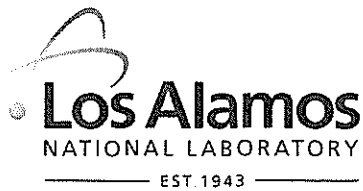


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*Associate Director for ESH*  
 Environment, Safety, and Health  
 P.O. Box 1663, MS K491  
 Los Alamos, New Mexico 87545  
 (505) 667-4218



*Environmental Management*  
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 (505) 665-5658/FAX (505) 606-2132

*Date:* OCT 19 2017  
*Refer To:* ADESH-17-072  
*Laur:* 17-29053

Esteban Herrera, Chief  
 Water Enforcement Branch (6EN-WS)  
 Compliance Assurance and Enforcement Division  
 U.S. Environmental Protection Agency, Region 6  
 1445 Ross Avenue, Suite 1200  
 Dallas, Texas 75202-2733

**Subject: NPDES Permit No. NM0030759 - Analytical Results for Site Monitoring Area S-SMA-6 from the First Measurable Storm Event Following Certification of Enhanced Control Measures**

Dear Mr. Herrera:

These documents are being submitted in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit No. NM0030759 for Los Alamos National Laboratory, issued to Los Alamos National Security, LLC, and the U.S. Department of Energy, effective November 1, 2010. As specified in Part I, Section E.I(c):

Permittees shall certify completion of installation of control measures under this subsection to EPA within 30 days of completion of all such measures at the Site and, where applicable shall provide sampling results within 30 days of receipt of analytical results from the first measurable storm event after completion of such measures....

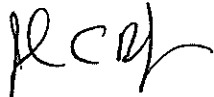
Accordingly, the analytical results from samples collected during the first measurable storm event received at site monitoring area (S-SMA-6) in the last 30 days are enclosed. The attached certified document provides the reference to the certificate of completion of the installation of the control measures. This document can be accessed at the following website: <http://www.lanl.gov> and searching under the key words "Individual Permit."

**Table 1**  
**Confirmation Samples Collected from the First Measurable Storm**  
**Event Following Certification of Installation of Enhanced Controls**

<b>Watershed</b>	<b>Priority</b>	<b>Site Number</b>	<b>SMA Number</b>	<b>Permitted Feature</b>	<b>Sample Collection Date</b>	<b>Final Validation Date</b>
<b>Sandia/Mortandad</b>	<b>High</b>	<b>72-001</b>	<b>S-SMA-6</b>	<b>S016</b>	<b>7/26/2017</b>	<b>9/20/2017</b>

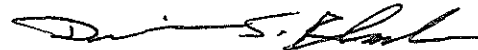
If you have any questions, please contact Terrill Lemke at (505) 665-2397 (tlemke@lanl.gov) or David Rhodes at (505) 665-5325 (david.rhodes@em.doe.gov).

Sincerely,



John C. Bretzke, Division Leader  
 Environmental Protection & Compliance  
 Los Alamos National Laboratory

Sincerely,



David S. Rhodes, Director  
 Office of Quality and Regulatory Compliance  
 Environmental Management  
 Los Alamos Field Office

JB/DR/BR/SV:sm

Attachments: One hard copy with electronic files – Analytical results from the first measurable storm event following installation of control measures at one site monitoring areas (see individual document for LA-UR number)

Cy: (w/att.)

Sarah Holcomb, NMED-SWQB, P.O. Box 5469, Santa Fe, NM 87502

Cy: (date-stamped letter and attachment emailed)

Robert Houston, EPA Region 6  
 Brent Larsen, EPA Region 6  
 Laurie King, EPA Region 6  
 Steve Yanicak, NMED-DOE-OB, MS M894  
 emla.docs@em.doe.gov  
 Terrill Lemke, ADESH-EPC-CP  
 Don Carlson, ADEM ER Program  
 Public Reading Room (EPRR)  
 ADESH Records  
 PRS Database

Cy: (w/o att./date-stamped letter emailed)

lasomailbox@nnsa.doe.gov  
 Peter Maggiore, DOE-NA-LA  
 Kimberly Davis Lebak, DOE-NA-LA

Jennifer von Rohr, DOE-EM-LA  
David Rhodes, DOE-EM-LA  
Steve Veenis, ADEM ER Program  
Bruce Robinson, ADEM ER Program  
adeshcorrespondence@lanl.gov  
John Bretzke, ADESH-EPC-DO  
Michael Brandt, ADESH  
William Mairson, PADOPS  
Craig Leasure, PADOPS

**Analytical Results from the First Measurable  
Storm Event Following Certification of  
Enhanced Control Measures  
at S-SMA-6**

**October 19, 2017**

**NPDES PERMIT NO. NM0030759**

**LA-UR-17-29053**



NPDES PERMIT NO. NM0030759

LA-UR-17-29053

LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS

PF: S016

S-SMA-6

Site: 72-001

The following certification of analytical results received from the confirmation monitoring samples collected after the completion of the installation of enhanced controls was performed in accordance with NPDES Permit No. NM0030759, Part I.E.1.

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CERTIFICATION STATEMENT OF AUTHORIZATION

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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."



Environmental Programs  
Environmental Remediation Program  
Los Alamos National Laboratory

10/5/2017  
Date



Environmental Management Los Alamos Field Office  
U.S. Department of Energy

10-19-2017  
Date



**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS**

PF: S016

S-SMA-6

Site: 72-001

Tables 1 and 2 present the analytical results received from confirmation monitoring samples collected from the first measurable storm event following the installation and subsequent certification of enhanced controls at site monitoring area S-SMA-6. Final analytical results were received and validated on September 20, 2017. The descriptions and photographs of each enhanced control installed at S-SMA-6 were provided to the U.S. Environmental Protection Agency on October 16, 2015 (ADESH-15-147/LA-UR-15-27151). Table 3 presents each applicable target action levels (TALs) for the analytes monitored.

