

Health Physics Sample Records

Sample ID: 142492

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized:

Description: 140605BD03 SOUTH LAY DOWN # 4

Common

Resp Org: P4000 - PROJECT MANAGEMEN

Cross Ref Sample ID:

Priority: N

Contact: COOPER, TERRY L

Survey No:

Reference ID:

Accounting Subcode:

Unknown Mat: NO

Hazardous Mat: NO

Comments: COUNT TO MDA

Reviewed: DYNES, WILLIAM J

Date: 06/06/14 07:29

Comments:

Origin

Mat. Size/Volume: 1913 GRAMS

Docmnt/MO/Act #:

Proposed Ship Date: 00/00/00 00:00

Description: SOUTH LAY DOWN # 4

Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 06/05/14 12:15

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 1913 GRAMS

Instructions: COUNT TO MDA

Comments: COUNT TO MDA

RLSSS

Exempt: No

Evaluated: No

Chem Notification: No

State Permit: No

Offsite Analysis: No

Effluent Permit: No

Container Surveyed: No

Cleared For Release: Yes

Container Evaluated: Yes

Form 212 Ready:

Location

Unit: NON-UNIT RE Area: MS

Elev: 100 Room:

Depth: (in.) Equip ID:

Stored By: , Date: 00/00/00 00:00

Sample Loc:

Other: COUNT TO MDA

Material Loc:

**Health Physics Sample Records**

Sample ID: **142492**

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Rasterized:

Description: 140605BD03 SOUTH LAY DOWN # 4

**Analysis**

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
B_1L_marinelli_sand_	30386	1913	GR		.000		NEEBE, DAVID J	06/06/14 20:48		

  

Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments	Mod Id	Mod Date
0 K-40	NT	0.00001204	1.55E-6	<input type="checkbox"/>	86.476%	40			
0 TL-208	NT	4.093E-7	8.88E-8	<input type="checkbox"/>	2.940%	208			
0 PB-212	NT	3.769E-7	1.226E-7	<input type="checkbox"/>	2.707%	212			
0 BI-214	NT	5.365E-7	1.206E-7	<input type="checkbox"/>	3.853%	214			
0 PB-214	NT	5.602E-7	1.525E-7	<input type="checkbox"/>	4.024%	214			
0 BE-7	AP	1.0421E-6		<input checked="" type="checkbox"/>	0.000%	7			
0 MN-54	AP	3.2428E-8		<input checked="" type="checkbox"/>	0.000%	54			
0 MN-56	AP	9.1097E-8		<input checked="" type="checkbox"/>	0.000%	56			
0 CO-57	AP	9.3582E-8		<input checked="" type="checkbox"/>	0.000%	57			
0 CO-58	AP	1.0581E-7		<input checked="" type="checkbox"/>	0.000%	58			
0 CO-60	AP	1.7561E-7		<input checked="" type="checkbox"/>	0.000%	60			
0 SB-124	AP	1.1698E-7		<input checked="" type="checkbox"/>	0.000%	124			
0 SB-125	FP	2.9104E-7		<input checked="" type="checkbox"/>	0.000%	125			
0 CS-134	FP	1.1428E-7		<input checked="" type="checkbox"/>	0.000%	134			
0 CS-137	FP	3.0386E-8		<input checked="" type="checkbox"/>	0.000%	137			

**Analysis Review**

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/11/14 06:39

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:

## Health Physics Sample Records

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Sample ID: 142492

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized:

Description: 140605BD03 SOUTH LAY DOWN # 4

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### Review/Approve

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#### HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/11/14 06:39

Comments:

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#### Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

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#### Final Approval

Approved: COOPER, TERRY L

Date: 06/11/14 06:40

Comments:

