

**Analytical Results from the First Measurable  
Storm Event Following Installation of Control  
Measures at STRM-SMA-1.5**

**November 19, 2013**

**NPDES PERMIT NO. NM0030759**

**LA-UR-13-28740**



**LOS ALAMOS NATIONAL LABORATORY  
ANALYTICAL RESULTS FROM THE FIRST MEASURABLE STORM EVENT**

PF: J029

STRM-SMA-1.5

Site: 08-009(d)

Tables 1 and 2 present the analytical results received from the confirmation monitoring samples collected from the first measurable storm event following the installation of enhanced controls at site monitoring area (SMA) STRM-SMA-1.5. The descriptions and photographs of each enhanced control installed at STRM-SMA-1.5 were provided to the U.S. Environmental Protection Agency on and July 9, 2013 (EP2013-0137/LA-UR-13-24534). Table 3 presents each applicable target action level (TAL) for the analytes monitored.

Table 1

**Radiochemical Analytical Results from the First Measurable Storm Event**

**Collected on September 13, 2013, Following Installation of Enhanced Controls, SMA STRM-SMA-1.5**

Sample ID	Analyte	Field Prep	Detect Status	Result (pCi/L)	TAL Exceedance Ratio <sup>a</sup>	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier <sup>b</sup>	Data Receipt Date
WT_IPC-13-34679	Radium-226 and Radium-228	Unfiltered	Nondetect	1.13	n/a <sup>c</sup>	1.38	0.459	U	10/21/13
WT_IPC-13-34679	Gross alpha	Unfiltered	Detect	16.1	1.073	5.04	1.95	NQ	10/21/13

<sup>a</sup> Preliminary average TAL (ATAL) exceedance ratio from first of two possible samples.

<sup>b</sup> Qualifier: U = Result is not detected; NQ = result is not qualified.

<sup>c</sup> n/a = Value is not applicable.

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Table 2

**Metals and Organic Analytical Results from the First Measurable Storm Event  
Collected on September 13, 2013, Following Installation of Enhanced Controls, SMA STRM-SMA-1.5**

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	TAL Exceedance Ratio <sup>a</sup>	Method Detection Limit	Quantitation Limit	Qualifier <sup>b</sup>	Data Receipt Date
WT_IPC-13-34679	Cyanide, weak acid dissociable	Unfiltered	Nondetect	0.005	mg/L	n/a <sup>c</sup>	0.00167	0.005	U	10/21/13
WT_IPC-13-34681	Aluminum	Filtered	Detect	104	µg/L	0.139	15	50	NQ	10/21/13
WT_IPC-13-34681	Antimony	Filtered	Detect	4.61	µg/L	0.007	1	3	NQ	10/21/13
WT_IPC-13-34681	Arsenic	Filtered	Nondetect	5	µg/L	n/a	1.7	5	U	10/21/13
WT_IPC-13-34681	Boron	Filtered	Nondetect	50	µg/L	n/a	15	50	U	10/21/13
WT_IPC-13-34681	Cadmium	Filtered	Nondetect	1	µg/L	n/a	0.11	1	U	10/21/13
WT_IPC-13-34681	Chromium	Filtered	Nondetect	10	µg/L	n/a	2	10	U	10/21/13
WT_IPC-13-34681	Cobalt	Filtered	Nondetect	5	µg/L	n/a	1	5	U	10/21/13
WT_IPC-13-34681	Copper	Filtered	Detect	2.72	µg/L	0.633	0.35	1	NQ	10/21/13
WT_IPC-13-34681	Lead	Filtered	Nondetect	2	µg/L	n/a	0.5	2	U	10/21/13
WT_IPC-13-34679	Mercury	Unfiltered	Detect	0.072	µg/L	0.094	0.067	0.2	J	10/21/13
WT_IPC-13-34681	Nickel	Filtered	Detect	0.594	µg/L	0.003	0.5	2	J	10/21/13
WT_IPC-13-34679	Selenium	Unfiltered	Nondetect	5	µg/L	n/a	1.5	5	U	10/21/13
WT_IPC-13-34681	Silver	Filtered	Detect	4.02	µg/L	8.040	0.2	1	NQ	10/21/13
WT_IPC-13-34681	Thallium	Filtered	Nondetect	2	µg/L	n/a	0.45	2	U	10/21/13
WT_IPC-13-34681	Vanadium	Filtered	Detect	1.45	µg/L	0.015	1	5	J	10/21/13
WT_IPC-13-34681	Zinc	Filtered	Nondetect	10	µg/L	n/a	3.3	10	U	10/21/13
WT_IPC-13-34679	Benzo(a)pyrene	Unfiltered	Nondetect	1	µg/L	n/a	0.3	1	U	10/21/13
WT_IPC-13-34679	Hexachlorobenzene	Unfiltered	Nondetect	10	µg/L	n/a	3	10	U	10/21/13
WT_IPC-13-34679	Pentachlorophenol	Unfiltered	Nondetect	10	µg/L	n/a	3	10	U	10/21/13

<sup>a</sup> Preliminary ATAL exceedance ratio from first of two possible samples.

<sup>b</sup> Qualifier: U = Result is not detected; NQ = Result is not qualified; J = Result is estimated.

<sup>c</sup> n/a = Value is not applicable.

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**Table 3  
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Aluminum, Dissolved	µg/L	7429-90-5	2.5	n/a*	750
Antimony, Dissolved	µg/L	7440-36-0	60	640	n/a
Arsenic, Dissolved	µg/L	7440-38-2	0.5	9	340
Boron, Dissolved	µg/L	7440-72-8	100	5000	n/a
Cadmium, Dissolved	µg/L	7440-43-9	1	n/a	0.6
Chromium, Dissolved	µg/L	7440-47-3	10	n/a	210
Cobalt, Dissolved	µg/L	7440-48-4	50	1000	n/a
Copper, Dissolved	µg/L	7440-40-8	0.5	n/a	4.3
Cyanide, weak acid dissociable	µg/L	57-12-5	10	5.2	22
Lead, Dissolved	µg/L	7439-92-1	0.5	n/a	17
Mercury	µg/L	7439-97-6	0.005	0.77	1.4
Nickel, Dissolved	µg/L	7440-02-0	0.5	n/a	170
Selenium	µg/L	7782-49-2	5	5	20
Silver, Dissolved	µg/L	7440-22-4	0.5	n/a	0.4
Thallium, Dissolved	µg/L	7440-28-0	0.5	6.3	n/a
Vanadium, Dissolved	µg/L	7440-62-2	50	100	n/a
Zinc, Dissolved	µg/L	7440-66-6	20	n/a	42
Pentachlorophenol	µg/L	87-86-5	5	n/a	19
Benzo(a)pyrene	µg/L	50-32-8	5	0.18	n/a
Hexachlorobenzene	µg/L	118-74-1	5	0.0029	n/a
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

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

\*n/a = Value is not applicable.