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 9/20/17



***Environmental Protection and Compliance***

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Date: **SEP 20 2017**

Refer To: ADESH-17-069

LAUR: 17-28425

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 2M-SMA-3 from the First Measurable Storm Event Following Certification of Enhanced Control Measures**

Dear Mr. Herrera:

This document is 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.1(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 one site monitoring area (2M-SMA-3) 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**

| Watershed | Priority | Site Number                                      | SMA Number | Permitted Feature | Sample Collection Date | Final Validation Date |
|-----------|----------|--|------------|-------------------|------------------------|-----------------------|
| Pajarito  | Moderate | 07-001(a)<br>07-001(b)<br>07-001(c)<br>07-001(d) | 2M-SMA-3   | E014              | 07/26/2017             | 08/25/2017            |

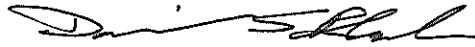
If you have any questions, please contact Terrill Lemke at (505) 665-2397 (tleinke@lanl.gov) or David Rhodes at (505) 665-5325 (david.rhodes@em.doe.gov).

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 area (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  
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Don Carlson, ADEM ER Program  
Public Reading Room (EPRR)  
ADESH Records  
PRS Database

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Michael Brandt, ADESH  
William Mairson, PADOPS  
Craig Leasure, PADOPS

**Analytical Results from the First Measurable  
Storm Event Following Certification of  
Enhanced Control Measures  
at 2M-SMA-3**

**September 20, 2017**

**NPDES PERMIT NO. NM0030759**

**LA-UR-17-28425**



LOS ALAMOS NATIONAL LABORATORY  
CERTIFICATION OF ANALYTICAL RESULTS

PF: E014

2M-SMA-3

Site: 07-001(a)  
07-001(b)  
07-001(c)  
07-001(d)

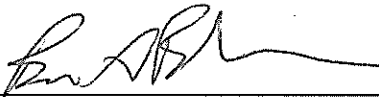
The following certification of analytical results received from the confirmation monitoring samples collected after the completion of the installation of enhanced controls was performed in accordance with NPDES Permit No.NM0030759, Part I.E.1.

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CERTIFICATION STATEMENT OF AUTHORIZATION

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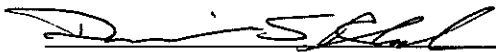
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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

9/18/2017

Date



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

9-19-2017

Date



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

PF: E014

2M-SMA-3

Site: 07-001(a)  
07-001(b)  
07-001(c)  
07-001(d)

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 2M-SMA-3. The analytical results were received and validated on August 25, 2017. The descriptions and photographs of each enhanced control installed at 2M-SMA-3 were provided to the U.S. Environmental Protection Agency on September 10, 2015 (ADESH-15-132/LA-UR-15-26458). Table 3 presents 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 2M-SMA-3**

| 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-17-135506 | Radium-226 and Radium-228 | Unfiltered        | Detect        | 1.11           | 0.037                | 0.672                               | n/a <sup>b</sup>    | NQ                     | 08/25/2017           |
| WT_IPC-17-135506 | Gross alpha               | Unfiltered        | Detect        | 1.83           | 0.12                 | 1.38                                | 0.641               | NQ                     | 08/25/2017           |

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

<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: E014

2M-SMA-3

Site: 07-001(a)  
07-001(b)  
07-001(c)  
07-001(d)

Table 2

**Metals, Inorganic, and Organic Analytical Results from the First Measurable Storm  
Event Collected on July 26, 2017, Following the Installation of Enhanced Controls at 2M-SMA-3**

| 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-17-135394 | Aluminum                       | Filtered          | Detect        | 105           | 0.14                 | 19.3                                 | 50                               | NQ                                | 08/25/2017                           |
| WT_IPC-17-135394 | Antimony                       | Filtered          | Nondetect     | 1             | n/a <sup>b</sup>     | 1                                    | 3                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Arsenic                        | Filtered          | Nondetect     | 2             | n/a                  | 2                                    | 5                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Boron                          | Filtered          | Nondetect     | 15            | n/a                  | 15                                   | 50                               | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Cadmium                        | Filtered          | Nondetect     | 0.3           | n/a                  | 0.3                                  | 1                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Chromium                       | Filtered          | Nondetect     | 3             | n/a                  | 3                                    | 10                               | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Cobalt                         | Filtered          | Nondetect     | 1             | n/a                  | 1                                    | 5                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Copper                         | Filtered          | Detect        | 1.56          | 0.36                 | 0.3                                  | 1                                | NQ                                | 08/25/2017                           |
| WT_IPC-17-135394 | Lead                           | Filtered          | Nondetect     | 0.5           | n/a                  | 0.5                                  | 2                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135506 | Mercury                        | Unfiltered        | Nondetect     | 0.067         | n/a                  | 0.067                                | 0.2                              | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Nickel                         | Filtered          | Detect        | 0.673         | 0.004                | 0.6                                  | 2                                | J                                 | 08/25/2017                           |
| WT_IPC-17-135506 | Selenium                       | Unfiltered        | Nondetect     | 2             | n/a                  | 2                                    | 5                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Silver                         | Filtered          | Nondetect     | 0.3           | n/a                  | 0.3                                  | 1                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Thallium                       | Filtered          | Nondetect     | 0.6           | n/a                  | 0.6                                  | 2                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Vanadium                       | Filtered          | Nondetect     | 1             | n/a                  | 1                                    | 5                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135394 | Zinc                           | Filtered          | Nondetect     | 3.3           | n/a                  | 3.3                                  | 10                               | U                                 | 08/25/2017                           |
| WT_IPC-17-135506 | Cyanide, weak acid dissociable | Unfiltered        | Nondetect     | 1.67          | n/a                  | 1.67                                 | 5                                | U                                 | 08/25/2017                           |
| WT_IPC-17-135506 | RDX                            | Unfiltered        | Nondetect     | 0.0952        | n/a                  | 0.0952                               | 0.298                            | U                                 | 08/25/2017                           |
| WT_IPC-17-135506 | Trinitrotoluene[2,4,6-]        | Unfiltered        | Nondetect     | 0.0952        | n/a                  | 0.0952                               | 0.298                            | U                                 | 08/25/2017                           |

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

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

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

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

PF: E014

2M-SMA-3

Site: 07-001(a)  
07-001(b)  
07-001(c)  
07-001(d)

**Table 3  
Applicable TALs**

| Analyte                        | Units | CAS No.   | MQL   | ATAL | MTAL |
|--------------------------------|-------|-----------|-------|------|------|
| Radium-226 and Radium-228      | pCi/L | n/a*      | 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                            | µg/L  | 121-82-4  | n/a   | 200  | n/a  |
| Trinitrotoluene[2,4,6-]        | µg/L  | 118-96-7  | n/a   | 20   | 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.

\* n/a = Not applicable.

**NPDES PERMIT NO. NM0030759**

**LA-UR-17-28425**

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

**PF: E014**

**2M-SMA-3**

**Site: 07-001(a)  
07-001(b)  
07-001(c)  
07-001(d)**