

2015-5999-1

243 Root Street Suite 100 Olean, NY 14760

		Cus	tomer				Ins	trument					
Customer Nan	ne: MJW C	orporation	on			Manufacturer:	Bicron						
	15 Hazelwood	Drive				Model: Micro Rem SN: B693G							
	Suite 112 Amherst, NY	14228				Detector Manufacturer: Bicron							
Customer PO#	#		Wor	k Order: 201	5-5999	Det. Model: Intern	al Scintillator	SN: n/a					
Calibration Me	thod: Electro	nic(*) ar	d Source			Procedure: MCP-	-01						
Instrument Re	ceived:	Within	Tolerance	Out of	Tolerance	Repairs Required	Other (See	Comments)					
✓ Geotropism		Meter	Zero	✓ Mech.	Ck 🔽	HV Readout	✓ Battery Ch	eck	Reset				
Audio		Windo	ow Status	FS Re	sponse	Linearity	Alarm Set						
Temperature:	70 F		Humidity:	50%	P	ressure: 28.7 in Ho	3	Altitude: 145	50 ft				
at most	The state of				Instrumen	t Calibration							
	Calib	ration	Ins	trument Respo	onse		Calibration	1	nstrument Res	oonse			
Multiplier/Range	Po	oint	As Found	As Left	Tolerance	Multiplier/Range	Point	As Found	As Left	Tolerano			
X 0.1*		4 uR/hr	3.9 uR/hr	3.9 uR/hr	3.4-4.6	X0.1*	16 uR/hr	16 uR/hr	16 uR/hr	14.4-17			
X 1*	1134	40 uR/hr	40 uR/hr	40 uR/hr	34-46	X 1	160 uR/hr	160 uR/hr	160 uR/hr	144-17			
X 10	40	00 uR/hr	400 uR/hr	400 uR/hr	340-460	X 10	1600 uR/hr	1600 uR/hr	1600 uR/hr	1440-176			
X 100	400	00 uR/hr	4000 uR/hr	4000 uR/hr	3400-4600	X 100	16000 uR/hr	16000 uR/hr	16000 uR/hr	14400-1760			
X 1K	4000	00 uR/hr	40000 uR/hr	40000 uR/hr	34000-46000	X 1K	160000 uR/hr	162000 uR/hr	162000 uR/hr	144000-17600			
X 0.1*	40	00 cpm =	3.9 uR/hr	3.9 uR/hr	For Reference	X 0.1*	1600 cpm =	16 uR/hr	16 uR/hr	For Reference			
X 1*	4	kcpm =	40 uR/hr	40 uR/hr	For Reference	X 1*	16 kcpm =	160 uR/hr	160 uR/hr	For Reference			
	STERNIE				Electronic In	struments			THE TUE				
Pulser: 500-2 s	n# 220106												
					Source	S							
lsotope	Serial#		Type		A	Activity R	esponse E	Efficiency	CF Distar	ice			
Cs137	7773CM		Cell 1 Gamn	na Irradiator		1.581 Ci							
					Instrument St	atus	THE PERSON	7 7 15-1	N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				

Statement of Certification

Calibration Technician: Adda a fra	QA Technician:	Date: 5-6-15
Calibration Date: 05/05/2015	Calibration Due: 05/05/2016	



