municipality		
	numbers; however, if hauler delivers the		
	and registration number must be listed.		
Item IV.	Supply requested information for each p surface application.	point from which brine was collected a	nd eventually used for
NOTE:	Additional sheets, if necessary, may be	attached.	
Authorized by:		Title:	*
Date:		_	
Submit to:	Division of Mineral Resources Manag	rement 2045 Marse Rd H-3 Colu	nhus OH 43220-6603

DNR-744 Form 15 (Rev. 06/2005)

Page 2 of 2

WELL PLUGGING REPORT (Form 55)

Ohio Department of Natural Resources, Division of Mineral Resources Management 2045 Morse Road, Bldg. H3, Columbus, OH 43229-6693

API Well Number:	Owner:
County: Township:	Section: Lot:
Lease:	Well No. Permit Date:
Completion Date: Total Depth:	Start Date: End Date:
Plug Contractor:	Cement Manufacturer:
Cement Contractor:	Clay Supplier:
Log Contractor:	
DNR Notified: Yes No Clay/Ce	ment Ticket Attached: 🗌 Yes 🗌 No
Reason Incap. of Lost Dry hole Replugg for Plug: production or injection	ing 🗌 Orphan 🗌 Plug-back Plug-back formation:
ODNR Witness: Complete Partial None Plug.	Job Description: Cement Clay Clay and Cement

		BORE	EHOLE / CASING	RECORD	31	- 1107-s
Туре	Hole Size (in.)	Casing Outer Diameter (in.)	Casing Top (ft.)	Casing Bottom (ft.)	Shot / Rip Depth (ft.)	Recovered During Plug (ft.)
Drive Pipe						
Conductor					41	
Mine String				2		
Surface						
Intermediate						
Production						
Liner						
Tubing	4		*			

1	Plugged Interval	Interva Bottom(1	12	Plug Material	Plug Bottom (ft)	Plug Top (ft)	Plug Tag (ft)
	Clay (tons):		Cement Class:	Sacks:	w	eight lbs./gal:	
	Comments:						
	Spacer Type:		Viscosity:	Weight (lbs/gal):		Displacement Volume (Bbls):	

2	Plugged Interval	Interval Bottom(ft)	Interval Top (ft)		Plug Bottom (ft)	Plug Top (ft)	Plug Tag (ft)
	Clay (tons):	Cen	nent Class:	Sacks:	Wei	ght lbs./gal:	
	Comments:						
	Spacer Type:		Viscosity:	Weight (lbs/gal):		splacement blume (Bbls):	e)

3	Phugged	Interval	Interva	l Plug	Plug	Plug	Plug
	Interval	Bottom(f	t) Top (ft) Material	Bottom (ft)	Top (ft)	Tag (ft)
	Clay (tons):	С	Cement Class:	Sacks:	We	eight lbs./gal:	
	Comments:						
	Spacer Type:		Viscosity:	Weight (lbs/gal):		olume (Bbls):	

DNR-744-7007 (Rev. 10/05)

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¢,

ıg #								
4	Plugged Interval	Inter Bottor	741250	Interval Top (ft)		Plug Bottom (ft)	Plug Top (ft)	Plug Tag (ft)
	Clay (tons):		Cement	Class:	Sacks:	We	ght lbs./gal:	
	Comments:	194						
	Spacer Type:		Viso	osity:	Weight (lbs/gal):		splacement plume (Bbls):	

5	Plugged Interval	Inter- Botton		Interval Top (ft)	Plug Material	Plug Bottom (ft)	Plug Top (ft)	Plug Tag (ft)
	Clay (tons):		Cement C	lass:	Sacks:	We	ight lbs./gal:	·
	Comments:							
	Spacer Type:		Viscos	ity:	Weight (lbs/gal):		isplacement olume (Bbls):	

Remarks:

 Plugging Operations
 Inspector
 Witness
 Arrival Time
 Departure Time
 Duration

 Witnessed by Inspector
 Name
 Date
 Time
 Time
 Duration

Total Duration

The inspector's signature below attests that he/she accurately recorded information pertaining to the plugging operation actually witnessed, and by the information provided on the dates and times listed above. The inspector's signature does not imply that the owner/operator has successfully plugged materials for untested plug(s) actually remained across the intervals that they were intended to seal.

Signature of Inspector

Date Plugging Completed

OWNER AFFIDAVIT

By signing this affidavit, you are swearing or affirming that the information it contains is true and accurate.

I, ______, after being first duly cautioned and sworn, state that I have personal knowledge of all the facts contained in this Affidavit, that I am competent to testify to the matters stated herein, and that the following are true to the best of my knowledge and belief:

1. That I am the owner or operator agent who placed plugging material in the well referenced in this plugging report;

2. That the attached clay or cement tickets, affidavits, and/or bill of lading are the actual records for such materials used to plug the well referenced in this report; and

3. That I have read this plugging report, and the plugging materials were properly placed at the depths indicated on this plugging report in accordance with Chapter 1509 of Obio Revised Code. Section 4101:10 et seg, of the Obio Administrative

3. That I have read this plugging report, and the plugging materials were properly placed at the depths indicated on this plugging report in accordance with Chapter 1509 of Ohio Revised Code, Section 4101:10 et seq. of the Ohio Administrative Code and/or 1501:9-11-01 et seq. of the Ohio Administrative Code;

Further Affiant sayeth naught.

In testimony whereof, I have herewith subscribed my name this _____ day of _____, 20 ____.

Date Plugging Completed

Signature of Owner or Operator Agent

The foregoing instrument was sworn to, subscribed and acknowledged before me this _____ day of _____, 20____

This report shall be submitted to the ODNR Division of Mineral Resources Management within 30 days after the date the surface hole is plugged Notary Public Signature

DNR-744-7007 (Rev. 10/05)

2

OHIO DEPARTMENT OF NATURAL RESOURCES Division of Mineral Resources Management - UIC Program 2045 Morse Road, Bldg. H-3 Columbus, OH 43229-6693

ANNULAR DISPOSAL WELL REPORTING SHEET (Form 205)

OPERATOR:	Permit No.:
ADDRESS:	County:
	Township:
PHONE NO.: ()	Lease Name:
This report is required pursuant to Rule 1501:9-3-11 (F) (2) of owner of an annular disposal well shall keep an accurate recor- record shall be furnished to the Chief upon request. Such ow the fifteenth day of April, setting forth the total volume of fluid	ord of the volume of fluid injected and a copy of such oner shall file an annual report with the Chief on or before
The following information is for the period beginning January	1 and ending December 31, 20
Total volume of saltwater injected into the annulus: _	bbls/year.
Check one:	
	s well is being put into the annulus. and the following wells is being put into
Permit No.	Lease Name/Well No.
	2
······································	
I certify that the above information is true a	and correct to the best of my knowledge.
Name (Print or Type)	Title
Classifier	Data
Signature	Date
The above signature must be the owner as specified in	n Section 1509.01(K), ORC, or an authorized agent.
THIS FORM REPLA	ACES FORM 29A

PENNSYLVANIA

	DEPARTMENT OF ENVIR OIL AND GAS MANA	OF PENNSYLVANIA ONMENTAL PROTECTION IGEMENT PROGRAM	U	EP Auth ID #: SE Permit #: NLY Project #	÷ +)	G: C:
Denotes location of well	Well is located on topo ma	ap feet south of latitude _	0	·		
topo map.						
ue Latitude: NORTH						
ue Longitude: WEST						
0 ' "					۳.	
•						A A
						well is located off topo map
						Teet west of longitude
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urveyor or	Phone #. Dwg #:	Date:	Scale:		Tract	
ngineer: at & Long Metadata	-	Elevation Metadata			Acreage: Survey Da	ale
ethod Accuracy pplicant / Well Operator Name	ft. Datum ! DEPID#	Method Accuracy Well (Farm) Name	ft.	Datum Well#	Serial #	5 10-0
ddress		County Municipality	<pre>x = (x 2)</pre>		Well Type	
urface Landowner / Lessor		USGS 7½' Quadrangle Map Name		Hard	ection Surface E	levatio
arget Formation(s)		Angle & Course of Deviation (Drilling)		Anticipated Total D		fi
Surface Owner or Water Purveyor	Approximate Course and		11	VD	TMO of Coal Sear	m

s,



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM WELL LOCATION PLAT

DEP	Auth ID #:	,	
USE			
ONLY			

(Attachment, if needed)

Use only if you need additional space for listings.

		-		
Surface Owner or Water Purveyor with a Water Supply within 1000 feet	Approximate Course and Distance to Water Supply	Owner, Lessee, or Operator of Workable Coal Seam	Name Owned, Le	of Coal Seam eased or Operated
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		-		

5500-FM-OG0052 Rev. 4/2003

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT

LANDOWNER NOTIFICATION OF WELL DRILLING OR ALTERATIONS

WATER SUPPLY PROTECTION

The Oil and Gas Act, Act of December 19, 1984, No. 223, Section 208 provides certain protections to public or private water supplies. This notice is to provide you with a summary of your rights under Section 208.

- The Oil and Gas Act states that an oil or gas well operator who pollutes or diminishes a public or private water supply shall restore or replace the water supply with an alternate source of water adequate in quantity or quality for the purposes served by the supply.
- 2. Any landowner or water purveyor whose water supply is polluted or diminished as a result of the drilling, alteration or operation of an oil or gas well may submit notice and request that the Department of Environmental Protection conduct an investigation. Within 45 days of the request, the Department will make a determination. If the Department finds that pollution or diminution was caused by the drilling, alteration or operation activities or if it presumes the well operator responsible for pollution, then it will issue such orders as are necessary to assure restoration or replacement of the water supply.

The following information is to be provided when filing notice and requesting an investigation:

- a) The name, address, and telephone number of the surface landowner or water purveyor requesting the investigation;
- b) The type, location and use of the water supply;
- c) Any available background quality and quantity data regarding the water supply;
- d) Well depth, pump setting and water level, if known; and
- e) Description of the pollution or diminution.
- 3. The Act establishes a legal presumption that a well operator is responsible for the pollution of a water supply that is within 1,000 feet of the oil or gas well if the pollution occurred within 6 months of completion of drilling or alteration of the well. The well operator may rebut or disprove this presumption by proving one of the following five defenses:
 - a). The pollution existed prior to the drilling or alteration activity as determined by a pre-drilling or pre-alteration survey.
 - b) The landowner or water purveyor refused to allow the operator access to conduct a pre-drilling or pre-alteration survey.
 - c) The water supply is not within 1,000 feet of the well.
 - d) The pollution occurred more than 6 months after completion of drilling or alteration activities.
 - e) The pollution occurred as a result of some cause other than the drilling or alteration activity.

Well operators electing to preserve their defenses under (a) and (b) above must retain the services of an independent certified iaboratory to conduct the pre-drilling or pre-alteration survey of water supplies. If requested by the Department, copies of the results are to be given to the Department and the landowner or water purveyor. If the applicant for a well permit does not conduct a pre-drilling or pre-alteration survey done in order to support any future claims you may have that your water supply has been diminished or polluted.

OBJECTION TO WELL PERMIT APPLICATION

When a well is located on a tract whose surface is owned by a person other than the well operator, the surface landowner has the right to file objections with the Department pursuant to Section 202 on the following bases:

- a) The information on the application is untrue in any material respect,
- b) The well location is within 200 feet measure horizontally from any existing building or existing water well and the owner thereof has not given his written consent and the operator has not been granted a variance,
- c) The well site is within 100 feet measured horizontally from a stream, spring or body of water as identified on the most current 7½ minute topographic quadrangle map and the operator does not have a waiver, or the well site is within 100 feet of any wetland greater than one acre in size and the operator does not have a waiver, or
- d) The well location violates Section 205 of The Oil and Gas Act.

Any objections and request for a conference must be filed within 15 days of receipt of the plat by the surface landowner and contain the following information:

- The name, address and telephone number of the person submitting the objection;
- b) The name of the well operator, and the farm name and number of the proposed well; and
- c) A statement of the objection and a request for a conference, if a conference is being requested.

DEP Regional Offices to contact: Dept. of Environmental Protection NW Regional Office – Oil & Gas Mgmt 230 Chestnut Street Meadville, PA 16335-3481 Phone: 814-332-6860 Fax: 814-332-6121 Dept. of Environmental Protection SW Regional Office – Oil & Gas Mgmt 400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: 412-442-4024 Fax: 412-442-4328 5500-PM-OG0001 Rev. 4/2009



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL & GAS MANAGEMENT PROGRAM

DEP USE ONLY

Check #

Amount \$

	PERMITAL	PPLICATION FOI	USE O		RING A WELL		
Note	s OGO #			e - Do not issue before:	Well Permit #		
	Bond #	er set i			Special Cond. A	вС	• · · · · · · · · ·
	N 5 101	- Det	e Approve	a and the second			
	C: G:		e Abbiose	u :	Watershed Name:		
-	_INV;	Diagona and instantions	. halana .	un basis Elliss is this !	Designation:	HQ	EV
App	icant (Operator) Name	Please read instructions DEP Client ID#		Phone	FAX		
						(# 54	Check if new address.
Maili	ng Address (Street or PO Box)	City		State	Zip +4	+	Country (if not USA)
(We	I) Farm Name	Well # Ser	rial #	PERMIT TYPE Check applicable.	TYPE OF WELL Check one.		PLICATION FEE heck applicable.
Cou	Municipality	Project # (from	DEP)	Application is to:	Gas	\$ 350	(Gas; Non-Marcellus;
			1999-9990 1	Drill a new well	🗋 Oil		; Coal Meth; Storage)
If yo	u are applying for a permit to redrill, drill deeper, or alte	r a well that was previously	/	Deepen a well	Comb. (gas & o	". De 100	(Oil; Inj– Rec) (Injection – Waste
per	nitted or registered, or for a well site that was previou	isly permitted but not dril		Redrill a well	Injection, recover Disposal	Dispos	sal)
chee	k this box 🔲 and enter the permit or registration num	ber here:		Alter a well	Coalbed Methan		(Redrill, Drill Deeper, Well, or Change Use)
	plying for a permit to rework an existing well not registe		s box 🗌	E&S Control Module Other (specify)	Gas Storage	\$500 1	
and	enter date drilled, if known:	(see instructions)			Other (specify)		ehab orphan)
DM	DI Attached: Any "hit" must include accepted milig	ation alon from analisable				Horizo	ontal lus: Length ft.
FNI	Artached. Any hit must include accepted mitig	ation plan from applicable :	agency.				alion Fee \$1
co	ORDINATION WITH REGULATIONS AND OTH	ER PERMITS				Yes No	DEP USE ONLY
1.	Will the well be subject to the Oil and Gas Conserva	tion Law? If "No," go to 2)					Date Stamps/Notes
	a. If "Yes" to #1, is the well at least 330 feet from (outside lease or unit bound	lary?				Auth
	b. Does the location fall within an area covered by	a spacing order?			12-		Site
2.	Will the well penetrate a workable coal seam? If "No	," include justification and	supporting	g documentation.			1 2026 - 0 1 - 0 -
3.	If the well will penetrate a workable coal seam, a	nd the well is a "non-con	servation"	gas well, does the locat	ion comply with the		Cint
	distance requirements of Section 7 of the Coal and G	as Resource Coordination	Act? (At le	east 1,000 feet from all exi	isting wells).		APS
	a. If "No," is the required exception request attach	ed? (Check here if re-work	king an ex	isting well: 🗌 N/A)			Acct
4.	Will the well be drilled at a location where the coal ha	s been removed?					27
5.	Will the well be drilled through an active (operating o	or projected) coalmine, or	within 1,0	00 feet of the boundary?			
	a. If "Yes," print the names of: Mine:			Operator:		0.00	
6.	Will the well penetrate or be within 2,000 feet of an ac	tive gas storage reservol	r boundary	γ?			
	a. If Yes, print the names of: Storage Field:			Operator:			
7.	Is the proposed well location within the permitted area						
8.	Will the well site be within 100 feet (measured horizo topographic map?	ontally) of a stream, sprin	ig or body	y of water identified on th	ie most current 71/2"		
	a. If "Yes," is a request for a waiver (form 5500-FM	A-OG0057), and E&S contr	rol plan att	ached?			
9.	Will the well site be within 100 feet of a wetland or in	a wetland?					
	a. Is the well site within 100 feet of a wetland grea						
	If yes, is a waiver request (form 5500-FM-OG00				2	<u> </u>	
10.	Will the well be drilled within 200 feet (horizontally) fro	m any existing building or	an existin	ig water supply?			
	a. If "Yes," is written consent from the owner attac						
	b. If written consent is not attached, is a variance		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -				Yes No
11.			n the *Co	ordination of a Well Lo	cation with Public Re	esources' form	
12.	5500-PM-OG0076? If yes, attach a competed copy of Is the well site in a Special Protection High Quality (I		EV) water	shed?			
13.	Is this well part of a development where you need an	그 그는 그 같은 것은 것은 것을 알았는지 않는지 않는다.	영양 전 전 감구 가지 않는 것이 같이 없다.		ng more than 5 acres?	If yes, attach a	
	completed Erosion Sediment and Stormwater Control The person signing this	Module or list the number a	and date o	of the ESCGP-1 Approval.			
	nature of Applicant information, including all	related submissions, is	true and	accurate to the best of		enall of the ap	
	Signature of Person Authorized to Submit Application	(Print or Type) Nam Title	ne of Signe ::	er:			Date
Appl	ication Preparer/Contact.	23			Phone:		

5500-PM-OG0001 Rev. 4/2009 pennsylvania DEPARTMENT OF ERMIRONAMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL & GAS MANAGEMENT PROGRAM

Farm Name - Well #

Applicant Name

DEP ID#

PERMIT APPLICATION FOR DRILLING OR ALTERING A WELL

DEP USE APS# ONLY

Page 2 --- Record of Notification / Written Consent

List the following: surface landowner; all landowners or water pa												100 900000	hin 1,000	0 feet	N	Notific ote the means a		roaf.
proposed well location; gas storage operator if within 2000 feet; seams; operators of underground coal mines at the proposed l	ocation; and	coal operato	rs with a	deep mine v	within 1,000		ner	wner	ssee	or en	orage	ner		e _	Certifie	ed Mail Dates		
feet. Mark the boxes, "X," which show the parties' interests. required to notify each of these parties.	Use additio	inal forms if	you need	i more space	e. You are	Surface	Landowner	Coal Owner	Coal Lessee	Coal Mine Operator	Gas Storage Operator	Surf Owner with Water	Water Purveyor	Coal Mine Operator	Sent	Return Receipt	Address Affidavit	Written Consent
Name:	Address:											46						
Name:	Address:								-	· · · · · · · · · · · · · · · · · · ·					. <u></u>			•
Name:	Address:	3 (M)			2	1	St.			* 73				7 (1999,997)	•	una anti-	5	
Name:	Address:	1.1.1.1.1.1.1	5. 75.7 5			an a c	5 <i>2</i>	\$ 7 3)				67		4		505 50	-	• • • • • • • •
Name:	Address:	-	e Nor			š				2								
Name:	Address:	• •····•						e les ce		-		• • •••	60 5 8 3 78		a ada ta' ber et her			
Name:	Address:									<u>.</u>	ŝ 50		-5 end	- *				•
Optional: Signature below indicates the party's appro	val of the	well locatio	on, and v	waives the	15-day ob	jectio	on pe	riod. (Check a	pplicabl	e box.	Signa	ture bel	ow indica	ates writter	n consent. Cl	neck applic	able box.
Water Purveyor or Landowner with water supply within 1,	,000 ft.	Date	Coal	Operato	r, 🗌 Own	er, or		essee		Date		Owner o	of: 🔲	water sup	ply, or	building within	200 feet	Date
Water Purveyor or Landowner with water supply within 1,	,000 ft.	Date	Coal	Operato	r, 🗌 Own	er, or		essee	A	Date		Address	(of abov	re)				
Water Purveyor or Landowner with water supply within 1,	,000 fL	Date	Coal	Operato	r, 🗌 Own	er, or		essee		Date	6						2	
Water Purveyor or Landowner with water supply within 1,	,000 ft.	Date	Coal	Operato	r, 🗌 Own	er, or		essee		Date		Owner o	of:	water sup	ply, or 🗌	building within	200 feet	Date
Surface Landowner at proposed location	u (9)-10 -10 -10	Date	Coal (Operator with	nin 1,000 fee	t of pro	oposed	d locali	on	Date		Address	; (of abov	re)		ి		
Surface Landowner at proposed location		Date	Gas S	lorage Open	ator within 2	,000 fe	et			Date							N.	

5500-PM-OG0076 12/2003



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM

See.	DEP USE ONLY	
APS #	Site #	
Permit #	Auth ID #	

Coordination of a Well Location with Public Resources

We	I Operator	DEP ID#	Well Farm Name and Number		
Ado	ress		Project Number (if previously assigned)		
City	State	Zip Code	County Municipali	ty	
Pho	ne Fax		Latitude Longitude N ° ′ ″ W °	•	"
1.	Will the well be located in or within 200 f wildlife area or Natural National Landmar		owned park, forest, gameland, designated	☐ Yes	🗌 No
2.	Will the well be located within the corridor	r of a state or na	tional scenic river?	☐ Yes	🗌 No
			currently on the National Wild and Scenic F vebsite: <u>www.nps.gov/rivers/wildriverslist.htr</u>		Detailed
	Rivers. These are: Pine Creek in Tioga	County, Lick R	as producing areas are currently listed as F un in Clinton County, and Bear Creek in Fa <u>www.dcnr.state.pa.us/brc/rivers/scenicriver</u>	ayette Cou	inty. The
3.	If answering "Yes" to questions 1 or 2, na	me the public re	source(s):		÷.
	List the name, address and phone number	er of the person r	responsible for management of the public res	source.	
	Must the administrator of the public resousite, access road, or gathering pipeline?	irce approve or c	therwise authorize the proposed well, well	☐ Yes	🗌 No
	Has the approval or authorization been re	eceived?	4 <u>III</u>	🗌 Yes	□ No
4.	Has the search of the proposed well loc (PNDI), or any other evaluation, identified		e Pennsylvania Natural Diversity Inventory lict with a species of special concern?	☐ Yes	🗌 No
	If yes, provide PNDI Search Number	or atta	ch a copy of the PNDI Search Results.		
	If a potential conflict with a species of con agency.	ncern was identifi	ied, give the name of the responsible		
	Has the potential conflict been resolved?			☐ Yes	🗌 No
5.	Will the well be located within 200 feet of state historic places?	any historical or	archaeological sites listed as federal or	☐ Yes	🗌 No
6.	Describe in detail the additional measu construction, drilling and operation to ens additional sheets as needed.	ures, facilities, o sure the safety of	or practices specific to this site to be en f the public and to protect public resource ide	nployed du entified abo	ıring site ove. Use

-1-

5500-PM-OG0076 7/2007 Instructions



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM

Coordination of a Well Location with Public Resources

Section 205(c) of the Oil and Gas Act requires the Department to consider the impact of the proposed well on public resources including: publicly owned parks, forest, gamelands and wildlife areas; national or state scenic rivers; national natural landmarks; habitats of rare and endangered flora and fauna and other critical communities; historical and archaeological sites listed on the federal or state list of historic places. Information on this form is provided to assist the Department in considering the impact of the proposed well on public resources. Compare maps, publications, and web sites that show the various types of public resource that may be affected by the proposed well, associated access roads and other support facilities. If the answer to questions No. 1, 2, 4 or 5 is YES, complete this form and submit it with the Well Permit Application.

State Parks and Forests, and Scenic Rivers

For state parks and forests, a good place to begin your search is the website of Pennsylvania's Department of Conservation and Natural Resources (DCNR) at: <u>www.dcnr.state.pa.us</u> or call 717-787-2105.

Portions of the Allegheny River and Clarion River are currently on the National Wild and Scenic Rivers list. Detailed descriptions are available on the National Scenic Rivers website: <u>www.nps.gov/rivers/</u>wildriverslist.html#pa or call 717-787-2316.

Portions of three streams in oil and gas producing areas are currently listed as Pennsylvania Scenic Rivers. These are: Pine Creek in Tioga County, Lick Run in Clinton County, and Bear Creek in Fayette County. Corridor maps of these streams are available on DCNR's web site at: <u>http://www.dcnr.state.pa.us/brc/rivers/scenicrivers/locationmap.aspx</u> or call 717-787-2316.

National Natural Landmarks

Information on national natural landmarks is available from the National Park Service at: <u>www.nature.nps.gov</u> /nnl/Registry/USA Map/States/Pennsylvania/pennsylvania.htm or call 814-863-2621.

Approval by administrative authority

Administrators of some public resources may need to issue permits or approvals as a matter of law or lease agreement. Check Yes or No whether your well site would be in such a location, and whether the location has been approved.

Species of Concern; Pennsylvania Natural Diversity Inventory (PNDI)

DCNR manages the database of Pennsylvania's Natural Diversity Inventory (PNDI). The public can request searches to compare any given location to known locations of threatened or endangered species and flora and fauna of special concern. Contact a DEP regional office, a county conservation district office, or DCNR (DCNR, Ecological Services Section, PO Box 8552, Harrisburg, PA 17105-8552; Phone: 717-772-0258). If a PNDI search is not conducted, DEP will conduct a search when reviewing the well permit application. For general information see <u>www.dcnr.state.pa.us/forestry/pndi/pndiweb.htm</u>. Also see DEP's technical guidance document "Policy for PNDI Coordination During Permit Review and Evaluation" (# 400-0200-001).

Historical and Archaeological Sites

Information on sites on the National Register of Historical Places is available from Pennsylvania's Museum and Historical Commission (PHMC) at: <u>www.phmc.state.pa.us/bhp/nr/overview.asp?secid=25</u> or call 717-772-4519. Pennsylvania's Museum and Historical Commission (PHMC) maintains inventories of state historical and archeological buildings, sites, places, and objects. The Commission provides a web-accessible search function at <u>www.phmc.state.pa.us</u>. DEP's policy requires notification to the Commission of permit applications involving construction activity or site development, with exceptions for size and type. Permit applications for oil and gas wells, wastewater treatment facilities and stormwater permits are exempt from notification to the PHMC unless the area of earth disturbance will be greater than 10 acres. For details, see DEP's technical guidance document "Implementation of the Pennsylvania State History Code" (# 012-0700-001).



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION Oil & Gas Management Program

	DEP USE ONLY	
Applic	ation tracking #	

Request for Waiver of Distance Requirements From Springs, Stream, Body of Water, or Wetland

Well Operator		DEP ID#	Well Permit or I	Registration Number (if assigned)	
Address			Well Form Nor	ne	
City	State	2 Ip Code	Well #	Seriol #	
Phone	Fox		County	Municipali	ty
Describe your waiver request . See	e instructions a	nd plan requiren	nents on back of for	m.	
Describe the plan which you will er	mploy to protect	people, proper	ty, and waters of the	e Commonwealth. See instru	uctions and plan
requirements on back of form.					GALEGA PAREN A GALEGONIS, POL
					e.
e					12
N					
Signature of Applicant / Well			Signature		Dote
I certify that this request is par have filed for the above-referer statements in that application a are incorporated by reference i	nced well and ire true and ac	that all curate, and	Print or Type Signer's	s Name and Title	10 ¹⁴
			SEONLY		angene in the
	enied	1	Conditions:	YES, See Attached	Date
by (DEP Manager):				NO	

Instructions and Plan Requirements Form 5500-FM-OG0057

A "well site" includes all disturbed area surrounding the well location and access roads. A waiver request must be submitted for any site which lies within 100 feet of a spring, stream, wetland, or other body of water.

Describe your waiver request. Include the distance from and name of each stream, body of water, etc., as identified on the most recent USGS 7-1/2' topographic map. Also, include the classification of the stream from Chapter 93 regulations (25 Pa Code 93).

Plan Description. Identify additional measures, facilities, or practices to be employed during well site construction, drilling, and well operation to insure safety and protect persons and property, and to protect waters of the Commonwealth. Use additional blank sheets for narrative or sketches as needed. Your plan must address the items listed below.

- What measures will be used to contain fluids, including but not limited to drilling fluids, stimulation fluids, formation and production fluids? Pits excavated into groundwater are not acceptable. Guidelines for the construction of an acceptable impoundment are available upon request.
- 2. What measures will be used to deal with the large volume of top-hole water that will likely be encountered?
- 3. How will materials used during well completion, such as caustic substances, diesel fuel, etc., be stored on-site to prevent spills? If a spill occurs, what methods will be used for containment and clean-up?
- What is the ultimate disposal method for waste fluids (as in item 1), and other waste materials, such as drill cuttings or drilling muds.
- 5. Specify a time frame for the removal of polluting substances from the well site after completion of drilling and well completion.
- 6. How will adequate access to the site be maintained for removal of production fluids during periods of unfavorable weather conditions?
- 7. An erosion and sedimentation control plan should be submitted with the waiver request for DEP review for adequacy according to Chapter 102 regulations (25 Pa Code 102.5(b)).

1



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION Oil & Gas Management Program

Request for Variance From Distance Restriction From Existing Building or Water Supply

Well Operator	DEP ID#	Well Permit or Registration Number (if assigned)
Address		Well Farm Name
City Stat	le Zip Code	Well # Serial #
Phone Fax		County Municipality
Describe your variance request . See instructions	s and requirement	s on back of form.
Describe the plan which you will employ to protect	ct people, property	, and waters of the Commonwealth. See back of form.
		N
E		
		а.
Signature of Applicant / Well Operator		Signature Date
I certify that this request is part of the permi		
have filed for the above-referenced well and statements in that application are true and a	ccurate, and	Print or Type Signer's Name and Tille
are incorporated by reference into this reque		
	DEP US	Conditions:
Approved Denied		YES, See Attached
by (DEP Manager):		ОИ

Instructions and Requirements Form 5500-FM-OG0058

Explain the variance request. At a minimum include:

- distances from the proposed well location to buildings and / or water supply;
- uses of buildings and water supplies, and frequency of use;
- proof of notification to owner (page 2 of well permit application, form 5500-PM-OG0001);
- building / water supply owner's mailing address;
- type of insurance coverage for the project;
- an explanation how adherance to the 200-ft requirement would deprive the oil and gas owner of the opportunity to produce or share in the production of oil and gas underlying the surface tract;
- evidence that no location more than 200 feet from all buildings or water supplies is available where the well could be drilled.

Plan Description. Describe measures, facilities, or practices to be employed during well site construction, drilling, and well operation to insure safety and protect persons and property, and to protect waters of the Commonwealth. Use additional blank sheets for narrative or sketches as needed.

5500-PM-OG0001a 3/2009 Application



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT

	DEP USE ONLY		1
APS #	Site #		
		9	
Permit #	Auth ID #		

Erosion, Sediment and Stormwater Control MODULE

	Please complete this section if your earth disturbance activities will disturb 5 acres or greater.
1.	Project Site Information.
	a. Attach topographic map of proposed location.
	b. Location of surface waters which may receive runoff and the waters classification, pursuant to Chapter 93 and the "statewide existing us listing":
	Receiving Waters/Watershed Name
	Chapter 93 Designated Use or Existing Use Stream Classification
	High Quality Exceptional Value Other
2.	Erosion and Sediment Control authorization for Earth Disturbance Associated with Oil and Gas Activities filing fee of \$500 payable to Commonwealth of Pennsylvania, Clean Water Fund.
З.	Compliance History
	Is the applicant in violation of any existing permit, regulation, order or schedule of compliance issued by the Department? If yes, provide the permit number or facility name, a brief description of the violation, the compliance schedule (including dates and steps to achieve compliance) and the current compliance status. Yes No
	(Attach on a separate sheet, if needed)
4.	Erosion & Sediment Control and Site Restoration Plan
	At least fourteen days before the commencement of earth disturbance activities, or earlier in accordance with applicable Chapter 10 permitting requirements, the applicant shall provide the appropriate DEP Regional Oil and Gas Program Office with the following:
	A. An Erosion and Sediment Control and Site Restoration Plan that meets the requirements of 25 Pa. Code Chapters 78 and102, ar in the Department's Erosion and Sediment Pollution Control Manual, No. 363-2134-008, as amended and updated and the Department's Oil and Gas Operator's Manual, No. 550-0300-001.
	B. The Site Restoration Plan shall include PCSM BMPs designed and implemented to meet the requirements of 25 Pa. Code Chapter 93, and consistent with the <i>Pennsylvania Stormwater Best Management Practices Manual</i> , No. 363-0300-002, as amended an updated.
	Both the E&S and Site Restoration Plan shall minimize the accelerated erosion and sedimentation and shall eliminate the net change in por construction stormwater runoff as compared to the amount of preconstruction stormwater runoff. This shall be accomplished first through the use of site design and nonstructural BMP approaches, and if necessary structural filtration, infiltration, and runoff control BMPs in accordance with Erosion and Sediment Pollution Control Manual, No. 363-2134-008, Oil and Gas Operator's Manual, No. 550-0300-001 and Stormwate Best Management Practices Manual, No. 363-0300-002, as amended and updated. Supporting calculations and measurements for PCS BMPs are not required unless there will be permanent impervious paved surfaces or above-ground structures or facilities (excluding we heads and brine storage tanks and other such ancillary equipment. See model plan for further guidance). Crushed rock or gravel roads and not considered impervious.
	Both the E&S and Site Restoration Plan shall be developed and sealed by a licensed professional engineer, surveyor or profession geologist, and shall contain the following certification:
	I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control and Site Restoration Plan are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
	Print Name: Signature:
	Company:
	Address:
	Phone:
5.	Area Wide or Phased E&S and Stormwater Management List the well permit numbers for any other well permit that is or will be included in the E&S and/or Site Reclamation Plan for this project:

5500-PM-OG0005 Rev. 4/2009



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERSHED MANAGEMENT BUREAU OF OIL AND GAS MANAGEMENT

NOTICE OF INTENT (NOI) CHECKLIST EROSION AND SEDIMENT CONTROL GENERAL PERMIT FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING, OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES (ESCGP-1)

Please check the following list to make sure that you have included all the required information. Place a check mark in the column provided for all items completed and/or provided. Failure to provide all of the requested information will delay the processing of the application and may result in the application being placed ON HOLD with NO ACTION, or being considered withdrawn and the application file closed.

THIS CHECKLIST MUST BE COMPLETED AND ENCLOSED WITH YOUR GENERAL PERMIT NOI

	✓CHECKLIST FOR EROSION AND SEDIMENT CON	TROL GENERAL	PERMIT NOI	Applicant Check √ If Included	Official Use Only
1.	Fully completed, properly signed and notarized Notice of In	ntent form (1 origin	al and 2 copies).		
2.	Complete Erosion and Sediment Control Plans. (3 copies)				
	a. Topographic features	Location:	Page:		
	b. Soils information	Location:	Page:		
	c. Proposed alteration	Location:	Page:		
	d. Amount of runoff	Location:	Page:		
	e. Location of water which may receive runoff and receiving water classification, pursuant to Chapter 93 and the "statewide existing use listing".	Location:	Page:		
	f. Supporting calculations	Location:	Page:		
	g. BMPs used before, during, and after earth disturbance, including special protection BMPs.	Location:	Page:		
	h. Maintenance program	Location:	Page:		
	i. Plan drawings and narratives	Location:	Page:		
	j. Sequence of BMP installation and removal	Location:	Page:		
	k. Recycling and disposal methods	Location:	Page:		
3.	Permit filing fee of \$500 payable to the appropriate Clean	Water Fund.			
4.	Location map: USGS of scale 1:24,000 indicating project	location and bound	aries. (3 copies)	Ω.	

5500-PM-OG0005 Rev. 4/2009 Checklist

	✓CHECKLIST FOR ESCO	SP-1	9	Applicant Check √ If Included	Official Use Only
5.	Notifications to the local municipality and county govern Coordination, and that the application is for a Erosion and for Earth Disturbance Associated with Oil and Gas A notification letter is provided as Appendix A of the instructi	d Sediment Control ctivities. (3 copies	General permit		
6.	Proof of receipt of municipal notifications; copies of certifie letters from the local municipality and county government.		cknowledgment		
7.	The PNDI Review receipt for the project area. Include imp agency coordination is required. (3 copies)	oact clearance letter	s if proof of		
8.	PPC Plan: Include a current Preparedness, Prevention ar	nd Contingency Plar	n (3 copies)		
9.	Complete Post Construction Stormwater Management Pla Location: D	n. (3 copies) Prawings (D), Narrat	ive (N).		
	a. Written Narrative	Location	Page		
	b. Location of BMPs showing final contours	Location	Page		
	c. Plan drawings of permanent stabilization	Location	Page		
	d. Plan drawings of BMPs	Location	Page		
	e. Operation and maintenance procedure	Location	Page		
	f. Supporting calculations or measurements	Location	Page		
	g. Design frequency storm rainfall amount	Location	Page	. 🗆	
	h. Area of impervious surface	Location	Page		
	i. Curve Number or Runoff Coefficient	Location	Page		
	j. Runoff from the design frequency storm	Location	Page		
	k. Volume of water infiltrated through BMPs	Location	Page		
	I. Peak discharge rate from the design frequency storm	Location	Page		



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERSHED MANAGEMENT BUREAU OF OIL AND GAS MANAGEMENT

	OFFICIAL USE ONLY
ID #	
Date R	eceived

NOTICE OF INTENT FOR COVERAGE UNDER THE EROSION AND SEDIMENT CONTROL GENERAL PERMIT (ESCGP-1) FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES

READ THE STEP-BY-STEP INSTRUCTIONS PROVIDED IN THIS PERMIT APPLICATION PACKAGE BEFORE COMPLETING THIS FORM. PLEASE PRINT OR TYPE INFORMATION IN BLACK OR BLUE INK.