**Table 1  
Radiochemical Analytical Results from the First Measurable Storm Event  
Collected on July 26, 2017, Following Installation of Enhanced Controls at S-SMA-6**

Sample ID	Analyte	Field Preparation	Detect Status	Result (pCi/L)	TAL Exceedance Ratio	Minimum Detectable Activity (pCi/L)	Uncertainty (pCi/L)	Qualifier <sup>a</sup>	Data Validation Date
WT_IPC-17-135188	Radium-226 and Radium-228	Unfiltered	Detect	21.7	0.72	1.252	n/a <sup>b</sup>	NQ	08/29/2017
WT_IPC-17-135188	Gross alpha	Unfiltered	Detect	116	7.7	5.34	4.78	NQ	08/29/2017

Note: TAL exceedance ratio is the analytical result divided by the applicable average TAL.

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

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



**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS**

PF: S016

S-SMA-6

Site: 72-001

Table 2

**Metals, and Organic Analytical Results from the First Measurable Storm Event  
Collected on July 26, 2017, Following Installation of Enhanced Controls at S-SMA-6**

Sample ID	Analyte	Field Preparation	Detect Status	Result (µg/L)	TAL Exceedance Ratio	Report Method Detection Limit (µg/L)	Report Quantitation Limit (µg/L)	Validation Qualifier <sup>a</sup>	Notification of Data Validation Date
WT_IPC-17-135175	Aluminum	Filtered	Detect	1070	1.4	19.3	50	NQ	08/29/2017
WT_IPC-17-135175	Antimony	Filtered	Detect	78.7	0.12	1	3	NQ	08/29/2017
WT_IPC-17-135175	Arsenic	Filtered	Nondetect	2	n/a b	2	5	U	08/29/2017
WT_IPC-17-135175	Boron	Filtered	Nondetect	15	n/a	15	50	U	08/29/2017
WT_IPC-17-135175	Cadmium	Filtered	Nondetect	0.3	n/a	0.3	1	U	08/29/2017
WT_IPC-17-135175	Chromium	Filtered	Nondetect	3	n/a	3	10	U	08/29/2017
WT_IPC-17-135175	Cobalt	Filtered	Detect	2.1	0.0021	1	5	J	08/29/2017
WT_IPC-17-135175	Copper	Filtered	Detect	65.3	15	0.3	1	NQ	08/29/2017
WT_IPC-17-135175	Lead	Filtered	Detect	129	7.6	0.5	2	NQ	08/29/2017
WT_IPC-17-135188	Mercury	Unfiltered	Detect	0.552	0.72	0.067	0.2	NQ	08/29/2017
WT_IPC-17-135175	Nickel	Filtered	Detect	2.06	0.012	0.6	2	NQ	08/29/2017
WT_IPC-17-135188	Selenium	Unfiltered	Detect	9.9	2	2	5	NQ	08/29/2017
WT_IPC-17-135175	Silver	Filtered	Nondetect	0.3	n/a	0.3	1	U	08/29/2017
WT_IPC-17-135175	Thallium	Filtered	Nondetect	0.6	n/a	0.6	2	U	08/29/2017
WT_IPC-17-135175	Vanadium	Filtered	Nondetect	1	n/a	1	5	U	08/29/2017
WT_IPC-17-135175	Zinc	Filtered	Detect	4.94	0.12	3.3	10	J	08/29/2017
WT_IPC-17-135188	Cyanide, weak acid dissociable	Unfiltered	Detect	1.71	0.33	1.67	5	J	08/29/2017
WT_IPC-17-135188	RDX <sup>c</sup>	Unfiltered	Nondetect	0.16	n/a	0.16	0.5	U	08/29/2017
WT_IPC-17-135188	Trinitrotoluene [2,4,6-]	Unfiltered	Nondetect	0.16	n/a	0.16	0.5	U	08/29/2017
WT_IPC-17-135188	PCBs <sup>d</sup>	Unfiltered	Detect	0.00441	6.89	n/a	n/a	NQ	9/20/2017

Note: TAL exceedance ratio is the result divided by the smallest applicable TAL. Applicable TALs are the larger of the maximum TAL and minimum quantification level (MQL) or the larger of the average TAL or MQL.

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

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

<sup>c</sup> RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine.

<sup>d</sup> PCB = Polychlorinated biphenyls.

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS**

PF: S016

S-SMA-6

Site: 72-001

**Table 3  
Applicable TALs**

Analyte	Units	CAS No.	MQL	ATAL	MTAL
Radium-226 and Radium-228	pCi/L	n/a <sup>a</sup>	n/a	30	n/a
Gross alpha	pCi/L	n/a	n/a	15	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
Cyanide, weak acid dissociable	µg/L	57-12-5	10	5.2	22
RDX <sup>b</sup>	µg/L	121-82-4	n/a	200	n/a
Trinitrotoluene[2,4,6-]	µg/L	118-96-7	n/a	20	n/a
Total PCB <sup>c</sup>	µg/L	1336-36-3	n/a	0.00064	n/a

Notes: CAS = Chemical Abstracts Service; MQL = minimum quantification level; ATAL = average TAL; MTAL = maximum TAL. As allowed by Part I.D. of the Individual Permit, analytical results are compared with either the corresponding MTAL/ATAL (as applicable) or the MQL, whichever value is greater, for the purpose of determining the effectiveness of storm water control measures.

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

<sup>b</sup> RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine.

<sup>c</sup> PCB = Polychlorinated biphenyls.

**NPDES PERMIT NO. NM0030759**

**LA-UR-17-29053**

**LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS**

**PF: S016**

**S-SMA-6**

**Site: 72-001**