2015-6089-2

243 Root Street Suite 100 Olean, NY 14760

		Cus	tomer				Ins	trument				
Customer	Name: M.	JW Technical	Services		1	Manufacturer:	Bicron					
Address:	243 Roo				1	Model: Micro Rem SN: 1487						
	Suite 100 Olean, N	7-			ī	Detector Manufacturer: Bicron						
Customer	PO#		Wor	rk Order: 2015	5-6089	Det. Model: Intern	al Scintillator	SN: n/a				
Calibratio	n Method: E	lectronic(*) ar	nd Source		ı	Procedure: MCP-01						
Instrumer	nt Received:	Within	Tolerance	✓ Out of 7	Tolerance	Repairs Required	Other (See	Comments)				
✓ Geotro	pism	✓ Meter	Zero	✓ Mech. (Ck 🗸	HV Readout	✓ Battery Ch	eck	✓ Reset			
Audio		Windo	ow Status	FS Res	sponse	Linearity	Alarm Set					
Temperat	ure: 71.2 F		Humidity:	57%	Pr	essure: 28.5 in Hg	1	Altitude: 145	50 ft			
					Instrument	Calibration						
		Calibration	Ins	strument Respo	nse		Calibration	1	nstrument Res	oonse		
Multiplier/R	Range	Point	As Found	As Left	Tolerance	Multiplier/Range	Point	As Found	As Left	Toleranc		
X 0.1*		4 uR/hr	3.8 uR/hr	3.8 uR/hr	3,4-4.6	X 0.1*	16 uR/hr	16.2 uR/hr	16.2 uR/hr	14.4-17.		
X 1*		40 uR/hr	40 uR/hr	40 uR/hr	34-46	X 1	160 uR/hr	130 uR/hr	160 uR/hr	144-17		
X 10		400 uR/hr	350 uR/hr	400 uR/hr	340-460	X 10	1600 uR/hr	1420 uR/hr	1600 uR/hr	1440-176		
X 100		4000 uR/hr	3500 uR/hr	4000 uR/hr	3400-4600	X 100	16000 uR/hr	14500 uR/hr	16000 uR/hr	14400-1760		
X 1K		40000 uR/hr	34000 uR/hr	41000 uR/hr	34000-46000	X 1K	160000 uR/hr	142000 uR/hr	160000 uR/hr	144000-17600		
X 0.1*		400 cpm =	400 uR/hr	400 uR/hr	For Reference	X 0.1*	1600 cpm =	1600 uR/hr	1600 uR/hr	For Reference		
X 1*		4 kcpm =	4000 uR/hr	4000 uR/hr	For Reference	X 1*	16 kcpm =	160000 uR/hr	160000 uR/hr	For Reference		
	I W			Market Market	Electronic Ins	struments				WELL BLOOM		
Pulser: 500	0-2 sn# 2200	99										
	Miller Pa		THE WAY		Sources	HE WAS THE WAY			To the second second			
Isotope	Serial#		Type		A	ctivity R	esponse F	Efficiency	CF Dista	ace		
Cs137	7773CM	1	Cell 1 Gamr	ma Irradiator		1.577 Ci						

Statement of Certification

Calibration Technician: (GH)	QA Technician: Date: 6/1	9/1	5
Calibration Date: 06/18/2015	Calibration Due: 06/18/2016	1/	



2015-6178-4

243 Root Street Suite 100 Olean, NY 14760

	N. STORY	Cus	stomer				Inst	rument				
Customer I	Name: M	JW Corporati	on			Manufacturer:	Bicron					
Address:	15 Haze Suite 11	lwood Drive				Model: Micro Rem SN: A224U						
		, NY 14228				Detector Manufacturer: Bicron						
Customer F	PO#		Wo	rk Order: 201	5-6178	Det. Model: Interna	al Scintillator	SN: n/a				
Calibration	Method: E	lectronic(*) ar	nd Source			Procedure: MCP-0)1					
Instrument	Received:	Within	Tolerance	Out of	Tolerance	Repairs Required	Other (See	Comments)				
✓ Geotropi	ism	✓ Meter	Zero	✓ Mech.	Ck 🗸	HV Readout	▼ Battery Che	ck	Reset			
Audio		Winde	ow Status	FS Res	sponse	Linearity	Alarm Set					
Temperatur	re: 72 F		Humidity:	50%	P	ressure: 28.4 in Hg		Altitude: 145	50 ft			
A TANK	179-15				Instrumen	t Calibration		Salt Marie		Deservation of the second		
		Calibration	Ins	strument Respo	onse	T	Calibration	lı lı	nstrument Resp	oonse		
Multiplier/Ra	nge	Point	As Found	As Left	Tolerance	Multiplier/Range	Point	As Found	As Left	Tolerance		
X 0.1*		4 uR/hr	3.9 uR/hr	3.9 uR/hr	3.4-4.6	X 0.1*	16 uR/hr	16.1 uR/hr	16,1 uR/hr	14.4-17		
x 1*		40 uR/hr	40 uR/hr	40 uR/hr	34-46	X 1	160 uR/hr	160 uR/hr	160 uR/hr	144-17		
X 10		400 uR/hr	400 uR/hr	400 uR/hr	340-460	X 10	1600 uR/hr	1600 uR/hr	1600 uR/hr	1440-176		
X 100		4000 uR/hr	4000 uR/hr	4000 uR/hr	3400-4600	X 100	16000 uR/hr	16200 uR/hr	16200 uR/hr	14400-17600		
X 1K		40000 uR/hr	40000 uR/hr	40000 uR/hr	34000-46000	X 1K	160000 uR/hr	160000 uR/hr	160000 uR/hr	144000-176000		
X 0.1*		400 cpm =	3.9 uR/hr	3.9 uR/hr	For Reference	X 0.1*	1600 cpm =	16.1 uR/hr	16.1 uR/hr	For Reference		
X 1*		4 kcpm =	40 uR/hr	40 uR/hr	For Reference	X 1*	16 kcpm =	160 uR/hr	160 uR/hr	For Reference		
		YES STATE			Electronic In	struments						
Pulser: 500-	2 sn# 2201	06										
					Source	S			H			
Isotope	Serial#		Type		A	ctivity Re	sponse E	fficiency	CF Distar	ice		
Cs137	7773CM	ſ	Cell 1 Gamr	na Irradiator		1.572 Ci						
				X = 1-2 = (9)	Instrument St		TO THE RESERVE OF THE PARTY OF	DIVERSITY OF REAL PROPERTY.				