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*****
*          SONGS                      HEALTH PHYSICS REPORT          6-JUN-2014 20:42 *
*-----*
*                >>>> SAMPLE PARAMETERS <<<<<                *
*
* Title       : 140605BD03 SOUTH LAY DOWN # 4                    *
*
* ID          : 30386                      Acquisition date: 6-JUN-2014 20:39:10. *
* Start Time: 6-JUN-2014 20:39:00.                    *
* Stop Time : 6-JUN-2014 20:39:00.                    Counting System  : U2GSP      *
* Quantity  : 1.91300E+03 GR                    IHPS Sample Number: 142492 *
* Geometry  : B_1L_marinelli_sand_1              Analysis Library  : HP_NATURAL *
*                               Operator: DAVID NEEBE
*-----*
*                >>>> B #42-TP11663A PARAMETERS <<<<<                *
*
* Elapsed Live Time : 0 00:03:00.41 Calibration      : 6-JUN-2014 20:09: *
* Elapsed Real Time  : 0 00:03:00.45 Energy Offset   : -4.40560E-01 *
* Deadtime           : 0.0% Energy Slope            : 5.00074E-01 *
* Activity Mult Factor: 1.00000E+00 Energy Tolerance: 1.00000 *
* Half Life Ratio    : 8.00000 Sensitivity           : 5.00000 *
*
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Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
1	238.61	38	30	1.43	478.04	471	11	32.5	2.56E+00	PB-212
1	295.16	21	2	1.17	591.12	586	8	27.2	1.53E+00	PB-214
1	351.81	29	7	1.87	704.40	699	10	25.7	6.11E-01	PB-214
1	583.11	29	5	2.28	1166.93	1162	9	21.7	5.22E-01	TL-208
1	609.44	26	2	1.43	1219.60	1216	8	22.5	2.42E+00	BI-214
1	1460.86	69	4	1.99	2922.23	2915	12	12.9	1.15E-01	K-40

Summary of Nuclide Activity  
Sample ID : 30386

Page : 2  
Acquisition date : 6-JUN-2014 20:39:10

Total number of lines in spectrum 6  
Number of unidentified lines 0  
Number of lines tentatively identified by NID 6 100.00%

Nuclide Type : natural

Nuclide	Hlife	Decay	Uncorrected uCi/GR	Decay Corr uCi/GR	Decay Corr 1-Sigma Error	1-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.204E-05	1.204E-05	0.155E-05	12.86	A
TL-208	3.05M	1.43	2.854E-07	4.093E-07	0.888E-07	21.70	A
PB-212	10.64H	1.00	3.762E-07	3.769E-07	1.226E-07	32.53	A
BI-214	19.90M	1.06	5.064E-07	5.365E-07	1.206E-07	22.47	A
PB-214	26.80M	1.04	5.366E-07	5.602E-07	1.525E-07	27.23	A
Total Activity :			1.375E-05	1.393E-05			