APPLICATION TY	'PE				REVISED	EXPEDITED	
		SECTION A.	E&S PLAN	NING REQUIREN	ENTS		
1. Total Project	Area (Acres):		То	tal Disturbed Area	(Acres):		_
2. Project Name							3
3. Project Type		0					
🗌 Oil/Gas V	Vell 🗌 Pipel	ine/Transmission	Facility	Process	sing Facility	🗌 Treatm	ent Facility
Project Descripti	on		- 4				
·				مي منطقة المحجة المارية			
4. Please provid and seconds (e the latitude and lor dd mm ss.ss)	ngitude coordinates	for the cen	ter of the project.	The coordinate	s should be in de	grees, minutes
Latitudedeg	greesminutes	sseconds	L	ongitude de	egrees m	ninutes sec	onds
Reference Datum:	North America	an Datum 1983	North /	American Datum 1	927 🗌 Wa	orld Geodetic Syst	tem 1984
Horizontal Col	lection Method:	🗌 GPS	Interpo	lated from U.S.G.S	S. topo map	DEP's	eMAP
5. U.S.G.S. 7.5 r	nin. Quad Map Nam	e			14		
6. Estimated Tim	etable for Phased P	rojects					
Phase No. or Name		Description		Total Area	Disturbed Area	Start Date	End Date
7. Existing and p	revious land use						
		ustas disabases	atala adlud	ineal aubatas	other then and		
	nts: Will the stormy ovide any available		ntain pollut	ional substances	other than sed	iment? 📋 Yés	U NO ITYES,

9. Receiving Water/Watershed Name	1	Name of Municipal or	Private	Separat	e Storm	Sewer Operator
Chapter 93 Designated Use or Existing Use Stream Classification						
High Quality Exceptional Value						ă R
Secondary Water						
SECTION B	. APPLIC	ANTINFORMATIC	N		¥.	
Applicant's Last Name	First Nar	ne	MI	Phone		
				FAX		
Organization Name or Registered Fictitious Name	14 B A			Phone		
				FAX		
Mailing Address	City			State	ZIP -	+ 4
Co-Applicant's Last Name	First Nar	ne	MI	Phone		
o enderen ble - Konnelle Konnelle filmer en blever en delever annelle enderen blever en blev				FAX		
Organization Name or Registered Fictitious Name				Phone		
				FAX		
Mailing Address	City			State	ZIP -	+ 4
SECTIO	NC. SITE	E INFORMATION				
Site Name						
Site Location						
Site Location – City	State	ZIP+4				
Detailed Written Directions to Site						
		÷				
County Municipality				City	Boro	Twp
,				Π	П	Π
SECTION D. SITE RESTORATION P See the Attached Instru						R BMPS
 Site restoration should be designed to use natur construction and maintenance efforts, promote poll physical, chemical and biological qualities of the recei 	ral measure lutant reduc	es to eliminate polle ction, preserve the in	ution,	infiltrate	runoff, r	not require extensive nels, and protect the
Check those that apply:						
The Site Restoration Plan and PCSM BMPS are of approved by the Department after January 2005.	developed	to be consistent with	n an A	ct 167 S	tormwate	er Management Plar
The Site Restoration Plan and PCSM BMPs are deve	eloped to be	consistent with existi	ng loca	I ordinan	ces	
The Site Restoration Plan and PCSM BMPs were of manage any net increase in stormwater runoff volume	developed t e resulting f	o employ water qual rom the 2-year/24-ho	ity des ur freau	ign featu Jency sto	res and rm.	the PCSM BMPs wil

- 2 -

·							
2.	Site	Re	storation Plan Contents				
	а.	Wr	tten narrative	·•		Yes	🗌 No
	b.	Pla	n drawings			Yes	🗌 No
	C.	lde and	ntification and location of PCSM BMF d rate control; and (3) water quality tre	Ps. Such PCSM BMPs shoul eatment	d address: (1) infiltration; (2) volume	Yes	🗌 No
	d.	Ор	eration and maintenance procedures			Yes	🗌 No
	e.	Su	oporting calculations and measureme	nts (when necessary):		Yes	🗌 No
6		Su	oporting calculations and measure	ments are required only if t	he answers to both questions 1 ar	d 2 below	are NO.
		1)	The approximate original contours preservation of the pre-construction vegetated or otherwise stabilized with	drainage pattern and feature	naintained or replicated insuring the s; and the disturbed areas will be re-		□ No
	2) PCSM BMPs will be employed which: use natural measures to eliminate pollution, do not require Yes No extensive construction and maintenance efforts, promote pollutant reduction, and are capable of controlling the net increase in the volume and rate of stormwater runoff from a 2-year/24-hour storm event, and the net increase in the volume of post construction runoff is infiltrated and/or dissipated away from surface waters of the Commonwealth.					□ No	
			ne responses to both questions 1 a formation in the Data Table for Supp			truction st	ormwater
3.			how post construction stormwater ater runoff volume. (Net increase volu				
		N/A	check N/A only if BMPs will infiltrate	e all of the Net Change in Ru	noff)		
					× ×		
					,		
				<u> </u>			
4.	Are	ther	e existing post construction stormwate	er management BMPs at this	Location/Site?	s 🗌 No	
1	Do	you	plan to use and/or expand these exist	ting post construction stormw	ater management BMPs?	s 🗌 No	□ N/A
5.				SUPPORTING CALCUL	ATION AND MEASUREMENT D	ΑΤΑ	
		neck ge.	this box if supporting calculations and	d measurements are NOT re	quired in accordance with Section D	2.e on the	preceding
Des Rai	sign s nfall	storn amo	n frequency unt inches	Pre-construction	Post Construction	Net Chan	ge
Imp	ervio	ous a	irea (acres)				
			ormwater runoff (acre-feet) without mwater BMPs				
Vol	ume	of st	ormwater runoff (acre-feet) with mwater BMPs			1.4	
Sto		ater	discharge rate for the design				
	the second se						

SUMMARY DES	CRIPTION OF POST CONSTRU	JCTION STORMWATER BMPs	
 In the lists below, check the BMPs iden column (infiltration/recharge; detention/ the stormwater volume and area of run Restoration Plan is not listed below, des 	retention; water quality). Addition off to be treated by each BMP t	onal functions may be added if app ype when calculations are required	licable to that BMP. List
ВМР	Function(s)	Volume of stormwater treated	Acres treated
Bio-infiltration areas Infiltration Trench Infiltration Bed Infiltrated Basin	Infiltration/Recharge		
Natural Area Conservation Streamside Buffer Zone Wetland Buffer Zone Sensitive Area Buffer Zone Pre-Construction Drainage Pattern Intact	Infiltration/Recharge		
Stormwater Retention Constructed Wetlands Wet Ponds Retention Basin	Detention/Retention		
Sediment and Pollutant Removal Vegetated Filter Strips Brush Barriers Detention Basins	Water Quality Treatment		
Access Road Design Road Crowning Ditches Turnouts Culverts Roadside Vegetated Filter Strips	Infiltration/Recharge		
Stormwater Energy Dissipaters Level Spreaders Riprap Aprons Upslope Diversions Other Other Other	Infiltration/Recharge		
SEC	TION E: SPECIAL PROTEC	CTION WATERS	
List the reasonable and cost effective be 25 Pa. Code Chapter 93. Recommender Manual.			
Minimize disturbed area	Alternative Site Analysis	Permanently sta Channels	
 Earth Moving activities limited during rainstorms and spring thaw No direct discharge to surface water 	 Roads stabilized with crush- and/or vegetation Immediate Stabilization 	ed rock Rock lined culve Proper vegetative	
 Designed temporary and permanent BMPs for surface water diversion 	Prompt site restoration	☐ 100 ft. vegetated	승규는 생각의 가슴이 많은 것이 같은 것이 많은 것이 같이 많이 많이 같이
Other	Stabilized Upslope Diversion	n	

- 4 -

SECTION F: COMPLIANCE REVIEW

□Yes □No

Is the applicant in violation of any existing permit, regulation, order or schedule of compliance issued by the Department? If yes, provide the permit number or facility name, a brief description of the violation, the compliance schedule (including dates and steps to achieve compliance) and the current compliance status. (attach additional information on a separate sheets, when necessary)

SECTION G. CERTIFICATION BY PERSON PREPARING APPLICATION

I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control and Site Restoration Plan are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Print Name

Signature

Company

Address

Phone

EXPEDITED REVIEW PROCESS

In addition to the certification required above applicants using the expedited permit review process must attach an E&S and Sile Restoration Plan developed and sealed by a licensed professional engineer, surveyor or professional geologist, The plan shall contain the following certification:

I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control and Site Restoration Plan and Post Construction BMPs are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SECTION H. APPLICANT CERTIFICATION

Applicant Certification. I certify under penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The responsible official's signature also verifies that the activity is eligible to participate in the permit, and that the applicant agrees to abide by the terms and conditions of the permit. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and Title of Applicant

Print Name and Title of Co-Applicant (if applicable)

Signature of Applicant

Signature of Co-Applicant

Date Application Signed

Date Application Signed

- 5 -

Application			
Notarization			
Sworn to and subscribed to before me this	Commonwealth of Pennsylvania		
day of, 20,	County of		
produce of the second s			
	My Commission expires		
Notary Public			
	E NUMBER OF INDIVIDUAL TO BE CONTACTED		
Name			
Address	Phone		

5500-PM-OG0005 Rev. 4/2009 NOI Instructions pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERSHED MANAGEMENT

INSTRUCTIONS FOR A NOTICE OF INTENT (NOI) FOR COVERAGE UNDER THE EROSION AND SEDIMENT CONTROL GENERAL PERMIT (ESCGP-1) FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES

General Information

Earth disturbance activities cannot begin until you receive the permit authorization. You should use the most up-to-date NOI authorization package available. These instructions are designed to assist the applicant in completing the NOI and in determining if any other environmental permits or approvals are needed for the project. Please type or print clearly when completing the form. If information needed is more than space allows, copy that appropriate page of the form and complete as required. If a question is not applicable to you or your project, check N/A in the appropriate box.

When the total amount of earth disturbance activity results in 5 acres or greater of substantially connected earth disturbance at one time or 5 or more acres of earth will be disturbed over the life of the project, the operator must obtain an ESCGP-1 approval before conducting any earth disturbance activities. lf a centralized storage pit or impoundment is constructed. all well sites serviced by the impoundment, associated access roads, pipelines and other support facilities are considered a single project. An administratively complete and acceptable NOI should be filed at the earliest possible date but no later than 60 days prior to the proposed commencement of the activity using the standard review process, or 14 business days prior to the proposed commencement of the activity when using the expedited review process.

Expedited Review Process

DEP has an established expedited permit review procedure for erosion and sediment control permits that can be utilized for oil and gas activities other than transmission facilities. Applicants that follow this process and qualify for permit coverage through the expedited review process will be provided with an acknowledgement of coverage under ESCGP-1 within 14 business days from the submission of a complete and acceptable NOI. If approval is not received within 14 business days, the applicant may call the regional office to obtain a copy. To qualify for expedited review the applicant must:

 Submit a complete and quality application package.

- Develop an E&S Plan that meets the standards and specifications identified in the Department's Erosion and Sediment Pollution Control Manual, No. 363-2134-008, as amended and updated.
- Develop a Site Restoration Plan with post construction BMPs that are designed to meet the standards and specifications identified in the Pennsylvania Stormwater Best Management Practices Manual, No. 363-0300-002, as amended and updated.
- Satisfies and meets the terms and conditions of the general permit and regulations.
- Meets the guidelines of DEP's Oil and Gas Operators Manual, the Erosion and Sediment Pollution Control Program Manual, and the Pennsylvania Stormwater Best Management Practices Manual.
- Applies BMPs consistent with the site characteristics and meets applicable performance and water resource protection requirements.

In addition, to qualify for an expedited permit, the application must be prepared and certified by a licensed professional (e.g. engineer, surveyor, geologist or landscape architect) who is registered in Pennsylvania and who has attended up-to-date training provided by DEP on erosion and sediment control and post construction stormwater management for oil and gas activities. The registered professional is responsible for the development of a complete permit application package, including an erosion and sediment control plan that specifies BMP implementation and maintenance requirements and a site restoration plan with post construction stormwater BMPs that meet regulatory requirements.

Operator Requirement

When the operator/contractor and owner/developer of the facility or activity is not the same individual, corporation, partnership, or other entity, the Department recommends that both the operator and owner apply for coverage under a permit as copermittees. If, prior to earth disturbance activities, no operator/contractor has been selected, then once selected, the operator/contractor must either be made

a co-permittee or the permit must be transferred to the contractor.

Permit Application Filing Fee

Except for state government agencies, a check for \$500 for an ESCGP-1 must be included with the NOI. The check must be made payable to the "Commonwealth of Pennsylvania". The check is to be dated within ten days of the application submittal date.

Permit Authorization

The DEP Regional Office Oil and Gas Program will give the applicant written notification of permit approval or denial. Earth disturbance activity cannot begin until permit authorization is received.

The following information must be submitted in order for the NOI to be considered administratively complete.

Erosion and Sediment Control (E & S) Plan Requirement

The E&S Plan must contain BMPs designed to minimize point source discharges to surface waters. preserve the integrity of stream channels and protect the physical, biological and chemical gualities of the receiving water. An E&S Control Plan (3 copies) must be submitted to the Department along with the completed application. If the earth disturbance activities are located in a High Quality or Exceptional Value watershed or Exceptional Value wetland pursuant to PA Code Chapter 93 and Chapter 105 of the Department's regulations, the required E&S Control Plan must address the special protection requirements in the Department's regulations at Pa. Code Chapter 102, Section 102.4(b)(6) and Section II Chapter 4 of the Oil and Gas Operators Manual.

Pennsylvania Natural Diversity Inventory (PNDI)

In order to ensure that threatened and endangered (T&E) plant and animal species or critical habitat for those species will not be adversely impacted by the proposed construction activity applicants must submit proof that a PNDI Project Planning Environmental The review can only be Review was conducted. conducted via the Internet at the www.naturalheritage.state.pa.us/ website. First time users will have to register at the website before conducting the review. A receipt is automatically available for printing upon completion of the PNDI review. This receipt must be submitted as part of this application form. If the PNDI review determines there are potential impacts to a T&E species, the PNDI review receipt will provide an explanation of the potential impact(s) and instructions on how to resolve the potential impact. READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY. It is the applicant's

responsibility to resolve potential impacts to T&E species <u>before applying</u> for this permit. When the activities are on lands of the Allegheny National Forest (ANF), evaluation of potential conflicts are to be coordinated with the appropriate ANF. Ranger District.

For additional information, refer to DEP's Policy for Pennsylvania Natural Diversity Inventory (PNDI) Coordination During Permit Review and Evaluation (400-0200-001), see <u>www.depweb.state.pa.us</u>.

Cultural Resources Notice

A Cultural Resources Notice is not required for the Erosion and Sediment Control General Permit (ESCGP-1) for Earth Disturbance Associated with Oil and Gas Activities as per the exemptions to the History Code (0120-PM-PY0003). Permitted activities which may affect Historic Resources on the National Register of Historic Places are not exempt regardless of size. When the activities are on lands of the Allegheny National Forest (ANF), evaluation of cultural resources are to be coordinated with the appropriate ANF Ranger District. If, during the earth disturbance activity, historic resources are encountered, the earth disturbance activity should be ceased immediately and the Pennsylvania Historic and Museum Commission notified

For additional information, refer to DEP.s Implementation of Pennsylvania History Code (012-0700-001), see <u>www.depweb.state.pa.us</u>.

Municipal Notification (ACT 14 NOTICE)

Act 14, which amended the Commonwealth's Administrative Code (71 P.S. §510-5) requires every applicant for a new, amended or revised permit to give written notice to each municipality (Borough, Township) and county government in which the facility is located. The municipality and county government must receive the written notice at least thirty (30) days before the Department may issue or deny approval of coverage. The municipal notice also provides an opportunity for local government to identify any concerns or issues associated with the proposed project before the Department completes its review of the NOI. A sample of the municipal notification is provided in these instructions as Attachment A.

The applicant must submit with the NOI:

- A copy of correspondence notifying the municipality and county government of your intention to submit a NOI, and
- Evidence that the municipality and county government has received your notification. Acceptable forms of this evidence include certified

- 2 -

mail receipt or written acknowledgement of the notification from the municipality.

Failure to provide a copy of the notification correspondence and evidence of municipal receipt of your notification with the NOI will delay processing of your application. Failure to comply with Municipal notification will result in the return of the NOI as incomplete.

Section A: E&S Planning Requirements

- The total project area is the entire area of activity, development or sale including, the area of an earth disturbance activity, the area planned for an earth disturbance activity and other areas which are not subject to an earth disturbance activity. Enter the size of the area in acres to the nearest tenth of an acre. Total Disturbed Area is that portion of the total project area where earth disturbance activities are planned to occur over the life of the project. For phased projects, this refers to the disturbed area of the initial project phase plus the planned disturbed areas of subsequent project phases. Enter the size of the area in acres to the nearest tenth of an acre.
- Project Name. Provide the name by which this proposed earth disturbance activity or project is, or will be, known.
- Project Type and Description. Check all boxes that best describe the general type of activity. In the description, provide details such as number of wells to be drilled. Does the project include a tank battery, compressor station, pipeline, etc.?
- 4. Latitude and Longitude. Provide the latitude and longitude coordinates for the approximate center of the project area or facility. The coordinates should be in degrees, minutes and seconds. Indicate which Reference Datum was used to obtain the data.
- U.S.G.S. Quad Map Name. Locate the project area on an 8 ½" x 11" photocopy of the U.S.G.S. topo map area. The map must include the name of the appropriate 1:24,000 scale U.S.G.S. 7.5 minute series quadrangle map where the project is located.
- 6. Estimated Timetable for Phased Projects. If the project is to be phased, provide an estimate of the timetable for the major phases. For each major phase, provide a description of the activity undertaken during the phase, total area of the phase, the disturbed area of the phase and the start and end dates for each phase of the activity. The sum of the total areas and disturbed areas listed under line 6 should be equal to the size of the Total Project Area and Total Disturbed Area

respectively, listed on line 1 of the NOI/application form.

- 7. Existing and previous land use. List the existing and previous land use.
- Other Pollutants. If the stormwater discharge contains a pollutant other than sediment, list the pollutant, the source of the pollutant and concentration. Provide a plan for removal of the pollutant.
- 9. Provide the Chapter 93 stream classifications. The designated use of the stream can be obtained from 25 Pa. Code Chapter 93 of the Department's regulations located online at <u>www.pacode.com</u>. The existing use can be obtained from the Department's Statewide Existing Use Listing on the Department's Web site <u>www.depweb.state.pa.us</u>, keyword: Existing Use.

Section B: Applicant Information

The following information must be provided in order to identify the applicant.

Applicant's Last Name, First Name, MI. Required information. Enter the Name of the Corporation, Partnership, Agency or Individual.

Co-Applicant's Last Name, First Name, MI. Required for additional individuals, partners or operators to be co-permittee. Enter the Name of the Corporation, Partnership, Agency or Individual.

Mailing Address. The mailing address of the Owner/Operator (applicant) identified above (this should not include locational data that is not appropriate for a mail piece). In addition to the street number and name, PO Box#, RR# Box#, or Highway Contract# designations, use any appropriate designation and number to further define the mailing address of the applicant.

e.g., APT (Apartment) FL (Floor) BLDG (Building) RM (Room) DEPT (Department) STE (Suite)

City, State, ZIP+4. Do not use abbreviations for the city name. Use the two-character abbreviation for the state. Include the four-digit extension to the ZIP code.

Section C: Site Information

Site Name. Provide the name of the site at the specific physical location. <u>Do not</u> use abbreviations, acronyms, etc.

Site Location. Provide the physical address of the location where the permitted activities will occur. No PO Box Numbers will be accepted for site location information. Provide the city (or municipality), state, and the ZIP+4.

Detailed Written Directions to Site. When providing written directions, <u>do not</u> use PO Box address data. Include landmarks and approximate distances from the nearest highway.

County and Municipality. Indicate the county(ies) and municipality(ies) in which the site is located. Check the appropriate box to identify the type of municipality entered (city, borough, township). If more than one municipality or county is affected, please list them on an attached separate sheet.

Section D: Well Site Restoration Plan and Post Construction Stormwater BMPs

The Erosion and Sediment Control Plan shall include a Site Restoration Plan containing post construction stormwater management (PCSM) BMPs.

1. Attach three (3) copies of the Site Restoration Plan that includes a written narrative, identification and location of PCSM BMPs, plan drawings of PCSM BMPs, operation and maintenance procedures, and when necessary supporting calculations and measurements. The Site Restoration Plan shall be consistent with an Act Stormwater Management Plan that 167 incorporated measures to protect and maintain existing uses and water quality (plans approved after January 2005) or be consistent with local ordinances developed to satisfy the requirements of discharging stormwater through a municipal separate storm sewer system).

In the absence of an Act 167 Stormwater Management Plan or local ordinances, the Site Restoration Plan should provide design features and PCSM BMPs that will manage any net increase in stormwater runoff volume after the completion of the project. The Department recommends that these design features be based on a 2-year/24-hour frequency storm.

2. The Site Restoration Plan should be designed to maximize volume reduction technologies, eliminate (where possible) or minimize point source discharges to surface waters, preserve the integrity of stream channels, and protect the physical, biological and chemical qualities of the receiving surface water. In addition to these water quality features, all Site Restoration plans must comply with local water quantity and/or flood control requirements.

Supporting calculations and measurements

Supporting calculations and measurements are not required if ALL the earth disturbance area within the project boundary is permanently revegetated or otherwise stabilized with pervious materials, the approximate original contours are maintained and PCSM BMPs are used that use natural measures to eliminate pollution, do not require extensive construction efforts, promote pollutant reduction, and are capable of controlling the net increase in the volume and rate of stormwater runoff from a 2-year/24 hour storm event and infiltrates the net increase of the post construction runoff. Supporting calculations and measurements would not be required unless there will be permanent impervious paved surfaces or above-ground structures or facilities (excluding well-heads and brine storage tanks and other such ancillary equipment. (See model plan for further guidance). Crushed rock or gravel roads are not considered impervious. All other projects must provide supporting stormwater runoff calculations and measurements.

- If the proposed PCSM BMPs will not infiltrate all the net increase in stormwater runoff volume, please explain how you plan to manage the increased stormwater runoff volume.
- Please check the appropriate box and list the existing BMPs that will be used or expanded.
- 5. Summary Table For Supporting Calculation and Measurement Data.

Please provide this summary data from the calculations and measures submitted as part of the Site Restoration Plan unless supporting calculations and measurements are not required as per item 2.e. of Section D.

The Summary Table of Supporting Calculations and Measurements (Table) is designed to provide a snapshot idea of stormwater runoff amounts before and after project completion. Although they may be used for crosschecking with the Site Restoration Plan, the figures presented in the table are not meant to be a substitute for supporting calculations of the Site Restoration Plan. The purpose of the Table is to give the permit reviewer an idea of how the stormwater hydrology regime will be changed by the project. Please use the following descriptions for purposes of providing figures in the Table. In addition to these definitions, please see the page "How to Complete the Summary Table" located at the end of these instructions for further explanation.

Design storm: The frequency storm event used for the purposes of designing the Post Construction Stormwater Management BMPs should be consistent with local stormwater management ordinances developed to satisfy the requirements of an Act 167 Stormwater Management Plan approved by the Department after July 2001, or an MS4 permit. In the absence

- 4 -

of said local ordinance, the design storm should be the 2-year/24-hour frequency storm.

Pre-construction: The dominant land condition or land use of the project site for the five (5) years preceding the planned project.

Impervious area (Pre-construction): The amount of impervious area on the project site as determined by the dominant land condition or land use for the five (5) years preceding the planned project.

Impervious area (Post construction): The amount of impervious area on the project site after the completion of the project.

Volume of stormwater runoff without planned stormwater BMPs (Pre-construction): The amount of stormwater that would runoff the project site during the design storm event as determined by the dominant land condition or land use for the five (5) years preceding the planned project.

Volume of stormwater runoff without planned stormwater BMPs (Post construction): The amount of stormwater that would runoff from the project site after construction if the planned stormwater BMPs were not installed.

Volume of stormwater runoff with planned stormwater BMPs (Post construction): The amount of stormwater that will run off from the project site after the planned stormwater BMPs are installed.

Stormwater discharge rate for the design frequency storm (Pre-construction): Show the stormwater runoff discharge rate for the design frequency storm event as determined by the dominant land condition or land use for the five (5) years preceding the planned project.

Stormwater discharge rate for the design frequency storm (Post construction): Show the stormwater runoff discharge rate for the storm event after the planned stormwater BMPs are installed.

 Please check all the appropriate boxes. If there is no check box for a planned BMP, check the box for "other" and list the BMP. Do not list erosion and sediment control BMPs.

Section E: Special Protection Waters

Provide the information requested in accordance with 25 Pa Code Chapter 93.4(a), Chapter 102.4(b)(6), the Oil and Gas Operator's Manual and the Oil and Gas Stormwater Policy 550-2100-008 if the earth disturbance activity is in a Special Protection Watershed.

Section F: Compliance Review

Provide the information requested. Use additional pages if necessary.

Section G: Certification by Person Preparing Application

The person responsible for preparing the Erosion and Sediment Control Plan and Site Restoration Plan with PCSM BMPs must complete this section.

Section H:

Applicant Certification

The NOI shall be signed as follows:

- In the case of corporations, by a principal executive officer of at least the level of vice president, or an authorized representative,
- 2. In the case of a partnership, by a general partner.
- 3. In the case of a sole proprietorship, by the proprietor.
- In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official or other authorized employee.

ATTACHMENT A

Instructions

This letter is provided as an example only. Applicants may draft their own letter of notification. This letter must be modified to meet the specific requirements of the project if the applicant chooses to use the following text.

SAMPLE NOTICE LETTER TO MUNICIPALITY AND COUNTY

Date:

Dear (Municipal Secretary): or Dear (County Commissioners):

This municipal notice, under the requirements of Act 14, is to inform you that (I am/we are) are applying for coverage under the Erosion and Sediment Control General Permit (ESCGP-1) for Earth Disturbance Associated with Oil & Gas Exploration, Production, Processing or Treatment Operations or Transmission Facilities from the Pennsylvania Department of Environmental Protection (DEP):

Applicant Contact:

Project Location:

Project Description:

Enclosed is a complete copy of the permit Notice of Intent (NOI) completed by the applicant for this project. DEP invites you to review the attached application and comment on the accuracy of answers provided with regard to land use aspects of this project; please be specific to DEP and focus on the relationship to municipal ordinances. If you wish to submit comments to DEP, you must respond within 30 days to the DEP regional office referenced in this letter. If you do not submit comments by the end of the comment period, DEP will assume that there are no substantive conflicts and proceed with the normal application review process.

Sincerely, Enclosures cc: /county planning agencies

How to Complete the Summary Table (This table is located in Section D, page 4 of the Notice of Intent application form)

4	MMARY TABLE FOR SUPPORTING C e the Instructions on how to Complete	다 승규는 것이 한 가슴을 다 봐야지 않는다. 200 kg	EASUREMENT DATA	
	k this box if supporting calculations and on the preceding page.	d measurements are	NOT required in accord	ance with Section
	nount inches	Pre-construction	Post Construction	Net Change
Imperviou	s area (acres)	1	2	3
	f stormwater runoff (acre-feet) without tormwater BMPs	4	5	6
	of stormwater runoff (acre-feet) with tormwater BMPs		7	8
	er discharge rate for the design	9	10	11
Box 1.	Pre-construction impervious area: construction activities begin.	The total acres of im	pervious area on the p	project site befo

- Box 2. Post construction impervious area: The total acres of impervious area on the project site after construction activities have been completed.
- Box 3. Net change of impervious area: The difference between the acres of impervious area listed in Box 1 and Box 2.
- Box 4. Pre-construction stormwater runoff volume without planned BMPs: The amount of stormwater runoff volume from the project site that would result from the design storm occurrence before construction activities begin.
- Box 5. Post construction stormwater runoff volume without planned BMPs: The amount of stormwater runoff volume from the project site that would result from the design storm occurrence after construction activities have finished assuming that no stormwater infiltration or retention BMPs have been installed.
- Box 6. Net change in stormwater volume without planned BMPs: The difference between the amounts of stormwater runoff volume listed in Box 4 and Box 5.
- Box 7. Post construction stormwater runoff volume with planned BMPs: The amount of stormwater runoff volume from the project site that would result from the design storm occurrence after construction activities have finished and the planned stormwater infiltration or retention BMPs have been installed.
- Box 8. Net change in stormwater runoff volume with planned BMPs: The difference between the amounts of stormwater runoff volume listed in Box 4 and Box 7.
- Box 9. Pre-construction stormwater discharge rate: The stormwater runoff discharge rate for the design frequency storm as determined by the land use for the past five years.
- Box 10. Post construction stormwater discharge rate: The stormwater runoff discharge rate for the design frequency storm event after all planned stormwater BMPs are installed.
- Box 11. Net change stormwater discharge rate: The difference between the stormwater runoff discharge rates listed in Box 9 and Box 10.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERSHED MANAGEMENT BUREAU OF OIL & GAS MANAGEMENT

APPROVAL OF COVERAGE UNDER THE EROSION AND SEDIMENT CONTROL GENERAL PERMIT FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING, OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES ESCGP-1

Approval No:

In compliance with the provisions of The Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq., the Oil & Gas Act 58 P. S. § § 601.101 et seq., 25 Pa Code Chapters 78, 91, 93 and 102 regulations promulgated thereto, and sections 1905-A, 1917-A and 1920-A of the Administrative Code of 1929 (71 P.S. §§510-5, 510-17 and 510-20) the Department of Environmental Protection (Department) hereby authorizes the permittee to conduct earth disturbance activities at the following location:

PERMITTEE NAME AND ADDRESS

PROJECT NAME AND LOCATION

This authorization is granted to conduct earth disturbance activities and construct the erosion and sediment control and stormwater management best management practices (BMPs) within the project indicated above, provided that you comply with all representations set forth in your application and its supporting documents and permit conditions attached hereto.

Earth disturbance activities in accordance with the terms and conditions herein may commence on the date of the approval of permit coverage. This approval is valid for a period of five years when conducted pursuant to such terms and conditions the Department may terminate the approval prior to the expiration date upon notice to and approval. No condition of this permit shall release the permittee(s) from any responsibility or requirement under Pennsylvania statutes or regulations.

No condition of this permit shall release the permittee(s) from any responsibility or requirement under Pennsylvania statutes or regulations or local ordinances.

Approval Date:		Expiration Date:	
Authorized by:	<u> </u>	Title	
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EROSION AND SEDIMENT CONTROL GENERAL PERMIT FOR EARTH DISTURBANCE ASSOCIATED WITH OIL AND GAS EXPLORATION, PRODUCTION, PROCESSING, OR TREATMENT OPERATIONS OR TRANSMISSION FACILITIES (ESCGP-1)

General Information

- This permit applies to earth disturbance activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities (oil and gas activities) that disturb five (5) or more acres at one time over the life of the project.
- This permit is issued ______. The permit shall expire at midnight ______. unless extended in writing by the Department.
- 3. Persons proposing to conduct earth disturbance activities associated with oil and gas activities that disturb five (5) or more acres at one time over the life of the project, who wish to be covered by this general permit, must submit an administratively complete and acceptable Notice of Intent (NOI) to the Department or authorized County Conservation District ("District") at least 90 days prior to commencing the earth disturbance activity. The NOI shall be filed in accordance with the detailed instructions specified in the NOI package. Earth Disturbance activities cannot begin until the operator receives the permit approval.
- 4. An Erosion and Sediment Control Plan ("E&S Plan") must be implemented for the activity covered by this permit in accordance with 25 Pa. Code Chapter 78 and Chapter 102. The E&S Plan must be submitted for review and approval to the Department or District when acting as the reviewing entity (collectively "reviewing entity"). Best Management Practices ("BMPs") shall be constructed and maintained under the supervision of a competent individual trained and experienced in erosion and sediment control methods and techniques. The Post Construction Stormwater Management Plan ("PCSM Plan") shall also be implemented for the earth disturbance activity covered by this permit.

Standard Permit Conditions

- 1. Major modifications to the approved E&S Plan involving new or additional earth disturbance activity and/or the addition of a point source discharge will require prior approval by the reviewing entity and may require the submittal of a new NOI. All minor modifications to the E&S Plan and PCSM Plan shall be noted on the plan shall be noted on the plan that is available at the site and initialed by the Department or Conservation District staff. Minor changes to the E&S Plan or the PCSM Plan may include adjustments to BMPs and locations within the permitted boundary to improve environmental performance within the scope of the approved E&S Plan, change in ownership or address, typographical errors and field adjustments on-site such as the addition or deletion of BMPs to address unforeseen circumstances.
- If the erosion and sediment control and stormwater management BMPs fail to achieve their intended purpose the permittee(s) shall investigate the reason for the failure and take necessary corrective actions which may include modification to existing BMPs or the design and construction of additional BMPs.
- Nothing in this permit relieves the permittee(s) of the obligation to obtain any other applicable permits, or of complying with all federal, state, or local laws, regulations or standards for the construction, operation, and maintenance of this project.
- 4. All relevant conditions of any prior Departmental permits, decrees or orders issued to the permittee(s) or their predecessor shall be continued in full force and effect unless explicitly superseded by this permit. The provisions of this permit shall apply to the permittee's successors, lessees, heirs, and assigns. Permit ownership and/or responsibilities may be transferred or shared after written notice to, and upon approval from the reviewing entity. The notice shall be provided to the reviewing entity at least 30 days prior to the effective date of new ownership or permit responsibility. The transfer does not need to be published.

- 2 -

- 5. The Department reserves the rights to modify, suspend, revoke or terminate previous coverage under this permit if the permittee(s) shows a lack of ability or intent to comply with the provisions of the permit, or has exhibited a history of non-compliance with the permit conditions.
- 6. Earth disturbance activities in a watershed, where the designated or existing use is High Quality or Exceptional Value or exceptional value wetland pursuant to 25 Pa Code Chapter 93.4b, shall comply with the anti-degradation requirements of 25 Pa Code Chapter 93.4 Sections 93.4a thru 93.4c and 25 Pa Code Chapter 105.13. Additional BMPs for special protection watersheds are contained in Chapter 4 of the Oil and Gas Operators Manual (No. 550-0300-001), the Stormwater Best Management Practices Manual (363-0300-002) and 25 Pa Code Chapter 102.4(b).
- 7. Erosion and sediment control and stormwater management BMPs shall be designed and implemented to meet the standards and specifications identified in 25 Pa Code Chapters 78, 93, 102 and any other applicable laws and regulations. Best Management Practices for oil and gas activities are listed in the Department's Oil and Gas Operators Manual, No. 550-0300-001 and Erosion and Sediment Pollution Control Manual, No. 363-2134-008, the Water Quality Antidegradation Guidance No. 391-0300-002 and the Stormwater Best Management Practices Manual No. 363-0300-002. The permittee(s) may use BMPs that are not identified in the foregoing manuals if the permittee(s) demonstrates to the reviewing entity's satisfaction that the proposed BMPs achieve equivalent or superior environmental protection standards.
- If the earth disturbance activities authorized by this permit at any time create conditions that cause or threaten to cause pollution to waters of the Commonwealth, the permittee(s) shall immediately implement remedial measures to correct the conditions.
- 9. The permitee(s) shall notify the delegated conservation district or the Department by either telephone or certified mail of the intent to commence earth disturbance activities. The notification must be at least seven days prior to the start of earth disturbance activities. Attendance at a pre-construction conference is required upon request by the District or Department.
- 10. BMPs must be inspected on a weekly basis and after each measurable stormwater event, including the repair of the BMPs to ensure effective and efficient operation. A written report of each inspection shall be kept to include a summary of site conditions, BMPs, and compliance, corrective action taken and the date, time, and the name of the person conducting the inspection. These documents are to be made available to the Department upon request.
- 11. Upon completion of the earth disturbance activity the site shall be permanently stabilized according to the requirements of Pa Code Chapter 102. In addition, post construction stormwater management BMPs shall be in place and operating prior to a site being considered permanently stabilized.
- 12. Procedures which ensure that the proper disposal or recycling of materials associated with or from the project site will be undertaken in an environmentally safe manner, and in accordance with federal and state law and regulations. No waste or similar materials shall be disposed, buried, dumped, or discharged at the site unless it is in accordance with federal and state law and regulations.
- 13. Issuance of this permit does not authorize earth disturbance activities in wetlands or other water obstructions or encroachments as depicted in the approved E&S Plan. Any changes to the approved E&S Plan resulting from other permits from the Department that authorize activity in wetlands or other water obstructions or encroachments must be submitted to the reviewing entity for review and approval prior to initiating the earth disturbance activity. If hydric soils are present, a wetland identification must be conducted in accordance with Department procedures. All wetlands and watercourses must be included on the E&S Plan.
- 14. The permittee may not discharge floating materials, oil grease, scum, foam, sheen and substances which produce odor, taste, turbidity, or settle to form deposits in concentrations or amounts sufficient to be, or create a danger of being, harmful to the water uses to be protected or to human, animal, plant or aquatic life.
- 15. In accordance with 25 Pa. Code § 78.55, operators of oil and gas wells are required to prepare and implement a Preparedness, Prevention, and Contingency plan. A copy of the plan shall be provided to the Department upon request.

- 3 -

- 16. The Erosion and Sedimentation Control Plan shall include any spoil, borrow or other work area associated with the oil and gas activity.
- 17. The Department and the District when acting as reviewing entity, reserves the right to require additional monitoring where a danger of water pollution is present, or water pollution is suspected of occurring from an earth disturbance activity subject to this permit. The permittee(s) shall commence such monitoring upon notification from the Department or the authorized conservation district when acting as the reviewing entity.
- 18. The permittee(s) must comply with all terms and conditions of this permit. Any permit non-compliance constitutes a violation of The Clean Streams Law, Oil and Gas Act, 25 Pa Code Chapters 78, 91, 93 and 102, and is grounds for enforcement action or permit suspension; revocation, modification and reissuance, or denial of a permit. The permittee(s) may be subject to criminal and/or civil penalties for violations of the terms and conditions of this permit under Sections 602 and 605 of The Clean Streams Law, 35 P.S. §§ 691.602 and 691.605 and Sections 503, 505, 506 and 507 of the Oil and Gas Act, P.S. §§ 601.503, 601.505, 601.506 and 601.507.
- 19. Pursuant to Sections 5(b) and 305 of The Clean Streams Law (35 P.S. §§ 691.5(b) and 691.305), Oil and Gas Act Section 508 (58 P.S. §§ 601.508) and Section 1917-A of the Administrative Code (71 P.S. § 510-17), the permittee(s) shall allow the head of the Department, and/or an authorized representative of the Department, or delegated conservation district, upon the presentation of an authorized identification or other credentials, as may be required under law, to:
 - Enter upon the permittee(s) premises where a regulated activity is located or conducted or where records must be kept under the conditions of this permit;
 - Have access to and copy at reasonable times, any records that must be kept under the terms and conditions of this permit;
 - Inspect any facilities or equipment (including monitoring and control equipment); and
 - Observe or sample any discharge.
- 20. Prior to the commencement of earth disturbance activities for additional phases or portions of a project, the permittee(s) shall submit a Plan for each additional phase or portion of the project in accordance with Permit Guidelines for Phased NPDES Stormwater Discharges Associated with Construction Activity Permits, Chapter 102 Erosion and Sediment Control Permits and Chapter 105 Waterway Restoration Permits (363-2134-013) for review and approval by the reviewing entity.
- 21. The permittee(s) shall contact the plan preparer for clarification of any requirements contained in the Erosion and Sediment Control Plan, Post Construction Stormwater Management Plan, Pollution Prevention and Contingency Plan, or other documents related to this permit. If additional clarification is necessary the permittee or co-permittee shall contact the Department or authorized Conservation District.
- 22. No regulated activity is authorized under this General Permit which is likely to directly or indirectly adversely affect a State or Federal threatened or endangered species or a species proposed for such designation, or which is likely to destroy or adversely modify the critical habitat of such a species, as identified under the Federal Endangered Species Act of 1973; Title 30, Chapter 75 of the Pa. Fish and Boat Code; Title 17, Chapter 25, Conservation of Wild Plants; and Title 31 Chapter 133 Game Wildlife code.

Permit registrations shall include a Pennsylvania Natural Diversity Inventory (PNDI) search receipt. Any "potential impact" must be resolved with the appropriate agency prior to registration of this General Permit. Information on PNDI searches is available through the PA Department of Conservation and Natural Resources, Bureau of Forestry, Ecological Services Section, P.O. Box 8552, Harrisburg, PA 17105-8852, telephone 717-787-3444 and at www.naturalheritage.state.pa.us.

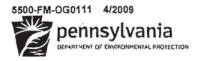
- 4 -

23. Notice of Termination. When all stormwater discharges associated with the earth disturbance activity that are authorized by this permit are eliminated, the disturbed area has been permanently stabilized and BMPs identified in the PCSM Plan have been installed, the permittee or co-permittee of the facility must submit a signed Notice of Termination letter. All Notice of Termination letters are to be sent to the Department or the authorized Conservation District.

PERMIT ISSUED BY:

Director, Bureau of Watershed Management

Director, Bureau of Oil and Gas Management



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT

EROSION, SEDIMENT AND STORMWATER CONTROL PLAN FOR OIL AND GAS OPERATIONS

1. GENERAL INFORMATION			
Project Name: Mun	icipality:	County:	
Operator:			
Address:	City	State: Zip Code:	
Latitude: degrees minutes seconds		degreesminutessecon	ds
Reference Datum: 🗌 North American Datum 1983	North American Datum	1927 World Geodetic System 198	84
Contour Collection Method: GPS	Interpolated from U.S.G	.S. topo map	P
Total Project Area (Acres):		rbed Area (Acres):	
Project Type (Check All that Apply)			
Oil/Gas Well Pipeline/Transmission/Compress	or Facility	Facility 🔲 Treatment Facility 🗌 Othe	r .
A. PROJECT DESCRIPTION			
Will the earth disturbance activity encounter any coal sea	ams?	Yes No	
If yes, have you contacted the local DEP District Mining	Office for further assistance?	🗌 Yes 🗌 No	
Provide a narrative description of the project. (Add addit	ional sheets as necessary)		
			-
B. RECEIVING WATERS			
All streams in Pennsylvania are classified based upon uses for waters of this Comm http://www.pacode.com/secure/data/025/chapter93/chap DEP Web site www.depweb.state.pa.us. Type the phrase office can also supply this information. List the bodies disturbance activity.	nonwealth are four <u>93toc.html</u> . Existing uses of se "existing use" in the DEP k	nd in 25 <u>Pa. Code</u> §93.9a-z waters of this Commonwealth are found at Keyword box. The county conservation dis	at t the strict
Stream Name/Watershed		Designated/Existing Use	
		1	
C. RESPONSIBLE PARTIES			_
Person(s) responsible for construction and maintenance (NOTE: If duties are assigned to more than one party, list			ties.
Name:		Phone:	
Address:	City:	State: Zip Code:	
Erosion and Sediment Control Plan prepared by:			
Name:		Phone:	
Address:	City:	State: Zip Code:	

2. MAPS A. LOCATION MAP

The map must include the location of the project with respect to roadways, streams, wetlands, lakes, ponds, floodplains, type and extent of vegetation and other identifiable landmarks. A United States Geologic Service (USGS) 7.5 min. quadrangle map may be used to show the existing topographical features of the project site and the immediate surrounding area.

B. SOIL MAP

A soils map is attached showing the proposed site including access roads, drill pads, impoundments, and pipelines. (Soils information is available from the Natural Resource Conservation Service (NRCS) website http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Soils information should be addressed when determining roadway layout, pad configurations, and appropriate stabilization methods. List all soils that will be encountered and check off all limitations that apply. See Appendix B for LIMITATIONS OF PENNSYLVANIA soils pertaining to earthmoving projects and complete worksheet 1

C. PLAN MAP

Attach a site specific map with the site location, site boundaries, topographic features, existing land uses, north arrow and legend. The map must include the location of all earth disturbance activities (roads, drill pads, impoundments, pipelines and other associated activities). The scale and north arrow must be plainly marked. The map scale must be large enough to clearly depict the topographical features of the project. A complete legend of all symbols used on the map must also be included. The following should be clearly shown on the plan maps. In the case where significant cut and fill operations are to occur, the slope should be depicted with contour lines and/or cross-sections.

 Topographic features 		Wetland Crossings	
 North Arrow 	•	Stream Crossings	
Drill Pads		Access Roads	
		Existing Roads	
	•	Proposed Erosion Control BMPs	
•		Receiving surface waters	

D. STREAM AND WETLAND CROSSING MAP

A legible photocopy of a USGS 7.5 min. quadrangle map showing the location of the project boundaries and all surface water crossings will be attached to the plan map. Each crossing location as well as any earth disturbance that is to occur within 50 ft of a stream channel must include the type of water obstruction and encroachment permit that is to be secured. At all stream crossing locations, runoff must be directed to a sediment removal area, i.e., filter strip, straw bale, silt fence, sump, a trap for treatment. Waterbars and/or broad based dips should be installed and maintained as required on the approaches to the stream crossing.

1 Yes

Has application been made for required stream crossing permits?