Statement of Certification

Calibration Technic (AL)	ian:	QA Technician:	Samo	Date: P/19/15
Calibration Date:	08/04/2015	Calibration Due:	08/04/2016	



2015-6241-1

243 Root Street Suite 100 Olean, NY 14760

Calibration Technician:

09/01/2015

Calibration Date:

(AL)

Customer Name: M.	Cus	stomer				Inst	rument				
	JW Corporati	ion		V	Manufacturer:	_udlum Measuren	nents				
Address: 15 Hazel Suite 112	wood Drive			1	Model: 2241-2 SN: 206098						
Amherst,	NY 14228			C	Detector Manufacturer: Ludlum Measurements						
Customer PO#		Work	Order: 2015	5-6241 E	Det. Model: 44-10		SN: PR1	12642	1-Red		
Calibration Method: El	ectronic(*)			F	Procedure: SOP-0	06					
Instrument Received:	Within	n Tolerance	Out of T	Tolerance	Repairs Required	Other (See 0	Comments)				
Geotropism	Meter	r Zero	✓ Mech. C	Ck	HV Readout	✓ Battery Che	ck	Reset			
✓ Audio	Wind	ow Status	✓ FS Res	ponse 🗸	Linearity	✓ Alarm Set					
Temperature: 71 F		Humidity:	52%	Pre	essure: 28.5 in Hg		Altitude: 14	50 ft			
				Instrument	Calibration						
	Calibration	Inst	rument Respo	nse		Calibration		Instrument Respo	nse		
Multiplier/Range	Point	As Found	As Left	Tolerance	Multiplier/Range	Point	As Found	As Left	Tolerance		
Ratemeter Mode*	40 cpm	40 cpm	40 cpm	36-44	Ratemeter Mode*	400 cpm	399 cpm	399 cpm	360-440		
Ratemeter Mode*	4 kcpm	3.99 kcpm	3.99 kcpm	3.6-4.4	Ratemeter Mode*	40 kcpm	39.9 kcpm	39.9 kcpm	36-44		
Ratemeter Mode*	r Mode* 400 kcpm 399 kcpm 399 kcpm		360-440	Scaler Mode*	40 cpm	40 cpm	40 cpm	36-44			
Scaler Mode*	400 cpm 400 cpm 400 cpm		360-440	Scaler Mode*	4 kcpm	3.993 kcpm	3.993 kcpm	3.6-4.4			
caler Mode* 40 kcpm 39.929 kcpm 39.929 kcpm				36-44	Scaler Mode*	400 kcpm	399.944 kcpm	399.944 kcpm	360-440		
sotope Serial#		Type		Sources		esponse E1	ficiency	CF Distanc	e		
Am241 UB992		Y		5000	ASSES. */. 1004	159080	6.8 %	14.71 0 inch			
Cs137 UB994		Y		238101	3.672 dpm	220200	9.2 %	10.87 0 inch			
				Instrument Sta	itus						
Disc/Sens: 10 mV											
Rate Alarm: 200 kc	pm	Rate Al	ert: 100 k	Alarm Status	Scal Alarm:	915 kcts					
	5000			Detector State	us		7		TO A STORE		
C: 100e-2 DT	: 0 usec	Oper.	V: 850 V								
	WALL DOOR			Comments							
etector settings	& voltage	are identi	cal for sw						10		

QA Technician:

Calibration Due:

09/01/2016

Page: 1/2

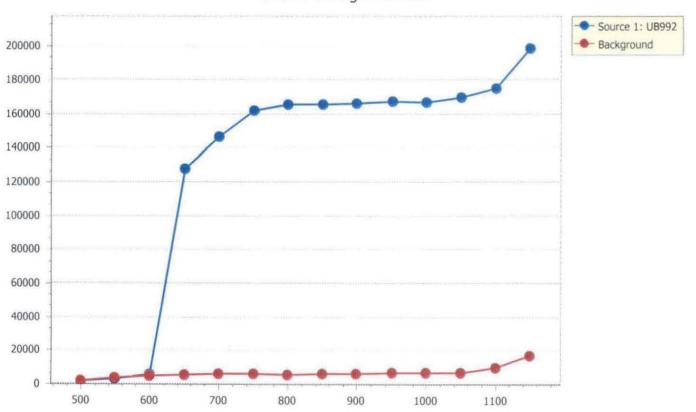


2015-6241-1

243 Root Street Suite 100 Olean, NY 14760

	Customer		Instrument						
Customer Name: MJ	W Corporation		Manufacturer: L	udlum Measurements					
Address: 15 Hazelv Suite 112	vood Drive		Model: 2241-2	SN	206098				
	NY 14228		Detector Manufacture	r: Ludium Measureme	nts				
Customer PO#	Work	k Order: 2015-6241	Det. Model: 44-10	SN:	PR112642	1-Red			
Calibration Method: Ele	ectronic(*)		Procedure: SOP-0	6					
Instrument Received:	✓ Within Tolerance	Out of Tolerance	Repairs Required	Other (See Comme	nts)				
Geotropism	Meter Zero	✓ Mech. Ck	☐ HV Readout	✓ Battery Check	Reset				
✓ Audio	Window Status	✓ FS Response	Linearity	✓ Alarm Set					
Temperature: 71 F	Humidity:	52%	Pressure: 28.5 in Hg	Altitude	1450 ft				

Source Voltage Plateaus



Statement of Certification

Calibration Technician: (AL)	QA Technician: Date: 9-1-15
Calibration Date: 09/01/2015	Calibration Due: 09/01/2016



2015-6243-1

243 Root Street Suite 100 Olean, NY 14760

	Cu	stomer					Instru	ment			MASH
Customer Name:	MJW Corporat	ion			Manufacturer:	Ludlum Me	easuremer	nts			
Address: 15 Ha	azelwood Drive				Model: 2241-2			SN: 262	737		
09.00.00	erst, NY 14228				Detector Manufa	cturer: Ludlu	ım Measur	rements			
Customer PO#		Work	Order: 2015	6-6243	Det. Model: 44	I-10		SN: PR1	11127		1-Red
Calibration Method:	Electronic(*)				Procedure: So	OP-06					
Instrument Receive	ed: Withi	n Tolerance	Out of T	Tolerance	Repairs Required Other (See Comments)						
Geotropism	Mete	r Zero	✓ Mech. C	Ck _	HV Readout	✓ Batt	ery Check	Á	V	Reset	
Audio	Wind	ow Status	✓ FS Res	ponse	Linearity	✓ Alar	m Set			33117011	
Temperature: 71.6	F	Humidity:	50%	P	ressure: 28.5 ir	n Hg	Alt	itude: 14	150 ft		
		The Carlos		Instrumen	t Calibration						
	Calibration	Inst	rument Respo	nse		25.2607.2	ration		Instrum	ent Respons	se
Multiplier/Range	Point	As Found	As Left	Tolerance	Multiplier/Range	e Po	oint	As Found	As Left		Tolerance
Ratemeter Mode*	400 cpm	400 cpm	400 cpm	360-440	440 Ratemeter Mode* 4 kcpm 3.99 kcpm 3.99 kcpm		9 kcpm	3.6-4.4			
Ratemeter Mode*	40 kcpm	39.9 kcpm	39 9 kcpm	36-44	Ratemeter Mode*	40	00 kcpm	399 kcpm		9 kcpm	360-440
Scaler Mode*	400 cpm	400 cpm	400 cpm	360-440	Scaler Mode*		4 kcpm	3.991 kcpm	3.99	1 kcpm	3.6-4.4
Scaler Mode*	40 kcpm	39.942 kcpm	39.942 kcpm	36-44	Scaler Mode*	40	00 kcpm 3	99.824 kcpm	399.82	4 kcpm	360-440
				Electronic In	struments				1		
Pulser: 500-2 sn# 22	20106										
				Source	s	Parket Line					-
Isotope Seria		Type			etivity	Response	Effic	iency	CF	Distance	
Am241 UB9	92	Y		23445	01.240 dpm	134517	5	.7 %	17.54	0	
Cs137 UB9	94	Y		23808	63.342 dpm	214047	9	.0 %	11.11	0 inch	
				Instrument St	atus						
Disc/Sens: 10 m	7										
200	Townson.	20-1-27	200 1	Alarm Statu		200 1 4					
Rate Alarm: 300	ксрm	Rate Al	ert: 200 k		acte) Sutte	m: 300 kcts	5				
CC: 100e-2	DT: 0 usec	Oper	V: 1000 V	Detector Stat	tus						
.c. 100e-2	Di. U usec	oper.	V, 1000 V	Comments		-0-10-10-10-1					100000
	rium welding			Comments					1111		

Statement of Certification

Calibration Technic		QA Technician:	Date: 5-3-15
Calibration Date:	09/02/2015	Calibration Due: 09/02/2016	



