

## Health Physics Sample Records

Sample ID: 142441

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: ☒

Description: 140528BD 11 STAR 11-20 Dirt Sample

### 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: 05/30/14 08:03

Comments:

### Origin

Mat. Size/Volume: 1586 ml

Docmnt/MO/Act #:

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

Description: STAR 11 SOIL SAMPLE

### Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 05/29/14 07:10

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 1586 GRAMS

Instructions:

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: 3" (in.)

Equip ID:

Stored By: ,

Date: 00/00/00 00:00

Sample Loc:

Other:

Material Loc:


# Health Physics Sample Records

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Type: RLSSS



















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## Analysis

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
A_1L_marinelli_sand_	30280	1586 GR			.000		HENDERSON, JOE C	05/30/14 12:58		
Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments		Mod Id	Mod Date
0 K-40	NT	0.00001053	1.35E-6		67.732%	40				
0 TL-208	NT	2.251E-7	8.54E-8		1.448%	208				
0 PB-212	NT	4.418E-7	1.011E-7		2.842%	212				
0 BI-214	NT	4.115E-7	1.059E-7		2.647%	214				
0 PB-214	NT	4.717E-7	1.842E-7		3.034%	214				
0 RA-226	NT	2.639E-6	9.87E-7		16.975%	226				
0 AC-228	NT	6.642E-7	1.792E-7		4.272%	228				
0 U-235	NT	1.633E-7	6.11E-8		1.050%	235				
0 BE-7	AP	5.9839E-7			0.000%	7				
0 MN-54	AP	1.4412E-7			0.000%	54				
0 MN-56	AP	8.9629E-8			0.000%	56				
0 CO-57	AP	6.1853E-8			0.000%	57				
0 CO-58	AP	8.4741E-8			0.000%	58				
0 CO-60	AP	4.6633E-8			0.000%	60				
0 SB-124	AP	7.2542E-8			0.000%	124				
0 SB-125	FP	2.1641E-7			0.000%	125				
0 CS-134	FP	8.2266E-8			0.000%	134				
0 CS-137	FP	1.4465E-7			0.000%	137				

## Analysis Review

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/10/14 09:55

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:


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Rasterized: 

Description: 140528BD 11 STAR 11-20 Dirt Sample

**Review/Approve**

### HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/10/14 09:56

Comments: U-235 is likely mis-ID'd from Ac-228 and Rn-226 peaks

### Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

### Final Approval

Approved: COOPER, TERRY L

Date: 06/10/14 09:57

Comments:

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*****
*          SONGS                      HEALTH PHYSICS REPORT          30-MAY-2014 12:48      *
*-----*
*          >>>> SAMPLE  PARAMETERS <<<<          *
*-----*
* Title      : 140528BD 11 STAR 11-20 DIRT SAMPLE          *
*-----*
* ID         : 30280                      Acquisition date: 30-MAY-2014 12:45:07 *
* Start Time: 30-MAY-2014 12:45:00          *
* Stop Time : 30-MAY-2014 12:45:00          Counting System   : U2GSP          *
* Quantity  : 1.58600E+03 GR                IHPS Sample Number: 142441          *
* Geometry  : A_1L_marinelli_sand_1        Analysis Library  : HP_NATURAL          *
* Operator  : JOE HENDERSON                  *
*-----*
*          >>>> A #41-TP11679B  PARAMETERS <<<<          *
*-----*
* Elapsed Live Time : 0 00:03:00.42      Calibration       : 29-MAY-2014 23:37 *
* Elapsed Real Time  : 0 00:03:00.46      Energy Offset      : 2.56487E-01      *
* Deadtime           : 0.0%                Energy Slope       : 4.99495E-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	92.77	30	25	2.19	185.21	181	9	35.1	2.98E+00	AC-228
										U-235
1	186.19	21	12	1.48	372.25	367	10	37.4	1.08E+00	U-235
										RA-226
1	238.66	42	16	1.14	477.29	473	8	22.9	2.95E+00	PB-212
1	241.78	18	8	1.67	483.54	481	7	38.6	1.08E+00	PB-214
1	295.00	17	9	1.78	590.10	586	9	39.0	8.69E-01	PB-214
1	338.03	15	0	1.38	676.25	673	6	27.0	1.87E+00	AC-228
1	351.95	24	11	1.33	704.12	699	9	31.1	5.03E-01	PB-214
1	583.14	16	7	1.74	1166.98	1163	9	37.9	2.71E+00	TL-208
1	609.45	21	2	1.27	1219.66	1215	9	25.7	6.10E-01	BI-214
1	1460.82	63	0	1.96	2924.35	2919	10	12.9	1.49E+00	K-40

Summary of Nuclide Activity  
Sample ID : 30280

Page : 2  
Acquisition date : 30-MAY-2014 12:45:07

Total number of lines in spectrum 10  
Number of unidentified lines 0  
Number of lines tentatively identified by NID 10 100.00%

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	1.053E-05	1.053E-05	0.135E-05	12.85	A
TL-208	3.05M	1.42	1.587E-07	2.251E-07	0.854E-07	37.91	A
PB-212	10.64H	1.00	4.410E-07	4.418E-07	1.011E-07	22.88	A
BI-214	19.90M	1.06	3.890E-07	4.115E-07	1.059E-07	25.74	A
PB-214	26.80M	1.04	4.524E-07	4.717E-07	1.842E-07	39.05	A
RA-226	1600.00Y	1.00	2.639E-06	2.639E-06	0.987E-06	37.40	A
AC-228	6.13H	1.00	6.621E-07	6.642E-07	1.792E-07	26.98	KA
U-235	7.04E+08Y	1.00	1.633E-07	1.633E-07	0.611E-07	37.40	A
Total Activity :			1.544E-05	1.555E-05			

Grand Total Activity : 1.544E-05 1.555E-05

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

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