



Department of Energy
Carlsbad Field Office
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APR 30 2015

Mr. John E. Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87508-6303

Ms. Kathryn Roberts, Division Director
Resource Protection Division
Harold Runnels Building
1190 Saint Francis Drive, Room 4050
Santa Fe, NM 87502-5469

Subject: Monthly Report for the Reporting Period Ending March 31, 2015, as Required by NMED
Administrative Orders dated February 27, 2014, May 12, 2014, and May 20, 2014, as
Amended by NMED Directives dated August 29, 2014 and December 9, 2014

Dear Mr. Kieling and Ms. Roberts:

The purpose of this letter is to transmit the monthly report for the reporting period ending March 31, 2015, as requested by the February 27, 2014, May 12, 2014, and May 20, 2014 Administrative Orders, issued under the authority of the New Mexico Hazardous Waste Act § 74-4-13 from Ryan Flynn to Messrs. Hellstrom, Franco, Cook, and McQuinn, and as amended by the August 29, 2014 and December 9, 2014 directives from Ryan Flynn to Messrs. Franco and McQuinn. This report is enclosed along with a compact disc containing the electronic version of the report.

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our 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 our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,

Original Signatures on file

Jose R. Franco, Manager
Carlsbad Field Office

Robert L. McQuinn, Project Manager
Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure
T. Kliphuis, NMED *ED
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Monthly Status Report for the New Mexico Environment Department Administrative Orders

Reporting Period March 1, 2015, through March 31, 2015

Introduction

On February 5, 2014, a vehicle fire occurred in the Waste Isolation Pilot Plant (WIPP) underground, resulting in normal operations and waste shipments from generator sites being temporarily suspended. On February 14, 2014, while the fire investigation was still underway, a continuous air monitor detected airborne radiation in the WIPP underground facility, causing the ventilation exhaust to automatically realign to high efficiency particulate air (HEPA) filtration mode. The ventilation system has been operating in filtration mode since that time. Entries into Panel 7 in the underground have confirmed that at least one container from a nitrate salt bearing waste stream from Los Alamos National Laboratory has been breached and is most likely the source of the release. The independent Technical Assistance Team (TAT) issued its report during this reporting period, which confirmed that one drum in Panel 7, Room 7, from Los Alamos National Laboratory was responsible for last year's radiological release. The report concluded that the drum contained chemically incompatible materials, ultimately leading to the release. The *overarching conclusion* is that chemically incompatible contents of Drum 68660 from Los Alamos National Laboratory in combination with physical conditions (e.g., the configuration of the materials in the drum) supported exothermic chemical reactions leading to a thermal runaway; the consequent build-up of gases within the drum displaced the drum lid, venting radioactive materials and hot matter that further reacted with air or other materials outside the drum to cause the damage observed in WIPP Panel 7, Room 7. Shipments of waste to the WIPP facility have been suspended.

The New Mexico Environment Department (NMED) has issued two Administrative Orders (AOs) to address certain activities relative to the WIPP Hazardous Waste Facility Permit (Permit) that cannot be performed because the underground is inaccessible for normal activities. The AOs provide requirements for monitoring and reporting to the NMED concerning the status of recovery from the two events. The first administrative order (AO1) issued on February 27, 2014, addressed above-ground compliance, and required a weekly report to be submitted with regard to surface-related requirements of the Permit. On May 12, 2014, a second administrative order (AO2) was issued to address, in part, Permit-required activities that cannot currently be performed due to restriction on access to the underground. The second administrative order changed the reporting period from weekly to biweekly, with additional information required to supplement the information required by AO1. A directive from the Secretary of the NMED was issued on August 29, 2014, which amended the reporting frequency from biweekly to monthly for reporting required under AO1 and AO2 with the submittal being due to NMED no later than the 15th of the month for activities conducted during the previous month. A new directive from the Secretary of the NMED was issued on December 9, 2014, which amended the submittal frequency for this report. The new due date for the monthly submittal shall be the last day of the subsequent month for activities conducted during the previous month.

This report serves to fulfill the reporting requirements set forth by AO1 and AO2, as amended by the NMED directives dated August 29, 2014, and December 9, 2014. The following sections combine the information required by both orders, as appropriate, and provide references to the applicable paragraphs from AO1 and AO2.

