

**Analytical Results from the First Measurable  
Storm Event Following Installation of Control  
Measures at LA-SMA-0.85**

**February 21, 2013**

**NPDES PERMIT NO. NM0030759**

**LA-UR-13-21179**



Tables 1 and 2 present the analytical results received from the confirmation monitoring sample collected at 11:29 pm on November 9, 2012, from the first measurable storm event following the installation of enhanced controls at Site Monitoring Area (SMA) LA-SMA-0.85. The descriptions and photographs of each enhanced control installed at LA-SMA-0.85 were provided to the U.S. Environmental Protection Agency on 10/25/2012 (EP2012-0262/LA-UR-12-25359) and are resubmitted here. Table 3 presents each applicable target action level (TAL) for the analytes monitored.

**Table 1**  
**Radioactivity Results from the First Measurable Storm Event**

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	Minimum Detectable Activity	Uncertainty	Qualifier	Data Receipt Date
<b>LA-SMA-0.85 at SS121043</b>									
WT_IPL-13-24803	Gross alpha	UF	Detected	22.9	pCi/L			J	12/4/2012
WT_IPL-13-24803	Radium-226 and Radium-228	UF	Not Detected	1.37	pCi/L			U	12/4/2012

Notes: UF = Unfiltered; J = Result is detected and is estimated to be between the method detection limit and the quantitation limit; U = Result is not detected.

**Table 2**  
**Cyanide and Metals Results from the First Measurable Storm Event**

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	Method Detection Limit	Quant Limit	Qualifier	Data Receipt Date
<b>LA-SMA-0.85 at SS121043</b>									
WT_IPL-13-24803	Cyanide, weak acid dissociable	UF	Not Detected	0.00167	mg/L	0.00167	0.005	U	12/4/2012
WT_IPL-13-24804	Aluminum	F	Detected	462	µg/L	15	50	NQ	12/4/2012
WT_IPL-13-24804	Antimony	F	Detected	1.28	µg/L	1	3	J	12/4/2012
WT_IPL-13-24804	Arsenic	F	Not Detected	1.7	µg/L	1.7	5	U	12/4/2012
WT_IPL-13-24804	Boron	F	Detected	28.4	µg/L	15	50	J	12/4/2012
WT_IPL-13-24804	Cadmium	F	Not Detected	0.11	µg/L	0.11	1	U	12/4/2012
WT_IPL-13-24804	Calcium	F	Detected	15.3	mg/L	0.05	0.2	NQ	12/4/2012
WT_IPL-13-24804	Chromium	F	Detected	3.04	µg/L	2	10	J	12/4/2012
WT_IPL-13-24804	Cobalt	F	Detected	1.73	µg/L	1	5	J	12/4/2012

Table 2 (continued)

Sample ID	Analyte	Field Prep	Detect Status	Result	Units	Method Detection Limit	Quant Limit	Qualifier	Data Receipt Date
WT_IPL-13-24804	Copper	F	Detected	26.4	µg/L	0.35	1	NQ	12/4/2012
WT_IPL-13-24804	Hardness	F	Detected	47	mg/L	0.453	1.24	NQ	12/4/2012
WT_IPL-13-24804	Lead	F	Detected	1.48	µg/L	0.5	2	J	12/4/2012
WT_IPL-13-24804	Magnesium	F	Detected	2.12	mg/L	0.11	0.3	NQ	12/4/2012
WT_IPL-13-24803	Mercury	UF	Not Detected	0.067	µg/L	0.067	0.2	U	12/4/2012
WT_IPL-13-24804	Nickel	F	Detected	3.44	µg/L	0.5	2	NQ	12/4/2012
WT_IPL-13-24803	Selenium	UF	Not Detected	1.5	µg/L	1.5	5	U	12/4/2012
WT_IPL-13-24804	Silver	F	Not Detected	0.2	µg/L	0.2	1	U	12/4/2012
WT_IPL-13-24804	Thallium	F	Not Detected	0.45	µg/L	0.45	2	U	12/4/2012
WT_IPL-13-24804	Vanadium	F	Detected	6.4	µg/L	1	5	NQ	12/4/2012
WT_IPL-13-24804	Zinc	F	Detected	56.1	µg/L	3.3	10	NQ	12/4/2012

Notes: UF = Unfiltered; F = filtered; NQ = result is not qualified; U = result is not detected; J = result is detected and is estimated to be between the method detection limit and the quantitation limit.

Table 3  
Applicable TALs

Analyte	CAS	Units	MQL	ATAL	MTAL
Gross alpha	na	pCi/L	0	15	na*
Radium-226 and Radium-228	na	pCi/L	0	30	na
Aluminum, Dissolved	7429-90-5	µg/L	2.5	na	750
Antimony, Dissolved	7440-36-0	µg/L	60	640	na
Arsenic, Dissolved	7440-38-2	µg/L	0.5	9	340
Boron, Dissolved	7440-42-8	µg/L	100	5000	na
Cadmium, Dissolved	7440-43-9	µg/L	1	na	0.6
Chromium, Dissolved	7440-47-3	µg/L	10	na	210
Cobalt, Dissolved	7440-48-4	µg/L	50	1000	na
Copper, Dissolved	7440-50-8	µg/L	0.5	na	4.3
Cyanide, weak acid dissociable	57-12-5	mg/L	0.01	0.0052	0.022
Lead, Dissolved	7439-92-1	µg/L	0.5	na	17
Mercury	7439-97-6	µg/L	0.005	0.77	1.4
Nickel, Dissolved	7440-02-0	µg/L	0.5	na	170

Table 3 (continued)

Analyte	CAS	Units	MQL	ATAL	MTAL
Selenium	7782-49-2	µg/L	5	5	20
Silver, Dissolved	7440-22-4	µg/L	0.5	na	0.4
Thallium, Dissolved	7440-28-0	µg/L	0.5	6.3	na
Vanadium, Dissolved	7440-62-2	µg/L	50	100	na
Zinc, Dissolved	7440-66-6	µg/L	20	na	42

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

\*na = Value is not applicable.





**L0010301008 Berms – earthen berm**