2015-6243-2

243 Root Street Suite 100 Olean, NY 14760

	Cus	stomer				Inst	rument				
Customer Name: N	/IJW Corporati	on			Manufacturer: L	udlum Measuren	nents				
	elwood Drive				Model: 2241-2 SN: 262737						
Suite 1	12 st, NY 14228			-	Detector Manufacturer: Ludium Measurements						
Customer PO#		Work (Order: 2015-	-6243	Det Model: 43-90		SN: PR2	77929		2-Yellow	
Calibration Method:	Electronic(*)				Procedure: SOP-0	6					
Instrument Received	Within	n Tolerance	Out of T	olerance	Repairs Required	Other (See	Comments)				
Geotropism	Meter	Zero	✓ Mech. C	k	HV Readout	✓ Battery Che	ck	V Re	eset		
Audio	Wind	ow Status	▼ FS Resp	oonse	Linearity	✓ Alarm Set					
Temperature: 71.6 F		Humidity: 5	50%	P	Pressure: 28.5 in Hg		Altitude: 14	50 ft			
	Del Para	MANAGERA		Instrumen	t Calibration	ALESS ST					
	Calibration	Instru	ment Respor	nse		Calibration	1	nstrumen	t Respons	e	
Multiplier/Range	Point	As Found As Left Tolerance Multiplier/Range Point As Found As Left		Left	Tolerance						
Ratemeter Mode*	400 cpm	400 cpm	400 cpm	360-440	Ratemeter Mode*	4 kcpm	3.99 kcpm	3.99 k	cpm	3.6-4	
Ratemeter Mode*	40 kcpm	39.9 kcpm	39,9 kcpm	36-44	Ratemeter Mode*	400 kcpm	399 kcpm	399 k	cpm	360-44	
Scaler Mode*	400 cpm	400 cpm	400 cpm	360-440	Scaler Mode*	4 kcpm	3.991 kcpm	3 991 k	cpm	3.6-4	
Scaler Mode*	40 kcpm	39.942 kcpm 39	9.942 kcpm	36-44	Scaler Mode*	400 kcpm	399.824 kcpm	399.824 k	cpm	360-44	
				Electronic Ir	nstruments			N C			
Pulser: 500-2 sn# 220	106										
				Source			PER SA				
sotope Serial		Type					ficiency		Distance		
Pu239 C7-636	i	a 4pi		1115	56 7.863 dpm	21284	19.1 %	5.24	0 inch		
			li li	nstrument S	tatus						
isc/Sens: 10 mV											
ate Alarm: 300 k	CDM	Rate Ale	t: 200 kg	Alarm Stat	us Scal Alarm: 3	inn kets	at the				
		1000 1100	VII.0.7. (132.10.5. (122.10.5.)	Detector Sta	OPPRINTED THE CONTRACTOR OF TH	30 3600					
	T: 0 usec	Oper. V:		Num: 2	itters.						
C: 100e-2				Comment	6			_			

Statement of Certification

Calibration Technician: (AL)	QA Technician:	Date: 523-15
Calibration Date: 09/02/2015	Calibration Due: 09/02/2016	



Certificate of Calibration 2015-6326-4

243 Root Street Suite 100 Olean, NY 14760

Customer					Instrument							
Customer Name: MJW Corporation					1	Manufacturer: Ludlum Measurements						
Address: 15 Hazelwood Drive Suite 112					j.	Model: 2241		SN: 196	664			
		t, NY 14228			ī	Detector Manufact	urer: Ludlum Me	easurements				
Customer P	PO#		Wo	rk Order: 2015	-6326 I	Det. Model: 44-1	10	SN: PR2	56142			
Calibration M	Method: E	Electronic(*)			F	Procedure: SOF	P-06					
Instrument I	Received:	Within	Tolerance	Out of T	olerance	Repairs Required	Other (See	e Comments)				
Geotropis	sm	✓ Meter	Zero	✓ Mech. C	k	HV Readout	▼ Battery C	neck	VF	Reset		
✓ Audio		Windo	ow Status	✓ FS Resp	oonse	Linearity	✓ Alarm Set					
Temperature	e: 70.2 F	=	Humidity:	45%	Pr	essure: 28.3 in h	Нg	Altitude: 14	50 ft			
					Instrument	Calibration						
		Calibration	Ins	strument Respor	nse		Calibration		Instrume	ent Respon	se	
Multiplier/Ran	nge	Point As Found	As Left	Tolerance	Multiplier/Range	Point	As Found	d As Left		Tolerance		
Ratemeter Mode	r*	40 cpm	40 cpm	40 cpm	36-44	Ratemeter Mode*	400 cpn	400 cpm	400 cpm 40		360-440	
Ratemeter Mode	•	4 kcpm	3.99 kcpm	3.99 kcpm	3.6-4.4	Ratemeter Mode*	40 kcpn	39.9 kcpm	39.9	39.9 kcpm		
Ratemeter Mode	•	400 kcpm	399 kcpm	399 kcpm	360-440	Scaler Mode*	40 cpn	1 40 cpm	4	0 cpm	36-44	
Scaler Mode*		400 cpm	400 cpm	400 cpm	360-440	Scaler Mode*	4 kcpm	3.992 kcpm	3.992	992 kcpm	3.6-4.4	
Scaler Mode*		40 kcpm	39.907 kcpm	39.907 kcpm	36-44	Scaler Mode*	400 kcpm	398.987 kcpm	398.987	kcpm	360-440	
				25/25/	Electronic Ins				011			
Pulser: 500-2	2 sn# 2201	106		Scaler: 22	200 sn# 28716							
		The second			Sources				1-1-2			
Isotope	Serial#		Туре					Efficiency	CF	Distance		
Am241 Cs137	UB992 UB994		Y Y			79.688 dpm	131062	5.6 %	17.86	0 inch		
28137	UB994		1			08.107 dpm	235181	9.9 %	10.10	0 inch		
Voltage: 1	400 V	Disc/Ser	s: 10 mV		nstrument Sta	itus						
oreage. I	100 V	DISC/ BCI	13. 10 mv		Alarm Statu	c					Salar Salar	
Rate Alarm	n: 300 kg	cpm	Rate A	lert: 200 kg		Scal Alarm:	300 kcts		a visit in the			
		42 50 50			Detector Stat	us		(Ostavaja voje)	/			
CC: 100E-2	. D'	T: 0 usec	Oper.	V: 1400 V								
			i fallan		Comments							