No Not Applicable

3. SCHEDULE AND SEQUENCE OF OPERATIONS

Starting Date:

A. PRE CONSTRUCTION

Completion Date:

Disturbed Acreage Calculation

	Total Length (ft)	Average Width (ft)		Area (sq ft)			
Access Roads			=				
Pipelines/Compressors			=				
Drill Pads			=				
Other			=				
		Total Area (sq. ft.)	=		÷ 43,560 sq ft/A	=	

В.	SITE	CONSTRUCTION/ WELL DRILLING/PRODUCTION CHECKLIST				
		Prior to commencement of any earth disturbance activity including clearing and grubbing, the delineate sensitive areas, riparian forest buffer boundaries, areas proposed for infiltration clearing, and trees that are to be conserved within the project site, and shall install appequipment may not be parked, staged, operated or located for any purpose.	practices, t	he limits of		
	2.	Site access – This is the first land-disturbance activity to take place at the site and should pro- accelerated erosion and sedimentation from the following areas: entrance to the site, constru- designated for equipment or other use at the site including parking, stockpiles.				
	3.	Sediment Barriers – Install perimeter BMPs after the construction site is accessed, keeping grubbing limited to only that amount required for installing perimeter BMPs.	associated o	clearing and		
	4.	Upslope Diversion Channels - including outlet protection are constructed to divert upslope cluthe disturbed area (when necessary).	ean water ru	inoff around		
	5.	Sediment Basins and Traps – including outlet protection shall be constructed prior to the rem and other earth disturbance activities.	aining cleari	ng/grubbing		
	6.	Sediment Laden Water Channels or other Conveyance- used to divert stormwater runoff v BMPs such as traps and ponds should be installed prior to the remaining clearing/grubbing and activities.	vater to the other earth	appropriate disturbance		
	7.	Land Clearing and Grading - Implement clearing and grading only after all downslope constructed and stabilized.	E&S BMPs	have been		
	8.	Surface Stabilization – Apply temporary or permanent stabilization measures immediately where work has reached final grade, has been delayed or otherwise temporarily suspended.	to any distu	irbed areas		
	9.	Construction of Buildings, Utilities, and Paving – During construction, install and maintain any sediment control BMPs, and implement any structural post construction stormwater BMPs that				
	10. Final Stabilization, Topsoiling, Trees and Shrubs, After construction is completed, install stabilization BMPs including: permanent seeding, mulching and riprap, and complete implementation of stormwater BMPs in this last construction phase. Stabilize all open areas, including borrow and spoil areas, and remove all temporary BMPs and stabilize any disturbances associated with the removal of the BMP.					
by t perr typo	Minor modifications to the E & S Plan and Site Restoration Plan shall be noted on the plan that is available at the site and initialed by the appropriate Department staff. Minor changes to the plan may include adjustments to BMPs and locations within the permitted boundary to improve environmental performance, prevent potential pollution, change in ownership or address, typographical errors and on-site field adjustments such as the addition or deletion of BMPs, or alteration of earth disturbance activities to address unforeseen circumstances.					
as n	ninor n	ifications to the approved E & S Plan involving new or additional earth disturbance activity oth nodifications above, and/or the addition of a discharge will require prior approval by the reviewing tal of a new plan.				
C.	C. EROSION CONTROL & STORMWATER BEST MANAGEMENT PRACTICES (BMPS)					
Sed 550- distu prov pad, com	The Best Management Practices listed in this plan shall be installed and maintained in accordance with the <i>Erosion and Sediment Pollution Control Manual</i> , No. 363-2134-008, as amended and updated and the <i>Oil and Gas Operator's Manual No. 550-0300-001</i> as amended and updated. The BMPs contained in this plan shall be installed as shown (or indicated) prior to earth disturbance (including clearing and grubbing) within the drainage area of the BMP in question. Appropriate BMPs shall be provided for each stage of activity (including, but not necessarily limited to, access road construction and maintenance, drilling pad, frac ponds, & pipelines). Each BMP shall be kept functional until all earth disturbances within the drainage area are completed and a minimum vegetative cover (uniform 70% coverage of perennial vegetation over the entire disturbed area) has been achieved or other suitable permanent erosion protection has been installed.					
/f no	, pleas	e explain:				
-						
Will	all ero	sion control and stormwater BMPs be installed and maintained as specified in this plan?	☐ Yes	🗌 No		
Will	all unr	ecessary disturbed areas be limed, fertilized, seeded and mulched as specified in this plan?	🗌 Yes	🗌 No		
Will	all unn	ecessary culverts and waterbars be removed as specified in this plan?	🗌 Yes	. 🗌 No		
Will	all per	manent waterbars be installed as specified in this plan?	🗌 Yes	🗆 No		
		ecessary disturbed areas be regraded, smoothed, limed, fertilized, seeded and mulch as this plan?	🗌 Yes	🗌 No		
	1					

4. DESCRIPTION OF EROSION AND SEDIMENT/STORMWATER CONTROL BEST MANAGEMENT PRACTICES
The following standard BMPs have been provided to fulfill the requirements of this plan Additional BMPS are listed in the Erosion and Sediment Pollution Control Manual as well as the Oil and Gas Operator's Manual and <i>the Underground Utility Line</i> <i>Construction BMP Manual.</i> BMP construction details are shown in Appendix A. If you plan to use any of these recommended BMPs, please check the appropriate boxes. If you plan to use alternative BMPs, you must provide drawings showing the details, specifications and spacing.
A. CROSS-DRAIN CULVERT
Culverts will be installed before the ground freezes. Culverts shall be placed with a slope of 2 to 4 percent and cross the road at a 30-degree downslope angle. Culverts will be 12" pipe or larger.
Will this BMP be used? Yes No Will recommended spacing be used? Yes No. If no, please explain:
B. WATERBARS
Waterbars will be placed on pipelines and retired roadways according to the spacing indicated below.
Will this BMP be used? Yes No Will recommended spacing be used? Yes No
C. BROAD-BASED DIPS
Broad-based dips will be installed and worked before the ground freezes. Broad-based dips on the road system are planned to be spaced as indicated in Appendix A.
Will this BMP be used? Yes No Will recommended spacing be used? Yes No. If no, please explain:
D. FILTER STRIPS
Filter strip widths vary by slope on land between roads and perennial streams.
The width of the filter strip depends on the slope between the road and the stream.
Will this BMP be used? Yes No Will recommended spacing be used? Yes No. If no, please explain:
E. FILTER FABRIC FENCE
Filter fabric fence must be installed on contour at the edge of disturbed areas. Both ends of each fence section must be extended upslope at 45 degrees to the main fence alignment. They should not be installed in streams, ditches or other areas of concentrated flow. Install filter fabric fence before the ground freezes.
Will this BMP be used? Yes No
F. TURNOUTS
Channels that drain water away from roads into well-vegetated areas are known as turnouts. Turnouts (see Appendix A) are typically located along crowned roadways where runoff cannot sheet flow off the roadway. Like ditch relief culverts, the purpose of turnouts is to minimize the volume of water in a roadside ditch. Turnouts should be located so as to take advantage of natural drainageways or buffer areas wherever possible. Where a suitable vegetative filter strip is not available, a compost filter sock, rock filter or other sediment removal BMP should be installed at the outlet of the turnout.
Will this BMP be used? Yes No

	ГСН								
In most cases, the dito provided, erosion resi roadside ditches disch prevent the erosion of	istant soils a harging to sp	are present, pecial prote	ction waters, who	ies are less ere they disc	than 2 fps. harge directl	However, pro- y to surface w	tective liners aters, or wh	s are require	ed for
Will this BMP be used	I? 🗌 Yes	No No				5			
H. CROWNED/INS	SLOPED R	OADWAY						•	
Crowned roadways an situations where crow								ing vegetation	on. In
Will this BMP be used	I? 🗌 Yes	No No	Crowned	☐ Yes	No No	Insloped	☐ Yes	🗌 No	
I. STABILIZED R	OAD ENTE	RANCE							
The purpose is to remaintained.	emove mud	from tires	and keep it off	the public	road. The	construction e	entrance sh	all be consi	tantly
Will this BMP be used	l? 🗌 Yes	🗋 No							
J. COMPOST FIL	TER SOCK	<							
Will this BMP be used	l? 🗌 Yes	🗆 No							
K. CHANNELS									÷.
Channels are used for sediment removal fac divert runoff from und Conveyance channels	ility (e.g. se isturbed ups	diment trap lope areas	 prior to dischar and convey it are 	rge into rece ound areas o	eiving surface of earth distur	e waters. Div bance (i.e. dri	ersion chan Il pads, impo	nels are us oundments,	ed to
to prevent erosion wit	nin the char	inel vvner	ever grass is use	an ac a nrote		HAMPONOTORY OF	usion contro	nat le.g. r	
fiber blanket) should t established.	be firmly and	chored to th	e bottom and sid	les of the ch	annel to hold	soil in place	until the veg	etation beco	olled
fiber blanket) should t	be firmly and	chored to th	Check all that	les of the ch	annel to hold	soil in place	until the veg	etation beco	ones
fiber blanket) should t established.	be firmly and	chored to th	e bottom and sid	les of the ch	annel to hold	soil in place	until the veg	etation beco	ones
fiber blanket) should t established. Will this BMP be used Temporary Permanent	be firmly and	chored to th	e bottom and sid	apply: Rip-rap Diversion	annel to hold	soil in place	until the veg	etation beco	ones
fiber blanket) should t established. Will this BMP be used Temporary	be firmly and R CYes	No	e bottom and sid	les of the characteristic apply: Rip-rap	annel to hold	soil in place	until the veg	etation beco	ones
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR.	l? Yes Yes Yes Yes Yes APS	No	e bottom and sic Check all that	les of the chapply: Rip-rap Diversion Collector	annel to hold	soil in place	until the veg	etation becc	omes
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative	be firmly and Pres Yes Yes Yes APS be used to co 0 cubic feet cubic feet p	No No No No No No No No control runo t of total st per acre. O	off from drainage orage capacity foutlets should be	les of the characteristic apply: Rip-rap Diversion Collector areas up to or each acre located as f	annel to hold	soil in place	until the veg undisturbed undisturbed). They mu	st be ne is
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may t sized to provide 2,00 considered to be 700	be firmly and Yes Yes Yes Yes APS be used to c 0 cubic feet cubic feet p al to 6 feet fo	No No No No No No No No control runo t of total st per acre. O	off from drainage orage capacity foutlets should be	les of the characteristic apply: Rip-rap Diversion Collector areas up to or each acre located as f	annel to hold	soil in place	until the veg undisturbed undisturbed). They mu	st be ne is
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may t sized to provide 2,00 considered to be 700 widths should be equa	APS be used to c be used to c cubic feet cubic feet p al to 6 feet fo Yes	No No No No No No No No control runo t of total st per acre. O or each acre	off from drainage orage capacity foutlets should be	les of the characteristic apply: Rip-rap Diversion Collector areas up to or each acre located as f	annel to hold	soil in place	until the veg undisturbed undisturbed). They mu	st be ne is
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR Sediment traps may t sized to provide 2,00 considered to be 700 widths should be equal Will this BMP be used	be firmly and Pres Pres Pres Pres Pres APS be used to c 0 cubic feet cubic feet for al to 6 feet for Pres BMPs	hored to th	off from drainage orage capacity foutlets should be	les of the char apply: Rip-rap Diversion Collector areas up to or each acre located as f rap.	Annel to hold	soil in place	until the veg undisturbed le sediment ble. At a m). They mu storage zon inimum, spi	st be ne is
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may t sized to provide 2,00 considered to be 700 widths should be equa Will this BMP be used M. ALTERNATIVE	be firmly and Pres Yes Yes Yes APS be used to c 0 cubic feet cubic feet p al to 6 feet fo Pres BMPs be used?	chored to th	e bottom and sid Check all that Off from drainage orage capacity f outlets should be tributary to the t	les of the cha apply: Rip-rap Diversion Collector areas up to or each acre located as f rap.	Annel to hold	soil in place	until the veg undisturbed le sediment ble. At a m). They mu storage zon inimum, spi	st be ne is
fiber blanket) should the stablished. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TRUS Sediment traps may the sized to provide 2,000 considered to be 7000 widths should be equal Will this BMP be used M. ALTERNATIVE Will alternative BMPs	be firmly and Preside to compare the second Preside to compare the second to compare t	No N	TER/SITE RE as indicated belo The Departmen	les of the char apply: Rip-rap Diversion Collector areas up to or each acre located as frap. h drawings s STORATIO w. Recomment t recomment	Annel to hold	soil in place	undisturbed undisturbed is sediment ible. At a m ations and s e found in Ap ne to deter). They mu storage zon inimum, spi spacing.	st be ne is Ilway
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may to sized to provide 2,00 considered to be 700 widths should be equal Will this BMP be used M. ALTERNATIVE Will alternative BMPs N. POST CONSTE Disturbed areas will b will be applied at a amendment application	be firmly and Preside to compare the second Preside to compare the second to compare t	No N	e bottom and sid Check all that Off from drainage orage capacity f putlets should be tributary to the t No If yes, attac ATER/SITE RE as indicated belo The Departmen d seed mixtures.	les of the char apply: Rip-rap Diversion Collector areas up to or each acre located as frap. h drawings s STORATIO w. Recomment t recomment	Annel to hold	soil in place	undisturbed undisturbed is sediment ible. At a m ations and s e found in Ap ne to deter). They mur storage zon inimum, spi spacing. ppendix A. M mine proper s follows:	st be ne is Ilway
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may to sized to provide 2,00 considered to be 700 widths should be equal Will this BMP be used M. ALTERNATIVE Will alternative BMPs N. POST CONSTE Disturbed areas will b will be applied at a amendment application	be firmly and Preside the firmly and Preside the formation of the firmly and Preside the formation of the firmle the f	No N	e bottom and sid Check all that Off from drainage orage capacity f putlets should be tributary to the t No If yes, attac ATER/SITE RE as indicated belo The Departmen d seed mixtures.	les of the char apply: Rip-rap Diversion Collector areas up to or each acre located as fr rap. h drawings s STORATIO w. Recommen Prior to seed	Annel to hold	soil in place	undisturbed be sediment ble. At a m ations and s found in Applied as). They mur storage zon inimum, spi spacing. ppendix A. M mine proper s follows:	st be ne is Ilway
fiber blanket) should t established. Will this BMP be used Temporary Permanent Vegetative L. SEDIMENT TR. Sediment traps may t sized to provide 2,00 considered to be 700 widths should be equa Will this BMP be used M. ALTERNATIVE Will alternative BMPs N. POST CONSTE Disturbed areas will b will be applied at a amendment application	be firmly and Preside the firmly and Preside the formation of the firmly and Preside the formation of the firmle the f	No N	e bottom and sid Check all that Off from drainage orage capacity f putlets should be tributary to the t No If yes, attac ATER/SITE RE as indicated belo The Departmen d seed mixtures.	les of the char apply: Rip-rap Diversion Collector areas up to or each acre located as fr rap. h drawings s STORATIO w. Recommen Prior to seed	Annel to hold	soil in place	undisturbed be sediment ble. At a m ations and s found in Applied as). They mur storage zon inimum, spi spacing. ppendix A. M mine proper s follows:	st be ne is Ilway

N. POST CONSTRUCTION STORMW/	ATER/SITE RESTORATION (con	tinued)
Area of Disturbance	Seed Mixture	Rate of Application (Ib/acre)
Well Pads		
Access Roads		
Pipelines		
Impoundments		
Compressor Locations		
Other		
1. Non-Structural BMPs which promote the used.	e treatment, infiltration, evaporation, an	d transpiration of stormwater runoff shall be
 Low Impact, Conservation, and Green Im open space, preserving natural areas, principles that utilize or mimic infiltration 	reducing the amount of impervious su	inimize the generation of runoff by preserving Inface, and other green infrastructure design No
 Infiltration practices shall include either e that mimic pre-construction conditions. 	engineered structures or landscape feat	tures designed to capture and infiltrate runoff
 Runoff practices shall be designed and or are to also promote infiltration, filtration, 	constructed to convey runoff, increase e and biological uptake of pollutants.	vaporation, and manage rate. Such practices
5. Filtration practices shall be used to tre processes of physical filtration of solids of	at runoff through filter media that are or cation exchange of dissolved pollutant	designed to capture pollutants through the ts.
List the Stormwater/Site Restoration BMPs th	at will be used:	
· · · · · · · · · · · · · · · · · · ·		
·		
O. EROSION CONTROL BLANKETS		
Erosion control blanketing (either rolled or sp surface water or where soil conditions indicate	rayed) shall be installed or applied for a e blanketing is needed to achieve the re	all slopes 3H:1V or steeper within 50 feet of a quired vegetative cover.
Will this BMP be used? Yes No	12. V	
P. OTHER		
Please explain:		
5. SPECIAL PROTECTION WATERSH	IEDS	
		ed or existing use of high quality (HQ) or
exceptional value (EV), or non-special prote	ection watersheds impaired for sedime	ent or stormwater must demonstrate that all
		al or biological characteristics of the surface Plans to the greatest extent possible. These
		Gas Operator's Manual. Calculations are not
necessary if the approximate original contor	urs and the preservation of the precon	struction drainage pattern and features are
maintained or replicated and the disturbed an		
require extensive construction and maintenar	i addition, if stormwater bidres will be e	employed that use natural measures, do not e capable of controlling the stormwater runoff
from a 2-year/ 24-hour storm event and the Commonwealth, calculations are not necessa	net increase of stormwater is infiltrated	d or dissipated away from the waters of the
•		

5.	SPECIAL PROTECTION WATERSHEDS (continued)
а.	Is the project located in a Special Protection Watershed? Yes No. If yes, provide a detailed description of how the post-construction stormwater runoff will be managed.
b.	Will there be a net increase in accelerated erosion and sedimentation from the construction runoff?
C.	Does the post construction runoff volume equal pre-construction runoff volume for the 2-year/24-hour storm? 🗌 Yes 🗌 No
d.	Does the rate of post-construction stormwater equal pre-construction runoff rate for the 2, 5, 10, 25, 50 and 100 year storm events? Yes No
Lis	the Post Construction Stormwater BMPs that will be used
	MAINTENANCE
BN the	Ps will be inspected on a weekly basis and after each measurable rainfall event during the active construction/drilling phase of project. Yes No
Cu	verts will be cleaned out, repaired or replaced as necessary.
Filt	er strips will be maintained.
Ea	th Disturbance areas will be repaired where signs of accelerated erosion are detected.
Se	eding and mulching will be repeated in those areas that appear to be failing or have failed. Yes No
Oth	ner (describe)
7.	SITE CLEANUP
De	scribe procedures which ensure the proper handling, storage, control, disposal and recycling of well drilling waste, including but limited to fuels, oil, lubricants and other materials brought to the site or used in the process of drilling.
	Garbage, fuels or any substance harmful to human, aquatic or fish life, will be prevented from entering springs, streams, ponds, lakes, wetlands or any water course or water body.
	Oils, fuels, lubricants and coolants will be placed in suitable containers and disposed properly.
	All trash and garbage will be collected and disposed properly.
	Other (describe).
-	

8. ADDITIONAL EXPLANATION/COMMENTS (if needed)

9. CERTIFICATION BY PERSON PREPARING APPLICATION

I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control Plan and Site Restoration/ Stormwater Management Plan are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Print Name:	Signature:	
Company:		
Address:		
Phone:		

EXPEDITED REVIEW PROCESS

In addition to the certification required above applicants using the expedited permit review process must attach an E&S and Site Restoration Plan developed and sealed by a licensed professional engineer, surveyor or professional geologist, The plans shall both contain the following certification:

I do hereby certify to the best of my knowledge, information and belief, that the Erosion and Sediment Control and Site Restoration Plan are true and correct, represent actual field conditions and are in accordance with the 25 Pa. Code Chapters 78 and 102 of the Department's rules and regulations. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

10. APPLICANT CERTIFICATION

Applicant Certification. I certify under penalty of law that this document and all attachments were prepared by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The responsible official's signature also verifies that the activity is eligible to participate in the permit, and that the applicant agrees to abide by the terms and conditions of the permit. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name and T	itle of Applicant	Print Name and Title of Co-Applicant (if applicable)				
Signature of	Applicant	Signature of Co-Applicant				
Date Applicat	ion Signed	Date Application Signed				
Notarization						
Sworn to and subscribed to before	me this	Commonwealth of Pennsylvania				
day of	, 20	County of				
-		My Commission expires				
Notary Public						
NAME,	ADDRESS AND PHONE NUN IF ADDITIONAL INF	BER OF INDIVIDUAL TO BE CONTACTED ORMATION IS REQUIRED				
Name:						
Address:		Phone:				
· · · · · · · · · · · · · · · · · · ·						

- 8 -

APPENDIX A

BMP CONSTRUCTION DETAILS

A. Cross Drain Culverts

Sizing and Spacing* of Cross Drain Culverts for Temporary Access Roads

		Length of Upslope Drainage (ft)							
Road Grade	Culvert	< 300	300 - 400	400 - 500	500 - 600	>600			
(%)	Spacing* (ft)	Minimum Culvert Size (in)							
2	300	12	15	15	15	18			
3	235	12	15	15	15	18			
4	200	12	15	15	15	18			
5	180	12	12	15	15	15			
6	165	12	12	12	15	15			
7	155	12	12	12	12	15			
8	150	12	12	12	12	15			
9	145	12	12	12	12	15			
10	140	12	12	12	12	15			
12	135	12	12	12	12	15			

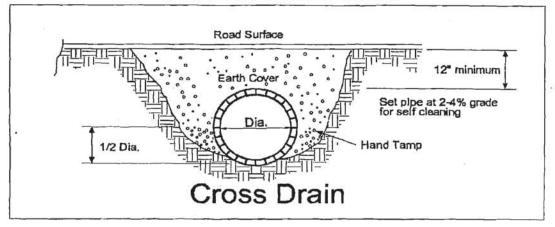
Maximum Spacing* of Cross Drain Culverts (18" dia. CMP) For Permanent Access Roads

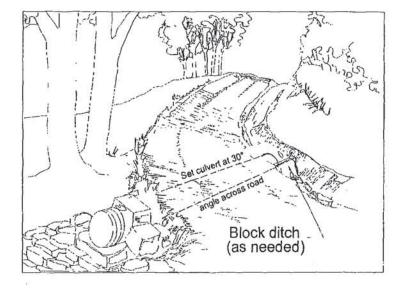
Road Grade	Gravels, Sandy Gravels, Aggregate Surfacing	Silty Gravels, Clayey Gravels	Plastic and Nonplastic Inorganic Clays	Inorganic Silts, Silty or Clayey Sands	Sands, Silty Sands, and Gravelly Sands
Percent			Feet		
2	390	315	245	170	95
4	335	275	210	145	85
6	285	230	180	125	75
8	240	195	150	105	65
10	200	160	125	90	55
12	160	130	105	75	45
14	135	110	85	60	35

R-4 (Min.) Riprap protection will be provided at all outfalls.

At all stream crossing locations, runoff must be directed to a sediment removal area, i.e., filter strip, straw bale, silt fence, sump, or trap for treatment. Waterbars and/or broad based dips should be installed and maintained as required on the approaches to the stream crossing.

TYPICAL CROSS DRAIN CULVERT



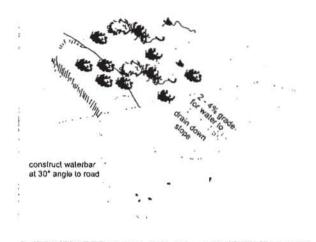


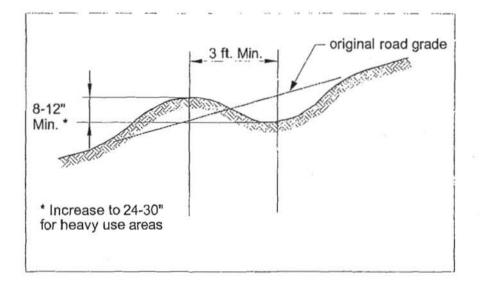
B. WATERBARS - Waterbars are typically used to control stormwater runoff on retired access roads as well as pipeline right-of-ways. They are not recommended for active access roads due to the difficulty of moving equipment over them as well as the need for continual maintenance due to damage from traffic. Waterbars will be installed before the ground freezes and will be spaced as indicated below

Waterbar Spacing: Circle all that apply

Road Grade (%)	Spacing (FT)
2	250
5	135
10	80
15	60
20	45
25	40
30	35
40	30

TYPICAL WATERBAR



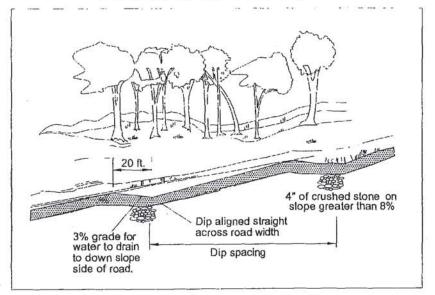


C. BROAD-BASED DIPS - Broad-based dips may be used to direct runoff from active access roads to well-vegetated areas or sediment removal BMPs (e.g. sediment traps). Broad-based dips, unlike waterbars, are easily traversed by construction equipment and typically require less maintenance to ensure their integrity. Due to the nature of broad-based dips, they should not be constructed on roads with grades exceeding 10%. Where access roads must exceed 10% gradients, insloping should be used to control runoff.

RECOMMENDED BROAD-BASED DIP SPACING								
Road Grade (% Slope)	Recommended Spacing (feet)	Alternative Spacing* (feet)						
2	300							
3	250							
4	200							
5	180							
6	170	·						
7	160							
8	150							
9-10	140							

RECOMMENDED BROAD-BASED DIP SPACING

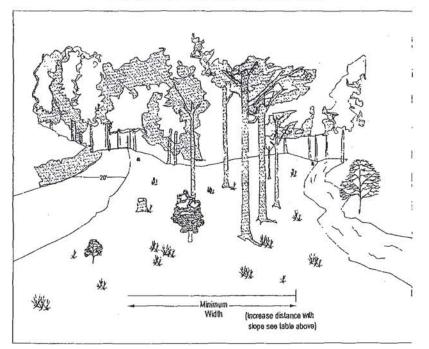
TYPICAL BROAD-BASED DIP



D. FILTER STRIPS

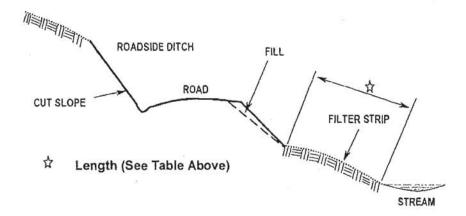
Slope of Land Between Road and Stream (%)	Minimum Length of Filter Strlp (feet) +
0	25++
10	45++
20	65
30	85
40	105
50	125
60	145
70	165

- + Lengths should be doubled when the earth disturbance activity is located where receiving waters have a designated use/existing use of High Quality or Exceptional Value or within a municipal water supply, source water area.
- ++Earth disturbance 50 feet or less from the top of the stream bank (absent evidence to the contrary) requires a water obstruction and encroachment permit from the appropriate DEP Oil and Gas Management Program or Conservation District.



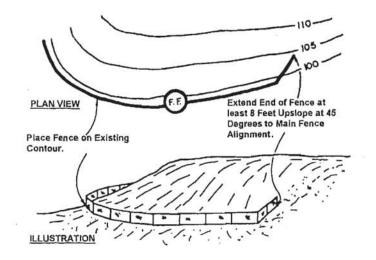
TYPICAL VEGETATIVE FILTER STRIP

VEGETATIVE FILTER STRIP LENGTH



E. SILT FENCE - Silt fence may be used to control runoff from small disturbed areas when it is in the form of sheet flow, and the discharge is to a stable area. Only those fabric types specified for such use by the manufacturer should be used. Standard Filter Fabric width shall be 30" min.; Reinforced and Super Filter Fabric width shall be 42" min. Do not use silt fence in areas of concentrated flows (e.g. channels, swales, erosion gullies, across pipe outfalls, etc. Silt fence should not be used in areas where rock or rocky soils prevent the full and uniform anchoring of the fence. Forested areas are not recommended unless tree roots can be severed during excavation of the anchor trench.

Silt fence must be installed on existing level grade. Maximum slope length above silt fence may not exceed those shown in the table below.



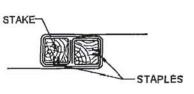
SILT FENCE ALIGNMENT

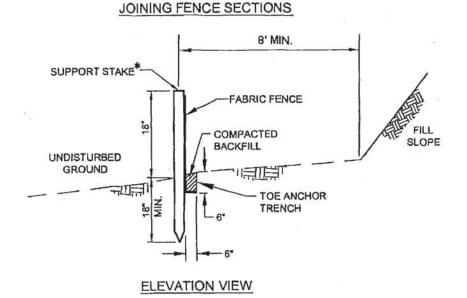
	Maximum Slope Length (ft) Above Fence							
Slope - Percent	Standard (18" High) Silt Fence	Reinforced (30" High) Silt Fence	Super Silt Fence					
2 (or less)	150	500	1000					
5	100	250	550					
10	50	150	325					
15	35	100	215					
20	25	70	175					
25	20	55	135					
30	15	45	100					
35	15	40	85					
40	15	35	75					
45	10	30	60					
50	10	25	50					

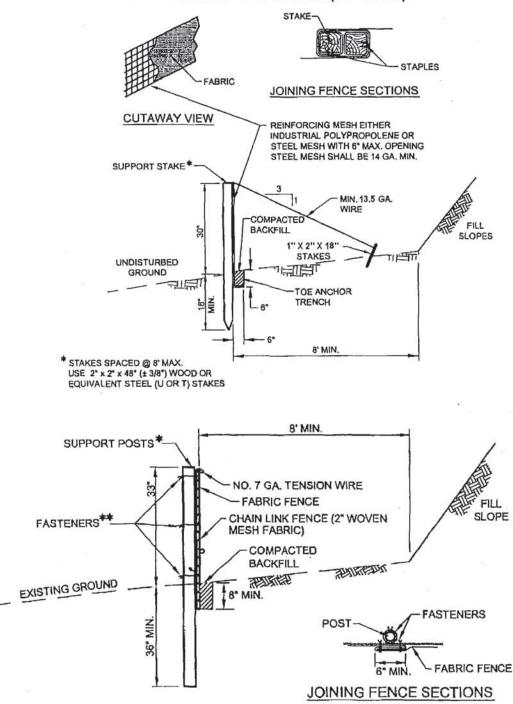
Maximum Slope Lengths for Silt Fence

STANDARD SILT FENCE (18" HIGH)

*STAKES SPACED @ 8' MAX. USE 2" x 2" (± 3/8") WOOD OR EQUIVALENT STEEL (U OR T) STAKES





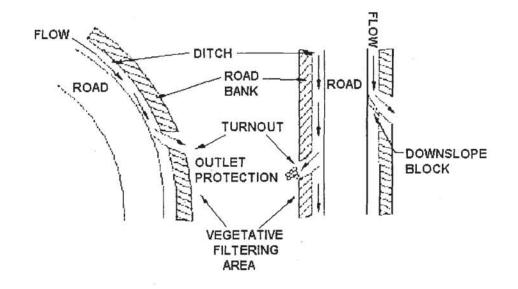


REINFORCED SILT FENCE (30" HIGH)

* POSTS SPACED @ 10' MAX. USE 2 1/2" DIA. HEAVY DUTY GALVANIZED OR ALUMINUM POSTS.

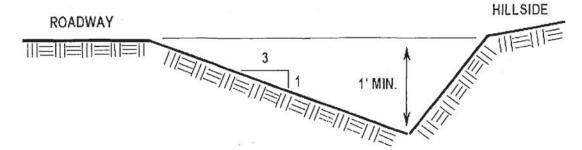
** CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 9 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL PRE-FORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 13,5 GA. GALVANIZED STEEL WIRE, FABRIC TO CHAIN FASTENERS SPACED @ 24" MAX C. TO C.

F. TURNOUT Turnouts are typically located along crowned roadways where runoff cannot sheet flow off the roadway. Like ditch relief culverts, the purpose of turnouts is to minimize the volume of water in a roadside ditch. Turnouts should be located so as to take advantage of natural drainageways or buffer areas wherever possible. Where a suitable vegetative filter strip is not available, a compost filter sock, rock filter or other sediment removal BMP should be installed at the outlet of the turnout.

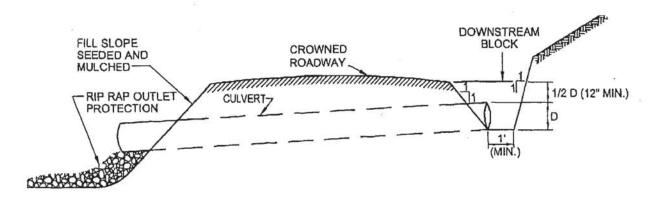


G. ROADSIDE DITCH - In most cases, the ditches paralleling temporary access roads and haul roads need not be lined if sufficient ditch relief culverts are provided, erosion resistant soils are present, and flow velocities are less than 2 fps. However, protective liners are required for roadside ditches discharging to special protection waters, where the discharging directly to surface waters, or where necessary to prevent the erosion of the channel itself.

Typical Roadside Ditch Section

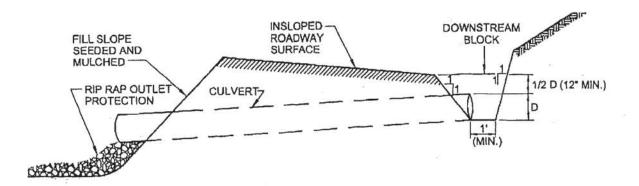


H. CROWNED / INSLOPED ROADWAY

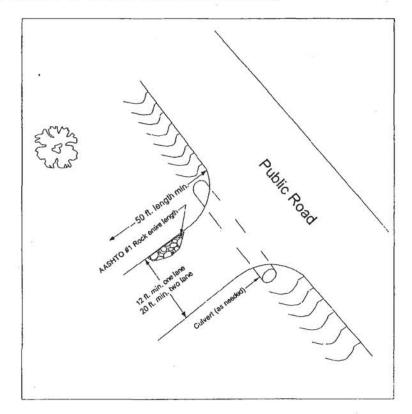


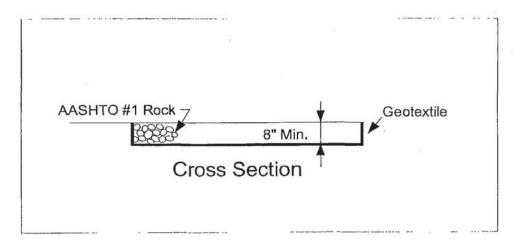
Cut and fill slopes shall be stabilized immediately upon completion of roadway grading. These areas shall be blanketed wherever they are located within 50 feet of a surface water or within 100 feet of a surface water where a suitable vegetative filter strip does not exist. A durable top dressing shall be provided for soils having low strength.

Roadside ditches shall be provided with adequate protective lining. Adequately sized culverts or other suitable cross drains shall be provided at all seeps, springs, and drainageways. Ditch relief culverts shall be provided at the intervals indicated on the Tables below. Roadway shall be inspected weekly and after each runoff event. Damaged roadways, ditches, or cross drains shall be repaired immediately.



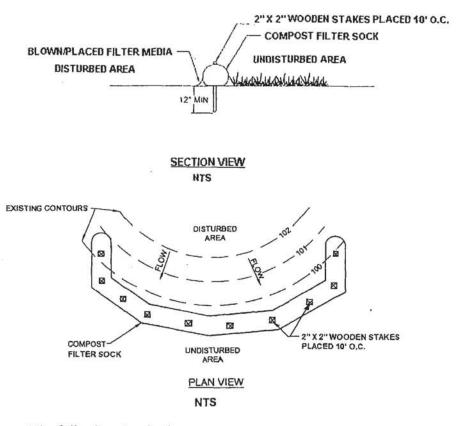
 STABILIZED ROAD ENTRANCE - A rock construction entrance should be installed wherever it is anticipated that construction traffic will exit the project site onto any roadway, public or private. Access to the site should be limited to the stabilized construction entrance(s).





- 19 -

J. COMPOST FILTER SOCK



Compost shall meet the following standards:

Organic Matter Content	80% - 100% (dry weight basis)		
Organic Portion	Fibrous and elongated		
pH	5.5 - 8.0		
Moisture Content	35% - 55%		
Particle Size	98% pass through 1" screen		
Soluble Salt Concentration	5.0 dS Maximum		

Compost Filter Sock shall be placed at existing level grade. Both ends of the sock shall be extended at least 8 feet up slope at 45 degrees to the main sock alignment. Maximum slope length above any 18" diameter sock shall not exceed that shown on above table for reinforced silt fence. Maximum slope length for a 24" diameter sock shall not exceed that for super silt fence.

Traffic shall not be permitted to cross filter socks.

Accumulated Sediment shall be removed when it reaches ½ the above ground height of the sock and disposed in the manner described elsewhere in the plan.

Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.

Biodegradable filter sock shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.

Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

K. CHANNELS

	MPORAR	Y VEGETA	TED TRA	PEZOIDAI	CHANNE	L SIZING	CHART (2H:1V SIDE	SLOPES	
Tributary Acres	1	2	3	4	5	6	7	8	9	10
Minimum Channel Depth (ft)	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
Channel Bed Slope (FT/FT)				2		Bottom W		ata del const A		
< 0.04	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
0.05	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0
0.06	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0
0.07	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
0.08	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	6.0	6.0
0.09	2.0	2.0 Y VEGETA						6.0 2H:1V SIDE	6.0 SLOPES	6.0
0.09 TEI Tributary	MPORAR	Y VEGETA	TED TRA SPEC	PEZOIDAI		L SIZING WATERSH	CHART (ED	2H:1V SIDE	SLOPES	[[
0.09 TEI Tributary Acres Minimum Channel			TED TRA	PEZOIDAI	CHANNE	L SIZING	CHART (
0.09 TEI Tributary Acres Minimum	MPORAR 1	Y VEGETA 2	ATED TRA SPEC 3	PEZOIDAI CIAL PRO 4 1.5	CHANNE TECTION 1 5	EL SIZING WATERSH	CHART (ED 7 2.0	2H:1V SIDE 8 2.0	SLOPES)	10
0.09 Tel Tributary Acres Minimum Channel Depth (ft) Channel Bed Slope	MPORAR 1	Y VEGETA 2	ATED TRA SPEC 3	PEZOIDAI CIAL PRO 4 1.5	CHANNE TECTION 1 5	EL SIZING WATERSH 6 2.0	CHART (ED 7 2.0	2H:1V SIDE 8 2.0	SLOPES)	10
0.09 Tel Tributary Acres Minimum Channel Depth (ft) Channel Bed Slope (FT/FT)	MPORAR 1 1.5	2 1.5	TED TRA SPEC 3 1.5	PEZOIDAI CIAL PRO 4 1.5 Minimun	CHANNE TECTION 1 5 1.5	EL SIZING WATERSH 6 2.0 Bottom W	CHART (ED 7 2.0	2H:1V SIDE 8 2.0	9 2.0	10
0.09 TEI Acres Minimum Channel Depth (ft) Channel Bed Slope (FT/FT) ≤ 0.04	1 1.5 2.0	2 1.5 2.0	1.5	PEZOIDAI CIAL PRO 4 1.5 Minimum 2.0	1.5 CHANNE TECTION 1 5 1.5	EL SIZING WATERSH 6 2.0 Bottom W 4.0	CHART (ED 7 2.0 /idth (FT) 4.0	2H:1V SIDE 8 2.0	9 2.0	10 2.0 6.0 6.0
0.09 TEI Tributary Acres Minimum Channel Depth (ft) Channel Bed Slope (FT/FT) ≤ 0.04 0.05	1 1.5 2.0 2.0	2 1.5 2.0 2.0	2.0 2.0 2.0	4 1.5 Minimum 2.0 2.0	- CHANNE TECTION 1 5 1.5 n Channel 2.0 2.0	EL SIZING WATERSH 6 2.0 Bottom W 4.0 4.0	CHART (ED 7 2.0 /idth (FT) 4.0 4.0	2H:1V SIDE 8 2.0	9 2.0 4.0 4.0	10 2.0 6.0
0.09 Tel Tributary Acres Minimum Channel Depth (ft) Channel Bed Slope (FT/FT) ≤ 0.04 0.05 0.06	MPORAR 1 1.5 2.0 2.0 2.0 2.0	2 1.5 2.0 2.0 2.0	2.0 2.0 2.0	PEZOIDAI CIAL PRO 4 1.5 Minimun 2.0 2.0 2.0 2.0	1.5 CHANNE TECTION V 5 1.5 Channel 2.0 2.0 2.0	EL SIZING WATERSH 6 2.0 Bottom W 4.0 4.0 4.0	CHART (ED 7 2.0 /idth (FT) 4.0 4.0 4.0	2H:1V SIDE 8 2.0 4.0 4.0 4.0	9 2.0 4.0 4.0 6.0	10 2.0 6.0 6.0 TRN

TRM = Turf reinforcement matting

Supporting calculations are attached to show sufficient channel capacity and adequate protective liner. I Yes I No

VEGETATED CHANNEL

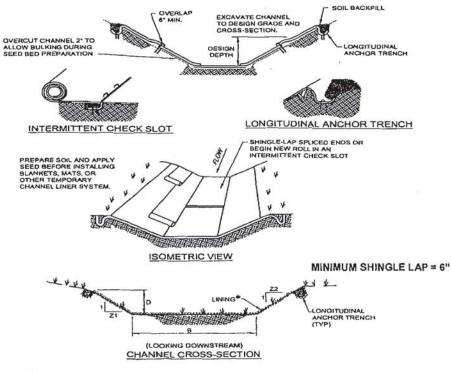
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CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Left Side Slope Z1 (FT)	Right Side Slope Z2 (FT)	LINING*
----------------	----------	------------------------------	--------------------	---------------------------	-------------------------------------	--------------------------------------	---------

Anchor trenches shall be installed at beginning and end of channel in the same manner as longitudinal anchor trenches.

Channel dimensions shall be constantly maintained. Sediment deposits shall be removed within 24 hours of discovery.

Damaged lining shall be repaired or replaced within 48 hours of discovery.

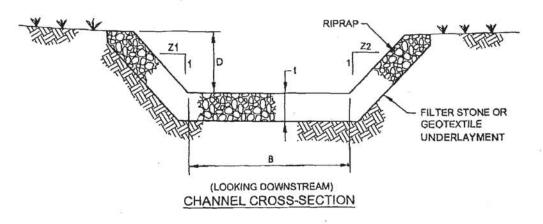


VEGETATED CHANNEL

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, AND VEGETATIVE STABILIZATION SPECIFICATIONS FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION.