Grand Total Activity : 1.375E-05 1.393E-05

Flags: "K" = Keyline not found  
"E" = Manually edited

"M" = Manually accepted  
"A" = Nuclide specific abn. limit

Unidentified Energy Lines  
Sample ID : 30386

Page : 3  
Acquisition date : 6-JUN-2014 20:39:10

None

Flags: "T" = Tentatively associated

Interference Report  
Sample ID : 30386

Page : 4  
Acquisition date : 6-JUN-2014 20:39:10

No interference correction performed

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected Decay Corr		1-Sigma %Error
					uCi/GR	uCi/GR	
K-40	1460.83	69	10.67*	4.211E-01	1.204E-05	1.204E-05	12.86
TL-208	72.80	-----	2.14	1.070E+00	-----	Line Not Found	-----
	74.97	-----	3.60	1.156E+00	-----	Line Not Found	-----
	84.79	-----	1.27	1.506E+00	-----	Line Not Found	-----
	252.45	-----	0.80	1.745E+00	-----	Line Not Found	-----
	277.28	-----	6.80	1.645E+00	-----	Line Not Found	-----
	510.61	-----	21.60	1.035E+00	-----	Line Not Found	-----
	583.02	29	86.00*	9.198E-01	2.854E-07	4.093E-07	21.70
	763.06	-----	1.64	7.126E-01	-----	Line Not Found	-----
PB-212	860.30	-----	12.00	6.341E-01	-----	Line Not Found	-----
	74.81	-----	10.50	1.150E+00	-----	Line Not Found	-----
	77.11	-----	17.70	1.239E+00	-----	Line Not Found	-----
	87.19	-----	6.27	1.579E+00	-----	Line Not Found	-----
	90.13	-----	1.86	1.662E+00	-----	Line Not Found	-----
	115.12	-----	0.59	2.085E+00	-----	Line Not Found	-----
	238.58	38	43.60*	1.805E+00	3.762E-07	3.769E-07	32.53
	300.03	-----	3.34	1.562E+00	-----	Line Not Found	-----
BI-214	76.86	-----	0.58	1.229E+00	-----	Line Not Found	-----
	79.29	-----	0.97	1.320E+00	-----	Line Not Found	-----
	609.31	26	46.10*	8.831E-01	5.064E-07	5.365E-07	22.47
	665.44	-----	1.56	8.131E-01	-----	Line Not Found	-----
	768.35	-----	4.88	7.078E-01	-----	Line Not Found	-----
	806.16	-----	1.23	6.754E-01	-----	Line Not Found	-----
	934.04	-----	3.16	5.861E-01	-----	Line Not Found	-----
	1120.27	-----	15.00	4.982E-01	-----	Line Not Found	-----
	1155.18	-----	1.69	4.860E-01	-----	Line Not Found	-----
	1238.11	-----	5.92	4.615E-01	-----	Line Not Found	-----
	1280.95	-----	1.47	4.510E-01	-----	Line Not Found	-----
	1377.66	-----	4.02	4.323E-01	-----	Line Not Found	-----
	1385.30	-----	0.78	4.311E-01	-----	Line Not Found	-----
	1401.48	-----	1.39	4.287E-01	-----	Line Not Found	-----
	1407.97	-----	2.48	4.277E-01	-----	Line Not Found	-----
	1509.22	-----	2.19	4.165E-01	-----	Line Not Found	-----
	1583.22	-----	0.72	4.120E-01	-----	Line Not Found	-----
	1661.26	-----	1.15	4.103E-01	-----	Line Not Found	-----
PB-214	1729.58	-----	3.05	4.114E-01	-----	Line Not Found	-----
	1764.49	-----	15.90	4.128E-01	-----	Line Not Found	-----
	1847.41	-----	2.12	4.187E-01	-----	Line Not Found	-----
	53.17	-----	1.10	2.929E-01	-----	Line Not Found	-----
	74.81	-----	6.52	1.150E+00	-----	Line Not Found	-----
	77.11	-----	11.00	1.239E+00	-----	Line Not Found	-----
	87.19	-----	3.88	1.579E+00	-----	Line Not Found	-----
	90.13	-----	1.15	1.662E+00	-----	Line Not Found	-----
	241.92	-----	7.46	1.790E+00	-----	Line Not Found	-----
	258.94	-----	0.55	1.718E+00	-----	Line Not Found	-----
295.09	21	19.20*	1.579E+00	5.366E-07	5.602E-07	27.23	
351.87	29	37.10	1.395E+00	4.318E-07	4.507E-07	25.69	
785.83	-----	1.09	6.925E-01	-----	Line Not Found	-----	
839.00	-----	0.59	6.497E-01	-----	Line Not Found	-----	



Nuclide Line Activity Report (continued)  
Sample ID : 30386

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Acquisition date : 6-JUN-2014 20:39:10

Flag: "\*" = Keyline

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/GR)
BE-7	7.	477.61	1.0421E-06
MN-54	0.	834.83	3.2428E-08
MN-56	1.	846.81	9.1097E-08
CO-57	17.	122.06	9.3582E-08
CO-58	2.	810.79	1.0581E-07
CO-60	3.	1173.24	1.7561E-07
SB-124	5.	602.73	1.1698E-07
SB-125	5.	427.88	2.9104E-07
CS-134	5.	604.71	1.1428E-07
CS-137	0.	661.66	3.0386E-08