

**Analytical Results Following Completion of  
Corrective Action by Certification  
of a No Exposure Condition  
at Site 54-017 in PJ-SMA-20**

**August 12, 2014**

**NPDES PERMIT NO. NM0030759**

**LA-UR-14-26145**



**LOS ALAMOS NATIONAL LABORATORY  
ANALYTICAL RESULTS FOLLOWING COMPLETION OF CORRECTIVE ACTION  
BY CERTIFICATION OF A NO EXPOSURE CONDITION**

PF: J027

PJ-SMA-20

Site: 54-017

Tables 1 and 2 present the analytical results received from the confirmation monitoring sample collected following the completion of corrective action by certification of a no exposure condition at Site 54-017 in site monitoring area (SMA) PJ-SMA-20. The certification of a no exposure condition with as-built drawings was provided to the U.S. Environmental Protection Agency on October 25, 2013 (EP2013-0235/LA-UR-13-28149). Table 3 presents each applicable target action level (TAL) for the analytes monitored.

**Table 1  
Radiochemical Analytical Results Collected on May 22, 2014,  
Following Completion of Corrective Action  
at Site 54-017, in SMA PJ-SMA-20**

Sample ID	Analyte	Field Preparation	Detect Status	Result (pCi/L)	TAL (pCi/L)	TAL Exceedance Ratio	Qualifier	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Data Receipt Date
WT_IPC-14-56016	Gross alpha	Unfiltered	Detected	33.6	15	2.24	NQ*	6.44	2.82	July 2, 2014
WT_IPC-14-56016	Radium-226 and Radium-228	Unfiltered	Detected	6.59	30	0.220	NQ	1.67	0.832	July 2, 2014

\* Qualifier: NQ = Result is not qualified.

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**Table 2  
Metals and Organic Analytical Results Collected on May 22, 2014,  
Following Completion of Corrective Action  
at Site 54-017 in SMA PJ-SMA-20**

Sample ID	Analyte	Field Preparation	Detect Status	Result (µg/L)	TAL (µg/L)	TAL Exceedance Ratio	Validation Qualifier	Report MDL (µg/L)	Report Detection Limit (µg/L)	Data Validation Date
WT_IPC-14-55940	Aluminum	Filtered	Detected	51.8	750	0.0691	NQ <sup>a</sup>	15.0	50.0	July 2, 2014
WT_IPC-14-55940	Antimony	Filtered	Detected	3.79	640	0.00592	NQ	1.0	3.0	July 2, 2014
WT_IPC-14-55940	Arsenic	Filtered	Not Detected	5	9	n/a <sup>b</sup>	U <sup>c</sup>	1.7	5.0	July 2, 2014
WT_IPC-14-55940	Boron	Filtered	Not Detected	50	5000	n/a	U	15.0	50.0	July 2, 2014
WT_IPC-14-55940	Cadmium	Filtered	Not Detected	1	1	n/a	U	0.11	1.0	July 2, 2014
WT_IPC-14-55940	Chromium	Filtered	Not Detected	10	210	n/a	U	2.0	10.0	July 2, 2014
WT_IPC-14-55940	Cobalt	Filtered	Not Detected	5	1000	n/a	U	1.0	5.0	July 2, 2014
WT_IPC-14-55940	Copper	Filtered	Detected	7.51	4.3	1.75	NQ	0.35	1.0	July 2, 2014
WT_IPC-14-55940	Lead	Filtered	Not Detected	2	17	n/a	U	0.5	2.0	July 2, 2014
WT_IPC-14-56016	Mercury	Unfiltered	Not Detected	0.2	0.77	n/a	U	0.067	0.2	July 2, 2014
WT_IPC-14-55940	Nickel	Filtered	Detected	1.24	170	0.00729	J <sup>d</sup>	0.5	2.0	July 2, 2014
WT_IPC-14-56016	Selenium	Unfiltered	Not Detected	5	5	n/a	U	1.5	5.0	July 2, 2014
WT_IPC-14-55940	Silver	Filtered	Not Detected	1	0.5	n/a	U	0.2	1.0	July 2, 2014
WT_IPC-14-55940	Thallium	Filtered	Not Detected	2	6.3	n/a	U	0.45	2.0	July 2, 2014

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Table 2 (continued)

Sample ID	Analyte	Field Preparation	Detect Status	Result (µg/L)	TAL (µg/L)	TAL Exceedance Ratio	Validation Qualifier	Report MDL (µg/L)	Report Detection Limit (µg/L)	Data Validation Date
WT_IPC-14-55940	Vanadium	Filtered	Detected	2.95	100	0.0295	J	1.0	5.0	July 2, 2014
WT_IPC-14-55940	Zinc	Filtered	Detected	26.2	42	0.624	NQ	3.3	10.0	July 2, 2014
WT_IPC-14-56016	Total PCB	Unfiltered	Detected	0.000449	0.00064	0.702	J	n/a	n/a	June 9, 2014

<sup>a</sup> Qualifier: NQ = Result is not qualified.

<sup>b</sup> n/a = Not applicable.

<sup>c</sup> Qualifier: U = Result is not detected.

<sup>d</sup> Qualifier: J = Result is estimated.

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**Table 3  
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Gross alpha	pCi/L	n/a*	n/a	15	n/a
Radium-226 and Radium-228	pCi/L	n/a	n/a	30	n/a
Aluminum	µg/L	7429-90-5	2.5	n/a	750
Antimony	µg/L	7440-36-0	60	640	n/a
Arsenic	µg/L	7440-38-2	0.5	9	340
Boron	µg/L	7440-42-8	100	5000	n/a
Cadmium	µg/L	7440-43-9	1	n/a	0.6
Chromium	µg/L	7440-47-3	10	n/a	210
Cobalt	µg/L	7440-48-4	50	1000	n/a
Copper	µg/L	7440-50-8	0.5	n/a	4.3
Lead	µg/L	7439-92-1	0.5	n/a	17
Mercury	µg/L	7439-97-6	0.005	0.77	1.4
Nickel	µg/L	7440-02-0	0.5	n/a	170
Selenium	µg/L	7782-49-2	5	5	20
Silver	µg/L	7440-22-4	0.5	n/a	0.4
Thallium	µg/L	7440-28-0	0.5	6.3	n/a
Vanadium	µg/L	7440-62-2	50	100	n/a
Zinc	µg/L	7440-66-6	20	n/a	42
Total PCB	µg/L	1336-36-3	n/a	0.00064	na

Notes: CAS = Chemical Abstracts Service; MQL = minimum quantification level;  
ATAL = average TAL; MTAL = maximum TAL.

\* n/a – Value is not applicable.