In accordance with Paragraph 17(a) of AO2, and a subsequent letter from the NMED dated September 24, 2014, the Permittees submitted a revised draft of the underground compliance plan (UCP) on October 30, 2014, for NMED's review and comments. Pertinent elements of the WIPP Recovery Plan were integrated into the UCP as these elements pertain to the Permit-related requirements addressed by the AOs. The monthly reports serve to provide a status of recovery-related activities, as outlined in AO1 and AO2. In accordance with Paragraph 18(a) of AO2, subsequent reports will identify new information since the previous reporting period.

1.0 Status of Permit-related surface and underground inspections for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraphs 18(c) and 18(e)(iii) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

See Attachment 1, *Surface and Underground Inspections*, for the current status of each Permit-required inspection, including accessibility of underground equipment for personnel performing the inspections. This list is taken from Permit Attachment E, Table E-1. The surface and underground inspections required by Table E-1a related to remote-handled (RH) transuranic (TRU) waste are pre-operational. Because the WIPP facility has not been handling RH TRU waste, and there is no RH TRU waste being stored at the WIPP facility at this time, these pre-operational inspections do not currently apply. Inspections and preventative maintenance (PM) are not required for equipment that is out of service. Prior to commencing RH TRU waste handling operations, PMs and/or inspections will be brought into a current/compliant status.

As indicated in Attachment 1, a few underground inspections cannot currently be performed due to the inaccessibility to those portions of the underground where inspections are required. Some inspections are being completed in order to facilitate recovery. In accordance with Paragraph 17(a) of AO2 and an NMED letter dated September 24, 2014, the Permittees were required to submit a revised UCP to the NMED by October 30, 2014. The order requires that the UCP shall include a detailed compliance schedule for those requirements described in Paragraph 13 of AO2. The compliance schedule includes a proposed timeline, including dates, for achieving underground recovery and attaining compliance with these Permit-required activities. Before these activities can resume, however, certain prerequisite activities must be performed in order to establish the safety and habitability of the work areas in the underground. The UCP will be updated as information becomes available, and these updates will be provided to the NMED for review and comment prior to being incorporated. Future updates to the UCP, will be reflected in the monthly reports, as required by Paragraph 18(c) of AO2.

2.0 Status of Permit-related monitoring activities for this reporting period, as requested per Paragraph 14(a) of AO1 and Paragraph 18(c) of AO2, including the accessibility for personnel performing these Permit-required activities per Paragraph 18(e)(i) of AO2 and the status of recovery activities per Paragraph 18(e)(ii) of AO2:

In accordance with Paragraph 17(a) of AO2, the draft UCP was submitted to the NMED by June 26, 2014. On September 24, 2014, the NMED notified the Permittees that review of the draft UCP had been suspended pending the release of the WIPP Recovery Plan. Currently, certain monitoring activities cannot be performed due to the inaccessibility to those portions of the underground where monitoring activities occur. The UCP contains a compliance schedule including a proposed timeline, including dates, for achieving underground recovery and attaining compliance with these Permit-required activities. Before these activities can resume, however, certain prerequisite activities must be performed in order to establish the safety and habitability of the work areas in the underground. A status of these activities, as described in future updates to the UCP, will be reflected in the monthly reports, as required by Paragraph 18(c) of AO2.

Volatile Organic Compound (VOC) Monitoring

Repository VOC monitoring activities (required by Permit Part 4, Section 4.6.2, including Table 4.6.2.3, and associated requirements in Attachment N) are not currently being performed due to the inaccessibility of those portions of the underground required to perform these activities. Additionally, room-based VOC monitoring activities (required by Permit Part 4, Sections 4.4.3 and 4.6.3, Tables 4.4.1 and 4.6.3.2, and associated requirements in Attachment N) cannot currently be performed due to the inaccessibility of those portions of the underground needed to perform these activities.

