

**Analytical Results from the First Measurable
Storm Event Following Installation of Control
Measures at LA-SMA-1**

November 19, 2013

NPDES PERMIT NO. NM0030759

LA-UR-13-28733

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

PF: L003

LA-SMA-1

Sites: 00-017
C-00-044

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) LA-SMA-1. The descriptions and photographs of each enhanced control installed at LA-SMA-1 were provided to the U.S. Environmental Protection Agency on December 13, 2012 (EP2012-0296/LA-UR-12-26392). 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 LA-SMA-1**

Sample ID	Analyte	Field Prep	Detect Status	Result (pCi/L)	TAL Exceedance Ratio ^a	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier ^b	Data Receipt Date
WT_IPC-13-32154	Radium-226 and Radium-228	Unfiltered	Detect	8.65	0.288	1.28	0.809	NQ	10/28/13
WT_IPC-13-32154	Gross alpha	Unfiltered	Detect	434	28.933	36.2	20.4	NQ	10/28/13

^a Preliminary average TAL (ATAL) exceedance ratio from first of two possible samples.

^b Qualifier: NQ = Result is not qualified.

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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 LA-SMA-1**

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	TAL Exceedance Ratio ^a	Method Detection Limit	Quantitation Limit	Qualifier ^b	Data Receipt Date
WT_IPC-13-32154	Cyanide, weak acid dissociable	Unfiltered	Nondetect	0.005	mg/L	n/a ^c	0.00167	0.005	U	10/28/13
WT_IPC-13-32488	Aluminum	Filtered	Detect	800	µg/L	1.067	15	50	NQ	10/28/13
WT_IPC-13-32488	Antimony	Filtered	Nondetect	3	µg/L	n/a	1	3	U	10/28/13
WT_IPC-13-32488	Arsenic	Filtered	Nondetect	5	µg/L	n/a	1.7	5	U	10/28/13
WT_IPC-13-32488	Boron	Filtered	Detect	19.3	µg/L	0.004	15	50	J	10/28/13
WT_IPC-13-32488	Cadmium	Filtered	Nondetect	1	µg/L	n/a	0.11	1	U	10/28/13
WT_IPC-13-32488	Chromium	Filtered	Detect	2.77	µg/L	0.013	2	10	J	10/28/13
WT_IPC-13-32488	Cobalt	Filtered	Detect	2.18	µg/L	0.002	1	5	J	10/28/13
WT_IPC-13-32488	Copper	Filtered	Detect	3.03	µg/L	0.705	0.35	1	NQ	10/28/13
WT_IPC-13-32488	Lead	Filtered	Detect	4.19	µg/L	0.246	0.5	2	NQ	10/28/13
WT_IPC-13-32154	Mercury	Unfiltered	Detect	0.376	µg/L	0.488	0.067	0.2	NQ	10/28/13
WT_IPC-13-32488	Nickel	Filtered	Detect	1.36	µg/L	0.008	0.5	2	J	10/28/13
WT_IPC-13-32154	Selenium	Unfiltered	Detect	4.94	µg/L	0.988	1.5	5	J	10/28/13
WT_IPC-13-32488	Silver	Filtered	Nondetect	1	µg/L	n/a	0.2	1	U	10/28/13
WT_IPC-13-32488	Thallium	Filtered	Nondetect	2	µg/L	n/a	0.45	2	U	10/28/13
WT_IPC-13-32488	Vanadium	Filtered	Detect	4.85	µg/L	0.049	1	5	J	10/28/13
WT_IPC-13-32488	Zinc	Filtered	Detect	6.43	µg/L	0.153	3.3	10	J	10/28/13
WT_IPC-13-32154	Total Polychlorinated biphenys	Unfiltered	Detect	0.0175	µg/L	27.344	n/a	n/a	NQ	10/24/13

^a Preliminary ATAL exceedance ratio from first of two possible samples.

^b Qualifier: J = Result is estimated; NQ = result is not qualified; U = result is not detected.

^c n/a = Value is not applicable.

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**Table 3
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Total PCB	µg/L	1336-36-3	n/a*	0.00064	n/a
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
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.