RIP-RAP CHANNEL

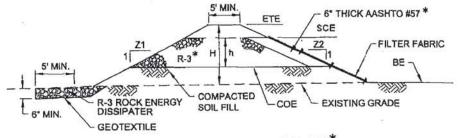
Channel	Stations	в	D	Z1	Z2	Riprap Gradation	t	Underlayment	Underlayment Thickness
	- 7 	-							



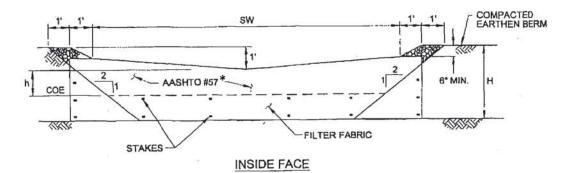
L. SEDIMENT TRAPS

Sediment traps may be used to control runoff from drainage areas up to 5.0 acres (disturbed and undisturbed). They must be sized to provide 2,000 cubic feet of total storage capacity for each acre tributary to the trap. The sediment storage zone is considered to be 700 cubic feet per acre. Outlets should be located as far from the inflow as possible. At a minimum, spillway widths should be equal to 6 feet for each acre tributary to the trap.

Trap No.	Total Tributary Acres	Required Storage Capacity 2000 X Acres (CF)	Length (FT)	Width (FT)	Depth (FT)	Storage Capacity Provided (CF)
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SECTION THROUGH SPILLWAY *



M. SITE STABILIZATION

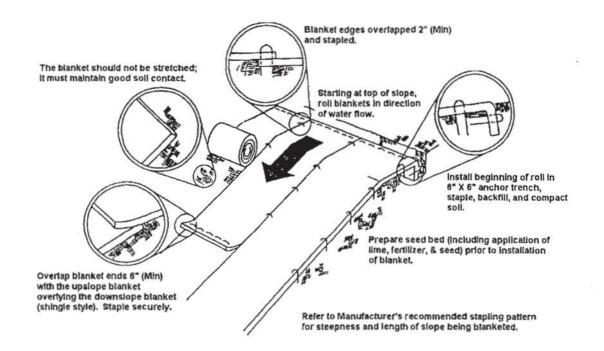
Mixture Number	Season	Species	Seeding Rate lb./ac.
		Tall fescue*, or Fine fescue, plus	79 46
1	Cool	Redtop, or	4
		Perennial ryegrass, plus Birdsfoot trefoil	19 8
		Birdsfoot trefoil,	8
2	Cool	plus Tall fescue*	40
		Orchardgrass, or	26
3	Cool	Smooth bromegrass, plus Birdsfoot trefoil	33 8
		Flatpea, plus	27
4	Warm	Tall fescue*, or Perennial ryegrass	26 25
5	Warm	Deertongue, plus	21
		Birdsfoot treefoil	8
		Switchgrass, or	15
6	Warm	Big Bluestern, plus	15
		Birdsfoot trefoil	8

Recommended Permanent Seed Mixtures Cool and Warm Season Grass

Recommended Seed Mixtures for Stabilizing Disturbed Areas

Site Condition	Seed Mixture (Select One Mixture)
Cut Slopes and Fills (not mowed) Well-drained Variable drainage	2, 4, or 6 2
Cut Slopes and Fills (mowed)	1
Cut Slopes and Fills (grazed/hay)	1, 2, or 3
Gullies and Eroded Areas	2 or 6
Erosion Control BMPs Channels, Drainage ditches, Trap embankments, etc. For hay or silage	1 or 2 2 or 3
Right-of-way Well-drained Variable drainage Well-drained areas for grazing/hay	4 or 6 2 2 or 3
Strip Mined Areas Spoils, waste areas, fly ash, slag, etc. (lime to soil test) For grazing/hay	2, 4, or 5 2, 3, or 6

N. EROSION CONTROL BLANKETS



Spray-on erosion control blankets (e.g. bonded fiber matrix or flexible growth medium) may be used in lieu of roll-on blankets if manufacturers' recommendations are followed.

APPENDIX B

LIMITATIONS OF PENNSYLVANIA SOILS PERTAINING TO EARTHMOVING PROJECTS (Absence of an X does not mean "No Potential Limitation") NOTE: THIS IS NOT NECESSARILY AN ALL-INCLUSIVE LIST.

ŭ. K	AVE	EEL*	Y	DIBLE	U	JRATED AL HIGH BLE	DRIC VS	STH / RONE	ATION		E OF	NOI	ELL	KHOLE		
SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETN STEEL*	ркоиснту	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	DNIdid	POOR SOURCE TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Abbottstown	X	C/S	1	X		X	Х	Х	Х	X	X	X				X
Aeric Epiaquents	X	C/S	X			X	Х				Х	X			-	X
Albrights	X	C/S	X	X		Х	X	X	Х	X	X	X				X
Alden	X	C/S				X	X	X	Х	X	Х	X	X		X	X
Aldino	X	C/S				Х	X	X	Х	X		X				
Allegheny	X	С		X	2022		Х	Х	Х	X	Х	X		1.11.121.121		
Allenwood	X	C/S					Х	Х	Х	X	X	X				
Allis	X	X	X			X	X	X	Х	X	Х	X	X			
Alluvial Land	X	C/S			X	X	X		Х	X	Х	X		Х		X
Alton	X	С	X	-					Х		X	X				
Alvira	X	C/S	X	X		X	X	X	X	X	Х	X				X
Amwell	X	C/S		X		Х	X	X	Х	X		X				
Andover	X	C/S	X	X		X	X	X	X	X	Х	X			1.11	X
Aquepts	X	C/S		-		X	X	X	X	X	Х	Х			X	X
Aquults	X	C/S	77	X		Х		X	Х	X	Х	X	X			Х
Arents				-			X									
Arendtsville	X	С	X			X			Х	X	Х	Х		1		Х
Armagh	X	C/S				X	X	Х	X	X	Х	Х	X			X
Arnot	X	С	X	X				Х	Х		х	Х				
Ashton	X				Х			Х	Х	X		- <u></u>				-
Atherton	X	S				X	Х	X	X	X	X	Х		-	X	Х
Athol	X	С					Х		X	X	X	Х				
Atkins	X	C/S		-	Х	Х	X	X	Х	X	Х	Х				Х
Bagtown	X	С				X	X		X		Х	Х			-	X
Baile	X	C/S		X		X	X	X	X	X	Х	Х	X		Х	Х
Barbour	X	С	X		Х	X	X				Х	Х				Х
Basher	X	C/S			Х	Х	Х	Х	Х	X	X	X				Х
Bath	X	C/S				X	Х		Х		Х	Х				

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRET\ STEEL*	DROUGHTY	EASILY ERODED ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	DNIdid	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Beach & Riverwash	X	C/S				X	Х	X		X		X			1	
Beach Sand	X	C/S			Х	X	Х		Х		Х					
Bedington	X	С	X	X			Х		Х		X	X				1
Belmont				X									X	201	1.00	
Beltsville	X	C/S		X		X	Х	Х	Х	X		X				
Benson	X	С	X					Х	Х	X	Х	X				
Berks	X	С	X	X			Х		Х	X	X					
Bermudian	X	С		X	Х	X	X	Х		X	Х	X			1	X
Berrien	X	S		X		X	X		Х	X		X			X	
Bethesda	X	C/S	X			X	Х	Х	Х		Х	X			1	X
Birdsall	X	C/S				X	Х	Х	Х	X	Х	X	X		X	X
Birdsboro	X	C/S		X		X	X		Х	X	X	X				X
Blairton	X	C/S		X		X	X	Х	Х	X	X	X				X
Bowmansville	X	C/S	1		Х	X	Х	X	X	X	X	Х				X
Braceville	X	C/S	X	X		X	Х	Х	Х	X	Х	X				X
Brandywine	X	С	X	X				X	Х		Х					
Brecknock	X	С	X						Х	X	Х	X				
Brinkerton	X	C/S	X	X		X	Х	X	X	X	X	Х	X			X
Brooke	X	S			-			Х	Х		Х	Х	X			
Brownsburg	X	С	1.1	X			Х	X	Х	X	Х	Х				
Buchanan	X	C/S	X	X		X	Х	X	X	X	Х	Х				X
Buckingham	X	C/S		X		X	Х	Х	Х	X	Х	X				X
Bucks	X	С						Х	Х	X	X	Х	X			
Burgin					2	Х		X	Х			Х	X			
Butlertown	X	C/S		X		X	Х	Х	Х	X		Х				
Califon	X	C/S				Х		Х	Х			Х				X
Calvert	X	C/S		X		X	X	X	Х	X	х	X	X			Х
Calvin	X	С	X	X			Х			X		Х				
Cambridge	X	C/S		X		Х	Х	Х	X	X		Х			X	X
Canadice	X	S		X		Х	Х	Х	Х		Х	Х	Х		X	X
Canaseraga	X	C/S		X		Х		X	Х	X		Х				Х
Caneadea	X	C/S		X		X	Х	Х	Х		х	Х	Х			Х
Canfield	X	C/S		X		Х	Х	Х	Х	Х		Х				X
Carbo	X	S	X	X				Х	Х		X		Х	Х		
Catden	X	S	1			X		Х	Х			Х			X	X
Carlisle	X	S	-			X	Х		Х			Х			X	X
Catoctin	X	C/S	X		-				-	1	Х				1	
Cattaraugus	X	С	X			X			X	1	x	X				
Cavode	X	C/S	-	X		X	Х	X	X	X		X	x		-	X

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETN STEEL*	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	DIJING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Cedarcreek	X	C/S	Х			X	Х	Х	9003		X					
Ceres	X	С						X	Х	l i	X	Х				
Chagrin	X	С		X	X	X	Х	Х	Х	X		X	X		X	X
Chalfont	X	C/S		X		X	Х	X	X	X	Х	X			1	X
Chavies		С		X	Х			Х		X		X				
Chenango	X	С	Х		Х	Х	Х		Х	X	Х	Х				
Chester	X	C		X				Х	Х	X	Х	X				
Chewacla	X	C/S			Х	Х	Х	Х	Х	X		X				X
Chili	X	С					Х	Х	Х		Х	Х				
Chippewa	X	C/S	Х	X		Х	Х	Х	Х	X		Х	X	*	X	
Chrome	X	C/S	X					Х	Х		Х	Х	X			
Clarksburg	X	C/S		X		X	X	X	Х	X	Х	Х	X	X		X
Clearbrook	X	C/S	X				Х	X	Х	X	Х	Х	X			
Clymer	X	С	X	X			Х	Х	Х	X	Х	Х				X
Codorus	X	C/S			Х	X	Х	X	X	X		Х				X
Cokesbury	X					Х			X	X		Х				
Collamer	X	C/S		X		Х	Х	X	X	X		Х				X
Colonie	X	С	Х					X	Х		Х					
Comly	X	C/S	X	X		Х	Х			X	Х	Х				
Comus	X	С		X	Х		Х	X	Х	X		Х				
Conestoga	X	C/S						X	Х	X		Х		Х		
Congaree	X	С		X	X		X	Х	X	X		Х				
Conotton	X	C/S	X	X		Х	Х	X	Х	X	Х	Х				(
Conowingo	X	C/S		X		X		Х	X	X		Х	X			X
Cookport	X	C/S	X	X		Х	Х	Х	Х	X	Х	Х				X
Covegap	X	C/S			-				Х		Х	Х		Х		
Craigsville	X	С	X		X		X	X			X	X				1
Croton	X	C/S		X	-	X	Х	X	Х	X	X	Х	8 6		X	X
Culleoka	X	С		X	-			X	X	X	X	Х		- 77-		-
Culvers	X	C/S	X			X		X	X	X		X				X
Dalton	X	C/S		X		X	Х		X	X	Х	Х		~ ~ ~	X	
Darien	X	C/S				X		Х	Х	X	Х	Х	Х			X
Dekalb ·	X	С	X					Х	Х	X	X	Х				
Delaware	X	С			Х		Х		X			Х				
Deposit	X	C/S	X		Х	Х	Х		Х		Х					X
Dormont	X	C/S		Х		Х	X	Х	Х	X	Х	Х	X	Х		X
Downsville	X	С							Х		Х	Х		Х		
Doylestown	X	C/S	Х	X		Х	Х	Х	X	X	X	Х				X
Drifton	X	C/S		X		X	X	X	X		Х	X			1	

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Dryrun	X	C/S		X		X	X		X	-	X	Х				
Duffield	X	C/S		X			X	X	X	X	X	1020	X	X		X
Duncannon	X	С		X				X	X	X		Х			-	
Dunning	X	C/S		X	X	X	Х	X	X		Х		X	X	X	X
Dystrochrepts	X	C/S	X	X	X	X	Х	Х	Х	X	X	Х				1
Edgemere	X	C/S		-		X	X	Х	X	X	X	X			X	X
Edgemont	X	С	X				X		X		X	X			-	-
Edom	X	S	X	X				X	X	X	Х	X	X	X	X	-
Elk	X	C/S		X	-743,3		X	X	X	X		10.1				
Elkins	X	c/s			X	X	X	X	X	X	X	Х	X			
Elko	X	C/S	X	-		X		X	X			X	X			X
Ellery	X	C/S	X	-		X	X	X	X	X	Х	X			X	X
Elliber	X	С	X						X		Х	X		X		
Elnora	X	С	X	-		X			X		Х			_		X
Empyville	X	С	X			X	X		X		X	X				
Erie	X	S	X	X		X	X	X	X	X	X	X			X	X
Ernest	X	C/S		X		X	X	X	X	X	X	X	X			X
Evendale	X	C/S	-	-		X	X	X	X	X	X	X	X	X		X
Fairplay	X	S		X	Х	X	X	X	X	X	X	X			X	
Fairpoint	X	C/S	X	-	-		X	X	X		X	X	X	X		
Fitchville	X	C/S			_	X	X	X	X	X	X	X	X			X
Fountainville	X	C/S	-	X		X		x	X	X		X				
Fleetwood	X	С	X				-	X			X					X
Fluvents	X	C/S	X	X	Х	X	х			X		х				
Fluvequents	X	C/S	X	X	X	X	X	X		X		X				
Fredon	X	C/S	X	X	22	X	X	X	X		X	X				Х
Freetown	X	C/S	1000	and the	-	X	X	X				X			X	
Frenchtown	X	C/S		X		X	X	X	X	X	X	X	-		X	Х
Freshwater Marsh	X	S				X	X	X	X		X	X			X	
Funkstown	X	S	-	X	X	X		X	X	X		X				Х
Gageville	X	C/S		X		X		X	X	X	X	X	X			X
Gaila	X	C/S					-	X	X		X	X				
Gibralter	X	C/S		X	X	X	X	Χ.	X	X		X			1	i
Gilpin	X	С	X	X			X	X	X	X	X	X				
Ginat	X	C/S	-	X		X	X	X	X	X	X	X	X		X	X
Gladstone	X	C		X			X		X			X	X		1	5
Glenelg	X	C		X	-		X	X	X	x	X	X				X
Gleneyre	X	C/S			х	X	X	x	X	X	X	X			·X	X
Gielleyle	X	C/S			~	x	X	x	- <u>x</u>	X	~	X	X		^	~

- 29 -

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETN STEEL*	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Glenville	X	C/S	-	-		x	X	x	X	x	X	X			-	x
Gresham		X		X	-		X	X	X	X		x			-	X
Guernsey	X	C/S	-	X		x	X	X	X	1	X	X	X	X		X
Guthrie		0.0		-			X	~			~	<u> </u>		~		
Hagerstown	X	S		X	-	x	X	X	X	X	X	X	x	X	1-	
Halsey	X	C/S		X	X	X	x	X	X	X	X	X				X
Hanover	X	C/S				X	X	X	X	X		X	X			-
Harbor	X	C/S			-	X		X	X			X	X		-	
Haplaquents		0.0	-		-		X			1		-	<u> </u>		-	-
Hartleton	X	С	X	-	-		-	X	X	X	X	X			-	-
Hatboro	X	C/S		-	X	X	X	X	X	X	X	X			-	X
Haven	X	C	X		~			X	X			X				~
Hazleton	X	C	X	X			Х	X	X	X	X	X				
Henrietta	X		<u> </u>	-		X		X	X	1	X	X			x	
Highfield	X	С	X				X		X	-	X	X				
Hollinger	X	c	<u> </u>					Х	X	X		X		X	1	
Holly	X	C/S	-		X	x	X	X	X	X	X	X		~	x	X
Hornell	X	C/S	X	Х	~	X	~	X	X	-	X	X	x		<u> </u>	X
Howard	X	0.0	X	X			х		X		X	X	~			-
Howell	X	C/S		X	-	X		X		X		X	x			
Hublersburg	X	C/S		-	-			X	Х	X	Х	X	X			
Huntington	X	C			х	X	X	X		-		X	~	X	-	
Hustontown	X	C/S	x			X	X		X	X		X			-	-
Itmann	X	C/S	X		_			X	X	-	X	X				
Ivory	X	C/S	-	X		x	X	X	X	X	X	X	x		-	-
Jimtown	X	C/S		~	-	X	X	X		-	X	X				X
Joanna	X	C					X	X	X	X		X				
Jugtown	X	S			X	x	X	X	X	X		X		X		
Kedron	X	C/S				x	X	X	X	X	X	X				X
Kanona			-	-			X									
Kimbles	X	C/S		_		X	X	X	X		X	X				X
Kingsville	X	C/S	X			X	X		X		X	X			X	X
Kinzua	X	С						X	X		X	Х			-	
Klinesville	X	C/S	X	X	•		X		X		X	X				
Knauers	X	C/S	X		Х	X	X	X	X		X	Х			X	Х
Kreamer	X	C/S		X		X	X	X	X	X		X		X		
Lackawanna	X	С	X			X	X	X			Х	X				Х
Laidig	X	C/S	X	Х		X	X	X	X	X	X	X				
Lakin	X	C	X	-					X	-						

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Lamington	X	C/S		X		X	Х		Х	X	X	X			X	X
Langford	X	S	X	X		X	X	X	Х		Х	Х			X	X
Lansdale	X	С	X					X	Х		Х	X				
Lantz	X	C/S		X	X	X	X	X	Х	X	Х	X	X		1.00	X
Lawrenceville	X	C/S		X		X	X	X	Х	X		X			1	X
Leck Kill	X	С						Х	X	X	Х	Х				X
Leetonia	X	С	X	X			X				X					
Legore	X	C/S	X					X	Х	X	Х	X	X		1	
Lehew	X	С	X			_			Х		Х				1	
Lehigh	X	C/S				X	Х		X	X	Х	X				X
Lewisberry		С	1							X	Х	X				
Library	X	C/S	-	X		X	X	X	X		Х	X	X	X		X
Lickdale	X	C/S		X		X	X	X	X		Х	X	X			
Linden	X	С	-		X	X	X	X	X	X		X		-		
Lindside	X	S			X	X	Х	X	Х	X		X		Х		X
Lobdell	X	C/S		X	X	X	X	X	Х	X		Х	X			X
Lordstown	X	С	X	X				X	Х	X		X			1	
Loudonville	X	C/S						X	X	X		X	X		1	
Lowell	X	C/S					2020	X	X	X	X	X	X	X	-	
Luray	-	X		Х		X		X	X	X	X	X	X		X	X
Macove	X	C/S					-	X	X		X	X				1000
Mahoning	X	C/S		X	-	X	X	X	X	X	X	Х	X		X	X
Manlius	X	С	X				X		Х		X	X				1.14
Manor	X	C		X	-			X	X	X	X	X				-
Mardin	X	S	X	X		X	X	X	X	X		X			1	X
Markes	X	C/S	X		-	X		X	X		X	X				X
Matapeake	X	C/S		Х	-		X	X	X			X				
Matewan	X	C	X						X		X					
Mattapex	X	C/S		X	-	X	X	X	X	X		X				
Maurertown	X	C/S		X	X	X	X	X	X	X	Х	X	X		X	
Meckesville	X	C/S				X		X	X	X	X	X				X
Medihemists	X	S			-	X	X	X				X			X	X
Medifibrists	X	S				X	X					X			X	X
Medisaprists	-	S				X	X	X				X			X	X
Melvin	X	S		Х	X	X	X	X	X	X	X	X	X	X	X	X
Mertz	X	C/S								X		X				
Middlebury	X	S			X	X	X		Х	X		Х	X			
Mill	X	C/S				X	X	Х	X	X	Х	Х	X		X	X
Millheim		C/S		X				X	X	X	X	-	X			

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Miner	X	C/S				X	Х	X	Х		X	X	X		X	X
Monongahela	X	C/S		X	-	Х	X	Х	Х	X		Х	Х			X
Montalto	X	C/S					X	Х	Х		X	X	X		1	
Montevallo		C/S	X	1			Х	X			X	X				1
Morris	X	C/S	X	X		X	Х	X	Х	1	X	X		1200	1	X
Morrison	X	С		X				Х	X			X		X		
Mt. Airy	X	С	X				X				X	X		100		
Mt. Lucas	X	C/S			_	X	X	X	X	X	X	X			1	X
Mt. Zion	X	C/S	-	X		X	X	Х	X	X	X	X	X			
Muck		X			X	X	Х			X					X	X
Muck and Peat	X	S	-			X	X	X	Х	1	X	X	X		X	X
Murrill	X	C/S	[1		X	Х	Х	X	X	X		Х		
Myersville	X	C/S						X	X	X	X	X				<u> </u>
Nanticoke	X	С			X	X	X	Х	Х	X	X				X	X
Natalie		_					X								-	<u> </u>
Neshaminy	X	C/S			1	X	X	X	X	X	X	X				-
Newark	X	S		X	Х	X	Х	X	X	X	Х	X	-	X		
Nockamixon	X	C/S	-	X		X	X	X	X	X		Х			-	X
Nolin	X	С	-		X	X	X	X	X	X				Х		
Nollville	X	C/S						X	Х		Х	Х	X	X		-
Nolo	X	C/S	X			X	X	X	X	X	X	X				X
Norwich	X	C/S	X	X		X	X	X	Х		Х	X			X	X
Ochrepts	X	С	X						X		X	X				-
Onoville	X	C/S	X			X		X	X	X	X	X	X			X
Opequon	X	S	X	X				X	X		X	X	X	X		-
Oquaga	X	С	X	X			X		X			X	_			
Orrville	X	C/S			X	X	X	X	X	X		X				X
Otego	X	S		X	X	X		X	X	X		Х				X
Othello	X	C/S				X	X	X	X	X	X	X				X
Ottawa	X	C	X						X			X				
Painesville	X	C/S				X	X		X	X	X	X		<u> </u>		X
Palms	X	C/S				X	X	X	X		X	X	- 1		X	X
Papakating	X	C/S			X	X	X	X	X	X	X	X		C.C. 195	X	X
Parker	X	С	X		-				X		х	Х				
Paupack	X	S				X	X		Х			X			X	X
Pecktonville	X	C/S		X		X		X	Х		х	X	X	Х		
Pekin					Х		X			X		Х				
Penlaw	X	C/S		X		X	X	X	X	X	Х	Х	X	X		X
Penn	X	С	X				X	X		X	X	X				

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Penn Val	X	C/S							Х		X	X				-
Pequea	X			X	-					X	X	X			-	-
Phelps	X	S		X		Х	X	-	X	X	X	X				X
Philo	X	C/S		X	X	X	X	Х	Х	X	Х	X		_		X
Platea	X	C/S		X		Х	Х	Х	Х	X		Х				X
Pocono	X	С	X		-				X		Х		-			
Роре	X	C/S	-	X	X		Х	Х	X	X	X	X			-	
Portville	X	C/S	-			x	X		X	X	X	X	X			-
Potomac	X	C	X		X					1	X		-			
Psamments	X	C	X	-	X	X			X		X	-	-			
Purdy	X	C/S		X	-	X	X	X	X	X	X	X	X			X
Rainsboro	X	X		X		X	X	X	X			X		100		
Ramsey		С	X				1		X		X			-		-
Raritan	X	C/S				X	Х		X	X	X	Х				X
Ravenna		C/S		X		X			X	X	X	Х				X
Ravenrock	X	C/S				X			X		X	Х				
Rayne	X	С		Х	_		-	X	Х	X	Х	X				
Readington	X	C/S		X	-	X	Х	Х	Х	X	Х	Х				X
Reaville	X	C/S	X	X		X	Х		Х	X	Х	Х				X
Red Hook	X	C/S		X	Х	X	Х		Х	X	X	Х				
Rexford	X	C/S	X		Х	Х	Х	X	Х	X	X	Х				X
Rimer	X	C/S	X	X		Х	Х		Х	X	Х	Х	X			X
Riverhead	X	С	X					Х	X		X	Х				X
Riverwash							Х									
Rohrersville	X	C/S	-	Х		X	Х	X	Х	X		Х	X		()	Х
Rowland	X	C/S		Х	Х	X	Х	Х	Х	X	X	Х				Х
Rubble Land											X	-				
Rushtown	X	С	Х						X							
Ryder	X	C/S						Х	Х	X		X		Х		
Sassafras	X	С						X	X			X				
Scio	X	C/S		X		X	X	X	X	X		X				X
Sciotoville	X	C/S		Х	-	Х	X	X	X	X	~	X	X			X
Sebring	X	C/S		-		X	Х	Х	Х	X	Х	Χ.	Х		X	X
Sequatchie		X		Х		~~~~		~		X					V	
Sheffield	X	C/S				X	X	X	X	X	~	X			X	-
Shelmadine	X	C/S	X		- 11,0	Х	X	XX	X	X	X	X		-	-	
Shelocta	X	C	V		1	v	~	X	X		X	X				X
Shohola	X	C/S C/S	X			X X	X X	X	X	XX	X	X	X			X

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETN STEEL*	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Sideling	X	C/S				X			X	X	Х	Х	X			
Skidmore	X	С	X		Х	X	Х		X	-	X					
Sloan	X	S		X	Х	X	Х	Х	Х	X	Х	Х	X			X
Solon	X	С	X					X			Х	Х				
Stanhope	X	C/S		X	Х	X	Х	X	Х	X	X	Х	X			X
Steff					Х	Х	Х	X				Х				
Steinsburg	X	С	X						Х		X					
Stoney Land											X					
Swanpond	X	S	-	X		X		X	Х		X	Х	x	3		X
Suncook	X	С	X		X		х		X		X					
Swartswood	X	C	X	X		x		X	X	X	X					
Thorndale	X	C/S	<u> </u>			X	X	X	X	X	X	X	X	X		x
Thurmont	X	C/S		-		X		X	X	<u>^</u>	X	X	~	~		~
Tilsit	X	C/S		X		X	x	X	x	x	^	~				x
Tioga	X	C		X	х	X	X	_^	x	^		010 - 10				
Timberville	x	C		^	X	^		x	- <u>x</u>	x	x	x	x			-
Titusville	X	C/S		x	^	х	x	X	x	X	^	x	X			x
Towhee	Ŷ	0/3	-	x	_	X	x	x	x	x	X	X	x			
Trego	x	C/S		Ŷ		x		x	x	^	X	X	^ X			
Trumbull	X	C/S		x		X	X	x	x	X	X	X	x		X	X
Tunkhannock	x	C	X	^		^	X		- <u>x</u>	^	X	^	^		<u>^</u>	~
Tygart	X	C/S	~	X		X	X	X	X	X	X	Х	x			X
Tyler	X	C/S		X	-	X	X	X	X	X	X	X	X			X
Udifluvents	X	C/S			X	X	X		X	X		X			-	
Udorthents	X	C/S	X	X				X	X		X	X				-
Unadilla	X	С	- 202	X			X	X	X	X		Х			-	-
Ungers	X	C		X				X	Х			Х				
Upshur	X	C/S	X	X				X	X		X	X	X			
Urbana						X						Х				
Valois	X	С					Х	X	X		Х	X				
Vandergrift	X	C/S		X			Х	Х	Х		Х	Х	X		S.,	Х
Vanderlip	X	С	Х						Х							
Venango	X	C/S		Х		Х	Х	Х	Х	X	Х	Х				X
Volusia	Х	C/S	Х	Х		X	Х	Х	X	X	Х	Х				
Wallington	X	C/S		Х		Х	Х	X	X	X	Х	Х				Х
Warners		S		Х	Х	X	Х	Х	Х		Х	Х			Х	Х
Washington	X	S				Х	Х	X	X	X		X	X	X		
Watchung	X	C/S		X		X	Х	X	X	X	X	Х	X			Х

SOIL NAME	CUTBANKS CAVE	CORROSIVE TO CONCRETI STEEL*	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE	HYDRIC/ HYDRIC INCLUSIONS	LOW STRENGTH / LANDSLIDE PRONE	SLOW PERCOLATION	DNIdid	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
Wauseon	X	C/S	-			X	Х	X	X	X	X	X			X	X
Wayland	X	S		X	X	X	Х	X	X	X	X	X			X	X
Wehadkee	X	C/S		-	X	X		Х	Х	X		X				X
Weikert	X	C/S	X				Х	X	X	X	Х	X		-		
Weinbach	X	C/S		X		X	X	X	Х	X	X	X	X		-	X
Wellsboro	X	C/S	X	X		X	X	X	X	X	-	X				X
Westmoreland	X	С		X				X	X	X		X				
Weverton	X	C/S	X					X	X		X	X				-
Wharton	X	C/S		X		X	Х	X	X	X	X	X	X		1	X
Wheeling	X	С						X	Х	X		X				
Whiteford															1	
Whitwell														1.1		
Wick	X	C/S		X	X	X	Х	X	Х	X	Х	Х				X
Wickham																
Williamson	X	C/S		Х		X	Х	X	Х	X		Х				X
Wiltshire					Х					X						-
Woodglen																
Woodstown	X	C/S				Х		X	X	X	Х	X				Х
Wooster	X	С		Х		X		X	Х	X	X	X				
Worsham	X	C/S		Х		Х	Х	X	X	X	Х	X	X			
Worth	X	С	X	Х		Х	X		Х	X	X	Х				
Wurno	X		X					Х	X		Х	Х		Х	1	
Wurstboro	X	C/S				Х	Х		X		Х	Х				
Wyalusing	X	C/S			Х	Х	Х	X	Х		X	Х				Х
Wyoming	X	С	X				Х		X		X					
Zipp		X				Х	Х	Х		X	Х	Х	X		6	
Zoar	X	C/S				Х	Х	X	Х	X		Х	X			

WORKSHEET 1

List the soils that will be encountered by earthmoving required to construct the drill pad(s), access road(s), pits, impoundments, collector & feeder lines, or other activities associated with the proposed well site(s).

		Lin	niting So	il Characte	ristics				
Map Symbol	Soil Name	Erodible	Cut Banks Cave	Corrosive to Concrete or Steel	High Water Table	Low Strength	Piping	Poor Topsoil	Potentially Hydric
		_							
			(1						
		_							
		-							

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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERSHED MANAGEMENT

WATER MANAGEMENT PLAN FOR MARCELLUS SHALE GAS WELL DEVELOPMENT EXAMPLE FORMAT

Operator and Plan Coverage Information:

Well Operator			DEP ID#		Address					
Cor	ntact Name/Title	ime/Title Contract Phone Contact E-mail								
Are	a Covered; This Water Managemen	nt Plan applies to	wells located	in the following	g counties:					
Ger	neral Water Source Information:									1
Sec	tion A. List of Water Sources									
11			Location		Am	ount			of Sourc	e
	Source Name	Watershed Municipality / HUC 8 County Code		Major River Basin*	Average Daily Max. Quantity Withdrawal (gpd) Rate (gpm)		Surface Water	Groundwater	Wastewater, Mine Water, Cooling Water Discharge	Public Water Supply
1										
2										
3										
4										
5	12 12 12 12 12 12 12 12 12 12 12 12 12 1									
6				251 012						
7										
8										
9										
10										
* Ma	ajor River Basins = (1) Delaware; (2	2) Great Lakes (ind	cluding Gene	see River Basi	in; (3) Ohio	; (4) Potoma	c; or	(5) Su	Isquehan	na
Sec	tion B. Water Source and Use M	onitoring / Act 22	20 Water Use	e Registration	and Repo	orting				
SRE requ inco	For sources in Susquehanna River Basin, refer to a water withdrawal and consumptive use metering and monitoring plan meeting SRBC requirements. For sources in Delaware River Basin, refer to a water withdrawal and use monitoring plan meeting DRBC requirements. Water withdrawal and use monitoring plans approved meeting SRBC and DRBC requirements may be incorporated by reference and are accepted by DEP.									
For	sources in other basins, provide a	water source and	use monitorir	ng plan.						
sam	Will the total water withdrawn from listed sources and other sources operated by the gas well operator in Yes No same watershed exceed an average rate of 10,000 gpd in any 30-day period?									
Ifve	e note that an Act 220 registration	must he filed with	in 30 dave of	initiating a wa	tor withdra	wal or use				

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	Surface Water Sources	uld be provided f	or each surf	ace wat	er source.						
	e Identification & Notific				41						
§Α	Name of Stream or	Location of Pr	cation of Proposed Withdrawal Point:								
Source #	Other Surface Water Body	HUC-8 Code									
			Lat:°'								
94						Long:°'"					
		Attach copy of	USGS 7½ N	finute Q	adrangle map indicating	location of proposed source					
	Basin Commission Appi										
101						SRBC approval 🗌 Yes 🗌 No					
	ation submitted:				ated approval date:						
	RBC Approval No.:			Date is	sued:						
TANK BURNESS STREET	low Analysis	ial (in any and with		Deer	he at attach has a feel	- detter:					
a. Drainag	e area at point of withdraw	ai (in square mil	es):	Descri	be or attach basis of cal	culation:					
b. Q ₇₋₁₀ low flow at point of withdrawal (in gpd): Describe or attach basis of calculation (e.g., Streat printout)						f calculation (e.g., StreamStats					
c Average daily flow of stream at point of withdrawal (in gpd): Describe or attach basis of calculation (e.g., StreamStats printout)											
d. Is propo	sed maximum rate of with	drawal greater th	an 10% of (Q7-10 at p	point of withdrawal?	Yes No					
	n Classification and Use										
	ited use classification per		. 93:								
	existing use determination ent than designated uses in (2					
c. Is the p	oposed source a special	protection water (Yes No					
d. Is strea	m classified by the Pa. Fis	h & Boat Commis	ssion as a W	/ild Trou	t Stream? lass A If known: □ Cla	Yes No					
and the second in the second in	tural Diversity Inventory	the status of the state of the state of the		11010							
Attach resu	All and a second state of the second state of		e proposed	surface	water source and sup	porting documentation of conflict					
	rawal Impacts Analysis										
proposed to	withdrawal impact analy o avoid or mitigate impact pacts anticipated after givin	ts (such as prop	osed passb	y flow c	onditions). The descrip	ems, and describes the methods tion of anticipated impacts would					
Impact que						and the second secon					
impinge	ment of fish and other aqu	uatic life.			0.88 12	ated to minimize entrainment and					
materia and val	l impact on the elevation of ues, and the proposed me	or duration of wat thod for avoiding	ter levels in or mitigating	the weth g such in	and? If yes, identify the apact on the values or fu	ithdrawal is anticipated to have a wetlands, describe their functions nctions of the affected wetlands.					
(If a pa impact	ssby flow is proposed con on fish species is assumed	sistent with SRB I to be acceptable	C's Guidelin e, and furthe	es for D er analys	etermining Passby Flow. is is not required.)	at or below the withdrawal point? s and Conservation Releases, the					
anticipa water q	ted to reduce the assimila uality standards?	ative capacity of	the stream i	to accep	t those discharges witho	where the proposed withdrawal is out exceeding applicable instream					
e. Is the w water q	ithdrawal from a stream th uality conditions leading to	nat is listed as be the impaired des	ing water qu signation?	uality imp	paired; and would the wit	hdrawal materially exacerbate the					

C.6 Withdrawal Impacts Analysis (continued)

- f. Is the operator aware of any significant thermal discharge (such as a power plant) that is downstream of the proposed withdrawal where the proposed withdrawal would diminish the capacity to assimilate that discharge without exceeding instream thermal standards?
- g. If the withdrawal affects a special protection stream (HQ or EV), describe how the withdrawal will be managed to protect existing water quality and uses.
- h. Is the operator aware of any downstream potable water supply source where the proposed withdrawal is anticipated to impair the amount of water available to meet the demands of such potable water supply?
- i. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.

Section D. Groundwater Sources

The following types of information would be provided for each groundwater source.

D.1 Source Ide	ntification & Notification									
		Location of prop	posed withdrawal point							
§ A Source #	Name / Address of Site	HUC-8 Code	County	Municipality						
					Lat: º '"					
					Long: • · ·					
	Attach copy of USGS 7½ Minute Quadrangle map indicating location of propo- source									
D.2 River Basin Commission Approvals										
If the source is l	ocated in the Delaware or Sus	squehanna River Ba	asin, have you ob	tains DRBC or SRBC	approval? Ves No					
Date application submitted: Anticipated approval date:										
	Approval No.:									
D.3 Stream Impact and Low Flow Analysis										
a. Is the proposed groundwater withdrawal anticipated to affect the low flow of any stream in the vicinity? Yes No If yes, identify the name of the affected stream and complete questions b-e below, and item D.4.										
	a at point of withdrawal (in so			attach basis of calcu	lation:					
		•			(4)					
c. Q ₇₋₁₀ low flow	v at point of withdrawal (in gp	d):	Describe or printout)	Describe or attach basis of calculation (e.g., StreamStats printout)						
d. Average dail	y flow of stream at point of wil	Describe or attach basis of calculation (e.g., StreamStats printout)								
a Ta the exter	t that the groundwater withdr	awal affects stream	flow is the prov	oced maximum rate	of stream flow impact greater					
	Q ₇₋₁₀ at point of withdrawal?			Josed maximum rate	or stream now impact greater					
	ssification and Uses									
a. Designated	use classification per 25 Pa. C	Code. Ch. 93:								
	ing use determinations:	аналан алар алар алар алар алар алар ала								
	n designated uses in Ch. 93) sed source a special protectio	n water (High Qual	ity or Exceptional		□ No					
d. Is stream classified by the Pa. Fish & Boat Commission as a Wild Trout Stream? □ Yes □ No If yes, what classification of wild trout stream: □ Class A □ Not Class A If known: □ Class B □ Class C □ Class D										
	Diversity Inventory (PNDI)									
		to the proposed g	roundwater sou	rce site and support	ing documentation of conflict					
resolution, if app		man - realisti diskining manifi (2001)	te orany Milester (arr - Kiste 20)	nor and the second s						

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D.6 Withdrawal Impacts Analysis

A narrative withdrawal impact analysis which addresses the following issues, and describes the methods proposed to avoid or mitigate impacts (such as proposed passby flow conditions). The description of anticipated impacts should indicate impacts anticipated *after* giving effect to the proposed avoidance or mitigation measures.

Impact questions:

- a. Are there any wetlands within the zone of drawdown/influence (> 2' drawdown) of the proposed groundwater withdrawal well? If yes, identify the wetlands, describe their hydrology (supporting source of water) and whether the groundwater withdrawal will affect that hydrology. To the extent that the hydrology of wetlands are affected, identify the wetland's functions and values, and the proposed method for avoiding or mitigating such impact on the values or functions of the affected wetlands.
- b. Describe the extent to which the proposed groundwater withdrawal is anticipated to affect the low flow of streams or other surface bodies of water in the vicinity? (If a passby flow is proposed consistent with SRBC's Guidelines for Determining Passby Flows and Conservation Releases, the impact on fish species is assumed to be acceptable, and further analysis is not required.)
- c. Is the proposed groundwater withdrawal anticipated to significantly affect stream flow and the available habitat of fish species at or below the withdrawal point?
- d. To the extent that the groundwater withdrawal affects streamflow, is the operator aware of any significant downstream wastewater discharges (including thermal discharges) to the stream, where the proposed withdrawal is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding instream water quality standards.
- e. Is the withdrawal from a watershed that is listed as being water quality impaired; and would the withdrawal materially exacerbate the water quality conditions leading to the impaired designation?
- f. Does the proposed groundwater withdrawal involve the diversion of groundwater recharge or spring water from a cold water stream? If yes, how would the withdrawal affect thermal conditions in the stream?
- g. To the extent that the groundwater withdrawal affects streamflow, if the withdrawal affects a special protection watershed (HQ or EV), describe how the withdrawal will be managed to protect existing water quality and uses.
- h. Is the operator aware of any potable water supply source in the vicinity where the proposed groundwater withdrawal is anticipated to impair the amount of water available to meet the demands of such potable water supply?

i. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.

Section E. Wastewater, Cooling Water, and Mine Water Diversion Sources

The following types of information would be provided for each source.