Surface VOC monitoring is being conducted in lieu of underground monitoring during re-entry and recovery operations utilizing portable passive air sampling kits. Surface monitoring is being performed to assure that the Permit environmental performance standards (i.e., carcinogenic and non-carcinogenic risk due to VOC emissions from the disposed waste) for surface-based non-waste workers are met. Samples are being collected twice each week at two locations on-site and one location off-site. These samples are 24-hour VOC samples collected on the surface near the Building 489 Intake, and north of the Training Building (Building 489 North Air Intake), with an off-site location approximately a mile southeast of the Training Building at location WQSP-4. These samples are used to quantify VOC exposure to a receptor in the Training Building. The samples on-site and at location WQSP-4 are used to quantify background VOC concentrations in the ambient air. Acquisitions in both Full-Scan and Selective Ion Monitoring (SIM) Gas Chromatography/Mass Spectroscopy (GC/MS) mode are acquired to ensure a good quantification. Scan parameters, as seen in SIM mode, provide more averages over a smaller peak width, resulting in superior spectra and less noise; therefore better compound detection and sensitivity with results in parts per trillion (ppt). Full-Scan mode monitors the tentatively identified compounds (TIC) over a range of masses and is required for confidence and confirmation of results in parts per billion (ppb). Both modes of GC/MS results are provided (Full-Scan and SIM). In accordance with Paragraph 19 of AO2, the Permittees began monitoring for trichloroethylene as a target analyte on May 12, 2014.

Disposal room VOC monitoring is not being conducted in the underground as stated above. This does not pose a threat to underground waste workers because waste handling is not underway in the underground, and no emplacement rooms are active. Disposal room monitoring will be restarted prior to resuming waste emplacement activities.

Geomechanical Monitoring

The purpose of geomechanical monitoring is to confirm the structural integrity of the underground repository. Geomechanical monitoring data is transmitted electronically via remote instruments located in Rooms 6 and 7 of Panel 7 in accordance with Permit Part 4, Section 4.6.1, associated requirements in Attachment A2-5b(2), and Attachment E, Table E-2. Not all geomechanical monitoring activities that require the manual reading of underground equipment can be performed due to inaccessible portions of the underground. However, visual inspections of the underground areas during recent re-entries have provided information regarding the stability of the underground and identified those areas that require bolting. Bolting has resumed as part of recovery activities in the underground.

Hydrogen and Methane Monitoring

Hydrogen and methane monitoring activities (required by Permit Part 4, Section 4.6.5 and associated requirements in Attachment N1) cannot currently be performed due to the inaccessibility of those portions of the underground where these activities are performed. This does not pose a threat to underground waste workers because underground activities are not underway in the vicinity of Panels 3 and 4. Hydrogen and methane monitoring will be restarted during recovery.

Mine Ventilation Rate Monitoring

Mine ventilation rate monitoring activities (required by Permit Part 4, Section 4.6.4 and associated requirements of Attachment O) are currently being performed. However, due to reduced air flow in the underground because of operating in filtration mode, the minimum running annual average ventilation rate set forth by the Permit cannot be maintained. The ventilation system has been operating in filtration mode since February 14, 2014, with a flow rate of approximately 60,000 standard cubic feet per minute (SCFM). The calculated annual running average ventilation flow rate as of 3/31/15 was approximately 59,956 SCFM. Surface VOC monitoring is being used to ensure the reduced flow rate does not pose a threat to the surface non-waste worker.

3.0 Summary of waste shipment information and any other relevant records that document the site of origin, volumes and receipt dates of TRU waste that is currently located at the facility WHB and parking area unit, as requested per Paragraph 14(c) of AO1, and information specifying the deadlines for each individual waste assembly as it relates to AO1, as requested per Paragraph 14(d) of AO1:

Waste is currently being stored in the Waste Handling Building (WHB). Since the submittal of the last monthly report, there has been one standard waste box placed in storage in the WHB. This waste box houses one set of moderate efficiency pre-filter bank filters from

the February 2014 radiological event, which were replaced in June 2014; custody of the filters were released back to the Permittees in March by the AIB. See Attachment 4, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility*, for detailed waste inventory information.

4.0 Location of any environmental monitoring equipment, including the identification of whether they are stationary, mobile, or permanent. This includes, but is not limited to, VOC monitoring stations, radiological monitoring stations, meteorological monitoring, surface water monitoring, vegetation sampling. The reports shall include dates of deployment and sampling, and all data that has been produced by these monitoring stations for his reporting period, as requested per Paragraph 14(f) of AO1:

See Attachment 3, *Environmental Monitoring*, which includes tables with the locations of environmental monitoring equipment (including identification whether they are stationary, mobile, or permanent) and new data for this reporting period. Aerial photos and diagrams displaying monitoring locations are included. The following briefly describes the monitoring information in Attachment 3, *Environmental Monitoring*.