Model 44-10 energy resolution = 11%, acceptable detector energy resolution is <13%

0	1000		0		
State	ment	OI	Ceri	Hica	tior

MJW Technical Services, Inc certifies that the above instrument has been calibrated by standards traceable to the National institute of Standards and Technology or to the calibrator facilities of other International Standards organization members, or have been derived from accepted values of natural physical constants or have been derived by the ration type of calibration techniques. The calibration system conforms to the requirements ISO/IEC 17025 and ANSI N323. The Instrument listed above was inspected prior to shipment and it met all the manufacturer's published operating specifications. (MJW Technical Services is not responsible for damage incurred during shipment or use of this instrument).

Calibration Technician: (AL) Calibration Technician:	QA Technician:	Date: 10 2015
Calibration Date: 10/15/2015	Calibration Due: 10/15/2016	

Page: 1/2

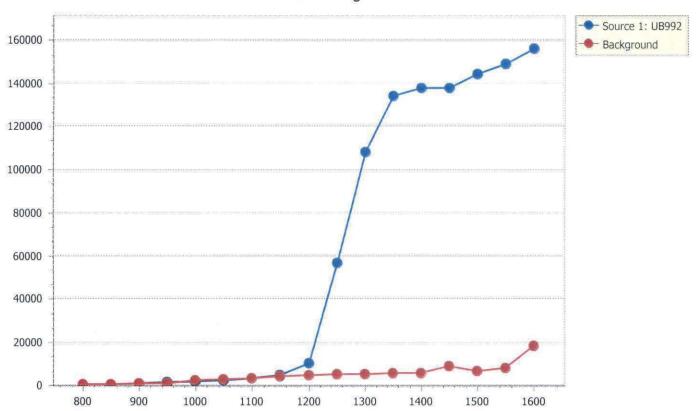


2015-6326-4

243 Root Street Suite 100 Olean, NY 14760

	Customer		Instrument Manufacturer: Ludlum Measurements				
Customer Name: MJ	W Corporation						
	vood Drive		Model: 2241	SN:	196664		
Suite 112 Amherst,	NY 14228		Detector Manufacturer: Ludlum Measurements				
Customer PO#	Worl	k Order: 2015-6326	Det. Model: 44-10	SN:	PR256142		
Calibration Method: Ele	ectronic(*)		Procedure: SOP-0	6			
Instrument Received:	✓ Within Tolerance	Out of Tolerance	Repairs Required	Other (See Commer	its)		
Geotropism	✓ Meter Zero	✓ Mech. Ck	HV Readout	ு Battery Check	✓ Reset		
✓ Audio	Window Status	✓ FS Response	Linearity	✓ Alarm Set			
Temperature: 70.2 F	Humidity:	45%	Pressure: 28.3 in Hg	Altitude:	1450 ft		

Source Voltage Plateaus



Statement of Certification

MJW Technical Services, Inc certifies that the above instrument has been calibrated by standards traceable to the National institute of Standards and Technology or to the calibrator facilities of other International Standards organization members, or have been derived from accepted values of natural physical constants or have been derived by the ration type of calibration techniques. The calibration system conforms to the requirements ISO/IEC 17025 and ANSI N323. The Instrument listed above was inspected prior to shipment and it met all the manufacturer's published operating specifications. (MJW Technical Services is not responsible for damage incurred during shipment or use of this instrument).