E.1 Source Id	lentification & Notification										
	Wastewater Discharge	Location of proposed withdrawal point									
§ A Source #		HUC-8 Code	County	Municipality		_					
				10	Lat:	•					
	•75				Long:						
	NPDES Permit No. for Existin	ng Discharge:	Attach copy of USGS 7½ Minute Quadrangle map indicatin location of proposed source								
	Receiving stream for existing	discharge:									
E.2 River Bas	sin Commission Approvals					-					
If the source is	s located in the Delaware or Su	squehanna River Ba	asin, have you obt	tains DRBC or SRBC a	approval?] Yes	□ No				
Date application	on submitted:		Anticipated ap	oproval date:							
SRBC or DRB	C Approval No.:		Date issued:		-i						
E.3 Wastewa	ter, Cooling Water, or Mine V	Vater Diversion Im	pact Analysis								
A narrative imp	pact analysis which addresses	the following issues	, and describes th	e methods proposed t	o avoid or m	itigate	impacts.				
Impact questio	ons:										
	existing discharge concepts	significant portion	the low flow of	the receiving stream	holow the ne	mitte	d point of				

a. Does the existing discharge represent a significant portion of the low flow of the receiving stream below the permitted point of discharge? If significant, describe the degree to which the diversion of wastewater would affect the low flow of the receiving stream, and include a discussion addressing the following issues as relevant:

b. Are there any wetlands in the floodplain downstream of the existing discharge point where the diversion of wastewater, cooling water or mine water is anticipated to have a material impact on the elevation or duration of water levels in the wetland? If yes, identify the wetlands, describe their functions and values, and the proposed method for avoiding or mitigating such impact on the values or functions of the affected wetlands. c. Is the proposed diversion of wastewater anticipated to significantly affect the available habitat of fish species at or below the withdrawal point? d. Is the operator aware of any significant downstream wastewater discharges to the stream, where the proposed diversion of wastewater, cooling water, comine water, form the proposed source is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards? e. Is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards? g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows. Section F. Public Water Supplier Name and System Name Location of proposed withdrawal point: HuC-8 Code County Municipality PADWIS Identification #: Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE Code County Lat:	E.3 Wastewate	er, Cooling Water, or Mine Wate	r Diversion Imp	act Analysis (continued)					
withdrawal point? d. Is the operator aware of any significant downstream wastewater discharges to the stream, where the proposed diversion of wastewater, cooling water, or mine water from the proposed source is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards? e. Is the source on a stream that is listed has being water quality conditions leading to the impaired disignation? f. Is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water materially exacerbate the water quality conditions leading to the impaired disignation? f. Is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards? g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows. Section F. Public Water Supply Sources The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name and System Name HUC-8 Code County Municipality Long:	b. Are there ar water or min identify the water	ny wetlands in the floodplain dow ne water is anticipated to have a wetlands, describe their functions	instream of the ex material impact of	isting discharge the elevation of	point where the div or duration of water	levels in the wetla	and? If yes,			
wastewater, cooling water, or mine water from the proposed source is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards? e. Is the source on a stream that is listed has being water quality impaired; and would the proposed diversion of wastewater, cooling water or mine water materially exacerbate the water quality conditions leading to the impaired designation? f. Is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards? g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows. Section F. Public Water Supply Sources The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name and System Name A Source # Location of proposed withdrawal point: § A Source # Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE I certify under penalty of law that 1 have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Titte	c. Is the propo withdrawal p	Is the proposed diversion of wastewater anticipated to significantly affect the available habitat of fish species at or below the withdrawal point?								
water or mine water materially exacerbate the water quality conditions leading to the impaired designation? is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards? g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows. Section F. Public Water Supply Sources The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name and System Name HUC-8 Code County Municipality HUC-8 Code County Municipality Image: Control of proposed vither and plant: Control of proposed vither and plant: Public Water Supplier Name Location of proposed withdrawal point: HUC-8 Code County Municipality Image: Control of proposed vither and plant: Control of proposed vither and plant: Value Code County Municipality Image: Control of proposed vither and plant: Control of proposed vither and plant: Value Code County Municipality Image: Control of proposed vither and plant and all attachments is true and accurate to the best of my knowl	wastewater,	wastewater, cooling water, or mine water from the proposed source is anticipated to reduce the assimilative capacity of the								
wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards? g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows. Section F. Public Water Supply Sources The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name and System Name Public Water Supplier Name and System Name Location of proposed withdrawal point: PLOC-8 Code County Municipality PADWIS Identification #: Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE I certify under penalty of law that 1 have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date	e. Is the source water or min	e on a stream that is listed has be e water materially exacerbate the	ing water quality in water quality con	mpaired; and wo ditions leading to	uld the proposed di the impaired desig	version of wastewa Ination?	ater, cooling			
Section F. Public Water Supply Sources The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name HUC-8 Code County Municipality Lat:	wastewater,	cooling water or mine water dive								
The following types of information would be provided for each source. F.1 Source Identification § A Source # Public Water Supplier Name Location of proposed withdrawal point: HUC-8 Code County Municipality HUC-8 Code County Lat:	g. Describe any	y impact avoidance or mitigation p	plans you are prop	osing, such as s	easonal withdrawal	s or passby flows.				
F.1 Source Identification § A Source # Public Water Supplier Name Location of proposed withdrawal point: HUC-8 Code County Municipality HUC-8 Code County Municipality PADWIS Identification #: Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE Icortify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date	Section F. Pub	lic Water Supply Sources								
F.1 Source Identification § A Source # Public Water Supplier Name Location of proposed withdrawal point: HUC-8 Code County Municipality HUC-8 Code County Municipality PADWIS Identification #: Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE Icortify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date	The following ty	pes of information would be provi	ded for each sour	e.						
§ A Source # Public Water Supplier Name HUC-8 Code County Municipality HUC-8 Code County Municipality										
§ A Source # and System Name HUC-8 Code County Municipality Lat:		Public Water Supplier Name	Location of pro	posed withdrav	val point:					
PADWIS Identification #: Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source Section G. SIGNATURE I certify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date	§ A Source #		HUC-8 Code	County	Municipality					
Source Section G. SIGNATURE I certify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date						Lal	1N			
I certify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date		PADWIS Identification #:		ISGS 7½ Minute	Quadrangle map in	ndicating location of	of proposed			
Information set forth in this plan and all attachments is true and accurate to the best of my knowledge. Name (type or print legibly) Title Signature Date	Section G. SIG	NATURE			18					
Signature Date						f of the Operator, a	and that the			
	Name (type or p	rint legibly)		Title		3,000				
Applicant's telephone number:	Signature			Date						
	Applicant's tele	ephone number:								

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERSHED MANAGEMENT

WATER MANAGEMENT PLAN EXAMPLE FORMAT INSTRUCTIONS FOR MARCELLUS SHALE GAS WELL DEVELOPMENT

GENERAL INFORMATION

pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

The following is suggested as an example format for a water management plan, rather than a "form", indicating the type of information to be provided. It is anticipated that this example format and any necessary further explanation of the information sought would be provided in a manner similar to that utilized for PPC Plans, with the objective that information will be provided in a way that can be readily identified and reviewed. The goal is to provide a vehicle that can readily be amended and updated, as needed (*e.g.*, by submitting an updated table A listing a new water source, plus just the information applicable for that type of new water source.

Regardless of which basin the water source is located in, a water management plan must be completed that covers the water sources utilized for fracture stimulation of each Marcellus Shale natural gas well project in the Commonwealth. Applicants are encouraged to contact their DEP regional oil and gas management office regarding any questions concerning the completion of any part of a water management plan.

DEP Regional Oil and Gas Offices

Northwest Regional Office	Southwest Regional Office	Nor
230 Chestnut Street	400 Waterfront Drive	207
Meadville, PA 16335-3481	Pittsburgh, PA 15522-3481	Wil
Telephone #: 814-332-6860	Telephone #: 412-442-4024	Tel

Northcentral Regional Office 207 West Third Street Williamsport, PA 17701-6448 Telephone #: 570-327-3636

Notification must be provided to municipalities and counties where the water source is located prior to submittal of the water management plan. Please attach proof of notification. If source is located in the Susquehanna or Delaware basin, SRBC and DRBC notification requirements will be accepted. Please attach SRBC and DRBC proof of notification documentation if applicable.

Send four (4) copies of the completed water management plan package to the appropriate regional office.

OPERATOR AND PLAN COVERAGE INFORMATION

Describe the area where Marcellus Shale gas wells are located which will be utilizing the water sources described in this plan. Sources serving such wells may be located in more than one DEP region.

WATER MANAGEMENT PLAN

SECTION A. GENERAL SOURCE WATER INFORMATION

Provide a listing of the water sources proposed for utilization in development of the Marcellus Shale natural gas wells within the covered area.

To facilitate DEP review, DEP requests that operators organize the list of sources by subbasin (Hydrologic Unit Level 4/HUC-8 watershed), using the appropriate HUC-8 code. Pennsylvania has 55 such watersheds with an 8-digit subbasin code (see attached HUC watershed map).

With respect to each source, identify the major river basin where the source is located. Abbreviations are acceptable (e.g., DEL = Delaware River Basin; GL = Great Lakes River Basin (including the Genesee River Basin); OHIO = Ohio River Basin (including the Monongahela and Allegheny Rivers); POT = Potomac River Basin; and SUS = Susquehanna River Basin. With regard to each source, list anticipated maximum 30-day average daily quantity of withdrawal in gallons per day (gpd) and the maximum rate of withdrawal (gpm). Indicate the type of source (the example format uses a check box) Note: wastewater discharges include Publicly Owned Treatment Plants (POTWs) or Acid Mine Drainage (AMD) Treatment Plants, and also include other mine waters and cooling water sources.

The Example Format requests specific information with respect to each source, which varies depending on the type of source.

Note: To reduce duplication, if a water source and amount are subject to approval by SRBC or DRBC, attach approvals (dockets and ABRs) or forward those approvals when issued. The Department will rely upon the information gathered, data analyses performed and expertise of the SRBC and DRBC regarding the proposed water source but will reserve for itself the ultimate decision and exercise its independent judgment concerning whether or not to approve the Water Management Plan.

5500-PM-OG0087 4/2009 Instructions

For surface water sources, provide the information indicated in Section C.

For groundwater sources, provide the information indicated in Section D.

For wastewater. cooling water, or mine water discharge sources, provide the information indicated in Section E.

For each public water supply source, provide the information indicated in Section F.

SECTION B. WATER SOURCE AND USE MONITORING/ACT 220 WATER USE REGISTRATION AND REPORTING

For sources in Susquehanna River Basin, refer to a water withdrawal and consumptive use metering and monitoring plan meeting SRBC requirements. For sources in Delaware River Basin, refer to a water withdrawal and use monitoring plan meeting DRBC requirements. *Water withdrawal and use monitoring plans approved meeting SRBC and DRBC requirements may be incorporated by reference and are accepted by DEP.*

For sources in other basins, provide a water source and use monitoring plan.

Will the total water withdrawn from listed sources and other sources operated by the gas well operator in same watershed exceed an average rate of 10,000 gpd in any 30-day period?

If yes, note that an Act 220 registration must be filed within 30 days of initiating a water withdrawal or use.

The Water Resources Planning Act (Act 220) requires each person whose total withdrawal from one or more points of withdrawal within a watershed operated as a system either concurrently or sequentially that exceed an average rate of 10,000 gpd in any 30-day period to register with DEP the source, location and amount of withdrawal. In accordance with 25 Pa. Code Ch. 110, each person who obtains water through interconnection in an amount that exceeds an average rate of 100,000 gpd in any 30-day period must also register that use. Registrations shall be submitted no later than 30 days following the initiation of any such withdrawal or use.

The Act 220 registration webpage is available at:

http://www.depweb.state.pa.us/watershedmgmt/cwp/view.asp?a=1426&g=513264&watershedmgmtNav=[38164]

Water source and use monitoring plan

Monitoring, Reporting and Recordkeeping: For sources subject to SRBC and DRBC approvals, water monitoring and reporting plans meeting DRBC and SRBC requirements satisfy DEP's requirements. Reports should be submitted to SRBC and DRBC respectively. Since DEP has access to those reports, separate periodic reports need not be submitted to DEP, but operators must file their annual Act 220 water use reports with DEP.

For sources that are not subject to DRBC and SRBC approval, the water source and use monitoring plan should identify the methods to be utilized for accurately monitoring the amount of water withdrawn from each source on a daily basis, and how such data will be recorded and maintained. Monitoring may utilize methods that can accurately measure or estimate the amount of withdrawal in accordance with Act 220 and 25 Pa. Code Ch. 110, which may include (but are not limited to) use of meters or logging of truckloads. The plan should provide for the compilation and maintenance of records regarding the daily amount of water withdrawn from each source, and the monthly average amount of water withdrawn from each source. Water withdrawal data must be retained for a period of at least five years, and be available for review by DEP upon request. The plan should indicate that operators will submit Act 220 water withdrawal data to DEP on at least a **guarterly basis** utilizing the DEP GreenPort system, providing the monthly total amount of withdrawal volumes for each source need not be submitted as part of such quarterly reports, but must be retained and available for review upon DEP request.

In addition, the water source and use monitoring plan needs to include a description of maintenance of the proposed measuring and recording devices to insure accurate measurement of the water source.

Maximum Rate Compliance: The water source and use monitoring plan should also describe the methods proposed by the operator for assuring compliance with any maximum rate limitations on the withdrawal. Acceptable methods may include, without limitation, (i) physical constraints on equipment; (ii) automatic limiters which cutoff or reduce pumping rates if maximum flow rates are exceeded; or (iii) flow monitoring and recording methods.

Passby Flow Monitoring: The water source and use monitoring plan should describe the method to be utilized to monitor compliance with any applicable passby flow conditions. Acceptable methods may include: (i) utilization of an existing upstream or downstream gaging station; (ii) utilization of a surrogate USGS or other established gaging station on another watershed in the geohydrologic area that would signal low flow conditions in the area; (iii) installation and utilization of staff gages or utilization of existing fixed water level markers (e.g., on bridges) which are correlated to flow values; or (iv) other methods approved by DEP.

5500-PM-OG0087 4/2009 Instructions

Coordination of Information Regarding Source Initiation: In order to assist in responding to public inquiries, DEP requests that operators provide the DEP regional office with notice prior to the first use of an approved source. This would be a one-time notification. The water source and use monitoring plan should include the procedure and a statement of intent by the operator to provide oral or e-mail notice to the DEP regional office prior to first use of each newly approved source, with the objective of providing such notice at least 48-hours prior to the first withdrawal. This is intended as an information coordination process, not a permit condition.

SECTION C. SURFACE WATER SOURCES

C.1. Source Identification and Notification

Describe location of proposed source relative to nearby roads or landmarks. For sources not subject to SRBC or DRBC approval, attach a copy of the notification letter provided to municipality and county where source is located.

For sources subject to SRBC and DRBC approval, notification to the county and municipality per the SRBC and DRBC procedures suffices. For sources not subject to SRBC and DRBC approval, a one-time notice letter must be provided to the county and municipality where the source is located prior to submission of the Water Management Plan or supplement to the plan first listing that source. For water sources previously approved by DEP which are being included in a plan, no additional county and municipal notification is required.

C.2. River Basin Commission Approvals

When issued, a copy of the SRBC or DRBC approval should be supplied to the applicable DEP regional office.

If the source is subject to DRBC or SRBC approval, Sections C.3 - C.6 do not need to be completed, as the same analysis is considered by DRBC and SRBC. The Department will rely upon the information gathered, data analyses performed and expertise of the SRBC and DRBC regarding the proposed water source but will reserve for itself the ultimate decision and exercise its independent judgment concerning whether or not to approve the Water Management Plan.

C. 3 Low Flow Analysis

Provide the method of computation for the low flow analysis of the source of water or submit copies of flow data (attach explanation on separate sheet if necessary). For all run-of-stream sources, groundwater withdrawals that impact a stream and sources with limited storage, compute 7-day, 10-year low flow (Q7-10) using low flow statistical data and appropriate hydrologic engineering techniques. Whenever an intake is located on an ungaged stream, the applicant must use an acceptable method for computing the Q7-10, such as (i) selecting a reference USGS gaging station and proportioning the yield based on drainage area, or (ii) utilization of information provided by StreamStats http://streamstats.usgs.gov/pastreamstats/. Any data provided should state the method used to measure the flow (current meter, weir, etc.), the dates of observation and the flow observed.

Notes:

(1) If using a reference gaging station and proportionate drainage area calculation, the selected gaging station must be on a watershed having similar geologic and climatic characteristics to those of the ungaged watershed. Other factors to consider are relative size of drainage areas and whether the reference gaging station is influenced by upstream reservoirs or other flow regulation activities. Up-to-date low-flow data for specific gaged watersheds may be obtained from the USGS district offices. Actual flow data collected at the project intake may be used to supplement the use of a reference gaging station.

(2) DEP views StreamStats as one source of information for estimation of Q₇₋₁₀ and average daily flow values; but in some cases it may not necessarily be the best source for determining such information. Attach Stream Stats printout if used for Q7-10 determination.

(3) DEP encourages operators to employ or engage professionals who are experienced with hydrologic issues to assist in evaluation of such flow issues.

C.4. Stream Classification and Uses

Identify the current designated water uses and recognized existing water uses of the stream or other surface water body at the location from which the withdrawal is proposed.

Current designated water uses are listed at 25 Pa Code Chapter 93.9. A current copy of this chapter of the Pennsylvania Code can be obtained from the DEP regional office or it can be viewed on the Legislative Reference Bureau website at: <u>http://www.pacode.com/secure/data/025/chapter93/chap93toc.html</u>.

A current list of existing water uses is maintained on the DEP website (Keyword- Existing Use) or at: http://www.depweb.state.pa.us/watersupply/cwp/view.asp?a=1261&g=449172.

A current list of stream sections supporting natural reproduction of trout is located at: http://www.fish.state.pa.us/trout repro.htm 5500-PM-OG0087 4/2009 Instructions

C.5. PA Natural Diversity Inventory (PNDI)

A PNDI search must be conducted prior to submitting a Water Management Plan. The PNDI database includes plant and animal species classified as rare, threatened, endangered, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern plant populations and unique geologic features. The online PNDI Environmental Review and Project Planning Tool is available at <u>www.naturalheritage.state.pa.us</u>. The operator must provide documentation of resolution of any conflicts involving threatened or endangered species identified prior to submitting a Water Management Plan or the Water Management Plan will be deemed incomplete. If a source has a threatened or endangered species hit, it should not be included in the Water Management Plan until resolution has been reached. If conflicts or concerns are identified for species other than threatened or endangered species, the Department will address these during its review of the Water Management Plan.

C.6. Withdrawal Impacts Analysis

Include a narrative impact analysis which addresses anticipated impacts on certain items (see specific impact questions in Example Format), and describes the methods proposed to avoid or mitigate impacts (such as proposed passby flow conditions or seasonal withdrawal scenarios). The description of anticipated impacts would include impacts after giving effect to the proposed avoidance or mitigation measures.

Certain agencies, including SRBC, have indicated Class A trout streams may be subject to the most limited impact on fish habitat applying a PIFM-analysis, while other classes of streams may be subject to more liberal habitat impact criteria.

Note: If the proposed withdrawal is \leq 10% of the Q7-10 flow at the point of withdrawal, there is a general presumption that impacts will be minimal and not significant, absent special circumstances. If there are no special circumstances, you may reference the general presumption in your impact analysis, and avoid detailed responses to the following items. If you are aware of special circumstances, describe those circumstances, and address the questions listed in the Example Format as applicable. Because gas well operators do not have access to detailed information on other withdrawals, DEP understands that operators can only answer this question as to the relationship of their own withdrawal to the Q₇₋₁₀ flow of the source. Situations involving cumulative withdrawal impacts may qualify as "special circumstances," and if DEP becomes aware of such a situation it will advise the operator and may request further analysis of potential impacts if deemed necessary.

Notes regarding specific questions:

- b. Wetlands. The area of evaluation (e.g., distance downstream of the proposed withdrawal point) may vary depending upon the quantity and duration of the proposed withdrawal in relation to stream flow, and will be subject to an exercise of professional judgment.
- d.-e. Indicate whether the operator is aware of the particular items identified. It is recognized that DEP may have additional information on those items (for example, regarding the location of downstream discharges) which will be considered during DEP's review of the plan.

SECTION D. GROUNDWATER SOURCES

D.1. Source Identification and Notification

Describe location of proposed source relative to nearby roads or landmarks. For sources not subject to SRBC or DRBC approval, attach a copy of the notification letter provided to municipality and county where source is located.

For sources subject to SRBC and DRBC approval, notification to the county and municipality per the SRBC and DRBC procedures suffices. For sources not subject to SRBC and DRBC approval, a one-time notice letter must be provided to the county and municipality where the source is located prior to submission of the Water Management Plan or supplement to the plan first listing that source. For water sources previously approved by DEP which are being included in a plan, no additional county and municipal notification is required.

D.2. River Basin Commission Approvals

When issued, a copy of the SRBC or DRBC approval should be supplied to the applicable DEP regional office.

If the source is subject to DRBC or SRBC approval, Sections D.3 - D.6 do not need to be completed, as the same analysis is considered by DRBC and SRBC. The Department will rely upon the information gathered, data analyses performed and expertise of the SRBC and DRBC regarding the proposed water source but will reserve for itself the ultimate decision and exercise its independent judgment concerning whether or not to approve the Water Management Plan.

D.3. Stream Impact and Low Flow Analysis

Provide the method of computation for the low flow analysis of the source of water or submit copies of flow data (attach explanation on separate sheet if necessary). For all run-of-stream sources, groundwater withdrawals that impact a stream and sources with limited storage, compute 7-day, 10-year low flow (Q7-10) using low flow statistical data and appropriate hydrologic engineering techniques. Whenever an intake is located on an ungaged stream, the applicant must use an acceptable method for computing the Q7-10, such as (i) selecting a reference USGS gaging station and proportioning the yield based on drainage area, or (ii) utilization of information provided by StreamStats http://streamstats.usgs.gov/pastreamstats/. Any data provided should state the method used to measure the flow (current meter, weir, etc.), the dates of observation and the flow observed.

Notes:

(1) If using a reference gaging station and proportionate drainage area calculation, the selected gaging station must be on a watershed having similar geologic and climatic characteristics to those of the ungaged watershed. Other factors to consider are relative size of drainage areas and whether the reference gaging station is influenced by upstream reservoirs or other flow regulation activities. Up-to-date low-flow data for specific gaged watersheds may be obtained from the USGS district offices. Actual flow data collected at the project intake may be used to supplement the use of a reference gaging station.

(2) DEP views StreamStats as one source of information for estimation of Q₇₋₁₀ and average daily flow values; but in some cases it may not necessarily be the best source for determining such information. Attach Stream Stats printout if used for Q7-10 determination.

(3) DEP encourages operators to employ or engage professionals who are experienced with hydrologic issues to assist in evaluation of such flow issues.

D.4 Stream Classification and Uses

Identify the current designated water uses and recognized existing water uses of the stream or other surface water body at the location from which the withdrawal is proposed.

Current designated water uses are listed at 25 Pa Code Chapter 93.9. A current copy of this chapter of the Pennsylvania Code can be obtained from the DEP regional office or it can be viewed on the Legislative Reference Bureau website at: <u>http://www.pacode.com/secure/data/025/chapter93/chap93toc.html</u>.

A current list of existing water uses is maintained on the DEP website (Keyword- Existing Use) or at: http://www.depweb.state.pa.us/watersupply/cwp/view.asp?a=1261&g=449172.

A current list of stream sections supporting natural reproduction of trout is located at: http://www.fish.state.pa.us/trout repro.htm

D.5 PA Natural Diversity Inventory (PNDI)

A PNDI search must be conducted prior to submitting a Water Management Plan. The PNDI database includes plant and animal species classified as rare, threatened, endangered, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern plant populations and unique geologic features. The online PNDI Environmental Review and Project Planning Tool is available at <u>www.naturalheritage.state.pa.us</u>. The operator must provide documentation of resolution of any conflicts involving threatened or endangered species identified prior to submitting a Water Management Plan or the Water Management Plan will be deemed incomplete. If a source has a threatened or endangered species hit, it should not be included in the Water Management Plan until resolution has been reached. If conflicts or concerns are identified for species other than threatened or endangered species, the Department will address these during its review of the Water Management Plan.

D.6. Withdrawal Impacts Analysis

Because gas well operators do not have access to detailed information on other withdrawals, they can only answer this question as to the relationship of their own withdrawal to the Q_{7-10} flow of the source. Situations involving cumulative withdrawal impacts may gualify as "special circumstances" referred to in C.6 above.

SECTION E. WASTEWATER, COOLING WATER OR MINE WATER DISCHARGE SOURCES

E.1. Source Identification & Notifications

Describe location of proposed source relative to nearby roads or landmarks. For sources not subject to SRBC or DRBC approval, attach a copy of the notification letter provided to municipality and county where source is located.

For sources subject to SRBC and DRBC approval, notification to the county and municipality per the SRBC and DRBC procedures suffices. For sources not subject to SRBC and DRBC approval, a one-time notice letter must be provided to the county and municipality where the source is located prior to submission of the Water Management

Plan or supplement to the plan first listing that source. For water sources previously approved by DEP which are being included in a plan, no additional county and municipal notification is required.

E.2. River Basin Commission Approvals

For those obtaining water from a wastewater discharger located in the Susquehanna River Basin, complete and submit to SRBC the SRBC Notice of Intent (NOI) Approval By Rule Application. Attach a copy of the SRBC's approval and insert the approval number and date issued in the appropriate place on the application.

When issued, a copy of the SRBC or DRBC approval should be supplied to the applicable DEP regional office.

If the source is subject to DRBC or SRBC approval, Sections E.3 - E.5 do not need to be completed, as the same analysis is considered by DRBC and SRBC. The Department will rely upon the information gathered, data analyses performed and expertise of the SRBC and DRBC regarding the proposed water source but will reserve for itself the ultimate decision and exercise its independent judgment concerning whether or not to approve the Water Management Plan.

E.3. Wastewater, Cooling Water, or Mine Water Diversion Impact Analysis

If the proposed diversion of wastewater, cooling water or mine water equates to $\leq 10\%$ of the Q₇₋₁₀ flow just below point of the existing wastewater, cooling water, or mine water discharge, there is a general presumption that impacts will be minimal and not significant, absent special circumstances, and you may reference the general presumption in your impact analysis, and avoid detailed responses to the following items. If you are aware of special circumstances, describe those circumstances, and address the following items on the Example Format as applicable. The diverting of wastewater, cooling water and mine water is not necessarily equivalent to withdrawing freshwater. In its review of such sources, DEP may consider whether if and when a passby flow may be necessary where the diverted wastewater is > 10% of Q₇₋₁₀. Such a decision requires balancing of a number of factors, including the benefits derived from diverting the wastewater, cooling water, or minewater and thereby reducing the loadings and impacts of pollutants at the point they would otherwise be discharged, and the need for the wastewater, cooling water, or minewater flow in terms of supporting streamflow used for fish habitat and providing assimilative capacity for significant downstream discharges.

SECTION F. PUBLIC WATER SUPPLY SOURCES

F.1. Source Identification

If obtaining water from a Public Water Supplier, provide the name of the Public Water Supplier, the specific system name and the PADWIS identification number. In addition, for those obtaining water from a Public Water Supplier located in the Susquehanna River Basin, complete and submit to SRBC the SRBC Notice of Intent (NOI) Approval By Rule Application. Attach a copy of the SRBC's approval and insert the approval number and date issued in the appropriate place on the application.

For sources not subject to SRBC or DRBC approval, attach a copy of the notification letter provided to municipality and county where source is located.

For sources subject to SRBC and DRBC approval, notification to the county and municipality per the SRBC and DRBC procedures suffices. For sources not subject to SRBC and DRBC approval, a one-time notice letter must be provided to the county or municipality where the source is located prior to submission of the Water Management Plan or supplement to the plan first listing that source. For water sources previously approved by DEP which are being included in a plan, no additional county and municipal notification is required.

SECTION G. SIGNATURE

Complete and sign the application.

5500-PM-OG0087 4/2009 Instructions Pennsylvania's Watersheds (HUC) pennsylvania Hydrologic Unit Levels Avg. Size (mi²) Avg. Size (mi²) Digits Digits Name Units Level Name Units Level 15,100 1 Region 2 3 4 Sub-basin 8 824 55 Avg. Size (ml²) Avg. Size (mi²) Digits Digits Name Units Level Units Level Name 4,530 5 2 Sub-region 4 10 Watershed 10 139 327 Avg. Size (mi²) Avg. Size (mi²) Name Digits Digits Units Units Level Level Name 3,485 3 Basin 6 13 6 Subwatershed 12 31 1,452 Source: USDA-NRCS National Carlography & Geospatial Center (NCGC), 2008

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5500-PM-OG0082 6/98



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM

DEI	P USE ONLY					
Auth #	APS#					
Sile #	Facility #					
FIX Clien1 #	Sub-facility #					

REQUEST FOR ROADSPREADING PLAN APPROVAL

Please read instructions on rever	se side before completing this form
SECTION A. OPERATOR/APPLICANT	SECTION E. REQUIRED INFORMATION
Name DEP ID # Address	1. Attach an original signed and dates statement from each municipality or other person authorizing the use of brine on their roads and that they will supervise the frequency of
City Stote Zip	spreoding.
Telephone ()	
	2. Nome of geological formation(s) from which the brine is produced:
SECTION B. OPERATOR/SPREADER	a
	b
Address	3. Attach two (2) copies of maps of municipality or area
Telephone []	identifying the roads that are to receive the brine, including starting and stopping points.
SECTION C. LOCATION	4. Attach a chemical analysis of the brine for the following parameters.
Name Township/Property Name	– Sodium Chloride
Township/Property Name	Calcium Total Dissolved Solids Magnesium
Township/Property Name	Mognesion
Township/Property Name	5. APPLICATION METHOD
Township/Property Name	Describe how brine will be applied, including equipment to be used and the method for controlling the method of application.
SECTION D. ROAD SPREADING PLAN	
Check One	
New Road Spreading Plan	
Note: All items in Section E required.	
	6. License plate numbers of spreading vehicles:
Revised Roadspreading Plan	a d
Note: Check and ottach revisions in Section E	b e
Annual Renewal of Plan Submitted in	c f
Note: Section E information not required unless it is being revised	SECTION F. SIGNATURE BLOCK
	Applicant's Signature Date
	Printed Name Print

GENERAL INFORMATION

Guidelines on roadspreading are available from the Department of Environmental Protection (DEP) Fact Sheet "Roadspreading of Brine for Dust Control and Stabilization." The guidelines were developed under Section 402 of the Pennsylvania Clean Streams law and Solid Waste Management Act, and Chapter 78.55 and 101.3 of the Rules and Regulations. A plan which will which minimize the potential for pollution from the use of production brine for dust control must be submitted to the Department for its approval prior to implementation. This plan approval is granted on a calendar year basis and expires December 31 of that year. Any revisions to the plan must be submitted to the Department for approval.

Submit Roadspreading plans to the appropriate regional Oil and Gas Managmenet Program Office:

Department of Environmental Protection	Department of Environmental Protection
Southwest Regional Office	Northwest Regional Office
Oil & Gas Program	Oil & Gas Program
400 Waterfront Drive	230 Chestnut Street
Pittsburgh, PA 15222-4745	Meadville, PA 16335-3481

Instructions for Use

SECTION A: Fill in the name, address and telephone of operator/applicant submitting the application. Include DEP ID#, if known.

SECTION B: Fill in the name, address and telephone of operator/spreader that will actually spread the brine. (If different from applicant listed in Section A).

SECTION C: Name the county where the spreading will take place. A separate plan should be submitted for each county. Also, name the township(s) where the roads are located. Provide a list of roads on a separate sheet and indicate where the spreading will occur on the maps. Note: If spreading on private property, also provide the name of the property.

SECTION D:

For New Applications: Check the first box in Section D and all boxes in Section E. Provide the requested information in the spaces provided in Section E or attach the appropriate information. Complete Section F.

For Revised Roadspreading Plans: Check the second box in Section D and the relevant boxes in Section E. Provide the requested information in the spaces provided in Section E or attach the appropriate information. Complete Section F.

For New Applications: Check the third box in Section D and list the year the plan was submitted. If any of the information in Section E is being revised, check the appropriate box in Section E and provide the information. Complete Section F.

SECTION E:

Line 1: Attach a statement from municipality or other person authorizing the use of brine on their roads and that they will supervise the frequency of spreading. The statement should also identify the term of the authorization.

Line 2: List the name of the geological formation from which the brine is produced.

Line 3: Attach two (2) copies of maps showing the spreading sites.

Line 4: Attach a chemical analysis of the brine for the listed parameters.

Line 5: Describe how brine will be applied.

Line 6: Provide license plate number(s) of truck(s) that will spread the brine.

SECTION F: Signature block for operator/applicant listed in Section A.

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5500-PM-OG0071 Rev. 2/99



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL & GAS MANAGEMENT PROGRAM

. 1963 (J.A.	DEP USE ONLY	Calendar
Auth #	APS#	
Site #	Facility	#
FIX Client	V Sub-fac	:#

Request for Approval of Alternative Waste Management Practices

Please read instructions on back before completing this form.

Well	Dperator	DE	PID	Well Permit or Re	gistration Number	•
Addre	\$5	······································		. Well Farm Name		10 0000 10000 0000 0000 00000000000000
City	ф.	State Zir	Code		Serial #	
City			CODE		Senar	
Phon	Fax			County	Munici	pality
18.177		ACTICE				
	ENDED ALTERNATIVE PR				e e e e e e e e e	
	For temporary containment of fluids a Section A. PITS AND TANKS FOR T	EMPORARY C	CONTAINMEN	NT. See 25 Pa. (Code § 78.56 for regu	ations.
	For disposal of drill cuttings from PRACTICES. See 25 Pa. Code § 78	above the su .61 for regulati	irface casing ions.	seat, complete	Section B. ALTER	NATE WASTE DISPOSAL
	For disposal of residual waste and on DISPOSAL PRACTICES. See 25 Pa				seat, complete Section	on B. ALTERNATE WASTE
Α.	PITS AND TANKS FOR TEM	PORARY	CONTAIL	MENT		
Corr	plete this section if requesting approv drilling, altering, or completing a well.	al of an altern See 25 Pa. C	ative practice ode § 78.56.	for temporary c	ontainment of pollutio	nal substances and wastes
a)	Check the box below and fill in the da of the pit be at least 20 inches above is located above groundwater. See 2	the seasonal l	high groundw	ater table for a p	a variance from the it that exists only duri	requirement that the bottom ng dry times of the year and
	Variance requested; dates to be used	l, from		to		
b)	Check the box below if you are reque	sting approval	of an alterna	tive practice for t	emporary containmer	it.
	Approval of an other alternative pract information which will demonstrate t practices indentified in 25 Pa. Code §	hat the propos				
	+2					
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						÷
						e"

5500-PM-OG0071 Rev . 2/99

B. ALTERNATIVE WASTE DISPOSAL PRACTICES

Complete this section if requesting approval of an alternative practice to dispose of drill cuttings or residual wastes at the well site. Describe the type of waste, including any additives, and the proposed alternative practice. Include information that will demonstrate the proposed practice will provide protection equivalent or superior to the practices identified in 25 Pa. Code § 78.61, 78.62, or 78.63.

SIGNATURE OF Signature of Applicant / V		Print or Type Signer's Na	me and Title	D
Approved	Denied		ES, see below or attached.	Date
DEP Representative: Conditions:			0	ан н жа

Instructions

Use this form to apply for approval of alternative waste management practices under 25 Pa. Code § 78.56, 78.61, 78.62, or 78.63.

Complete this form and submit it with all other necessary documentation. Label each attachment with applicant's name and the information item it refers to.

Send your application to the Oil and Gas Management Program at the appropriate DEP regional office:

PA DEP Oil & Gas Management Program Northwest Regional Office 230 Chestnut Street Meadville, PA 16335-3481 Phone: 814-332-6860 Fax: 814-332-6121 PA DEP Oil & Gas Management Program Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: 412-442-4015 Fax: 412-442-4328

2

5500-PM-OG0072 Rev 4/98



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION Oil & Gas Management Program

PS#
acility #
ub-fac #

Request for Approval of a Pit for Control, Handling or Storage of Production Fluids

Well Operator			DEP ID #	Well Permit or Re	gistration Number	r		
Address	Well Form Nome							
City	Well #	Well # Serial #						
Phone	Fax	L.	L	County	• •	Municipality	÷.;	12
LOCATION AND USE				1				
Location of the pit in relation to the	well(s):	Fluid	s to be contained	I in the pit:	00 E E E E	Check one:		- K.
Course: Distance:		E 1	Brine Other	, specify:	17 18 19	New Pit	Ex	isting Pit
Will the pit be within 100 feet of a si (If "Yes", you must also submit a form 5500-PM-OG0057).				Yes Yes	No m Springs, Stre	eam, Body of V	Vater, or V	Vetland",
PIT FEATURES								
Will the pit separately or by intercor	nection	with othe	r pits have a capa	acity greater than	250,000 gallo	ons, or will	<u>85</u>	
the pit be on one tract or adjacent to	acts of la	and such	that the total cap	acity of the pits e	exceeds 500,0	00 gallons?	🗌 Yes	No No
Will surface water which may drain	into the p	pit be dive	erted away from t	he pit?			Yes	🗌 No
Will the pit be maintained with at lea	ast 2 feet	t of freebo	pard?				Yes	No No
Will the pit be structurally sound and							Yes	No No
If you are requesting an alternate m and materials to be used (e.g.,rock,				equirement for a Side slope:	•••	describe the si Material:	de slope	
Will the bottom of the pit be at least	20 inche	es above	the seasonal hig	h groundwater ta	ble?		Yes	No No
How was this determination made?							*	
If you are requesting an alternate m impermeable and the method will pr other approved methods.								
Describe the material to be used for rock, shale, or other material which				will protect the I	iner if the pit b	ottom or side :	slope cons	sists of
)?		÷					
	9	G					¥	<u>a. j</u> a
Will the pit be reasonably protected	from una	authorize	d acts of third pa	ties?			Yes	No No
Liner Type:				Thickne	SS:			
Material Manufacturer:								
If you are requesting an alternate mi impermeable and will provide equiva approved methods.	ethod of alent or s	satisfying uperior p	liner requiremer rotection. Includ	nts for an existing e the locations of	pit, provide do f and results fro	ocumentation om monitoring	that the pit wells or o	t is ther
OPERATION AND MAINT	ENAN	CE						
Describe your plan for operation and			the pit.		2) (R. 46	• • •		* *
							14	
								3
						<u>e</u>		
		3						
			1					

5500-PM-OG0072 Rev 4/98

DISPOSAL OF LIQUID	PORTION OF PI	T CONTENT	S		
To be disposed of at a	Name of facility:				
permitted treatment	Location:				
facility.	Hauler:			-	
To be disposed of at a	Name of disposal well	Ľ		<i>T</i>	
permitted disposal well.	Location:				
	Hauler:				t.
Other disposal or reuse.	Describe.	ana menana an esere contenenta a conte M			
DISPOSAL OF SOLID	PORTION OF PIT	CONTENTS	3		
To be disposed of by lan	d application, according	to 25 Pa. Code §	78.63.		1. 1. 1. 1. 1. 1.
To be disposed of in the	pit, according to 25 Pa.	Code § 78.62.			
Other, describe.					
PIT CLOSURE AND SI	TE RESTORATIC	ON PLAN			
Describe your plan for closing			554 IIII (1)	8 ×	(a) (a) (a) (a)
				s2.	
SIGNATURE OF APPL Signature of Applicant (Well Operat	Self-Self-Self-Self-Self-Self-Self-Self-	Print or type sign	ner's name and title	121 121	Date
		· · · · · · · · · · · · · · · · · · ·			0010
		DEP USE (1
Approved	Denied	Conditions:	YES, see atta	ached.	Date
DEP			NO		
Representative:					

Instructions

Use this form to apply for approval under the Clean Streams Law to operate a pit as an impoundment for control, handling, or storage of brine and other fluids produced during operation of the well. See 25 Pa. Code §§ 78.57 and 78.58.

Complete this form and submit it with all other necessary documentation. Label each attachment with applicant's name and the information item it refers to.

Send your application to the Oil and Gas Management Program at the appropriate DEP regional office:

	PADEP			
am	Oil & Gas Management Program			
Phone: 814-332-6860	Southwest Regional Office	Phone: 412-442-4015		
Fax: 814-332-6121	400 Waterfront Drive	Fax: 412-442-4328		
	Pittsburgh, PA 15222-4745			
	Phone: 814-332-6860	am Oil & Gas Management Progr Phone: 814-332-6860 Southwest Regional Office Fax: 814-332-6121 400 Waterfront Drive		

5500-PM-OG0073 Rev 2/99



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL & GAS MANAGEMENT PROGRAM

 DEP USE ONLY

 Auth #

 APS #

 Site #
 Facility #

 FIX Client #
 Sub-fac #

Request for the Us	se of Alternative	Pit Liner
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Please read instruction	ons on back l	before completir	ng this form.				
Well Operator			DEP ID#	Well Perm	I or Registration Numbe	ſ	
Address				Well Farm	Name		
City	Antes cont e	Sta	te Zip Code	Well #	17 1995 - 1997 - 199	Serial #	
Phone	34 (1 44.44)	Fax	81. 1947 - 194	County	-	Municipality	
TYPE OF ALT	ERNATIV	E LINER	1000 U				
Check here i	f requesting	approval of an	alternate synthe	etic flexible lin	er. Complete Sec	tion A.	
Check here i	f requesting	approval of a	material other th	an a synthetic	flexible liner. C	omplete Secti	on B.
A. SYNTHET	C LINER	Complete this	section if applying	g for approval	of a synthetic flexible	e liner. See 25 F	a. Code § 78.62.
Waste Material	Waste descr	iption:					
Liner Material	Туре:			Manufacture	n.		
Liner Material Pr	operty	Т	est Method	Tear:		lb .	ASTM D1004
Thickness:		mils	ASTM D1593	Bursting stre	ength:	lb/sq.in.	ASTM D751
Strength at Break:		lb/in	ASTM D882	Vapor Trans	mission:	g/m ² -day	ASTM D96
Compatibility of	Compatibility of Liner and Waste Attach documentation showing that the waste and liner material are compatibile.						
B. OTHER LINER MATERIAL Complete this section if requesting approval of liner material other than a synthetic flexible liner. See 25 Pa. Code § 78.56 or § 78.62.							
Waste Material	Waste descr	iption:					
Liner Material Material: Thickness: Coefficient of Permeability:							
How was Coefficient of Permeability determined?							
(#3)							
							140 201 - 201 - 201 - 201
Compatibility of	Liner and V	Vaste Attach d	ocumentation sho	wing that the w	aste and liner mate	rial are compatil	bile.
Installation Desc	ribe procedur	es for installatio	n of the liner mate	erial.			
Z. 1. 1. 2. 2.							
14							
SIGNATURE C	OF APPLI	CANT				-	
Signature of Applica	int / Well Ope	erator	Print or Ty	pe Signer's Nai	me and Title		Date
and the state of the	N-1012142-1-1-2	1					
						47.5 Y	- ·
		Denied	Conditio	ons: YE	S, see attached.	2	Date
DEP Representative:		*)		

Instructions

Form 5500-PM-OG0073

Use this form to apply for approval of an alternative liner material for a pit used to dispose of residual waste and drill cuttings from below the casing seat, under 25 Pa. Code § 78.62.