- VOC monitoring stations – Portable surface monitoring equipment has been deployed since February 25, 2014. Samples are being collected twice each week at the locations indicated in Attachment 3. The results are included in Attachment 3, *Environmental Monitoring*.
- Radiological monitoring – During this reporting period, monitoring results were below minimum detectable concentrations. The results are included in Attachment 3, *Environmental Monitoring*.
 - Air sample – air samples were obtained on the dates and at the locations shown in Attachment 3.
 - Surface water samples – surface water samples were obtained on the dates and at the locations shown in Attachment 3.
 - Biota samples – Biota samples were obtained on the dates shown in Attachment 3.

5.0 Updates on activities performed pursuant to the Underground Derived Waste Storage Plan, including a description of any surface and underground derived waste produced, whether the derived waste is mixed or non-mixed, the contents, container type, container location, total container count, and approximate volume of derived waste per container, as requested per Paragraph 14(i) of AO1 and Paragraph 18(d) of AO2:

In accordance with Paragraph 17(b) of AO2, the draft *Underground Derived Waste Storage Plan (UDWSP)* was submitted to the NMED by June 26, 2014 for review and comment. On December 2, 2014, NMED provided comments on the UDWSP and notified the Permittees that the draft UDWSP had been approved. The Permittees addressed the comments, incorporated changes and resubmitted the UDWSP to NMED on January 6, 2015. During this reporting period, there has been one standard waste box placed in storage in the WHB. This waste box houses one set of moderate efficiency pre-filter bank filters from the February 2014 radiological event, which were replaced in June 2014;

custody of the filters were released back to the Permittees in March by the AIB. See Attachment 4, *Surface and Underground Derived Waste Currently in Storage at the WIPP Facility*, detailed waste information regarding the standard waste box.

6.0 The current status of activities required by the RCRA Contingency Plan, Permit Attachment D, including identification of applicable sections of the Contingency Plan, the schedule for actions required under the Contingency Plan, and any deviations from any Contingency Plan requirements, as requested per Paragraph 18(b) of AO2. Non-applicable sections shall also be identified and explanations shall be provided as to why such sections do not apply:

There has been no change in the status of the RCRA Contingency Plan implementation since the submittal of the last monthly report. Accordingly, Attachment 5, *Status of RCRA Contingency Plan Required Activities*, is currently reserved.

RCRA Contingency Plan changes were provided to NMED as a Class 1 Permit Modification Request in February 2015 under Appendix I to 40 CFR §270.42 B6b: Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed. The Class 1 Permit Modification Notification was incorporated into the Permit by the NMED on March 4, 2015.

On March 30, 2015 approval of the WIPP Nitrate Salt Bearing Waste Container Isolation Plan, Revision 1, was received by NMED with the exception of Sections 3.2.3 and 3.3.3. These exceptions include the proposed activities for permanent closure of Panel 6.

7.0 The monthly report shall include the submission of a list containing all additional requirements placed upon the WIPP by any state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of the May 12, 2014, Administrative Order, including requirements by other segments of DOE, as requested by Paragraph 18(f) of AO2:

During this reporting period, no additional requirements were placed upon the Permittees by any other state or federal agency relating to corrective actions or recovery and as a result of the incidents referenced in Paragraphs 8 and 9 of AO2, including requirements by other segments of the U.S. Department of Energy (DOE). As additional Judgments of Need are identified as a result of the completion of subsequent phases of the Accident Investigation Board radiological release event investigation, they will be provided in Attachment 6, *Corrective Actions Required for Recovery*, which is currently reserved.

8.0 The Permittees shall provide documentation of the “as found” condition of Panel 7, including relevant photographs of the waste, as requested per Paragraph 18(i) of AO2:

Photographic evidence of the radiological event was collected by the Project Reach Team using a remotely operated video camera during the last monthly reporting period. The photographs in Attachment 7, *As-Found Condition of Panel 7*, depict some of the Project Reach activities.

9.0 The Permittees shall provide documentation of the “as found” condition of Panel 6 partial closure system, including relevant photographs, as requested per Paragraph 18(j) of AO2:

Geotechnical surveys were performed in the area of the Panel 6 entrance and photographs of the S-2750 and S-3080 drifts in the area west of W-170 (toward Panel 6) were taken for the first time following the February 2014 incidents. These photographs are provided in Attachment 9, *As-Found Condition of Panel 6*. Bolting to the entrance of the access drift of Panel 6 is completed. Panel 6 interim closure preparations are proceeding, with bolting in the 200-foot access area to the Panel 6 entrance complete and bulkhead installation to follow. As of the end of this reporting period, the bulkhead has been moved to the entrance of Panel 6 for installation.