Calibration Technic (AL)	ian: All M. L.	QA Technician:	Date: 1076-15
Calibration Date:	10/15/2015	Calibration Due: 10/15/2016	

Page: 2/2



2015-6361-1

243 Root Street Suite 100 Olean, NY 14760

		Cus	stomer				I	strument			11111111
Customer Name: MJW Corporation					1	Manufacturer: Ludium Measurements					
Address:	15 Haze Suite 11	lwood Drive				Model: 2241-2 SN: 262641					
		t, NY 14228			1	Detector Manufac	turer: Ludlum N	Measurements			
Customer PC) #		Wo	rk Order: 2015	-6361	Det. Model: 43-	90	SN: PR2	77930		2-Yellow
Calibration M	fethod: E	lectronic(*)			-	Procedure: SO	P-06				
Instrument F	Received:	✓ Within	Tolerance	Out of 7	olerance	Repairs Required	d Other (S	ee Comments)			
Geotropis	m	Meter	Zero	✓ Mech. 0	Ck	HV Readout	✓ Battery (Check	~	Reset	
✓ Audio		Wind	ow Status	✓ FS Res	ponse	Linearity	✓ Alarm S	et			
Temperature	: 69.1 F		Humidity:	41%	Pr	essure: 28.6 in	Hg	Altitude: 14	50 ft		
	Aller I			he well	Instrument	Calibration					No. of the least
		Calibration	Ins	strument Respo	nse		Calibratio	n	Instrumer As Found As		se
Multiplier/Rang	ge	Point	As Found	As Left	Tolerance	e Multiplier/Range	Point	As Found			Tolerance
Ratemeter Mode*		40 cpm	39.3 cpm	39.3 cpm	36-44	Ratemeter Mode*	400 cp	om 400 cpm	4	00 cpm	360-440
Ratemeter Mode*		4 kcpm	3.96 kcpm	3.96 kcpm	3.6-4.4	Ratemeter Mode*	40 kcs	39.6 kcpm	39.6 kcpm		36-44
Ratemeter Mode*		400 kcpm	396 kcpm	396 kcpm	360-440	Scaler Mode*	40 cp	m 40 cpm	1	40 cpm	36-44
Scaler Mode*		400 cpm	396 cpm	396 cpm	360-440	Scaler Mode*	4 kcp	m 3.968 kcpm	3.968 kcpm		3.6-4.4
Scaler Mode*		40 kcpm	39.677 kcpm	39.677 kcpm	36-44	Scaler Mode*	400 kcp	m 396.678 kcpm	396.67	8 kcpm	360-440
		Election			Electronic Ins						
Pulser: 500-2	sn# 2200	99		Scaler: 2	200 sn# 30442	8					
					Sources						200
Isotope	Serial#		Туре		A	ctivity	Response	Efficiency	CF	Distance	
Am241	C7-660		a 4pi		11022	29.264 dpm	25300	23.0 %	4.35	0 inch	
Pu239	C7-635		a 4pi		11142	27.358 dpm	26250	23.6 %	4.24	0 inch	
Th230	C7-643		a 4pi		9931	10.909 dpm	22370	22.5 %	4.44	0 inch	
	10. 1		THE STATE OF		Instrument Sta	atus				Ha Har	
Disc/Sens:	10 mV										
oto Man	900 1		D. 4	1-1-500	Alarm Statu	100	200		1 37		Part Land
Rate Alarm:	800 K	.pm	Kate A	lert: 500 k	and the same of th	CONTRACT PRODUCTION	: 990 kcpm				
					Detector Stat	us					

Statement of Certification

Calibration Technician: (GH)	QA Technician: Alla M. Jun	Date: /1/3/15
Calibration Date: 11/03/2015	Calibration Due: 11/03/2016	-