Complete this form and submit it with all other necessary documentation. Label each attachment with applicant's name and the information item it refers to.

Send your application to the Oil and Gas Management Program at the appropriate DEP regional office:

PA DEP Oil & Gas Management Program Northwest Regional Office 230 Chestnut Street Meadville, PA 16335-3481 Phone: 814-332-6860 Fax: 814-332-6121 PA DEP Oil & Gas Management Program Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 Phone: 412-442-4015 Fax: 412-442-4328 5500-PM-OG0084 Rev. 3/2009 Checklist



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERSHED MANAGEMENT

CHECKLIST FOR A DAM PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM FOR MARCELLUS SHALE GAS WELLS

Please check the following list to make sure that you have included all the required information. Place a check mark in the column provided for all items completed and/or provided. Failure to provide all of the requested information will delay the processing of the application and may result in the application being placed ON HOLD with NO ACTION, or being considered withdrawn and the application file closed.

THIS CHECKLIST MUST BE COMPLETED AND ENCLOSED WITH THE PERMIT APPLICATION

	√ CHECKLIST FOR DAM PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM FOR MARCELLUS SHALE GAS WELLS	Applicant Check √ If Included	Official Use Only
Α.	Applicant Identification		
В.	Dam Permit Application Fee		
C.	Proof of Municipal Notification		
D.	Cultural Resource Notice		
E.	Pennsylvania Natural Heritage Program PNDI		
F.	Color Photographs and Map		
G.	Erosion and Sediment Control Plan Adequacy letter		
H.	Proof of Title/Flowage Easements		
١.	Maps, Plans, Profiles and Cross-sections		
J.	Impacts from Dam Failure Statement		
K.	Construction Information		
L.	Groundwater Protection Requirements		
М.	Monitoring Plan		
N.	Professional Engineer's Seal and Certification		
Ο.	Applicant Certification and Signature		

5500-PM-OG0084 Rev. 4/2009 Application



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERWAYS ENGINEERING

	DEP USE ONLY
APS #	Site #
Permit #	Auth ID #

APPLICATION FOR A DAM PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM FOR MARCELLUS SHALE GAS WELLS

A. APPLICANT IDENTIFICA	TION						
Applicant		DEP ID#	Well Permit Number				
Address			Well Farm Name and Number				
City	State Zip C	ode	County	Municipality			
Phone	Fax		Latitude N ° ′ ″	Longitude W ° -			
B. DAM PERMIT APPLICAT	ION FEE – Paya	able to "Com	monwealth of Pennsylvania	1			
Maximum height of centralized in	npoundment dam e	embankment m	easured from outside toe-of-dam	to the top-of-dam: feet			
Maximum Embankment <u>Height</u> ≤ 40 feet > 40 feet			Dam Permit Application <u>Fee</u> \$1500 \$2500				
C. ACT 14 NOTIFICATION							
Provide a copy of a letter to the receipt for each letter. County letter and proof of	5	5. 5.	ne centralized impoundment dam Municipality letter and proof	is located and a copy of proof of of receipt provided:			
D. CULTURAL RESOURCE NO	DTICE						
Cultural Resource Notice	e and proof of rece	ipt provided by	PHMC:				
E. PENNSYLVANIA NATURAL	HERITAGE PRO	GRAM					
PNDI Attached: Any "hit" m	ust include accept	ed mitigation p	lan from applicable agency.				
F. COLOR PHOTOGRAPHS							
Provide color photographs (four minimum) of the proposed centralized impoundment site with a location and orientation map. Photographs and orientation map provided:							
G. EROSION AND SEDIMENT	CONTROL PLAN						
Provide a copy of the erosion and sediment control adequacy letter from the appropriate Regional Office Oil and Gas Management Program.							
Adequacy letter provided:							
H. PROOF OF TITLE/FLOWAG	EEASEMENTS	11					
This application contains the following for all land area below top-of-dam elevation that is subject to inundation: (Check one) Proof of Title Flowage Easements							

I. MAPS, PLANS, PROFILES AND CROSS-SECTIONS							
Maps, plans, profiles and cross-sections with a Professional Engineer. seal and signature must accompany applications. The map plans, profiles and cross-sections are to be developed in accordance with the "Design, Construction and Maintenance Standards Dam Embankments associated with Impoundments for Oil and Gas Wells." If alternate construction standards are proposed, the alternate standards must be detailed in plans and specifications submitted with this application.							
Maps, plans, profiles, and cross-sections with P.E. seal and signature provided:							
J. IMPACTS FROM IMPOUNDMENT FAILURE							
Will the failure of this impoundment impact inhabited structures, cause serious property damage or flood roadways? If yes, a Dam Permit Application must be submitted to the Division of Dam Safety.							
If no, the Applicant and P.E. certify that failure of this dam will not impact inhabited structures, cause serious property damage, or flood roadways.							
K. CONSTRUCTION INFORMATION							
Projected commencement date for construction:							
Professional Engineer responsible for construction oversight: Name:							
PE Registration No:							
L. GROUNDWATER PROTECTION REQUIREMENTS							
1. TYPE OF FLUIDS STORED IN IMPOUNDMENT (Check one.)							
Freshwater Storage of Fracturing Fluids Other							
2. SUBBASE							
Is the bottom of the subbase within 2 feet of the seasonal high water table? The subbase material is hard, uniform, smooth and free of debris, rock fragments, plant materials and other foreign material. Design Data a. Material							
b. Depth inches (minimum 6 inches) c. Compaction Procedures							
3. LEAK DETECTION ZONE							
Will a Leak Detection Zone be used? Yes No							
Design Data							
Piping System							
a. Slope percent (minimum 2 percent) b. Diameter inches (minimum 4 inches)							
Geotextile material used between leak detection zone and liner							
Specify type of geotextile material.							

5500-PM-OG0084 Rev. 4/2009 Application

4. LINER		
Design Data		
a. Materia)		
b. Thickness mils (minimum 30 mils)		
c. Permeability cm/sec (maximum 1 x 10 ⁷)	0	
Attach a Quality Assurance Plan for installation of the liner.		
5. ADDITIONAL INFORMATION		
Will the surrounding area be graded or diked to prevent surface water from entering the impoundment? Briefly describe or explain.	Yes	□ No
Will the sides be constructed to maintain a two (2) foot free-board and be protected against wave action? How will the impoundment be protected from acts of third parties?	☐ Yes	□ No
Is there a copy of the inspection plan for engineer's supervision during construction attached? M. MONITORING PLAN (Attach Additional Sheets As Needed)	Yes	□ No
Describe the monitoring plan including groundwater monitoring wells, springs or seeps and leak detection zone and characterization (thickness lithology, grain size, etc.) of water bearing zones. Attach a 7.5 Min. USGS To impoundment and location of all monitoring points.	OPO Map sh	nowing the
Identification Number of Upgradient Wells		
Identification Number of leak detection monitoring points		
Identification Number of springs or seeps		
Description of other monitoring points including the identification number		
List Monitoring Point Parameters. Parameters must include Ph, TDS, Chlorides, Specific Conductance and sulf	ates.	
		- 8 - 175

5500-PM-OG0084 Rev. 4/2009 Application

	SSIONAL ENGINEER'S SEAL AND CE		
prepared in a	information and belief, that the inform	ereby certify pursuant to the penalties of 18 nation contained in accompanying plans, practice, is true and correct, and is in confi nmental Protection.	specifications and reports has been
			-
PE			4
0	(Print)		
		(Date)	
PE		(Date)	
	(Sign)		
	Al 他 10		
			P.E. Seal
		l	
). APPLIC	CANT CERTIFICATION AND SIGNATU	RE	0
head, bureau	u director, executive director, chairman,	ments, boards, commissions, receivers, tr , commissioner or other responsible official	is required to sign. Signatures other
Application is contained in certify I poss grant perm project site	applicant. is hereby made for a permit to authori this application, and to the best of my l sess the authority to undertake the propo- nission to the agencies responsible for for inspection purposes. I will abide authorization.	torney or other notarized legal documentat rize the activities described herein. I cert knowledge and belief, such information is to osed activities. authorization of this work, or their duly an by the conditions of the permit if issued	ify I am familiar with the information true, complete and accurate. I furthe
Pehalf of the Application is contained in certify I poss grant perm project site appropriate a	applicant. is hereby made for a permit to authori this application, and to the best of my l sess the authority to undertake the propo- nission to the agencies responsible for for inspection purposes. I will abide authorization.	rize the activities described herein. I cert knowledge and belief, such information is t osed activities. authorization of this work, or their duly a	ify I am familiar with the information true, complete and accurate. I furthe uthorized representative, to enter the
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Pehalf of the Application is contained in certify I poss grant permoroject site appropriate a B	e applicant. is hereby made for a permit to authori this application, and to the best of my li- sess the authority to undertake the propo- hission to the agencies responsible for for inspection purposes. I will abide authorization. Y: (PRINT NAME) (SIGNATURE) (TITLE)	ize the activities described herein. I cert knowledge and belief, such information is to osed activities. authorization of this work, or their duly at by the conditions of the permit if issued (DATE)	ify I am familiar with the information true, complete and accurate. I furthe uthorized representative, to enter the and will not begin work without the
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Pehalf of the Application is contained in certify I poss grant permoroject site appropriate a B	e applicant. is hereby made for a permit to authori this application, and to the best of my li- sess the authority to undertake the propo- hission to the agencies responsible for for inspection purposes. I will abide authorization. Y: (PRINT NAME) (SIGNATURE) (TITLE)	ize the activities described herein. I cert knowledge and belief, such information is to osed activities. authorization of this work, or their duly at by the conditions of the permit if issued (DATE)	ify I am familiar with the information true, complete and accurate. I furthe uthorized representative, to enter the and will not begin work without the
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- 4 -

5500-PM-OG0084 Rev. 3/2009

Permit No. DOG



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT

DAM PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM AT MARCELLUS SHALE SITES

The Department of Environmental Protection (Department), empowered to exercise certain powers and perform certain duties under and by virtue of the Administrative Code, Act of April 9, 1929 (P.L. 177), as amended, 71 P.S. §§ 510.1 et seq., and The Dam Safety and Encroachments Act, Act of November 26, 1978 (P.L. 1375) as amended, 32 P.S. § 693.1 et seq., and the rules and regulations promulgated thereunder, hereby issues this permit to:

Permittee		DEP	ID#	, W	/ell Farm Na	me and Numb	er	DEP C	lient ID#	
County	Municipality	Latit	ude	÷		Long	itude	•		
		N	0	•	"	w	0		n	

This dam permit is issued to construct, operate, and maintain a dam in response to an application filed with the Department of Environmental Protection with the understanding that the work shall be performed in accordance with the approved maps, plans, profiles, and specifications filed with this application, subject, however, to the provisions of the Dam Safety and Encroachments Act, the Administrative Code, and the following conditions, regulations, and restrictions:

- This permit does not give any property rights, either in real estate or material, or any exclusive privileges. It does not grant or confer any right, title, easement, or interest in, to, or over any land belonging to the Commonwealth of Pennsylvania. It does not authorize any injury to private property or invasion of private rights, or any infringement of Federal, State, or local laws or regulations. It does not obviate the necessity of obtaining Federal assent when necessary.
- 2. The permittee shall sign the permit thereby expressly certifying the permittee's acceptance of, and agreement to comply with, the terms and conditions of the permit. The permittee shall return a signed copy of the permit to the Department's Bureau of Oil and Gas Management that issued this permit and the Department's Division of Dam Safety. The permit will not be effective until the Department receives the signed copy of the permit. If the permittee fails to file acceptance of the permit, the permit becomes null and void and the permittee shall remove all works constructed and restore the area in a manner specified by the Department.
- 3. All work shall be conducted under the oversight and supervision of a registered professional engineer approved by the Department's Bureau of Oil and Gas Management's Regional Office. The permittee shall file with the Department at least 15 days prior to the commencement of construction a statement setting forth the name of the contractor conducting the work. The registered professional engineer or a competent representative shall be on the work site at all times during significant construction activities until completion of the dam.
- 4. The permittee shall fully inform the engineer or contractor, responsible for the supervision and conduct of work, of the terms, conditions, restrictions, and covenants of this permit.
- 5. The project site shall at all times be available for, and the work shall at all times be subject to, inspection by representatives of the Department, the local county conservation district, and the PA Fish and Boat Commission.
- 6. No changes shall be made to the approved maps, plans, profiles, and specifications, except with the written consent of the Department. The Department, however, reserves the right to require such changes or modifications in the maps, plans, profiles, and specifications as may be considered necessary.
- 7. The permittee shall implement and monitor the Erosion and Sedimentation Control Plan prepared in accordance with the Department's Chapter 102 regulations so as to minimize erosion and prevent excessive sedimentation into the receiving watercourse or body of water.

- 1 -

5500-PM-OG0084 Rev. 3/2009 Permit Permit No. DOG

- 8. A detailed report upon the status of the construction shall be mailed monthly to the appropriate Department's Bureau of Oil and Gas Management's Regional Office, until work upon the dam has been completed.
- 9. If the work authorized by this dam permit is not completed within five years of the issue date of this permit, or not previously revoked or specifically extended by the Department in writing, this dam permit shall become void without further notification. If construction work has not been completed within the time specified in the permit and the time limit specified in the permit has not been extended in writing by the Department or if a permit has been revoked for any reason, the permittee shall, at his own expense and in a manner that the Department requires, restore the construction site and any associated watercourse and floodplain to their former condition. Requests for extension of this permit should be in the form of a letter to the Department.
- 10. Within thirty (30) days after the completion of the work authorized in this permit, the permittee shall file with the Department's Bureau of Oil and Gas Management's Regional Office, a certified statement signed by the supervising engineer and by the permittee that the work has been performed in accordance with this permit and the approved maps, plans, profiles, and specifications. Further, the permittee shall submit to the Department's Bureau of Oil and Gas Management's Regional Office, within ninety (90) days after the date of completion of the work authorized by this permit, a set of final "As-Built Plans" for the project, showing Department approved changes from the original plans and specifications.
- 11. The Department shall be notified at least one week in advance of the time when it is proposed to begin to store water or frac water in the impoundment created by the dam for which this permit is issued.
- 12. The permittee shall operate, maintain and inspect this dam in accordance with all provisions of Sections 105.51-105.54 of the Department's regulations. Specifically, the dam must be inspected by the permittee at least quarterly and the permittee shall retain records of these inspections and actions taken to correct conditions found.
- 13. The site of this fresh or frac water impoundment dam must be restored within nine months of the last well serviced by the impoundment being placed in to production.
- 14. If the fracturing fluids will be stored in the impoundment for a period of longer than nine months, the operator shall install and implement a groundwater monitoring program to detect any leakage from the impoundment. The monitoring program shall be submitted to the Department for approval.
- 15. The Department reserves the right to suspend or revoke this permit if, in its opinion, the best interest of the Commonwealth will be served.
- 16. This permit authorizes the permittee to construct and operate the impoundment for storage in accordance with the Clean Streams Law, The Oil and Gas Act and Solid Waste Management Act.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

Permittee (signature)

(Date)

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Oil and Gas Management Program

Attest:

(Signature)

(Issue Date)

- 2 -



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERWAYS ENGINEERING BUREAU OF OIL AND GAS MANAGEMENT

DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS FOR DAM EMBANKMENTS ASSOCIATED WITH IMPOUNDMENTS FOR OIL AND GAS WELLS

The design, construction, maintenance and removal of dams associated with impoundments for oil and gas wells must be accomplished in such a manner as to protect the health and safety of the people, the natural resources, and environment of the Commonwealth. Impoundment dams at a well location shall be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties and comply with 25 Pa. Code Chapter 78.56 – 78.63. To assure proper design, construction and maintenance, the following set of standards has been developed for dam embankments, including centralized dam embankments, for the impoundment of freshwater or frac water. The operator may propose alternate standards if they meet or exceed those listed below; if they are developed, sealed and certified by a professional engineer registered in Pennsylvania; and if they are approved through a Dam Permit Application process through the Department's Division of Dam Safety prior to commencement of construction.

- Soils to be used for dam embankment construction must be classified in accordance with ASTMD-2487 (Unified Soils Classification). A minimum of three samples must be classified.
- Soils acceptable for dam embankment construction are limited to GC, GM, SC, SM, CL or ML. Soils must contain a minimum of 20% of Plus No. 200 sieve materials.
- The foundation of the dam embankment must be stripped and grubbed to a depth of two feet prior to any
 placement and compaction of earthfill.
- Any springs encountered in the foundation area of a dam embankment should be drained to the
 outside/downstream toe of the dam embankment with a drain section two foot by two foot in dimension
 consisting of PennDOT Type A sand, compacted by hand tamper. No geotextiles are to be used around the
 sand. The last three feet of this drain at the outside/downstream slope must be constructed with
 AASHTO #8 material.
- All dam embankments must be compacted by sheepsfoot or pad roller. The loose lift thickness must be nine
 inches or less and the maximum particle size is six inches. Five passes of the compaction equipment over
 the entire surface of each lift is required. Dam embankment compaction to visible non-movement is
 required.
- A minimum dam embankment top width of 12 feet is required.
- Minimum outside and inside sideslopes of 3H:1V are required for dam embankments.
- All exposed dam embankment slopes must be limed, fertilized, seeded and mulched. Permanent vegetative ground cover in compliance with Pa. Code Chapter 102.22 must be established upon completion of dam construction.
- A minimum of two feet of freeboard must be maintained at all times during the operation of all dams.
- All liner materials for dam impoundments must meet the requirements of Pa. Code Chapter 78.56 78.63. Liners shall be installed in accordance with the manufacturer's specifications.
- Dam embankments must be maintained with a grassy vegetative cover, free of brush and trees.

5500-PM-OG0084 Rev. 3/2009 Instructions



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERWAYS ENGINEERING

APPLICATION INSTRUCTIONS FOR A DAM PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM FOR MARCELLUS SHALE GAS WELLS

GENERAL INFORMATION

The following instructions are intended to assist the applicant in properly completing *Application For A Dam Permit For A Centralized Impoundment Dam For Marcellus Shale Gas Wells.* DEP is committed to the explanation of its permitting requirements and assisting, to the fullest extent possible, those persons whose activities require them to secure a DEP *Dam Permit For A Centralized Impoundment Dam For Marcellus Shale Gas Wells.*

To determine if this is the appropriate permit application for your dam associated with Marcellus Shale well development, refer to the *Worksheet for Permitting of Marcellus Pits and Dams.* The following instructions are intended to assist the applicant in properly completing *Application for a Dam Permit for a Centralized Impoundment Dam for Marcellus Shale Gas Wells.* DEP is committed to the explanation of its permitting requirements and assisting, to the fullest extent possible, those persons whose activities require them to secure a DEP *Dam Permit for a Centralized Impoundment Dam for Marcellus Shale Gas Wells.*

The basic procedures for making application involve submitting a complete application package and the required application fee to the appropriate Regional DEP Bureau of Oil and Gas Management Office. The design must be developed in accordance with the "Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells." Alternate standards may be proposed if they meet or exceed those listed below; if they are developed, sealed and certified by a professional engineer registered in Pennsylvania; and if they are approved through a Dam Permit Application process through the Department's Division of Dam Safety Office prior to commencement of construction. Form 3140-PM-WE0001, "Application for a Dam Permit" must be completed and submitted to the Department's Dam Safety Office.

Upon receipt of the complete application package and required fee, DEP will begin to review the application.

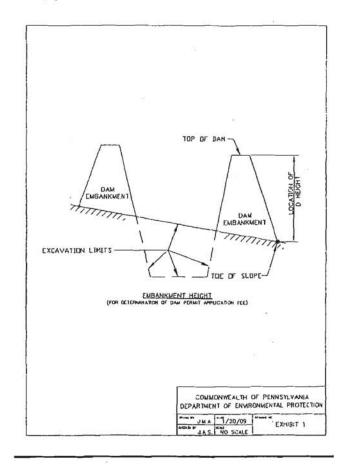
Please review the application form and attachments carefully before submitting to the Department. The Department will only begin its review after receipt of a <u>complete</u> application package. Errors, omissions and other irregularities must be resolved before detailed reviews of the application may begin. Accordingly, it is important that the following instructions be followed very closely.

SECTION A. APPLICANT IDENTIFICATION

Applicant Name: Reference is made to Section A of this application form for instructions. Applicant should complete Section A with identification information.

SECTION B. DAM PERMIT APPLICATION FEE (DEP FEE ONLY)

Use Exhibit 1 "Embankment Height" below to determine the height of the embankment. Submit the appropriate **Application Fee according to the fee schedule**. Please attach the check, to the front of the application package, made payable to "Commonwealth of **Pennsylvania**".



-1-

5500-PM-OG0084 Rev. 3/2009 Instructions

SECTION C. ACT 14 NOTIFICATION

Copies and proof of receipt - Act 14 notification: Act 14 Municipal and County Notification requires that the department wait 30 days from the date of project notification to both the local and county governments before issuing its permit(s). Typically, this 30-day period will run concurrently with the waiting Department's review period. For this to occur, DEP must receive a copy of the Act 14 notification letters to each affected municipality and proof that each municipality received the notification letter. This must be accomplished by requesting that the letters be endorsed and a copy returned to the applicant by the local and county governments or send the letters by certified mail. Copies of the endorsed letters or and signed mail receipts must be received by the Department and the 30 day waiting period must expire before a permit may be issued. DEP is specifically inviting the local municipality and the county to submit comments to DEP related to comprehensive plans and zoning ordinances under Act 67 and 68. Act 14 notices must be amended to include specific language as outlined on the enclosed sample notification letter. (Act 14 Notification Letter)

SECTION D. CULTURAL RESOURCE NOTICE

Determination of historic/archaeological sites: Complete and attach to each copy of the application package, completed form "CULTURAL RESOURCE NOTICE" and the Return Receipt that shows that the PHMC received this notice. Additional instructions for completing this notice are listed on the form.

SECTION E. PNDI SEARCH RECEIPT

Include the PNDI Search Receipt and natural resource agency(ies) written recommendations indicating that potential conflicts have been resolved with your permit application. For more information and access to the "PNDI Project Planning and Environmental Review" tool, visit www.naturalheritage.state.pa.us.

SECTION F. COLOR PHOTOGRAPHS

The number of photographs needed to meet this requirement will vary with the size and/or length of proposed dam and impoundment. A minimum of four photographs should be provided. Provide color photographs of the site that illustrate watercourses, wetlands, floodways or body of water conditions. The photographs should also illustrate the relative location, elevation and condition of nearby buildings and the area that the dam embankment will occupy and the impoundment will inundate. The location that the photographs were taken from and the direction of view

must be indicated on a <u>separate</u> Photograph Location Plan. Usual practice is to number each photograph, mount in transparent photoholders, mark the numbers on the plan and indicate the direction of view.

SECTION G. EROSION AND SEDIMENTATION CONTROL PLAN AND APPROVAL LETTER

Provide a copy of the adequacy letter from the appropriate county conservation district office. For nondelegated counties approval must be obtained from the appropriate DEP regional office.

SECTION H. PROOF OF TITLE/FLOWAGE EASEMENT

Information must be provided indicating proof of title or flowage easements for all land area below the top-ofdam elevation that is subject to inundation. Indicate which documentation is provided and include with the submission of this application form.

SECTION I. MAPS, PLANS, PROFILES, AND CROSS-SECTIONS

Site plan (including cross sections and location maps): Each set of plan drawings (a total of three is required) must be legible, and must include the following:

(a) All drawings shall contain a title block at the lower right corner of the sheet. The title block shall contain the project name, name of the applicant, name of the plan PREPARER (if different then the applicant) and the date the plan was prepared.

The submission must Location Maps: (b) contain a project location map drawn to, or otherwise utilizing an existing 1:24,000 scale (1 inch equals 2,000 feet). This is the scale used on U.S.G.S. 7.5 minute topographic maps. A photocopy of the appropriate U.S.G.S. topographic map, with the project site identified in red, is the recommended method to comply with this requirement. The photocopy must include a 3 inch radius of map coverage around the project site. If a U.S.G.S. photo copy is used for a location map, all the requirements of Subsection 105.13(d)(1)(ii) of the DEP's regulations will be satisfied. Refer to that subsection for required location map features if another type, or hand drawn map is used.

(c) <u>Site Plans:</u> A site plan must be included which provides a complete plan view of the proposed dam and impoundment and those adjoining areas where potential and/or actual hydraulic or environmental impacts will occur. The dam design must be developed in accordance with the "Design, Construction and

5500-PM-OG0084 Rev. 3/2009 Instructions

Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells." The design engineer's Professional Engineer Seal and Signature must be on the plans. Additional specific requirements for site plan include:

(i) Plans shall clearly show existing and proposed limits for all regulated waters of the Commonwealth (edges of streams, rivers, lakes, wetlands, etc.) and the limits of their floodplains.

(ii) Plans must be drawn to a scale of 1 inch equals 200 feet or larger and show all proposed structures or activities and all existing roads, utility lines, lots (show property lines and names of adjoining property owners), buildings and other man-made structures in the area of the proposed project. Natural features such as contours, surface drainage patterns and other prominent topographic features should be illustrated. Place a north arrow on the site plan.

(iii) <u>Cross Sectional Drawings:</u> Cross sectional drawings of existing and proposed conditions at the project site must be included on the site plan or on a separate plan.

SECTION J. IMPACTS FROM DAM FAILURE

If failure of this dam impacts inhabited structures, causes serious property damage or floods roadways, Form 3140-PM-WE0001, "Application for a Dam Permit", must be submitted to the Division of Dam Safety. The design professional engineer must determine if these impacts will occur in the event of the failure of this dam. If these impacts will not occur, indicate so by checking the box in Section J and certify these findings by signing and attaching the PE seal in Section L of this application.

SECTION K. CONSTRUCTION INFORMATION

Provide approximate date for commencement of construction. Provide Professional Engineer's name and P.E. Registration Number who will be responsible for construction oversight.

SECTION L. GROUNDWATER PROTECTION REQUIREMENTS

Pits and Impoundment dams shall be designed, constructed and maintained to be structurally sound and impermeable. The liner should be an HDPE geomembrane with a minimum thickness of 30 mils.

SECTION M. GENERAL MONITORING INFORMATION

Complete Section M of the application for all pits and impoundments that are to remain in place for longer than nine (9) months.

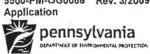
SECTION N. PROFESSIONAL ENGINEER'S SEAL AND CERTIFICATION

Provide the design engineer's Professional Engineer's signature, seal, and date for certification that the plans, specifications, and reports have been prepared in accordance with accepted engineering practices and in conformance with Chapter 105 of the Rules and Regulations of the Department of Environmental Protection.

SECTION O. APPLICANT CERTIFICATION AND SIGNATURE

Provide responsible party(s) signature, title, and date.

5500-PM-OG0086 Rev. 3/2009



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT BUREAU OF WATERWAYS ENGINEERING

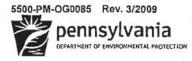
WORKSHEET FOR PERMITTING OF MARCELLUS SHALE PITS AND DAMS							
Complete this form to determine what permits or approvals are necessary for proposed impoundment pits and dams for the development of a Marcellus Shale Gas Well. Then complete the appropriate application and submit to the indicated DEP Office.							
Dam (Well) Operator:	Dam Name:						
County: Municipality:	Lat: N ° ′" Long: W ° ′"						
Stream Name (If located on a stream):							
What Sections of This Form Do I Complete?	······						
Impoundment Function: Intake Dam							
Fresh Water Storage							
Frac Water Storage							
Eresh or Frac Water Impoundment Pit or Dam at a Well Location: Complete Sections 1, 6 and 8. Well Permit No. : Well Farm Name:							
Intake Dam on a Watercourse: Complete Section 2.							
Fresh Water Storage Dam on a Watercourse: Complete Sections 3.A and 3.B.	EXEAVATION LINITS						
Fresh Water Storage Dam Off-Stream: Complete Sections 3.A and 3.C.	MAXIMUM DEPTH OF WATER						
Fresh Water Storage Dam Off-Stream That May Store Frac Water in the Future: Complete Sections 4, 5 as necessary, and 8.							
Frac Water Pit Off-Stream and Not at a Well Location: Refer to Section 7.	COMMONWEALTH OF PENNSTLVANIA						
Frac Water Storage Dam On-Stream or Off-Stream: Complete Sections 4, 5 as necessary, 6 and 8.	<u>uk A (1/20/09</u> <u>au A (1/20/09</u> <u>a JA 3, 1/09</u> EXHIBIT 1						
************************	**********************						
 Fresh or frac water impoundment pits or dams at a well location 78.63 and the Design, Construction and Maintenance Standard Oil and Gas Wells. Complete information requirements in Section Regional Oil and Gas Program Office. 	is for Dam Embankments Associated with Impoundments for						
 On-stream intake dams. (Dams/weirs constructed for water with minimal.) 	drawal from streams. Height and storage are typically						
2.A A dam/weir will be constructed on-stream solely for the purp	ose of water withdrawals:						
Yes Answer the following questions:	No Proceed to Section 3 or Section 4 as appropriate.						
Is maximum depth greater than 15 feet? (See Exhibit 1 abo Is maximum storage volume greater than 50 acre-feet?	ve) 🗌 Yes 🗌 No 🗌 Yes 🗌 No						
Is contributory drainage area greater than 100 acres?	Yes No						
Department's Dam Safety Program. Please subm Information Sheet and information required on that form	Environmental Assessment approval is required from the it form 3140-PM-WE0002 Environmental Assessment a's checklist to the Department's Dam Safety Office. Any of this intake dam to expand storage volume will require appropriate Department Regional Office.						

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			answer to any one of these questions is yes, a Dam Permit may be required from the Department's Dam ty Program. Answer the following questions:					
	Is height of dam/weir above streambed elevation greater than 3.0 feet? Yes N Is width of stream at the dam site greater than 50 feet? Yes N Is this stream a wild trout stream designated by the PA Fish and Boat Commission? Yes N							
	If the answer to all three of these questions is no, the Dam Permit for this dam is waived pursuant to §105.12(a)(1) of the Department's regulations. Contact the Department's Dam Safety Program for information requirements necessary for adding to Pennsylvania's Dams Inventory.							
			If the answer to any one of these questions is yes, a Dam Permit is required from the Department's Dam Safety Program. Please submit form 3140-PM-WE0001, "Application for a Dam Permit", and information required on that form's checklist to the Department's Dam Safety Office. Utilize the Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells to develop plans and specifications.					
3.	Cer	tralized free	esh water impoundments.					
	3.A	A dam em well location	nbankment will be constructed for the purpose of storing fresh water for the drilling or fracing at more than one ion:					
		🗌 Yes	Provide the following depth and volume Information and proceed to Section 3.B.					
			depth of water that could be impounded by the earthfill dam. See Exhibit 1feet feetfeet					
			a storage volume of water that could be impounded by the earthfill dam. See Exhibit 1acre-feet from the inside toe-of-slope of dam to top-of-dam embankment)	1919				
			area to the earthfill dam, if located on-stream, then proceed to Section 3.B.					
		If located of	off-stream, proceed to Section 3.C.					
	3.B	If the dam	n embankment used to impound fresh water is located on a watercourse, complete the following:					
		ls maximu	um depth greater than 15 feet? (See Exhibit 1 above) Yes No um storage volume greater than 50 acre-feet? Yes No utory drainage area greater than 100 acres? Yes No					
		Progr	answer to any one of these questions is yes, a Dam Permit is required from the Department's Dam Safety ram. Please submit form 3140-PM-WE0001, "Application for a Dam Permit", and information required on form's checklist to the Department's Dam Safety Office.					
		Depa Inform excav	e answer to all three of these questions is no, an Environmental Assessment approval is required from the artment's Dam Safety Program. Please submit form 3140-PM-WE0002 <i>Environmental Assessment mation Sheet</i> and information required on that form's checklist to the Department's Dam Safety Office. Any vation of the stream, wetland or floodway upstream of this intake dam to expand storage volume will require atter Obstruction and Encroachment Permit from the appropriate Department Regional Office.					
	3.C	If the dam	n embankment used to impound fresh water is not located on a watercourse, complete the following:					
		Is the dam	n located in a FEMA (Federal Emergency Management Agency) designated floodway?					
		restud will al Insura	answer is yes, a Dam Permit may be required from the Department's Dam Safety Program and/or a dy of the FEMA Floodway may be required to assess the impacts of the dam on the floodway. Coordination lso be required with the local municipality to assure that they remain eligible for the National Flood ance Program. Please submit information required in Section 6 to the Department's Dam Safety Office for etermination of the need for a permit or other approvals.					
		If this	answer is no, continue with the following questions:					
		ls maximu	um depth greater than 15 feet? (See Exhibit 1 above) Yes No um storage volume greater than 50 acre-feet? Yes No					
		Progr that fo	e answer to both of these questions is yes, a Dam Permit is required from the Department's Dam Safety ram. Please submit form 3140-PM-WE0001, "Application for a Dam Permit", and information required on form's checklist to the Department's Dam Safety Office.					
		Enviro form check for D specif	e answer to either or both of the above questions is no and the dam directly impacts a wetland, an conmental Assessment approval is required from the Department's Dam Safety Program. Please submit 3140-PM-WE0002 <i>Environmental Assessment Information Sheet</i> and information required on that form's klist to the Department's Dam Safety Office. Utilize the Design, Construction and Maintenance Standard's Dam Embankments Associated with Impoundments for Oil and Gas Wells to develop plans and ifications.	2(5)				
		If the permi	answer to either or both of the above questions is no and the dam does not impact a wetland, no dam it is required.					

- 2 -

5500	D-PM-OG0086 Rev. 3/2009
Sec	tion 4. Centralized frac water storage [Fluids other than fresh water (e.g. drilling or fracing fluids)]:
	4.A If a dam embankment will be constructed to create this storage facility, proceed to Section 4.B.
	If the storage facility is to be an excavated lined pit, it must meet the requirements of PA Code Chapter 78.56 – 78.63 and the Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells. Plans must include an acknowledgement that this pit will meet the standards. Complete information requirements in Section 6 and Section 8 and submit to the appropriate Department Regional Oil and Gas Program Office.
	4.B A dam embankment will be constructed to impound frac water and the following describes this impoundment:
	Length ft. Width ft. Maximum potential depth of frac water ft. Storage volume acft.
	4.C This dam embankment to be constructed to impound frac water is: (Please check appropriate box below)
	 a. Located on a watercourse. b. Located off-stream, but impacts a wetland. c. Located off-stream and in FEMA (Federal Emergency Management Agency) Floodway. d. Located off-stream, storage volume exceeds 50 acre feet <u>and</u> depth of impoundment exceeds 15 feet as noted in 4.B above. e. Located off-stream, storage volume is less than 50 acre feet <u>or</u> depth of impoundment is less than 15 feet as noted in 4.B above. If any of the boxes a through d are checked, a Dam Permit is required from the Department's Dam Safety Program. Please submit form 3140-PM-WE0001, "Application for a Dam Permit", and information required on that form's checklist to the Department's Dam Safety Office. Also, submit information requirements in Section 8. Utilize the Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells to develop plans and specifications.
5.	Potential Impacts of Dam Failure
	Failure of this frac water impoundment dam has the potential to:
	Impact inhabited structures: Impact inhabited structures: Impact inhabited structures: Cause significant property damage: Impact inhabited structures: Impact inhabited structures: Flood roadways: Impact inhabited structures: Impact inhabited structures:
	If yes to any of the dam failure impact questions, a Dam Permit is required from the Department's Dam Safety Program. Please submit form 3140-PM-WE0001, "Application for a Dam Permit", and information required on that form's checklist to the Department's Dam Safety Office. Also, submit information requirements in Section 8. Utilize the Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells to develop plans and specifications.
	If no to all of the questions above, a Dam Permit from the Department's Regional Bureau of Oil and Gas Management office is required. Please submit form 5500-PM-OG0084, "Application For A Dam Permit For A Centralized Impoundment Dam for Marcellus Shale Gas Wells" and information required on that form's checklist to the Department's Regional Bureau of Oil and Gas Management office. Also, complete information requirements in Section 8. Utilize the Design, Construction and Maintenance Standards for Dam Embankments Associated with Impoundments for Oil and Gas Wells to develop plans and specifications.
6	Attach a copy of LISCS 716 minute guadranale man showing the location of the pit or dam and attach a site plan and typical

- an and typical Attach a copy of GS 7½ minute quadrangle map showing the location of the pit or dam and attach a site cross-sections of the pit or dam.
- 7. If a pit is proposed to store fresh water, no Dam Permit is required. However, if the pit is located on a watercourse, in the floodway of a watercourse, or in a wetland, a Water Obstruction and Encroachments Permit is required. Please submit Form 3930-PM-WE0036 Joint Permit Application and information required on that form's checklist to the Department's appropriate regional office, Permitting and Technical Services Section.
- Attach site restoration plan for all frac water impoundment pits or dams. Frac water impoundment pits or dam sites must be 8. restored within nine months after completion of the last well that was serviced by the impoundment.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATERWAYS ENGINEERING BUREAU OF OIL AND GAS MANAGEMENT

DESIGN, CONSTRUCTION AND MAINTENANCE STANDARDS FOR DAM EMBANKMENTS ASSOCIATED WITH IMPOUNDMENTS FOR OIL AND GAS WELLS

The design, construction, maintenance and removal of dams associated with impoundments for oil and gas wells must be accomplished in such a manner as to protect the health and safety of the people, the natural resources, and environment of the Commonwealth. Impoundment dams at a well location shall be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties and comply with 25 Pa. Code Chapter 78.56 – 78.63. To assure proper design, construction and maintenance, the following set of standards has been developed for dam embankments, including centralized dam embankments, for the impoundment of freshwater or frac water. The operator may propose alternate standards if they meet or exceed those listed below; if they are developed, sealed and certified by a professional engineer registered in Pennsylvania; and if they are approved through a Dam Permit Application process through the Department's Division of Dam Safety prior to commencement of construction.

- Soils to be used for dam embankment construction must be classified in accordance with ASTMD-2487 (Unified Soils Classification). A minimum of three samples must be classified.
- Soils acceptable for dam embankment construction are limited to GC, GM, SC, SM, CL or ML. Soils must contain a minimum of 20% of Plus No. 200 sieve materials.
- The foundation of the dam embankment must be stripped and grubbed to a depth of two feet prior to any
 placement and compaction of earthfill.
- Any springs encountered in the foundation area of a dam embankment should be drained to the
 outside/downstream toe of the dam embankment with a drain section two foot by two foot in dimension
 consisting of PennDOT Type A sand, compacted by hand tamper. No geotextiles are to be used around the
 sand. The last three feet of this drain at the outside/downstream slope must be constructed with
 AASHTO #8 material.
- All dam embankments must be compacted by sheepsfoot or pad roller. The loose lift thickness must be nine
 inches or less and the maximum particle size is six inches. Five passes of the compaction equipment over
 the entire surface of each lift is required. Dam embankment compaction to visible non-movement is
 required.
- A minimum dam embankment top width of 12 feet is required.
- Minimum outside and inside sideslopes of 3H:1V are required for dam embankments.
- All exposed dam embankment slopes must be limed, fertilized, seeded and mulched. Permanent vegetative ground cover in compliance with Pa. Code Chapter 102.22 must be established upon completion of dam construction.
- A minimum of two feet of freeboard must be maintained at all times during the operation of all dams.
- All liner materials for dam impoundments must meet the requirements of Pa. Code Chapter 78.56 78.63.
 Liners shall be installed in accordance with the manufacturer's specifications.
- Dam embankments must be maintained with a grassy vegetative cover, free of brush and trees.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF OIL AND GAS MANAGEMENT

	DEP USE ONLY	à,
Auth #	APS #	
Site #	Facility #	
Client #	Sub-facility #	

APPLICATION FOR AN ORDER TO CLEAN OUT AND PLUG OR REPLUG A NON-PRODUCING GAS WELL UNDER SECTION 13(C) of ACT 214

Please read instructions on reverse before completing this form

	_	_		
SECTION A. APPLICANT INFORMATION			SECTION B. OTHER AFFEC	TED PARTIES
Name			SURFACE ON	WNER
			Name	
Address			Address	
City State	z	ip	Address	
Telephone Fax			Telephone Fax	¢ .
GAS WELL INFORMATION			OIL AND GAS L	ESSOR
Farm Name			Name	
Well No. Serial No.			Address	
Municipality (City, Borough, or Township)			Address	
County			Phone Fa	ax ·
Well Permit/Reg. No., if known Date Drilled, if k	nown		OIL AND GAS L	ESSEE
			Name	
Is this well the object of a Coal Pillar Permit? Yes	No		Address	
Number	a <u>n</u>	12541-214		
SECTION C. ADDITIONAL INFORMATION	REQU	IRED	Address	ž
Checklist			Telephone Fa	ix
Well Location Plat: Form 5500-FM-OG0002			SECTION D. SIGNATURE BI	OCK
Copy of or record reference to a deed, lease or other document entitling the applicant to enter upon the surface land		*	I HEREBY CERTIFY THAT I HAV Registered Mail a copy of this a landowner, the oil and gas lesson above, and the coal owners and	pplication to the surface and lessee as identified
Proposed method of cleaning out, plugging or replugging the well			coal seams.	operators of an initiadie
Notice of Intention to Plug (5500-FM-OG0005) (If previously submitted check this box)			Signature of Ap	plicant
If alternative method of plugging is proposed, is Form 5500-PM-OG0024 attached?		Yes No		
			Type or Print Name	and Title Date

5500-PM-OG0008 Rev. 11/2008 Instructions

Use this form to apply for an "Order to Clean Out and Plug or Replug a Non-Producing Gas Well Under Section 13(c) of Act 214." This applies only to an abandoned well which penetrates a workable coal seam.