10.0 The Permittees shall provide a status of recovery-related activities relative to the underground per Paragraph 18(e)(ii) of AO2 and a summary of recovery-related work performed in Panel 7, including relevant photographs, as requested per Paragraph 18(k) of AO2:

Consistent with the WIPP Recovery Plan, the focus of underground entries has been on radiological characterization and rollback, geotechnical evaluation, habitability surveys, clean up, electrical and mechanical evaluation of systems, and equipment and repairs as needed to support bolting and installation of the initial closures in Panel 6. Activities in contaminated areas will be performed using separate equipment and personnel protective equipment. Attachment 8, *Panel 7 Recovery-Related Work*, provides a map of the current status of the WIPP underground rollback areas during this reporting period.

During this reporting period, activities commenced in the WIPP underground facility to address the radiological contamination that remains as a result of the February 14, 2014 event. For decontamination activities, water is sprayed on the walls and the floor. The water removes some of the loose contamination from the walls and washes it down to the floor. When the salt recrystallizes from being wet, it encapsulates contamination that was not washed to the floor and prevents any re-suspension of radioactive particles. In addition to the water spray, brattice cloth will be laid on the floor and run-of-mine salt is placed over the cloth to trap any contamination on the floor. These activities will continue for the next several months throughout the areas where contamination is present. Employees performing these tasks are taking all necessary precautions, including wearing appropriate personal protective equipment.

Priorities continue to include resumption of bolting and the initial closure of Panel 6. There are now more than 1,600 bolts installed in the underground since bolting resumed in November 2014, with catch up bolting approximately 70% complete. Bolting activities are prioritized based on geotechnical inspections and surveys. The number of pieces of diesel equipment that can be operated for roof bolting is limited by the available ventilation in the work area and the minimum ventilation flow rate assigned to each piece of equipment based on Mine Safety and Health Administration air quality requirements. Due to these limitations, ventilation adjustments will have to be made as a prerequisite in each location where bolting equipment will operate to ensure equipment airflow requirements are met.

The independent Technical Assistance Team (TAT) issued its report on March 26, 2015, which confirmed that one drum in Panel 7, Room 7, from Los Alamos National Laboratory was responsible for last year's radiological release. The report concluded that the drum contained chemically incompatible materials, ultimately leading to the release.

During this reporting period, progress was made in restoration of equipment, with the recent decontamination in Panel 7 of nine forklifts, two CH waste transporters, a bolter, a man lift and two load haul dump trucks. In radiological mitigation efforts, a recent test of the approach for the floors was successful (brattice cloth covered with salt), and this approach will be used in the contaminated areas leading to and including Panel 7 itself.

Also during this reporting period, replacement of the moderate efficiency (MOD) pre-filters, and high efficiency filters, part of the High Efficiency Particulate Air (HEPA) filtration system for the WIPP underground ventilation system was completed successfully. Two individual filter banks were isolated, at separate times, in order to allow old filters to be removed, surveyed and packaged for proper disposal and new filters to be installed.

The interim ventilation system (IVS), consisting of two skid mounted fans and high efficiency particulate air (HEPA) filter units, is progressing. Fabrication of ductwork is in progress, and fan units for the IVS are expected to arrive to the WIPP site in April. The project, which adds HEPA skids and fan units to the existing ventilation system, has a June target date. Ongoing visual checks are being performed to evaluate the extent of soot accumulation on electrical equipment and, if necessary, to clean the equipment. As of this reporting period, underground electrical cleaning was approximately 70 percent complete.

As the Permittees continue to conduct recovery-related activities, additional descriptions will be provided in subsequent reports.