2015-6361-2

243 Root Street Suite 100 Olean, NY 14760

	Cus	tomer	Instrument							
Customer Name: MJW Corporation					Manufacturer: Ludium Measurements					
	lazelwood Drive			Model: 2241-2		SN: 262	641			
	erst, NY 14228				Detector Manufac	cturer: Ludlum N	Measurements			
Customer PO# Work Order: 2015-6361					Det. Model: 44	-10	SN: PR	288429		1-Red
Calibration Method	: Electronic(*)				Procedure: SC	DP-06				
Instrument Received: Within Tolerance Out of Tolerance				olerance	Repairs Require	d Other (S	ee Comments)			
Geotropism	Meter	Zero	✓ Mech. C	k	HV Readout	✓ Battery	Check	V	Reset	
✓ Audio	Wind	ow Status	✓ FS Resp	onse	Linearity	✓ Alarm S	et			
Temperature: 69.	1 F	Humidity:	41%	P	ressure: 28.6 in	Hg	Altitude: 1	450 ft		
			A PA	Instrumen	t Calibration					
	Calibration	Ins	trument Respon	ise		Calibratio	on	Instrum	ent Respon	se
Multiplier/Range	Point	As Found As Left Tolerano		ce Multiplier/Range	Point	As Found	d A	s Left	Tolerance	
Ratemeter Mode*	40 cpm	39.3 cpm	39.3 cpm	36-44	Ratemeter Mode*	400 c	pm 400 cpm	4	00 cpm	360-440
Ratemeter Mode*	4 kcpm	3,96 kcpm	3.96 kcpm	3,6-4,4	Ratemeter Mode*	40 kg	pm 39,6 kcpm	39,6 kcpm 39,6 kc		36-44
Ratemeter Mode*	400 kcpm	396 kcpm	396 kcpm	360-440	Scaler Mode*	40 c	pm 40 cpm	40 cpm 40 cpm		36-44
Scaler Mode*	400 cpm	396 cpm	396 cpm	360-440	Scaler Mode*	4 kg	pm 3.968 kcpm	3.968 kcpm 3.968 kcpm		3.6-4.4
Scaler Mode*	40 kcpm	39.677 kcpm	39,677 kcpm	36-44	Scaler Mode*	400 kg	pm 396.678 kcpm	396.67	8 kcpm	360-440
MUNA TELLIFIC				Electronic In	struments					
Pulser: 500-2 sn# 2	20099		Scaler: 22	200 sn# 30442	28					
	-machine			Source	S				- Tab	
Isotope Seri	9500	Type		A	ectivity	Response	Efficiency	CF	Distance	
Am241 UB9		Y		23438	63.800 dpm	176266	7.5 %	13.33	0 inch	
Cs137 UB	994	Y		23715	61.372 dpm	268517	11.3 %	8.85	0 inch	
			li li	nstrument St	atus			4		
Disc/Sens: 10 m	V									
			NO LITTLE	Alarm State	527	Park Freeze				
Rate Alarm: 500	kcpm	Rate Al	ert: 300 kd			n: 900 kcpm				
100-0	D. 0			Detector Sta	tus				137 64	
CC: 100e-2	DT: 0 usec	Oper.	V: 1000 V N	lum: 1						
				Comment	S			10017	7 80	Maria Contract

Statement of Certification

Calibration Technician:	QA Technician: Allow M. Zon	Date: 11/3/15
Calibration Date: 11/03/2015	Calibration Due: 11/03/2016	

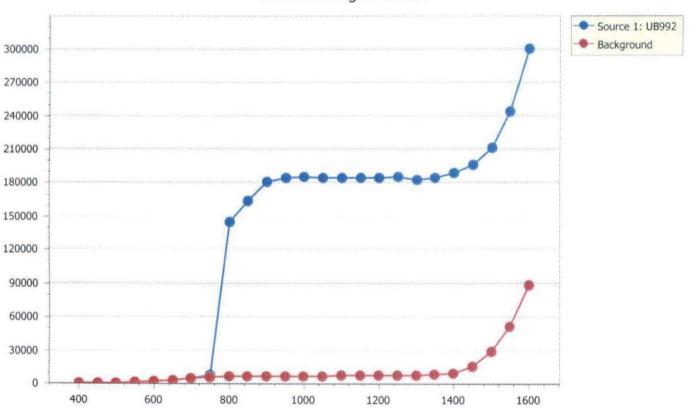


2015-6361-2

243 Root Street Suite 100 Olean, NY 14760

	Customer		Instrument				
Customer Name: MJ	W Corporation		Manufacturer:	_udlum Measurements			
	vood Drive		Model: 2241-2 SN: 262641 Detector Manufacturer: Ludium Measurements				
Suite 112 Amherst,	NY 14228						
Customer PO#	Wor	k Order: 2015-6361	Det. Model: 44-10	SN:	PR288429	1-Red	
Calibration Method: Ele	ectronic(*)		Procedure: SOP-0	06			
Instrument Received:	✓ Within Tolerance	Out of Tolerance	Repairs Required	Other (See Comme	nts)		
Geotropism	Meter Zero	✓ Mech. Ck	HV Readout	✓ Battery Check	✓ Reset		
✓ Audio	Window Status	✓ FS Response	Linearity	✓ Alarm Set			
Temperature: 69.1 F	Humidity:	41%	Pressure: 28.6 in Hg	Altitude	: 1450 ft		

Source Voltage Plateaus



Statement of Certification

Calibration Technician: (GH)	QA Technician: Date: 11/3/15
Calibration Date: 11/03/2015	Calibration Due: 11/03/2016