SECTION A. APPLICANT INFORMATION

Enter the name of the person, corporation, or unincorporated business which is requesting the Department order to plug or replug the well.

If the well is the object of a coal pillar permit, please identify the pillar by number.

GAS WELL INFORMATION: Provide information that identifies and locates the gas well, <u>not</u> the location of the mine portal nor the well operator's address.

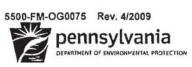
SECTION B. OTHER AFFECTED PARTIES

If known, identify all other affected parties listed. Use an additional 8½" x 11" sheet if necessary. If you don't know who they are, print "unknown".

SECTION C. ADDITIONAL FORMS REQUIRED

Use this checklist to see that this application is completed.

If the well is to be cleaned out, plugged or replugged by a method, or using materials other than described in Act 214, subsections 13(a)(1) or (2), then a request for approval to use an alternate method or materials must be filed. You must submit a plan for a Proposed Alternate Method of Casing, Plugging, Venting or Equipping on Form 5500-PM-OG0024.



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM

	DEP USE ON	LY		
Site ID		Primary Fac ID		
Client Id		Subfacility Id		

Well Site Restoration Report

A. Operator and Well Infor	rmation	Please	e read ins	tructions	on back be	efore completin	g this form.				
Well Operator DEP ID#			Well API #	•							
Address				Well Farm Name & Well #							
City State Zip Code				County Municipality							
Phone Fax							teratuk anti estudi dagi dagi dal				
B. Land Application of Top	phole Water		F. Pit I	Disposal							
					Describe pit closure procedures.						
Volume (bbis) Sr											
C. Off-site Waste Disposa											
Type: Drilling Fluid (803)	Amount:	bbls									
Fracing Fluid (804)		bbls									
Other, specify:	Qty: bt	ols or tons									
Method of disposal or reuse	Sewage Treatment Pl	ant (10)	Subbase	, material:	1.	Thickness:	inches				
Disposal Well (04)	Brine Treatment Plant	1 (12)	Pit liner, I	material:		Thickness:	mils				
Landfill (05)	Other (08)		Pit dimen	sions (feet)	Length:	Width:	Depth:				
Facility Information	Facility Information				tion	-					
Name	Permit #		Area:	Length:	feet	Width:	feet				
Hauler Information			Waste-t	o-soil ratio) (by volume	e):	1271				
Name			Chemic	al analysis	of waste						
Address			Cadmium	the second se	ppm	Nickel (Ni)	ppm				
City	State Zip Code		Copper (0	Cu)	ppm	Zinc (Zn)	ppm				
D. On-site Disposal – Drill	Cuttings or Waste	_	Chromiun	n (Cr)	ppm	Oil and Grease	%				
Location of center of disposal a	area in relation to the	well:	Lead (Pb)		ppm	Spec. Cond.	µmhos/cm				
Course degrees	Distance	feet	Mercury (Hg)	ppm						
Describe the material disposed, including additives.				Operator's Signature							
			Title:			Date:					
				SAN D	EP USE C	DNLY M					
Specify disposal method			Comments	5:							
Unlined pit, complete Section E	E. Dusting										
Lined pit, complete Section E.	ction F.					4					
Land application, complete Sec											
E. Site Restoration				24							
All earth disturbance activitie Well Permit are completed, th Post Construction Stormwater installed.			1								

5500-PM-OG0075 Rev. 4/2009



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS MANAGEMENT PROGRAM

Well Site Restoration Report

Use this form to file the Well Site Restoration Report as required under 25 Pa. Code § 78.65(3). This report is to be filed with the department within 60 days after the restoration of the well site.

Section A. Operator and Well Information

Enter the name, address and telephone number of the well operator/permittee.

Provide the requested well information.

Section B. Land Application of Tophole Water

Land application of tophole water must be performed in accordance with 25 Pa. Code § 78.60.

Provide the date(s) when tophole water was applied to the land, the estimated volume discharged, and the pH and specific conductance readings of the tophole water.

Section C. Off-site Waste Disposal

If disposing of residual waste off-site, complete this section.

Check the box next to each type of waste taken off-site for disposal. More than one box may be checked. Identify the number of barrels of drilling or fracing fluid removed. If checking "other", identify the waste and show the amount in either barrels or tons. Circle the appropriate unit of measurement.

Check the box next to the type of facility or site receiving the waste. Provide the name and permit number of the facility.

Provide the name and address of the person or company hauling the waste.

Section D. On-site Disposal – Drill Cuttings or Waste

If disposing of drill cuttings and/or residual waste on-site in accordance with 25 Pa. Code § 78.61 (Disposal of drill cuttings), § 78.62 (Disposal of residual waste—pits), or § 78.63 (Disposal of residual waste—land application), complete this section.

Locate the approximate center of the disposal area by giving the course in degrees and the distance in feet from the wellhead.

Describe the types of materials that were disposed onsite. Include drill cuttings above the surface casing seat, drill cuttings below the surface casing seat, cement returns, drilling muds, frac sands, and any other material that is being disposed on-site. Indicate any additives that were in the materials being disposed. Additives are usually present to modify the performance of cement, drilling muds or frac sands. An example might be salt or oil in drilling muds. Check the box next to the on-site disposal methods used. If "other" is checked, briefly describe the method of disposal.

Section E. Site Restoration

Check box to confirm that earth disturbance activities are completed, site restoration, including installation of any post construction stormwater BMPs, and permanent stabilization have been established. This also serves as the permittee's Notice of Termination which relinquishes authorization to conduct earth disturbance activities under the Erosion, Sediment and Stormwater Module of the Well Permit. The Notice of Termination does not release a permittee from liability for any violations of the permit or the Oil and Gas Act or the Pennsylvania Clean Streams Law and the regulations promulgated pursuant thereto or from liability for any environmental damages occurring as a result of any earth disturbance activities conducted at the site.

Section F. Pit Disposal

If disposing of drill cuttings under 25 Pa. Code § 78.61 (Disposal of drill cuttings) complete the pit dimensions part of this section. If disposing of drill cuttings and/or residual waste under 25 Pa. Code § 78.62 (Disposal of residual waste—pits), complete all of this section.

Describe the procedures used to close the pit. The procedures should conform to requirements in 25 Pa. Code § 78.62.

Describe the type of material and thickness used for the subbase and pit liner. The manufacturer should be identified when describing the type of material used for the pit liner.

Provide the dimensions of the pit, giving the appropriate length, width, and depth in feet.

Section G. Land Application

If disposing of drill cuttings and/or residual waste including contaminated drill cuttings under 25 Pa. Code § 78.63, complete this section.

Provide the approximate length and width of the land application area in feet. Indicate the ratio of waste to soil by volume. As an example, if a 3-inch layer of waste was mixed into a 6-inch layer of soil the ratio would be 1/2. In no case may the ratio exceed 1/1.

Complete the chemical analysis information if it is requested by the department. The analysis is to be performed on the waste soil mixture after land application has occurred. See the guidelines for land application in the "Oil and Gas Operators Manual" for taking samples and for analysis methods.

If more room is needed to complete any section, provide the information on 8 $\frac{1}{2}$ " by 11" sheets of paper and attach to this form. Indicate the sections the information applies to. TEXAS

Enter if Assign API No.: 42-			RAILROAD COMMISSION OF TEXAS FORM W-1						1 EFF 10/04					
Drilling Permit N Rule 37/38 Cas	NA CONTRACTOR		APPLICATION FOR PERMIT TO DRILL, RECOMPLETE OR RE-ENTER 4001'-9000' \$250 >900									2001'-4000' \$225 >9000'- \$300 ee ADD \$150		
1. RRC Operate	or No.:		2. Operator Name (as shown on P-5 Organization					on Report): 3. Operator Address (include street, city,					e, zip):	
4. Lease Name	e:					5.1	Well No.:							
GENERAL INF	ORMATIO	N												
6. Purpose of F	filing (Mark	ALL appropriate b	oxes):				npletion		Reclass) (Also Fil		Field T	ransfer 🗌	Re-enter	
7. Wellbore Pro	ofile (Mark A	ALL appropriate bo	xes):		ertical [🗆 Horiz	ontal (Also F	tal (Also File Form W-1H)					m W-1D) 🗆 S	idetrack
8. Total Vertica		minerals un	ler any rig		Yes		No	10. ls t	his well s	ubject to \$	Statewide	Rule 36 (hydrogen	sulfide area)? 🗌 Yes	□ No
and the second		ND ACREAGE IN	ORMAT	ION										
11. RRC Distric	ct No:	12. County:			n	13.	Surface Lo	cation:		Land	Bay/e	estuary 🛛 Inlan	d waterway 🛛 Offshor	e
14. This well is	to be locat	ted				direction	n from					the second se	nearest town in the count	
15. Section:	Section: 16. Block: 17. Survey: 18. Abstract No: 19. Distance to nearest lease line: 20. Number of contiguous ac pooled unit or unitized tract:													
21. Lease Per	pendiculars	:	ft. fr	om the		11000	line and			ft fro	om the		line.	
22. Survey Per	rpendicular	s:	ft fr	om the			line and	l		ft fro	om the		line.	
		🗆 Yes 🛛			n Docket No:			- 1. State - 1.	1. State 1. State 1.		Contraction of the Second	rd Acreage Field?	Yes (attach Form	W-1A) 🗍 No
FIELD INFORM			or a start			-		zone pe			the second s		require more space.	
26. RRC District No.	27. Field	No:	28. 6	Field Name (e:	xactly as shown	in RRC	records)			29. Well T	уре	30. Completion Depth	31. Distance to Nearest Well in this Lease & Reservoir	32. No. of Wells on this Lease in this Reservoir
							- 18 -							
, , , , , , , , , , , , , , , , , , , ,	-													
BOTTOMHOL	ELOCATIO	INFORMATION	l is requi	red for DIREC	TIONAL, HOR	ZONTA	L, AND AM	ENDED A	AS DRILI	ED PERM	WIT APPLI	CATIONS - Attacl	FORM W-1D/FORM W-	1H as appropriate
Remarks:			5.0				1			0.50		CERTIFICATE:		
I declare under penalties in Sec. 91.143, Texas Natural Resources Code, that I am authorized to file this application, that this application was prepared by me or under my supervision and direction, and that the and facts stated therein are true, correct, and complete to be the best of my knowledge.														
2					Name of	Name of Representative (Print) Signature			Signature	sture Date (mm/dd/yy)				
RRC Use only					Telepho	Telephone (AC and number) E-mail Address (OPTIONAL – If provided, e-mail address will become part of this public record.)								

DRILLING PERMIT APPLICATION EFF 10/04

A. COMPLIANCE. In order to file a Form W-1 you must have a current P-5 Organization Report and financial assurance (if required) on file with the Commission (RRC) and be in compliance with all RRC rules and orders. DO NOT BEGIN DRILLING OPERATIONS UNTIL YOU HAVE RECEIVED AUTHORIZATION FROM THE RRC. The operator must set and cement sufficient surface casing to protect all usable-quality water strata, as defined by the Texas Commission on Environmental Quality, or its predecessor or successor agencies.

B. WHERE AND WHAT TO FILE. File with the RRC in Austin the original Form W-1 application package, which consists of the completed Form W-1, fee payment, plat, completed Forms W-1D or W-1H, as necessary, and other documents as required. For fees, make check or money order payable to Railroad Commission of Texas. For information on use of credit cards or pre-paid accounts, contact the RRC. The Rule 37/38 exception fee covers one or more exceptions on the same application; if other than a "new drill," provide the original exception case or docket number. Fees are non-refundable. The RRC may waive fees if an amended application is filed at the request of RRC. Before you may initially file computer-generated paper Forms W-1, the RRC must approve the template. You may also electronically file drilling permit applications. For information, call (512)463-6751 or check the RRC's web site at <u>www.rrc.state.tx.us</u>

C. PURPOSE OF FILING (Item 6.) Recompletion is working over an existing wellbore to complete in a different field/reservoir. Re-entry is going back into a wellbore that has been plugged to the surface. Reclassification is changing an existing well originally permitted only as injection/disposal or other service well to an oil or gas producing well or changing an existing well in the Panhandle East or West fields from oil to gas or gas to oil production. For anything other than a "New Drill," indicate the API number. If the API number is not known, in "Operator Remarks" area, give the original operator, lease, and well identification and date of original completion or plugging. A materially amended permit requires a new Form W-1 and applicable fees, and usually involves the addition of a field/reservoir or a change in location on a previously permitted well. Include the original drilling permit number when filing an application for an amended permit.

D. WELLBORE PROFILE (Item 7.) Check "sidetrack" only for recompletions or re-entries, if applicable. File FORM W-1D, Supplemental Directional Well Information, if the proposed well configuration will be directional with one or more bottomhole locations. File FORM W-1H, Supplemental Horizontal Well Information, if the proposed well configuration will be horizontal with one or more terminus locations. For these types of completions, several different sets of location data are required. This data may or may not be the same for each field applied for; however, each different proposed bottomhole location or lateral must be associated with at least one field

E. LOCATION SPACING AND DENSITY. The proposed location must be "regular" in terms of the RRC's spacing (Rule 37 or field rules) and density (Rule 38 or field rules) requirements for each listed field; otherwise, an exception to those requirements must be sought.

<u>REGULAR</u> locations are in accordance with either (1) statewide spacing minimums – 467' from the nearest lease line and 1,200' from the nearest well (applied for, permitted or completed) on the same lease in the same reservoir and statewide density minimums – 40 acres; (2) spacing and density minimums, (which may vary according to depth) for County Regular Fields (Districts 7B, 9, and McCulloch County), where there are no field rules and the proposed depth is 5,000' or shallower; or (3) spacing and density standards set out in special rules for the field. Field and County Regular rules are available on the Internet at <u>www.rrc.state.tx.us</u>.

EXCEPTIONS to minimum standard spacing and density requirements may be requested. The application requires additional information on a *certified* plat (see G, below) and a list of names and addresses of all offsetting operators or unleased mineral interest owners of each tract that is contiguous to the drill site tract. Clearly key the list to the plat so that each tract/operator can be readily identified. If you do not have the right to develop the minerals under any right-of-way that crosses or is contiguous to this tract and the well requires a Rule 37 or 38 exception, also list the name and address of the entity that holds that right. If requesting only a <u>lease-line spacing exception</u>, list only the names and addresses of all affected persons for tracts closer to the well than the greater of ½ the prescribed minimum between-well spacing distance or the minimum lease-line spacing distance. If requesting only a <u>between-well spacing exception</u>, list only the names and addresses of all affected persons for tracts closer to the well than the greater of ½ the prescribed minimum between-well spacing distance or the minimum lease-line spacing. *NOTE:* If you penetrate a Rule 37 or 38 field/reservoir not listed on the application, you will not necessarily be allowed to use the existence of this wellbore as justification for an exception to complete this wellbore in such field/reservoir in the future.

F. ACREAGE - OTHER

Pooled Units: Multiple tracts may be pooled together to meet minimum drilling unit acreage requirements. Complete and attach Form P-12, Certificate of Pooling Authority. On the plat (see G, below) outline pooled unit AND each tract listed on the Form P-12. If pooled or unitized through a hearing and the Docket number is noted in Item 24 of Form W-1, no Form P-12 (Certificate of Pooling Authority) is needed.

Substandard Acreage: Complete and submit a Form W-1A, Substandard Acreage Drilling Unit Certification, with the first and only well on a substandard tract or lease, and when using surplus acreage as a substandard pooled unit.

Contiguous Acres: Rule 39 requires that all acres in the lease or pooled unit be contiguous. If a Rule 39 exception has already been granted for the subject lease or unit, provide the docket number and issuance date in the box in the upper left-hand corner of the Form W-1.

G. PLAT. All drilling permit applications must be accompanied by a legible, accurate plat, at a scale of 1" = 1,000' and showing at least the lease or pooled unit line nearest the proposed location AND the nearest section/survey lines. The plat for the initial well on a lease or pooled unit must be of the entire lease or unit (including all tracts being pooled). The plat for subsequent wells on the pooled unit for which a Form P-12 is required must show the entire pooled unit. If necessary, submit the large area plat at a scale of 1" = 2,000' showing the entire lease. Plats for Rule 37 and/or 38 exceptions must also be certified and have offsets keyed to the offset listing (see E, above). The plat must include (1) the surface location of the proposed drilling site (for directional wells, also indicate projected bottomhole location and for horizontal wells also indicate projected penetration points and terminus locations); (2) a line and the distance from the surface location to the nearest point on the lease line or pooled unit line; if there is an unleased interest in a tract of the pooled unit that is nearer than the pooled unit line, use the nearest point on that unleased tract boundary; (3) a perpendicular line from two nearest non-parallel survey/section lines to the proposed surface location to the nearest oil or gas well (applied for, permitted, or completed) in the same lease or pooled unit and in the same field (also indicate the distance and the API number of that well); (5) the name, as applicable, of the county, survey, abstract, section, block, lot, subdivision, etc.; (6) a scale bar; and (7) the northerly direction.

H. INDIVIDUAL ITEMS ON THE FRONT OF FORM W-1:

Item 8. For a recompletion, provide the projected-not measured-true vertical depth. For a plug-back recompletion, give the depth of the plug setting.

Item 10. If the well is subject to Rule 36, you must file a Form H-9 (Certificate of Compliance Statewide Rule 36) with the appropriate RRC district office.

Item 11. Provide RRC District No. associated with the County listed in Item 12.

Item 19. For pooled units, if there is an unleased/non-pooled interest in a tract of the pooled unit that is nearer than the pooled unit line, give the distance to the nearest point on that unleased/non-pooled tract boundary.

Item 26. Provide the RRC District No. associated with the field.

Item 29. Use the following codes for Well Type: O = oil; G = gas; B = oil and gas; I = injection/disposal; R = storage; S = service; V = water supply; C = cathodic protection; T = exploratory test (core, stratigraphic, seismic, sulfur, uranium).

Item 30. Enter the approximate completion depth at which you may complete in each field listed. This depth must be less than or equal to the Total Vertical Depth.

Item 31. Distance to Nearest Well. Required only for wells identified as oil or gas in Item 29 and includes distance to any applied for or permitted location or completed well. This information is necessary for the purpose of ensuring compliance with spacing and density rules.

Item 32. Provide the total combined number of oil and gas wells only (include all applied for or permitted locations and completed wells). Do NOT include injection, disposal or other types of service wells.

Railroad Commission of Texas Oil and Gas Division Application for Permit to Drill, Recomplete or Re-Enter Form W-1H 07/2004 Supplemental Horizontal Well Information

1. RRC Operator No.		2. Operator Name (as show	wn on P5 Organization Report)	3. Lease Nar	me	4. Well No.
Lateral Drainhole L	ocation Informatio	on				
5. Field as shown of	on Form W-1					
6. Section	7. Block	8. Survey		9. Abstract	10. County of BHL	
11. Terminus Lease	e Line Perpendicula	rs #1 ft. from the	line and	ft. from the		_line.
12. Terminus Surve	ey Line Perpendicul	arsft from the	line and	ft from the		line.
13. Penetration Poi	int Lease Line Perp	endiculars			·····	
		ft. from the	line and	ft. from the		line.
14. Field as shown	on Form W-1					
15. Section	16. Block	17. Survey		18. Abstract	19. County of BHL	
20. Terminus Leas	e Line Perpendicula					
		ft. from the	line and	ft. from	the	line.
21. Terminus Surve	ey Line Perpendicul	ars ft from the	line and	ft from	the	line.
22. Penetration Poi	int Lease Line Perp	endiculars ft. from the	line and	ft from	n the	line.
23. Field as shown	on Form W-1	N=0.4				
24. Section	25. Block	26. Survey		27. Abstract	28. County of BHL	2
29. Terminus Lease	e Line Perpendicula	urs #3	· · · · · · · · · · · · · · · · · · ·			
-		ft. from the	line and	ft from	n the	line.
30. Terminus Surve	ey Line Perpendicul	ars				
		ft from the	line and	ft from	m the	line.
31. Penetration Poi	int Lease Line Perp	endiculars ft from the	line and	ft from	n the	line.

RAILROAD COMMISSION OF TEXAS Oil and Gas Division PO Box 12967 Austin, Texas 78711-2967 www.rrc.state.tx.us

CERTIFICATE OF POOLING AUTHORITY

P-12

Revised 05/2001

1. Field Name(s)	2. Lease/ID Number (if assigned)	3. RRC District Number	
4. Operator Name	5. Operator P-5 Number	6. Well Number	
7. Pooled Unit Name	8. API Number	9. Purpose of Filing	
10. County	11.Total acres in pooled unit	Drilling Permit (W-1)	

DESCRIPTION OF INDIVIDUAL TRACTS CONTAINED WITHIN THE POOLED UNIT

TRACT/PLAT	Tract	ACRES IN TRACT IND (See inst. #7 below)	IDED INTERESTS
· · · · · · · · · · · · · · · · · · ·			
		5	
	· · · · · · · · · · · · · · · · · · ·		
n			
	ь. 		
	6	·	
		<u>.</u>	

CERTIFICATION:

I declare under penalties prescribed pursuant to the Sec. 91.143, Texas Natural Resources Code, that I am authorized to make the foregoing statements and that the information provided by me or under my direction on this Certificate of Pooling Authority is true, correct, and complete to the best of my knowledge.

Signature		Print Name	
Title	E-mail (il available)	Date	Phone

INSTRUCTIONS - Reference: Statewide Rules 31, 38 and 40

1. When two or more tracts are pooled to form a unit to obtain a drilling permit, file completion paperwork, or reform a pooled unit pursuant to Rule 38(d)(3) the operator must file an original Certificate of Pooling Authority and certified plat.

2. The certified plat shall designate each tract with an outline and a tract identifier. The tract identifier on the plat shall correspond to the tract identifier and associated information listed on the Certificate.

3. If within an individual tract, a non-pooled and/or unleased interest exists, indicate by checking the appropriate box.

4. If the Purpose of Filing is to obtain a drilling permit, in box #1 list all applicable fields separately or enter "All Fields" if the Certificate pertains to all fields requested on Form W-1.

5. If the Purpose of Filing is to file completion paperwork, enter the applicable field name in box #1 for the completion.

6. Identify the drill site tract with an * to the left of the tract identifier.

7. The total number of acres in the pooled unit in #11 should equal the total of all acres in the individual tracts listed.

Page ____of ____

STATEMENT OF PRODUCTIVITY OF ACREAGE ASSIGNED TO PRORATION UNITS

The undersigned states that he is authorized to make this statement; that he has knowledge .

of the facts concerning the	OPERATOR	1
LEASE	, No	; that such well is
completed in the	Field,	County,

Texas and that the acreage claimed, and assigned to such well for proration purposes as

authorized by special rule and as shown on the attached certified plat embraces _____

_____ acres which can reasonably he considered to be productive of hydrocarbons.

- CERTIFICATE -

I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Date		Signature	Signature		
Telephone	AREA CODE		Title		

Form P-15 (5-5-71)

 New Application Application for Renewal Appl 	Oil	commission of and Gas Division		t o	Form H-11 May 1984
Application for Renewal Appl Derator's Name (As shown on Form P-5, Organizat					uctions on Reverse Side
1. Operator's wante (As snown on Form P-5, Organizat	ion Report	2. RRC Operator No.	3. RRC Dist	No. 4. County of pit si	te
5. Operator's Address (Street, City, State and Zip Code)				
6. Name of Lease, Project or Facility of Pit Location				7. RRC Oil Lease No. or	8. RRC Gas ID No.
9. Pit Location					
SectionBlockSurvey				1940 - Carlon State Alexandra (1940)	t No. A-
Location is miles		irection) from			(nearest town)
10. a. is pit bottom below ground level? Yes No b. Artificial liner? Yes No c. if lined, equipped with a leak detection system? Yes No	11. Name and A	ddress of Surface Owne:	r	8	
12. Are wastes or fluids from operations other than your own?	13. Type of pit	(refer to item F of instru	ctions)		
Yes No	15. a. Briefly ex	plain the need for this pl	it;		
14 a. Describe land use surrounding pit location:					2
b. Is land surrounding pit location productive agricultural land?	2				
Yes No	15. b. Type of w	aste or fluid:			÷
Proposed Existing		concentration:	mg/l		
If existing, date constructed	17. Dikes				100 W
18. Pit capacity (barrels) 19. Inside pit dimensions two feet below top of dike Length feet Width feet Depth: from ground level to deepest point feet	b. Are dikes c. Are dikes d. Source of	ove ground level designed to keep wastes designed to keep stormw Dike Material: site excavation (describe	or fluids in t vater runoff o Excavated fro	t of the pit? Yes	No No
20. Wastes or fluids are transported to pit by (check all		-			
	of this water well		west fresh wa	er feet	
within one-mile of pit	6.4	Source of Infor		well owner dectri	c log T TDWR
23. Have you included all attachments required b	by the Instructi	ons on the reverse sid			
CERTIFICATE I declare under penalties prescribed in Sec. 91.14 Resources Code, that I am authorized to make this report was prepared by me or under my supervisi and that data and facts stated therein are true, corre- to the best of my knowledge.	s report, that this on and direction,	Name of Parto	n (type or prin Arca Code	Signature t) Date Number	Title
					·
		DISTRICT USE ONLY • on Information Revi	lew		
Date received				-	
Date inspected Location Inspector Grade Cons Comments:	struction		cultural Land acity	Dimensions Dikes	Waste Transport
n 					
	• 880	AUSTIN USE ONLY .			
Date received Pit code Pit typ				Permit date	

FORT WORTH, TEXAS

Form Date 01-09



Application Checklist for Gas Well Permit

□ Exhibit 'A', RRA: Provide the signed, dated and notarized original City Wide Road Repair Agreement. This document must be the authorized version of the contract supplied by the City of Fort Worth.

□ Exhibit 'B', Security: Provide the original security instrument(s) (Bond or Letter of Credit) unless on file with the City, as required under the Ordinance. If on file provide the instrument number.

Exhibit 'C', Insurance: Provide a copy of the current Certificate of Liability Insurance as required under the Ordinance.

Exhibit 'D', HMMP: Provide a reference to the copy of the Hazardous Materials Management Plan on file with the Fire Marshal and with the Gas Inspector, unless on file with the City.

□ Exhibit 'E', ERP: Provide a reference to the copy of the Emergency Response Plan on file with the Gas Well Inspector, unless on file with the City.

Exhibit 'F', Video: Provide a video recording of the road conditions that exist prior to operations along the proposed transportation route per site.

* If the above six items are on file, and current, it is not required to be submitted with each application.

□ Exhibit 'G', RCDP: Approved copy of the Railroad Commission Drilling Permit for each well in this application. Provide copies of the attachments and reports required by the Commission that are applicable to the drilling and operations site.

Exhibit 'H', TCEQ Form: Copy of the signed, dated and processed TCEQ - Depth of Useable Quality Ground Water Surface Casing Form with the depth of the casing point assigned for each well bore.

 \Box Exhibit 'I', Survey/ Lease Boundary: Certified survey plat for the surface location, penetration point and bottom hole location of the well bore. Include the (X, Y) coordinate points in STATE PLANE, NAD83, NCT 4202 FEET (NAD27 is acceptable) projection and show the existing or proposed access routes to the pad sites. Provide an accurate legal description and a plat of the mineral lease boundary. The mineral lease boundary plat may be included on the survey plat.

Exhibit 'J', Transport Route: Provide a map of the proposed transportation route for equipment, chemicals or waste products used or produced by the site operations. State if it is a commercial or noncommercial route.

Exhibit 'K', Structures/Owners: Location and description of all surface improvements and structures within 600 feet of each well bore. Provide the names and address of each surface owner within 600 feet.

Exhibit 'L', Registered Surveyed Site Plan: The site plan shall include specific details to the projected location of the major components of the drilling and production site (list from ordinance).

□ Exhibit 'M', Water: Description of the water source that will be used during drilling.

DEVELOPMENT DEPARTMENT The City of Fort Worth * 1000 Throckmorton Street * Fort Worth, TX 76102-6311 817-392-2851 * Fax 817-392-7526



FORT WORTH

 \Box Exhibit 'N', Notice: For All permit applications, provide an affidavit by the printer or publisher indicating publication of the notice in a local newspaper for ten (10) consecutive days of the intent to file an application for a drilling permit with the gas drilling inspector.

Exhibit 'O', Sign: Provide a photo of the required on-site sign that is to be placed at the location ten (10) days prior to filing the application.

D Exhibit 'P', Sound Management Plan: Noise management plan outlined in 15-42-B

□ Exhibit 'Q', Submit a Letter: to the Director of Planning and Development and Gas Well Inspector requesting a council date if less then 600 feet without waivers.

Exhibit 'R', Erosion Control: and Grading plan.

C Exhibit 'S', Fracture Pond: attached to site associated with drill site plan submitted.

□ Exhibit 'T', Surface Reclamation Plan:

Exhibit 'U', Pipeline Route: from well bore to custody transfer.

□ Exhibit 'V' Gas lift compressor: location if planned with x, y coordinates.

D Exhibit 'W' Multiple Gas Well Pad Site Permit

- 1. Notice of Gas Well Pad Site Permit.
- 2. Exhibit A Copy of the Pad Site Permit Issued by the City of Fort Worth.
- 3. Exhibit B Plat and legal description of the pad site with surveyor seal.
- 4. Exhibit C Table of the property owners noticed by mail with fields for Tract, Owner Name, Address, Block, Lot Subdivision, Acreage, Plat case, & Plat Slide.

Operator is to provide the gas inspector with a copy of the official record of receipt to the county.

 \Box Exhibit 'X', Waivers for Less Than 600 Feet: The operator shall provide written notarized waiver from all protected use property owners within six hundred (600) feet of the proposed well site. (Submit a letter to the Director of Planning and Development and Gas Well Inspector requesting a council date.)

Exhibit 'Y', Public Hearing Required: If less than 600 feet and without waivers, submit a letter to the Director of Planning and Development and Gas Well Inspector requesting a council date.

Notes:

TPW Street Use Permit & Approach Requirements: Contact 817-392-6954 Transportation & Public Works, Street Management Division for a Street Use Permit and Temporary Approach Requirements.

Transfer of Operations Agreement Form is provided on the City web site.

This checklist is just a quick reference, for specifics please see ordinance.

The City of Fort Worth * 1000 Throckmorton Street * Fort Worth, TX 76102-6311 817-392-2851 * Fax 817-392-7521





Application for a Drilling, Completion and Production Operations Permit

Lease name:		Road Repair Number			
Mapsco:	, Access street:		C	ommercial Ro	ute
Zoning	_, Council District _	, Total Num	ber of Wells Bein	g Submitted_	
Type of drilling pe Less than 60	0 feet with waivers.	Wellbore distance is wi	thin 600 feet of a	protected use	. A waiver has been
obtained from each	protected use within (500 feet of the wellbore.	within 600 frat	e	
Less than of	and public hearing i	ers. Wellbore distance is	within 600 feet o	a protected i	ise. A Gas Drillin
		ance is located greater that	600 feet from a n	rotected use	
Amended Pe		ance is located greater that		fotected use.	
	s Well Pad Site Perm	if			
Extended Pe	rmit				
Extended I e	i iiiit				
Operator Informa	tion:				
			, RRC o	perator number	
Incorporation state	, Partnership		, rate e	(list partners of	on a separate sheet)
Physical mailing ad	dress (not a P. O. Box):		- (
Operator c	ontact			(agent da	ita is added below)
Street			the West of States and the		Suite
City			State	. Zip code	-
Office pho	ne()	, Mobile ()	, Email	_, _,	
	/			3,000	
Contact Informati	011.				
		operator & must be a resid	lent of Texas)		
Physical mailing ad	dress (not a P O Boy	1.			
Street					Suite
City			State	Zin code	_ 04.00
Office pho	ne()	, Mobile ()	, Email	_, Zip code	
o nice pilo	ne ()	, moone ()	, Ethan		
Emergency 24-Hou	r Contact Person: _			là.	
	dress (not a P. O. Box				
Street					Suite
City			, State	_, Zip code _	
Office pho	ne ()	, Mobile ()	, Email		
		DEVELOPMENT DEPAI			•
	The City of Fort V	Vorth * 1000 Throckmorton Stre		5102-6311	
		817-392-2851 * Fax 817-3			
		FORT WORT	H		



Page 2 of 2 Form: GW-Application Form date: 01-09

Well name		2	, Pad site	Well number
		, RRC permit number		
Abstract	, Survey	2		, County
X-coordinate		, Y-coordinate		NAD
Well name			, Pad site	Well number
Well API: 42		, RRC permit number		
Abstract	. Survey			, County
X-coordinate		, Y-coordinate		NAD
Well name			_, Pad site	Well number
Well API: 42	-	, RRC permit number	NON STELS INCOMESSION CONTRACTOR CO	
Abstract	, Survey			, County
X-coordinate		, Y-coordinate		NAD
Well name			_, Pad site	Well number
Well API: 42		, RRC permit number		
Abstract	, Survey			, County
X-coordinate		, Y-coordinate		NAD
Well name			, Pad site	Well number
Well API: 42 -	-	, RRC permit number		
X-coordinate		, Y-coordinate		NAD

Gas Well Fees as of January 1, 2009:

New well permit application	\$3000	
Amended permit	\$ 540	
Extended permit	\$ 270	
Transfer of operations	\$ 720	(per submission)
Seismic survey inspection	\$ 360	0
Annual fee (per well)	\$ 500	
Fracture Pond	\$ 500	
Regulated Pipeline	\$1500	
Compressor Facilities	\$ 500	

DEVELOPMENT DEPARTMENT The City of Fort Worth * 1000 Throckmotton Street * Fort Worth, TX 76102-6311 817-392-2851 * Fax 817-392-7526



Page 1 of 2 Pad Site Permit Procedure Revised 01/29/2007



Multiple Gas Well Pad Site Permit (MGWPSP)

The issuance of a Multiple Gas Well Pad Site Permit (MGWPSP) is for the sole purpose of allowing future wells to be drilled on an existing pad site and within six hundred (600) feet of Protected Uses without obtaining waivers and/or variances as set forth in Section 15-42 of this Ordinance. All gas wells drilled upon a permitted multiple gas well pad site must otherwise comply with any drilling distance regulations from a Protected Use or other structure as required by state law and applicable fire code regulations and all other provisions of the Gas Well Ordinance.

The following process includes:

- A. Applying for a MGWPSP
- B. County deed records & documentation provided by the Operator
- C. Example of the MGWPSP polygon
- D. Gas Well Ordinance Section 15-34.M, Pad Site Permit Regulation

A. Applying for a MGWPSP

Operator submits, to the gas well inspector, a Gas Well Drilling & Completion Application for the issuance of a gas well permit that indicates the number of MGWPSPs requested and identity of the pads.

The Operator is to provide at the Operators expense:

- A survey plat, with surveyor seal, of the MGWPSP polygon showing the starting point with (x, y) coordinate and the bearing and distance of each leg of the polygon. A digital CAD disk of the plat is required per the subdivision regulations. The City of Fort Worth GIS coordinate system is NAD 1983, State Plane, North Central Texas, FIPS 4202 (feet).
- A word document containing the legal description of the bearing, metes and bounds of the multiple gas well pad site permit polygon.
- 3. A table of the owner, address, lot and block, subdivision name and plat volume and page of each lot, tract or parcel located within one thousand (1000) feet of the pad site permit polygon.
- 4. Documentation that at least one sign on the property located in a conspicuous place or places upon the property at a point or points visible from the nearest any right-of-way, street, roadway, public thoroughfare or Protected Use adjacent to such property.
- 5. Documentation that if the MGWPSP polygon is located within six hundred (600) feet of a Protected Use at the time of the filing of a multiple gas well pad site permit application, the applicant has complied with all regulations of a high impact gas well permit, including a variance granted by the City Council or waivers obtained from all Protected Uses within a six hundred (600) foot radius before the Multiple Gas Well Pad Site Permit may be issued.
- 6. Documentation that the MGWPSP polygon is not greater than five (5) acres in surface area or the amount of surface area acreage included in the surface use agreement, whichever is larger.
- After the MGWPSP from the city is recorded; provide a copy of the stamped "Official Records Receipt" from County of Record to the gas well inspector.

B. County Deed Records & Documentation Provided by Operator

All MGWPSPs, issued by the City of Fort Worth, must be filed of record by the Operator, at his expense in the applicable county deed records and indicated on all applicable plats filed in the deed records.

Operator submits the following:

- 1. Notice of MGWPSP
- 2. Exhibit-A, Copy of the MGWPSP issued by the City of Fort Worth.
- 3. Exhibit-B, Plat and legal description of the pad site with surveyor seal.
- 4. Exhibit-C, Table of the property owners noticed by mail with fields for Tract, Owner Name, Address, Block, Lot, Subdivision, Acreage, Plat Case, & Plat Slide.

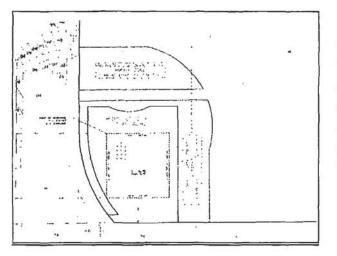


Page 2 of 2 Pad Site Permit Procedure Revised 01/29/2007



Operator is to provide the gas inspector with a copy of the stamped "Official Records Receipt" from the county of record.

C. Example of MGWPSP Polygon



Note that the starting point is provided as an (x, y) coordinate.

The bearing and distance of each segment of the polygon are posted on the plat.

The description of the survey metes and bounds is to be provided as a word document.



WEST VIRGINIA

API #_____ Operator:______ Well #/Name:______ Reviewed By:______

CHECK LIST FOR FILING A PERMIT

- I. New Drill
 - WW-2B
 - WW-2B signed off by inspector
 - ____WW-2A
 - Certified Mail Receipts or affidavit of personal service
 - _____ Surface Owner Waiver
 - ____ Coal Owner/Lessee/Operator Waiver
 - WW-2A (1) including page and book and royalty percentage
 - WW-2B (1) (If there are sources to be tested we need
 - names, addresses and location on topo listed as water testing)
 - _____ WW-9 (page 1 and 2)
 - Inspector Signature on WW-9
 - _____ Reclamation Plan
 - _____ Mylar Plat
 - _____ Topography Map of the proposed location
 - Bond
 - A check for \$650.00 shallow well, \$900.00 Deep well
 - _____ Workers Comp/Employ. OK
- II. Re-Work, Frac and Drill Deeper Permits
 - WW-2B
 - WW-2B signed off by inspector
 - WW-2A
 - _____ Surface Owner Waiver
 - _____ Coal Owner/Lessee/Operator Waiver
 - WW-2A (1) including book and page and royalty percentage.
 - WW-9 (page 1 and 2)
 - Inspector Signature on WW-9
 - _____ Reclamation Plan
 - _____ Mylar Plat
 - _____ Topography Map of location for the well and pit
 - Certified Mail Receipts or affidavit of person service
 - Completion/Well Records of previous work
 - Bond
 - A check for \$650.00 if no pit \$550.00
 - _____ Workers Comp/Employ. OK

9-01-00

API #	
Operator	
Well #/Name	
Reviewed By	

III. Plugging Permit

- WW-4B
- WW-4B signed off by inspector
- WW-4A
- _____ Surface Owner Waiver
- Coal Owner/Operator/Lessee Waiver
- WW-9 front
- _____ Mylar Plat
- Well Records/Completion report
- Topography Map of well & pit if pit is used
- Certified Mail Receipts or affidavit of personal service
- Bond
- A check for \$100.00 (if a pit is being used)
- IV. Coalbed Methane
 - WW-5B
 - WW-5(B)
 - WW-5(B) signed off by inspector
 - WW-5A
 - Coal Owner/Operator/Lessee Notification/Waiver

Surface Owner Waiver

Natural Gas Lessee/Operator Waiver

Consent To Stimulate. Notified all owners and operators of seams of coal 28 inches or more within 750 feet of proposed well bore and stimulation is requested or a seam that is within 100 vertical feet of proposed stimulation zone.

- WW-9 (page 1 and 2)
- Reclamation Plan
- Inspector Signature on WW-9
- Public Notification (newspaper notification)
- Mylar Plat
 - Not within 100 ft, of the outside boundary of the tract

_____ No permitted CBM wells within 1600 ft. without a waiver from all coal owners and operators.

- Topography Map
- WW-2B(1)
- WW-2A(1)
- Certified Mail Receipts or Affidavit of Personal Service

Bond

- A check \$900.00 (if no pit \$800.00)
- Workers Comp/Employ. OK

9-01-00

API #	
Operator	
Well #/Name	
County	
Reviewed By	

V. Assigned Number Permit

- Mylar Plat or WR-6 WR-35 Bond
- VI. State Plugging Permit
 - WW-4B

Affidavit/Surface Waiver

Mylar plat (can be after the fact)

VII Permit Modification

Inspector's review of the WW-9 for road or location changes.

Inspector's review of the WW-2B for casing changes.

Proof of service (i.e. certified mail or affidavit of personal service) or waivers for surface owners, coal owners, coal operators and coal lessees for location or WW-9 or WW-2B changes.

\$250.00 permit fee.

New plat for location changes.