Attachment 1
Surface and Underground Inspections

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)¹	Comments
Air Intake Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1004 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with Mine Safety and Health Administration (MSHA) requirements	Current	2/25/15	N/A	
Exhaust Shaft	Underground Operations	Quarterly	PM041099 Inspecting for Deterioration and Leaks/Spills	Not Current	12/31/13	N/A	Shaft is not accessible due to the fire and radiological events, and inspections cannot be performed.
Salt Handling Shaft Hoist	Underground Operations	Preoperational	WP 04-HO1002 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability in accordance with MSHA requirements	Current	3/31/15	N/A	
Self-Rescuers	Underground Operations	Quarterly	WP 04-AU1026 Inspecting for Deterioration and Functionality in accordance with MSHA requirements	Current	3/28/15	N/A	
Underground Openings—Roof Bolts and Travelways	Underground Operations	Weekly	WP 04-AU1007 Inspecting for Deterioration	Current	3/31/15	N/A	
Waste Hoist	Underground Operations	Preoperational	WP 04-HO1003 Inspecting for Deterioration, Safety Equipment, Communication Systems, and Mechanical Operability, Leaks/Spills, in accordance with MSHA requirements	Current	3/17/15	N/A	Hoist is operational for conveyance of equipment and emergency egress.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)¹	Comments
Explosion-Isolation Walls	Underground Operations	Quarterly	Integrity and Deterioration of Accessible Areas	Current	2/4/15	N/A	
Bulkhead in Filled Panels	Underground Operations	Monthly	Integrity and Deterioration of Accessible Areas	Not Current	2/4/15	N/A	Inaccessible area due to ground control. Bolting required for entry.
MSHA Air Quality Monitor	Maintenance/ Underground Operations	Daily	WP 12-IH1828 Inspecting for Air Quality Monitoring Equipment Functional Check	Current	3/31/15	N/A	
Ambulances (Surface) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	3/29/15	N/A	
Ambulances (Underground) and related emergency supplies and equipment	Emergency Services	Weekly	12-FP0030 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	3/28/15	N/A	
Fire Detection and Alarm System (Underground)	Emergency Services	Semiannually	12-FP0027 Inspecting for Deterioration, Operability of indicator lights and, underground fuel station dry chemical suppression system. Inspection is per NFPA 17	Current	1/8/15	N/A	
Fire Extinguishers (Surface)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	3/31/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Fire Extinguishers (Underground)	Emergency Services	Monthly	12-FP0036 Inspecting for Deterioration, Leaks/Spills, Expiration, seals, fullness, and pressure	Current	3/31/15	N/A	
Fire Hoses	Emergency Services	Annually (minimum)	12-FP0031 Inspecting for Deterioration and Leaks/Spills	Current	2/28/15	N/A	
Fire Hydrants	Emergency Services	Semiannual/ annually	12-FP0034 Inspecting for Deterioration and Leaks/Spills	Current	3/28/15: (Semiannual) 7/15/14: (Annual)	N/A	
Fire Pumps	Emergency Services	Weekly/ annually	WP 12-FP0026 Inspecting for Deterioration, Leaks/Spills, valves, and panel lights	Current	3/30/15	N/A	
Fire Sprinkler Systems	Emergency Services	Monthly/ quarterly	WP 12-FP0025 Inspecting for Deterioration, Leaks/Spills, static pressures, and removable strainers	Current	3/23/15, 3/25/15, 3/26/15	N/A	A series of building fire sprinkler systems are inspected on a weekly basis so that a complete system inspection is accomplished on a monthly basis.
Fire and Emergency Response Trucks (Seagrave Fire Apparatus, Fire Suppression Truck)	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Not Current	3/27/15	N/A	The Emergency One Apparatus was replaced with a Fire Suppression Truck. Its inspections begin in April.