WR-34 Page 1 of 3

State of West Virginia Department of Environmental Protection Office of Oil and Gas Discharge Monitoring Report Oil and Gas General Permit

Company Name:
API:County:
District:
Farm Name: Well No:
Discharge Dates/s From:(MMDDYY) TO:(MMDDYY)
Discharge Dates/s From:(MMDDYY) TO:(MMDDYY) Discharge Times : From TO Disposal Option Utilized: UIC (2): Permit No.
Disposal Option Utilized: UIC (2): Permit No
Centralized Facility (5): Permit No
Reuse (4): Alternate Permit Number:
Offsite Disposal(3): Site Location: Land Application(1): (Include a topographical map of the Area.)
Land Application(1): (Include a topographical map of the Area.)
Other method(6): (Include an explanation)
Follow Instructions below to determine your treatment category.
Optional Pretreatment test: Cl- mg/l DO Mg/l
1. Do you have permission to use expedited treatment from the
Director or his representative? (Y/N) If yes
who?, and place a four (4) on line 7. If
not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) If yes
go to line 5 if not go to line 3
3. Do you have a chloride value pretreatment (see above)?
(Y/N) If yes go to line 4 if not go to line 5
4. Is that chloride level less than 5000 mg/l? (Y/N) If yes
then enter a one (1) on line 7
5 Do you have a pretreatment value for DO? (See above) (Y/N)
If yes then go to line 6 if not enter a three (3) in line 7.
6 Is that DO greater than 2.5 mg/l?(Y/N)_ If yes then enter a two
(2) on line 7 If not enter a three (3) on line 7.
7 is the category of your pit. Use the Appropriate section.
Name of Principal Exec. Officer
Title of Officer
Date Completed: I certify under penalty of law that I have personally examined
and am familiar with the information submitted on this document and
all the attachments and that, based on my inquiry of those individuals
immediately responsible for obtaining the information I believe that the information is true, accurate, and complete. I am aware that
there are significant penalties for submitting false information,
including the possibility of fine and imprisonment.
Signature of a Principal Exec. Officer or Authorized agent
orginature of a frincipal bree, Orneer of Authorized agent

Signature

WR-34 Page 2 of 3 Category 1 Sampling Results API NO :

	Predischarge	Discharge	
Parameter	Limit Reported	Limits Repo	orted Units
pH	6-10	6-10	S.U
Settling Tin	ne 5	N/A N/A	Days
Fe	6	6	mg/l
D.O.	2.5	2.5	mg/l
Settleable S	ol5	.5	mg/l
Cl	5000	5000	mg/l
Oil	Trace	Trace	Obs.
TOC		Monitor	mg/l
Oil and Gre	ase	Monitor	mg/l
Al***		Monitor	mg/l
TSS		Monitor	mg/l
Mn	Monitor	Monitor	mg/l
Volume		Monitor	Gals.
Flow		Monitor	Gals
Disposal Ar	ea	Monitor	Acres
*** Al is or	nly reported if the pH is	above 9.0	

Category 2 Sampling Results API NO :

Parameter	Predischarge Limit Reported	Discharge Limits Repor	rted Units
pН	6-10	6-10	S.U
Settling Time	10	N/A N/A	Days
Fe	6	6	mg/l
D.O.	2.5	2.5	mg/l
Settleable Sol	5	.5	mg/l
Cl*	12,500	12500	mg/l
Oil	Trace	Trace	Obs.
TOC**		Monitor	mg/l
Oil and Greas	e	Monitor	
Al***		Monitor	mg/l
TSS		Monitor	
Mn	Monitor	Monitor	mg/l
Volume		Monitor	Gals.
Flow		Monitor	
Disposal Area	a	Monitor	Acres
* Can Be 25,0	000 with inspectors a	oproval,	
(Inspe	ector):		Date:
	lescription of your ac	The second se	н.

*** Al is only reported if the pH is above 9.0

WR-34

Page 3 of 3 Category 3 Sampling Results API NO :

	Predischarge	Discharge	
Parameter	Limit Reported	Limits Repo	rted Units
pH	6-10	6-10	S.U
Settling Tim	e 20	N/A N/A	Days
Fe	6	6	mg/l
D.O.	2.5	2.5	mg/l
Settleable Sc	ol5	.5	mg/l
Cl*	12,500	12,500	mg/l
Oil	Trace	Trace	Obs.
TOC**	8	Monitor	mg/l
Al***		Monitor	mg/l
TSS		Monitor	mg/l
Mn	Monitor	Monitor	mg/l
Volume		Monitor	Gals.
Flow		Monitor	Gals
Grease and C	Dil	Monitor	mg/l
Disposal Are	a	Monitor	Acres
* Can Be 25.	,000 with inspectors a	pproval,	
(Insp	pector)		Date:

** Include a description of your aeration technique.
*** Al is only reported if the pH is above 9.0

Category 4

Sampling Results

APINO:

	Predischarge	Discharge	
Parameter	Limit Reported	Limits Reported	Units
pH	6-10	6-10 S	S.U
Settling Time	e 1	N/A N/A Da	ays
Fe		Monitor	mg/l
D.O.		Monitor	
Settleable So	l. Monitor	Monitor	
Cl*	12,500	12,500	
	Trace	Trace	
TOC		Monitor	
TSS		Monitor	
Oil and Greas	se	Monitor	
Mn	Monitor	Monitor	mg/l
Volume		Monitor	Gals.
Flow		Monitor	Gals
Activated Car	rbon .175	N/A N/A	1b./bl
Date Site Rec	laimed N/A N/A	10 Da	ys from Dis.
Disposal Area	a	Monitor	Acres
* Can Be 25,	000 with inspectors ap	proval,	0
	(Inspector)	Date	e:

WW-2A 1) Date: 2) Operator's Well Number (Rev. 6-07) 3) API Well No.: 47 -State County Permit STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT 4) Surface Owner(s) to be served: 5) (a) Coal Operator Name (a) Name Address Address (b) Coal Owner(s) with Declaration (b) Name Address Name Address Name (c) Name Address Address (c) Coal Lessee with Declaration 6) Inspector Address Name _____ Address Telephone TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT: Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2) I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ____ on the above named parties by: Personal Service (Affidavit attached) Certified Mail (Postmarked postal receipt attached) Publication (Notice of Publication attached) I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Well Operator By: Its: Address Telephone Subscribed and sworn before me this _____ day of the second s Notary Public Ay Commission Expires

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County

Operator

Operator well number

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, Wv 25304 (304) 926-0450

<u>Time Limits and methods for filing comments.</u> The law requires these materials to be served on or before the date the operator files his Application. You have FIFTEEN (15) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

<u>Comments must be in writing.</u> Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments. The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- The proposed well work will constitute a hazard to the safety of persons.
- The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through _____ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON		FOR EXECUTION BY A CORPORATION, ETC.			
	Data	Company	5. * 2		
	Date	Name			
Signature		By Its	Date		
Print Name	3 2	Signature	Date		

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County_____ Operator

Operator's Well Number

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, WV 25304 (304) 926-0499 extension 1654

WAIVER

The undersigned coal operator ____/ owner ____/ lessee ____/ of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well ocation, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURA	AL PERSON	FOR EXECUTION BY A CORPORATION, ETC.	
 K 		Company	
	Date	Name	
Signature		By	
41		Its Date	
		······································	-

Signature

Date

WW-2A1 (Rev. 8/02)

Operator's Well Number

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8(d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book/Page
-----------------------	-----------------------	---------	-----------

Well Operator:		
By:		
Its:	 	

WW - 2B

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator				
	Operator ID	County	District	Quadrangle
2) Operator's Well Number:	3) E	levation:	5	
4) Well Type: (a) Oil or Gas (b) If Gas: Production/ Undergro Deep/ Shallow	ound Storage		21 	
5) Proposed Target Formation(s):				
 6) Proposed Total Depth:Feet 7) Approximate fresh water strata depths: 8) Approximate salt water depths: 				
9) Approximate coal seam depths:			-00-0000	
10) Does land contain coal seams tributary to active min	e?			i
11) Describe proposed well work				

12) TYPE	SPECIFI	<u>CA</u> CATIONS	ASING AND TU	and the second se	AM INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water					9	
Coal						
Intermediate						
Production						
Tubing						
Liners						
S	(ind Sizes Depths Se	et				.*

West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Contractor Name Well operator's private laborator	y		
Well Operator Address	~ 		
Telephone			

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

WW-9 Rev. 02/03

Page _____ of _____ API Number 47 - _____ - ____ Operator's Well No.

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name		()P Code	
Watershed				
Elevation	County		District	
Description of anticipated Pi	t Waste:			
Will a synthetic liner be used	in the pit?			
	or Treated Pit Wastes: Land Application Underground Injection (UIC Pe Reuse (at API Number Off Site Dispposal (Supply form Other (Explain	WW-9 for disposal loca	ation))
Proposed Work For Which P	Drilling	Swabbing Plugging	v	34)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature			
Company Official (Typed Name)	George Cartan Rocking	Alternation Galaxies	
Company Official Title			
Subscribed and sworn before me this	day of	20	
	9	Notory Public	
My commission expires	- 18-101 1111 - 1111.		

1	EGEND
Property Boundary	Diversion Walter Charles Charles Charles
Road = = = = = = = = = = = = = = = = = = =	
Existing Fence - X - X - X -	Wet Spot Br
Planned Fence / / /	Drain Pipe with size in inches (2)
Stream	$W_{aterway} \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow \longleftrightarrow$
Open Ditch	Cross Drain IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Rock ESESSE	Artificial Filter Strip
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water wells	Area for Land Application of Pit Waste
Drill site	
9	<u>Cr. = 32</u>
Proposed Revegetation Treatment: Acres Disturbed	Prevegetation pH
Lime Tons/acre or to correct to pH	
Fertilizer (10-20-20 or equivalent)lbs/acre (10-20-20 or equivalent)	500 lbs minimum)
MulchTons/acre	
See	d Mixtures
Area I	Area II
Area I Seed Type Ibs/acre	Area II Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet.	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet.	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by:	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet.	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by:	Seed Type Ibs/acre
Seed Type Ibs/acre Attach: Drawing(s) of road, location,pit and proposed area for land application. Photocopied section of involved 7.5' topographic sheet. Plan Approved by:	Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre
Seed Type Ibs/acre	Seed Type Ibs/acre

- 7

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Page 1 of _____ Form WW-8 (1-07) Site Registration Form 1) Date: _____ Agency Use Only

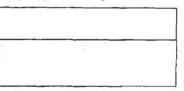
2) Facility ID Number:
 3) Date Received:

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS APPLICATION AND SITE REGISTRATION FOR LAND APPLICATION OF WATER PRODUCED FROM COALBED METHANE WELL

4) Facility Operator:	5) Facility Name				
6) Operator's Facility Number	7) Facility Elevation				
8) Location: (a) Watershed					
(b) District	(c) County				
(d) Quadrangle					
9) Surface Owner*:	10) Acreage				
Address					
11) Designated Agent:	*2				
Address					
DESCRIPTION OF APPLICATION AREA 12) Soil Type: Depth to Bedrock:					
(Information from Count					
 13) Nearest Water Supply Distance**: Type 14) Nearest Surface Water *: 					
15) Nearest Occupied Dwelling:					
16) Average Slope of Proposed Area of Land Application:	· · · · · · · · · · · · · · · · · · ·				
17) Total Acreage of Proposed Application Area:					
Attach additional pages as necessary. ** If located within ¼-mile of the land application area.					

Page 2 of ____ Form WW-8 (1-07) Site Registration Form 1) Date: ____ Agency Use Only

Facility ID Number:
 Date Received:



LOCATION AND DESIGN MAP

18) Attach a map on the scale of $1^{"} = 1,000^{"}$ or smaller showing the acreage within the permitted site to be used for land application identifying all surface waters, wells, springs, natural rock outcrops and property lines in relation to the proposed area of land application. The map shall also delineate any buffer zones.

DESCRIPTION AND METHOD OF LAND APPLICATION

19) Provide a narrative describing the:

- (a) Number and API No. of all wells contributing to the discharge.
- (b) Coal seam or seams being produced.
- (c) Produced water treatment system and chemicals to be used (if any).
- (d) Method and rate planned for land application of produced water.
- (e) Vegetation study, to include both background and baseline conditions for the planned application area prior to any land application.
- (f) Groundwater monitoring plan, if necessary to exceed certain discharge limits as outlined in the permit and fact sheet.
- (g) Planned beginning date of land application.

MONITORING PLAN

20) Produced Water Discharge:

- (a) The point or area at which the produced water is to be discharged to the land application area is to be both identified in the narrative and shown on the design map. This discharge point or area is to be identified by a permanent marker with a sign attached identifying the discharge point.
- (b) The groundwater, soil, and vegetation monitoring points within the land application area are to be located by permanent marker. Each monitoring point is to be identified by a unique identifier, with this identifier shown upon the design map. Further, the individual monitoring points are to be identified in the land application area by a sign attached to each permanent marker.
- (c) A narrative is to be provided outlining the monitoring program of the land application area for contaminant concentrations in the soils within the application area, to assure that contaminants discharged are not adversely affecting soil quality. In addition, if groundwater monitoring is to be conducted a narrative is to be included describing the monitoring methods used to ensure that groundwater quality is not being adversely affected by the land application.

21) Coalbed Produced Water:

(a) Analytical Data

Attach sampling and laboratory analysis report to include sample date, time, method of collection, sampler, date received at lab, date of analysis, and method. Provide analysis for and include anticipated range of concentrations for the following parameters: Iron; Chloride; pH; TPH; Total Dissolved Solids; Aluminum; Manganese; Mercury; Selenium; and Sulfates.

(b) Daily Volumes

Anticipated Based On ______

□ Actual

2) Provide calculations to support planned application rates given the soil conditions in the discharge area.

Page 3 of Agency Use Only Form WW-8 (1-07) Site Registration Form 2) Facility ID Number: 1) Date: 3) Date Received: CERTIFICATION I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. OWNER/OPERATOR Name: By:_____ Its: Date: STATE OF WEST VIRGINIA COUNTY OF _____, to-wit: I, _____, a Notary Public of said County, do hereby certify that _____, who signed the writing above for bearing date the _____ of ____ -----20___, has this day in my said County, before me, acknowledged the said writing to be the act and deed of said corporation. Given under my hand and official seal this the day of ,20 . My commission expires

Notary Public

{SEAL}

Page 4 of _____ Form WW-8 (1-07) Site Registration Form 1) Date: _____ Agency Use Only

2) Facility ID Number:
 3) Date Received:

	*		
-		 	

VOLUNTARY SURFACE OWNER STATEMENT OF APPROVAL

I hereby state that I have reviewed this application for coverage under general permit GP-WV-1-07 for the discharge of water produced from Coalbed Methane Well(s) onto my surface land. I understand that before the permit coverage can be granted, the operator must have my consent to the application of the produced water on the surface land.

I further state that I have no objection to the planned discharge of produced water to the land surface described in these materials, and I have no objection to coverage under general permit #GP-WV-1-07 being granted.

(For execution by natural person(s)

(For execution by corporation, etc.)

	Date:	Name	
(Signature)			
		Ву:	
	Date:		
(Signature)		Its:	

DRAFT

State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Work Permit Application Addendum (to be completed when fluid volumes used or disposed may be greater than 5000 barrels)

1) Well Operator

2) Operator ID # _____

- 3) Operator's Well Number _____
- 4) County _____

5) Approximate Amount of Water to be Used (bbls.)

- 6) Fracture/Drilling Water Source (estimate % of each source to be used)
 _____Surface Water _____Groundwater _____Purchased Water
 Reused Water
- 7) Location of Surface Water Source (if applicable)
 - a) County ______ Water Source Name ______ Latitude (d/m/s) _____ Longitude (d/m/s) _____

b) Anticipated month(s) of water withdrawals

- 8) Location of Groundwater Source (if applicable)
 - a) County _____ Water Source Name/ID _____ Latitude (d/m/s) _____ Longitude (d/m/s) _____
 - b) Anticipated month(s) of water withdrawals ______
- 9) Location of Purchased Water Source (if applicable) Public/Private Water System Name
- 10) Location of Reused Water (if applicable) County ______ Well/Facility ID ______

5

Longitude (d/m/s)		
Depth		

Land Application	UIC—provide UIC permit number
POTW-provide faci	lity name
NPDES—provide per	mit number
Other	

6

WYOMING

FORM I	Wyoming Oil &	Gas Cons	ervation (Commission	All I Split Estate		include Form 1B. te, provide the Form 1A.
Judy, 2008	Office of Sta	ate Oil and	Yes No Answer Yes, if Surface owner differs				
		at all from Mineral owner.					
	Cas	per Wyom	ing 82602		Mineral Ow	mership: Fo	e State Fed
APPLICATION	FOR PERMIT TO:			ce & 3 copies on State Lands)	Mineral Le	27 DED-001194U-01193	
DRILL REDRILL/ DEEPEN RENEW OR EXTEND							ce State Fed
Oil Well	Single Zone		Directio	onal These require a separate admin. or	Yes No	Well S	pacing:
Gas Well	Multiple Zone	=	Horiz			s this well conform	n to Chapter. 3, Sec.2?
CBM Well	Other		Natural			*	on location? Attach the approval
	ATION ON THIS PAGE	WILL BE RE				r if it is.	in location? Attach the approval
					Is thi	is well in a spaced	or exempted area?
Operator:		If yes, provide I					
Address:					Unit Name: (co	mmitted lands only	y) Fed. Unit Number:
Contact Person:		Phone Nun	nber:	Email:	DISTANCE fro	m this unit locatio	n to the nearest unit boundary
					or uncommitted	lands, if less than	1120':
Location, (quarter-qu	arter and footages):				1		o the nearest drilling, completed or
Surface		Section, To		nge, Lot, TR (SHL):		n the same reservoir	
(SHL):	· · · · · · · · · · · · · · · · · · ·		Т	, R	Reservoir: (if M	lultiple, Provide A	pproval)
Bottom		Section, To	1257	nge, Lot, TR (BHL):			
(BHL):		-	T	, R	Field:		
Latitude (SHL):		Longitude	(SHL):	2			
		_		-	Well Number a	and Name:	
1	cation less than 350 feet fro or other places where people			schools, parks, hospitals, No Yes			
Proposed depth:		d Ground Eleva		led Elevation:	API Number:	Count	v.
	0.00					Count	
PROPOSED SURFAC	E & PRODUCTION CAS	NG & CEMEN	TING PROGI	RAM			
Size of Hole	Size of Casing	Lb/ Foot	API Grade	New or Second Hand		Depth (MD)	Sacks of Cement (API)
				posal is to directionally drill or deeper reductive zone. Stundry any abandonments			easured and true vertical depth.
			8				
Signed:			T	ritle:		Date:	
Name Typed:			P	hone.		Kind of Bond:	
	(This space is for State Office	use)			Conditions	of Approval, If Any:	
Permit No. 049							(H
Approved By:							
	State Oil and Gas S	upervisor					5
Approval		1997. T. 199					
Date:		3		}			
Approval Sent:							
						di nere	

*See Instructions On Reverse Side

Wyoming Oil & Gas Conservation Commission Form 1A May, 2007 Office of State Oil and Gas Supervisor P. O. Box 2640 **Casper Wyoming 82602** STATEMENT OF OIL AND GAS OPERATIONS **Surface Owner Information:** Surface Owner's Surface Owner's Name: Address: Surface Owner's Other Contact Phone Number: Information: **CERTIFICATION STATEMENT:** hereby certifies that it is the oil and gas operator of the tract of land described as Operator , the surface which is owned as indicated above, and that application Location is made for a permit to construct the on the above described land. Well Number Name The applicant hereby certifies, the surface use agreement, consent, prior regulatory approval or judicial order or decree was in effect before July 1, 2005. (A) The applicant hereby certifies, pursuant to W.S.§ 30-5-403(a), the following: (B) (i) Notice of proposed oil and gas operations was provided to the surface owner;

(ii) The parties attempted good faith negotiations as required under W.S. § 30-5-402(f) to reach a surface use agreement;

(iii) The oil and gas operator has met the conditions of W.S. § 30-5-402(c) in the following way (please check which apply):

- (1) Secured the written consent or waiver of the surface owner for entry onto the land for oil and gas
 (1) operations; or
- Obtained an executed surface agreement providing for compensation to the surface owner for damages to the land and improvements as provided in W.S. § 30-5-405(a); or
- (3) Secured a waiver of rights as provided in W.S. § 30-5-408; or
- (4) A good and sufficient bond has been posted pursuant to W.S. § 30-5-404(b).

Signed this day of , 2 .

By:_____

Name (printed):

Title:

Form 1A

(To be submitted with Form 1 APD, Form 4, location changes, Form 14 A, or B, separate pits and facilities on Split Estate Only)

Fram 3 October, 2658	OIL AND GAS CONSERVATION COMMISSION										s. Lease No.:					
Office of State Oil and Gas Supervisor 6. Unit or Comm. Agreement:											ement:					
P. O. Box 2640																
Casper Wyoming 82602																
1. WELL COMPLETION OR RECOMPLETION REPORT AND LOG (SUBMIT SINGLE, DUPLICATE ON STATE LAND) 7. Farm or Lease Name:																
TYPE OF WELL: OIL GAS CBM INJECTOR OTHER DRY HOLE 8. Well No.																
NEW WELL VORK DEEPEN PLUG OTHER SAME DIFFERENT RESERVOIR OTHER RESVR RESERVOIR																
2. OPERATOR		~							Phone:				9. Rese	ervoir:	•	
3. ADDRESS					ati-	122			Email:							10-00-00-00
4. LOCATION, sh	ow footage me	asurements and qua	rter-quarter	lescriptio	n								10. Fie	ld Name:		
At surface:							Lat.		I	.ong.						
At top prod. Interval:							-						11. Sec	ction, Towns	ship a	and Range:
At bottom:							T		,R				La Ca			a States
14. Permit No.:			Date I	ssued:		Previous Perm	it No.:		Date Issued				12. Co	unty:	ា	3. State: WY
15. Date Spudded:	16	. Date T.D. Reache	d:	17.	Date Compl.:				18. Elevatio	ins:			L	19. If Multiple	Comp	3019-855.
				(Re		r casing run for		NALC:		B, RT, GR,	etc.)*					
20. Total Depth (MD & MD		21. Plug back 7 (MD & TVD)	.D.:		22. Directio Submit Surv	Contraction of the second second	23. DST R Submit An		24. Well Co Submit Ana			26. TYPE	ELECT	RIC AND OTH Submit 2		
25. PRODUCING INTE	ERVAL (S), TH	TIS COMPLETION	, тор, вот	TOM, N	AME (MD & '	TVD)										
27. Hole Size:	Cas	ing Size:	CASING		RD (Repo	ort all string	s set in the Depth Set:	e well)	Purpose:		6	acks Ceme	nt:	API Class:	- 1	Amount Pulled:
1010 5126.	çus	ing 0120.	Arte	rade.	in organ		Depin det.		Tupose.			uona como		ru i Ciass.	-	Amount Funda.
					-										-	
		· · · · ·					11%-								+	
28.			INER RE)						29.		1	RECORD		
Size:	To	p (MD):	Bottom	(MD):		Sacks Cement	•:	-	Screen (MD)):	S	ize:	De	epth Set (MD):	-	Packer Set (MD):
									5						+	
30.	PE	RFORATION	RECORI)				31.	ACIL), SHOT	, FRAC	C., CEM	ENT S	QUEEZE, E	Etc.	
Depth Interva	d:	Holes per ft.:	-	Size and	Туре:	Puŋ	oose:			Amt. & Ki						Depth Interval (MD):
								L								
							. G. 15									
			_	1)												
		2	-	-					-		2		-			
																· · · · · · · · · · · · · · · · · · ·
													- 11 C			
32.			1	1:0		UCTION	3). A second on about in (
Date of First Production	Pr	roducing Method (I	nowing, gas,	nn, pumj	ping- size & ty	pe of pump.)								Well Statu:	s (proc	l., dormant or shut-in)
Date of Test	Hou	rs Tested	Choke S		Production For Test		Oil, Bbls.			Gas, Mc	t.	Τ	Wate	r, Bbls	Oil	Gravity - API (Corr.)
Flow, Tubing Press.	Casin	g Pressure		24	Calculated 4- Hour Rate		Oil, Bbls.			Gas, Mcl		-	Wate	r, Bbls		Gas- Oil Ratio
33.		DISPO	SITION OF		1921	el, vented, cct.)						-	Test Wi	inessed By	-0014	
34.					Ĺ	IST OF ATTA	CHMENTS						L		-	
35.	I he	reby certify that the	foregoing a	d attache	d information	is complete and	l correct as de	termined fro	om all availab	le records.					-	
SIGNED	4	-				TITLE					e.			DATE		
L	_		_			*See Ins	tructions On I	Reverse Side	e							

INSTRUCTIONS

File this Form within 30 days of completion of the well as defined in Chapter 1, Section 2 (n).

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys should be attached hereto, to the extent required by applicable Federal and or State laws and regulations. All attachments should be listed on this form, see space 36.

Space 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements.

Space 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Spaces 19 and 25: If this well is completed for separate production from more than one zone (multiple zone completion), state in space 19, and in space 25 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the zone reported in space 33. Submit a separate completion report on this form for each interval (zone) to be separately produced.

Space 27: " Sacks Cement " : Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Space 32: Submit a separate completion report on this form for each interval (zone) to be separately produced. See instruction for spaces 19 and 25 above.)

(Note: If well Kind of Formation	was directionally drilled, sh			and markers listed) ottm of Zone	Contents;		Depth to Top of Zo	
						Name		
(Sandstone, limestone, shale, etc.)	tone, limestone, shale, etc.) Meas.Depth True Vertical Meas.I		Meas.Depth	True Vertical	Productive Rate, if known		Meas.Depth	True Vertica
		31						
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r	TATE OF WYOMING		the second second second					
0.14.07-9	2 m	Submit Single for Fee, Dupl. for State						
UIL AND GAS		If a Split Estate Location Change Provide Form 1A.						
Office of	State Oil and Gas Suj	pervisor		5. Lease No				
	P. O. Box 2640 Casper Wyoming 8260				6. Unit Agreement or CA:			
		7. Farm or Lease Name:						
SUNDRY NO		8. Well No.:						
		9. Reservoir:						
(Do not use this form for proposals to		10. Field Name:						
1. Type Well:	11. Quarter-	11. Quarter- Quarter, Section, Township and Range:						
2. Operator:				12. API No.				
3. Address:				13. County:				
4. Phone Number (w/ area code):		Email:	8	14. Elevatio	n: GL			
15. Footages: BHL:		16. Latitu	de:	17. Longitud	de:			
18. CHECK APPROPRIATE BOXE	S TO INDICATE THE	NATUR	E OF NOTICE, RE	PORT, OR	OTHER DATA			
Type of Submission:			Type of A	Action:				
Notice of Intent	Change Plans		Fracture Treat/	Enhance	Repair Well			
Subsequent Report	Convert to inject	ion	Plug and Aban	don	Shut-in			
Change of Address.	Dormant		Perforate		Start / Resume Production			
List Old & New Below.			Recomplete/ P					
Split Estate?	Location or Site	Change	Reclaim	5	Water Shut-Off			
If this is a Split Estate location change or Fed Lease owner change file Form1A.	Federal Lease Ov	wner						
	Change		Rename		Other			
19. Describe the proposed or completed operations: Clearly state Form 3 is required following completion and recompletion proce				Legal Location.				
· · ·	ай 19							
· · · · · · · · · · · · · · · · · · ·								
2000 C								
20. I hereby certify that the foregoing as to any wor	k or operation performed is a	true and c	correct report of such wor	k or operations				
Name (Printed or Typed):			Title:		2 ×			
		272						
21. Signature:			Date:					
(The space below is for State of	fice use)	- 12	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Conditions of a	approval:			
Approval Date:								
					×			
Approved By:	5 1							
State Oil and Gas Supe	rvisor							
Approvals sent:								
Instructions on the Reverse				11				
Instructions on the reverse	·							

INSTRUCTIONS

Proposals to abandon a well and subsquent reports of abandonment should include such special information as is required by local Federal and or State offices. In addition, such proposals and reports should include reasons for abandonment; data on any former or presently productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size method of parting of any casing liner or tubing pulled and the depth to the top of any left in the hole; method of closing the top of the well, and the date the wellsite was conditioned for final inspection and approval of the abandonment.

The "<u>AFFIDAVIT OF PLUGGING</u>" must be on the backside of the Sundry for Subsequent Report of Abandonment. (Quarter- Quarter, Section, Township and Range) - If there are no applicable State requirements, locations on Federal or Indian land should be described in in accordance with Federal requirements.

State of, County of, a Notary Public in and for the said County and State, this date personally appeared, a Notary Public in and for the said County and State, this date personally appeared, who being first duly sworn, deposes and says that he is employed by in charge of well plugging in the, field; that he has read over the well abandoning and plugging operations for the	
County of	
personally appeared, who being first duly sworn, deposes and says that he is employed by in charge of well plugging in the	
and says that he is employed by in charge of well plugging in the field; that he has read over the well abandoning and plugging operations for the Well Number and Name and the statements contained therein are true.	
field; that he has read over the well abandoning and plugging operations for the	as
field; that he has read over the well abandoning and plugging operations for the	
and the statements contained therein are true. Signature	
Signature	
Subscribed in my presence and sworn to before me this day of, 2	
Notary Public.	
My Commission expires	

Lorm 1B Jub-117

Wyoming Oil & Gas Conservation Commission Office of the State Oil and Gas Supervisor P. O. Box 2640 Casper, WY 82602

ELECTRICAL CERTIFICATION PER W.S. § 30-5-104(d)(v)(B).

The undersigned hereby certifies under the penalties of perjury that all underground electrical conductors outside of its facilities, fenced enclosures or posted areas for the well, located Well Number

Name

(Qtr,	Qtr.	Section,	Township,	Range)	Lot or Tract
in				County, will be o	r has been installed and maintained in
compl	iance	with the	e National El	ectrical Code 2005,	Article 300 and Tables 300.5 and
300.50).				

The undersigned also certifies they will install and maintain all electrical equipment located in and around an oil and gas well in compliance with the National Electrical Code 2005.

Operator shall provide WOGCC twenty- four (24) hour prior notice of commencement of electrical work.

DATED this	day of,2	
	By:	
	Name (printed):	
	Title:	
	Company:	

(To be submitted with Form 1, APD.)

EDRALIA A		STATE OF WYO	MING		(SUBMIT IN DUPLICATE)
And Constant of California (California)	OIL AND GAS CONSERVATION COMMISSION				
	<u>e</u>	P. O. Box 26	40		Split Estate If Split Estate, Yes No provide the Form
		Casper, Wyoming	g 82602		
	FEDERAL FORMS N	AY BE SUBMITTED IN LIEU C	OF FORM 14A for non-split estate la	nds.	
	the second se	INFORMATION REQUIRED H	the second designed and the second		
			ONSTRUCT AND USE A		РІТ
1. TYPE OF PIT. CHECK					
		ISTING PIT			
2. NAME OF OPERATOR	<u> </u>		PI	HONE NO.	EMAIL
3. ADDRESS OF OPERA	TOR		1)		
4. PIT NAME:					GROUND ELEVATION 5. Ft.
6. LOCATION (QQ SEC.	T.R.)	LAT.	COUNTY		API WELL NUMBER*
9. Distance: Is this pit loc	atad lass than 150	LON.	7.		8.
		e people are known to co	Real States of the second s	, nospitais,	No Yes
10. WATER ANALYSIS -		MADE IN ACCORDANC SIS(ES) TO THIS FORM.		THODS -	1999 10 10 10 10 10 10 10 10 10 10 10 10 10
TOTAL DISOLV		mg/l		AND GREASE	mg/l
11. METHOD OF WATER			OTUER.		
LABORATORY PROV DATE WATER SAMPL		State of the second	OTHER:		
12.					
MAXIMUM ESTIMAT	ED INFLOW	E	SWPD		
AVERAGE ESTIMATE	ED INFLOW	E	BWPD		
13. SIZE OF PIT:					0
LENGTH	FT. WIDTH	FT. DEPT		FRE	EBOARD FT.
14. CAPACITY	0 BBLS.	15. ORIGIN OF	THE PIT CONTENT.		
16. DISPOSAL OF PIT CO					
EVAPORATION					
HAULED			(PIT L	OCATION)	
DISPOSAL WELL				L NO. AND LO	CATION)
17. DRAINAGE DISTANC	E IN FEET TO CL	OSEST FRESH POND, S	TREAM OR LAKE		
NAME					FT
18. SUBSOIL TYPE					
10) 10					
					2
50					
19. TYPE OF SEALING M	ATERIAL (Includ	ing specifications and Met	hod of Application)		
		1.			34
					2 ·
	۵				
	0.0000.0000.000	·		de la coloria de la coloria	
* Number Assigned to Well Or	Une UI The Wells G	Ding into Pit.			

FORM 14 A CONTINUED

	surface drainage system complete with all natural waterways and irrigation systems, ay be specifically required by the Commission).	, (if appropriate),
		는 원
	I HEREBY CERTIFY THAT THE FOREGOING IS TRUE AN	ID CORRECT
GNED	I HEREBY CERTIFY THAT THE FOREGOING IS TRUE AN TITLE	ID CORRECT DATE
GNED		DATE
	TITLE	DATE
	TITLE	DATE
	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE
	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE
	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE
INED	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE
	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE
	TITLE THE SPACE BELOW IS FOR COMMISSION USE TITLE	DATE

FORM 14 B	STA	TE OF WYOM	ING			(SUBM	T IN DUPLICATE)
May, 2007	OIL AND GAS C	ONSERVATIO	COMMISS	SION		Split Estat	e If Split Esta
		P. O. Box 2640				Yes N	lo provide th
	Cas	per, Wyoming 82	602				Form IA.
FEDER	AL FORMS MAY BE SUBM			on-split estate land	S.		
	IF ALL INFORMATION	ON REQUIRED HER	EON IS INCLUI	DED			
API	PLICATION FOR PERMIT			ARTHEN PIT			
1. TYPE OF PIT, CHECH	TEMPOR	ARY USE, OR RESI	ERVE PIT	an a talana			
NEW PIT	EXISTING PIT	RESERVE PIT	FLARE	COMPL	ETION		
2. NAME OF OPERATO	VR:			PHONE NO .:		EMAIL:	
3. ADDRESS OF OPERA	ATOR:			I			
4. WELL NAME:					5. GR	OUND ELE	VATION:
			1				Ft.
6. LOCATION (QQ SEC	LAT.		7. COUNTY		8. AP	I WELL NU	MBER: * **
9. Distance: 1s this pit lo		from water supplie	s, residences,	schools, parks,	hospita	ls,	
	or other places where peo					No	Yes
	TESTS MUST BE MAD			NDARD METH	HODS -	ATTACHF	ULL COPY OF
ANALYSIS(ES) TO T	HIS FORM						
	R SAMPLE COLLECTIO	N					
LABORATORY PRO	VIDED RECEPTICAL:		OTHER:				
DATE WATER SAME	PLE WAS TAKEN IN TH	E FIELD:					
12. ANTICIPATED TIME	EPERIOD THE PIT WILL	BE IN USE:	(Sundry if op	en one year after	drilling	g).	
13. SIZE OF PIT:							
(1) LENGTH	Ft. WIDTH	Ft. DEf	PTH	Ft. FRE	EBOAR	D	Ft.
(2) LENGTH	Ft. WIDTH	Ft. DEF	РТН	FL FRE	EBOAR	D	Ft.
14. PIT CAPACITY:		15. ORIGIN O	F PIT CONTE	NT:			
(I) 0 BBL	.S. (2) 0 BB	LS. (1)			(2)		
16. DISPOSAL OF PIT CO	ONTENTS:	2					
EVAPORATION:							
HAULED:				(PIT LOCATIC	N&0	WNERSHIP)
DISPOSAL WELL:				(WELL NO. AI			
17. DRAINAGE DISTAN	CE IN FEET TO CLOSES	T FRESH POND,	STREAM OR I	LAKE:			-
NAME:				FT.			
18. SUBSOIL TYPE:	Lange and the second						
10.00000101110							
		10	1.1.5.1				
19. TYPE OF SEALING N	AA FRIAL (Including she	Mentione and Me					
24	MATERIAE (moduling spi	concations and me	inod of Applica	ilion):			

Number Assigned Well On APD For Reserve Pit: (If Unassigned, The Commission Will Provide It).
 Number Assigned To Well Or One Of The Wells Which Produces Water Going Into The Temporary Pit.

information as ma	ay be specifically required	by the Commission	on)			
κ.						
2						
E.						
21. I HEREBY CE	RTIFY THAT THE FO	DREGOING IS T	TRUE AND CORR	RECT.		
SIGNED:				D	ATE:	
		SPAC	E BELOW FOR CO	MMISSION USE		
APPROVED BY:			TITLE:	D	ATE:	
CONDITIONS OF	APPROVAL, IF ANY	:				

double-sided p	
er, 2005	WYOMING OIL & GAS CONSERVATION COMMISSION FACILITY INFORMATION for ROAD APPLICATION of WASTE and WASTE WATER
×.	This application is being made for oil and gas associated facilities for: (check one)
A B C	drilling fluids, i.e., mud and cuttings as appropriate produced water and produced water contaminated soils waste crude oil and sludge, i.e., tank bottoms, petroleum contaminated soil (PCS)
Applica	nt's Name:
Applica	nt's Address:
Applica	nt's phone number, fax number and e-mail address (if applicable):
Name o	f landowner of disposal site or road:
Address	S
	Telephone
	a contour map delineating the roadways of the intended road application site.
Indicate If appro road, Sł	
Indicate If appro road, Sł	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within
Indicate If appro road, Sł	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by:
Indicate If appro road, Sł	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by: Qtr/Qtr
Indicate If appro road, Sł	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by: Qtr/Qtr Section
Indicate If appro road. Sł 1/4 mile	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range
Indicate If appro road. Sł 1/4 mile Attach s	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the application site. Indicate the location of the application site by: Qtr/Qtr Section Township
Indicate If appro road. Sl 1/4 mile Attach s Locatio	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range several color photos of the road in the area on which the proposed application is to be made n and source of waste to be applied:
Indicate If appro road. Si 1/4 mile Attach s Locatio	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the how the location of any surface or groundwater domestic water supply within the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range geveral color photos of the road in the area on which the proposed application is to be made
Indicate If appro road. Sł 1/4 mile Attach s Locatio Volume Propose	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range several color photos of the road in the area on which the proposed application is to be made n and source of waste to be applied: of waste to be applied:
Indicate If appro road. Sł 1/4 mile Attach s Locatio Volume Propose	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range weveral color photos of the road in the area on which the proposed application is to be made in and source of waste to be applied: of waste to be applied: d application rate:
Indicate If appro road. Sł 1/4 mile Attach s Locatio Volume Propose	a contour map delineating the roadways of the intended road application site. the location of the source in relation to the application site. priate, show the location of any waterways or drainage within 1/4 mile of the now the location of any surface or groundwater domestic water supply within the of the application site. Indicate the location of the application site by: Qtr/Qtr Section Township Range weveral color photos of the road in the area on which the proposed application is to be made in and source of waste to be applied: of waste to be applied: d application rate:

12. List all known previous waste applications to this site:

.....

	Date	Waste Applied	Volume	Permit Number				
	<u> </u>			2.				
3.	The Road Applic	cation Permit package shall consis	t of the following:					
	A. Facil	ity information for Road Applicat	ion					
	B. Colo	r photos						
	C. Site	nap						
	D. Waste analysis							
	E. Road	bed analysis if previously used as	an application site.					
4.	Waste Sampling							
	A. Attac	h the appropriate waste analysis a	s required in the appendix.					
	Samp	oles extracted from a pit should be	area and depth-integrated	ру				
	divid	ing the pit surface area into quadr	ants (four sample points) th	e total				
	depth	into 3 foot layers (e.g., nine foot	depth = 3 sample points) to	the top of				
	the sl	udge layer for a total of x.						
	sub-s	amples which should be compost	ed in a large container.					
	B. Samp	ole volume, number of containers,	type of containers preserva	tives and				
	shipp	ing instructions should be obtained	ed from the lab.					
		а 1						
		Signature of Landowner		Date				

Signature of Applicant

Date

APPENDIX - WASTE ANALYSES

A. Drilling fluids(mud and or cuttings as appropriate)

pH

Total dissolved Solids, (TDS) or specific conductance Benzene, Metals and TOX using Toxicity Characteristic Leaching Procedures (TCLP) Total petroleum hydrocarbon, (TPH) % Solids % Other constituents or hazardous waste criteria determined to be appropriate by WOGCC

B. Waste crude, oil sludge and PCS

pH Benzene, Metals and TOX using TCLP (TPH) % Solids % Other constituents or hazardous waste criteria determined to be appropriate by WOGCC

C. Produced water and produced water contaminated soils

pH

Radium 226 Total Dissolved Solids (TDS) or specific conductance calculated TDS. Benzene, Total Metals and TOX. (TPH) 418.1 or 8015 modified Other constituents or hazardous waste criteria determined to be appropriate by WOGCC

D. Roadbed analysis (if previously used as application site)

Benzene, Metals and TOX using TCLP Wyoming Leachate (TPH) mg/l Other constituents or hazardous waste criteria determined to be appropriate by WOGCC

- Note: <u>The WOGCC will allow a total constituent analysis, (TOX) to be substituted for the</u> <u>halogenated organic listed in the TCLP constituents provided the following conditions</u> <u>are met:</u>
 - <u>The TOX test is run on a fluid extracted in accordance with the TCLP</u> procedure;
 - If the TOX concentration exceeds 0.13 mg/l an analysis will be required for all individual halogenated organic TCLP constituents;

Regulatory Guidelines

Testing Criteria	<u>Limit</u>	Actual
pH	6.0-9.0	
TDS		×
Radium 226 TCLP for solids and sludges, Totals for water samples.	60 pc/l	
Benzene	0.5 mg/l	
TOX	0.13 mg/l	
Arsenic	5.0 mg/l	0
Barium	100 mg/l	
Cadmium	1.0 mg/l	
Chromium	5.0 mg/l	
Lead	5.0 mg/l	
Mercury	0.2 mg/l	
Selenium	1.0 mg/l	
Silver	5.0 mg/l	
% Solids	NA	
% Water	NA	42
% TPH	NA	
TPH (Method 418.1) in mg/Kg	NA	
TPH (cumulative)	1.5 lbs/ft ²	