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)¹	Comments
Fire and Emergency Response Trucks (Underground Rescue Truck)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Not Current	2/8/14	N/A	As the underground rescue truck is returned to service as part of the recovery, the Permit required inspections will be scheduled and performed and the inspection dates will be noted in this table.
Hazardous Material Response Equipment	Emergency Services	Weekly	12-FP0033 Inspecting for Mechanical Operability, Deterioration, and Required Equipment	Current	3/31/15	N/A	
Miners First Aid Station	Emergency Services	Quarterly	12-FP0035 Inspecting for Required Equipment	Current	1/5/15	N/A	
Personal Protective Equipment (not otherwise contained in emergency vehicles or issued to individuals): —Self-Contained Breathing Apparatus	Emergency Services	Weekly	12-FP0029 Inspecting for Deterioration and Pressure	Current	3/28/15	N/A	
Rescue Truck (Surface)	Emergency Services	Weekly	12-FP0030 and 12-FP0033 Inspecting for Mechanical Operability, Deterioration, Leaks/Spills, and Required Equipment	Current	3/26/15	N/A	
Vehicle Siren (Surface Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current	3/26/15, 3/27/15, 3/29/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Vehicle Siren (Underground Vehicles)	Emergency Services	Weekly	Functional Test included with inspection of the Ambulances, Fire Trucks, and Rescue Trucks	Current/ Underground Ambulance Only	3/28/15	N/A	
Adjustable Center of Gravity Lift Fixture	Waste Handling	Preoperational	WP 05-WH1410 Inspecting for Mechanical Operability and Deterioration	Current	3/25/15 (41-T-037) 10/23/14 (41-T-038) 3/28/15 (41-T-032) 8/20/14 (41-T-036)	N/A	There are four ACGLFs, but the pre-operational inspection was only performed on the one fixture updated. The other ACGLFs will be inspected prior to use.
Contact-Handled (CH) TRU Underground Transporter	Waste Handling	Preoperational	WP 05-WH1603 Inspecting for Mechanical Operability, Deterioration, and area around transporter clear of obstacles	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events.
Conveyance Loading Car	Waste Handling	Preoperational	WP 05-1406 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles and guards in the proper place	Current	12/15/14 (41-H-018)	When waste disposal operations resume	Equipment not in use due to the fire and radiological events. The preoperational inspection was completed for training purposes only. Inspection not intended for daily operations.
Facility Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1204 Inspecting for Mechanical Operability, Deterioration, path clear of obstacles, and guards in the proper place	Current	3/23/15 (41-H-020A) 3/27/15 (41-H-020B)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) on Surface	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Mechanical Operability, Deterioration, and On board fire suppression system	Current	3/27/15 (41-H-009) 3/28/15 (41-H-013) 3/23/15 (41-H-051) 8/9/14 (41-T-051) 3/28/15 (41-H-012D) 3/28/15 (41-H-012E) 2/21/15 (74-H-010B)	N/A	
Forklifts Used for Waste Handling (Electric and Diesel forklifts, Push-Pull Attachment) in Underground	Waste Handling	Preoperational	WP 05-WH1201, WP 05-WH1207, WP 05-WH1401, WP 05-WH1402, WP 05-WH1403, and WP 05-WH1412 Inspecting for Mechanical Operability, Deterioration, and On board fire suppression system	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events.
Surface TRU Mixed Waste Handling Area	Waste Handling	Preoperational or Weekly	WP 05-WH1101 Inspecting for Deterioration, Leaks/Spills, Required Aisle Space, Posted Warnings, Communication Systems, Container Condition, and Floor coating integrity	Current	3/25/15 (Weekly)	N/A	
TRU Mixed Waste Decontamination Equipment	Waste Handling	Annually	WP 05-WH1101 Inspecting for Required Equipment	Current	12/30/14	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Underground TRU Mixed Waste Disposal Area	Waste Handling	Preoperational	WP 05-WH1810 Inspecting for Deterioration, Leaks/Spills, mine pager phones, equipment, unobstructed access, signs, debris, and ventilation	Current	2/5/14	When waste disposal operations resume	Waste handling operations are suspended therefore preoperational inspections are not being performed.
TDOP Upender	Waste Handling	Preoperational	WP 05-WH1010 Inspecting for Mechanical Operability and Deterioration	Current	10/9/13	When waste disposal operations resume	Equipment not in use due to the fire and radiological events.
Waste Handling Cranes	Waste Handling	Preoperational	WP 05-WH1407 Inspecting for Mechanical Operability, Deterioration, and Leaks/Spills	Current	1/6/15 (41-T-151A) 1/14/14 (41-T-151B) 3/28/15 (41-T-151D)	N/A	There are four cranes, but the pre-operational inspections were only performed on the cranes listed. The other crane will be inspected prior to use.
Push-Pull Attachment (Surface)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	3/28/15 (41-T-160A) 2/21/15 (41-T-160B)	N/A	
Push-Pull Attachment (Underground)	Waste Handling	Preoperational	WP 05-WH1401 Inspecting for Damage and Deterioration	Current	2/5/14	When waste disposal operations resume	Equipment not in use due to the fire and radiological events.
Trailer Jockey	Waste Handling	Preoperational	WP 05-WH1405 Inspecting for Mechanical Operability and Deterioration	Current	2/15/15 (41-H-151B) 3/24/15 (41-H-151A) 12/02/14 (41-H-046)	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Bolting Robot	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability	Current	6/29/12	When waste disposal operations resume	Equipment is currently out of service.
Yard Transfer Vehicle	Waste Handling	Preoperational	WP 05-WH1205 Mechanical Operability, clear of obstacles and Guards in proper place	Current	7/29/14 (41-H-021A) 3/23/15 (41-H-021B)	N/A	
Payload Transfer Station	Waste Handling	Preoperational	WP 05-WH1208 Mechanical Operability, Deterioration, and Guards in proper place	Current	2/16/15 (41-Z-041)	N/A	
Monorail Hoist	Waste Handling	Preoperational	WP 05-WH1202 Mechanical Operability, and leaks/spills	Current	3/23/15 (41-H-027)	N/A	
Bolting Station	Waste Handling	Preoperational	WP 05-WH1203 Mechanical Operability, Deterioration, and Guards in proper place	Current	3/23/15 (41-T-053A) (41-T-054A)	N/A	
Backup Power Supply Diesel Generators	Facility Operations	Monthly	WP 04-ED1301 Inspecting for Mechanical Operability and Leaks/Spills by starting and operating both generators. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	3/29/15 (#1) 3/29/15 (#2)	N/A	
Central Monitoring System (CMS)	Facility Operations	Continuous	Automatic Self-Checking	Current	3/31/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use) ¹	Comments
Mine Pager Phones (between surface and underground)	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	3/26/15	N/A	
Mine Pager Phones (underground)	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations	Current	3/26/15	N/A	
Public Address (and Intercom System) on Surface	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	3/26/15	N/A	
Public Address (and Intercom System) in Underground	Facility Operations	Monthly	WP 04-PC3017 Testing of PA and Underground Alarms and Mine Page Phones at essential locations Systems operated in test mode	Current	3/26/15	N/A	
Radio Equipment	Facility Operations	Daily	Radios are operated daily and are repaired upon failure	Current	3/31/15	N/A	
Uninterruptible Power Supply (Central UPS)	Facility Operations	Daily	WP 04-ED1542 Inspecting for Mechanical Operability and Deterioration with no malfunction alarms. Results of this inspection are logged in accordance with WP 04- AD3008.	Current	3/31/15	N/A	
Water Tank Level	Facility Operations	Daily	SDD-WD00 Inspecting for Deterioration, and water levels. Results of this inspection are logged in accordance with WP 04-AD3008.	Current	3/31/15	N/A	

System/Equipment Name	Responsible Organization	Inspection Frequency	Procedure Number and Inspection Criteria	Inspection Status (Current/ Not Current)	Date of Last Inspection	Proposed Start Date (if Not Current or Equipment Not in Use)¹	Comments
Facility Inspections (Water Diversion Berms)	Facility Engineering	Annually	WP 10-WC3008 Inspecting for Damage, Impediments to water flow, and Deterioration	Current	9/7/14	N/A	
Eye Wash and Shower Equipment (Surface)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	3/30/15	N/A	
Eye Wash and Shower Equipment (Underground)	Equipment Custodian	Weekly	WP 12-IS1832 Inspecting for Deterioration	Current	3/28/15	N/A	
Perimeter Fence, Gates, Signs	Security	Daily	PF0-010 Inspecting for Deterioration and Posted Warnings	Current	3/31/15	N/A	
Underground—Geomechanical Instrumentation System (GIS)	Geotechnical Engineering	Monthly	WP 07-EU1301 Inspecting for Deterioration	Current	3/31/15	N/A	Complete at accessible areas.
Ventilation Exhaust	Maintenance Operations	Quarterly	IC041098 Check for Deterioration and Calibration of Mine Ventilation Rate Monitoring Equipment	Not Current	41F30703 Fan A (11/9/13) 41F30704 Fan B (5/20/13) 41F30702 Fan C (12/18/13)	N/A	The 700 horsepower fans are not in use because underground ventilation system is operating in filtration mode.

¹ Inspection proposed start date of first quarter of calendar year 2016, is an estimate from the WIPP Recovery Plan. Inspections may be initiated prior to 3/31/16 as work zones are released in the underground. Therefore, 3/31/16 is a “placeholder,” and proposed start dates may be revised as recovery work progresses.

Attachment 2
TRU Mixed Waste Currently in Storage at the WIPP Facility (reserved)

Attachment 3 Environmental Monitoring

This attachment contains the following environmental monitoring data:

- VOC Monitoring
- Radiological Monitoring
 - Air samples
 - Surface water samples
 - Biota samples



VOC Sampling Locations



(cont.) VOC Sampling Locations

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	0.09 J
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.495
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Butane	106-97-8	PPBV		7.725 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.57 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		1.425 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.845 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Cyclopropane, ethyl-	1191-96-4	PPBV		0.51 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Heptane	142-82-5	PPBV		0.555 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Isobutane	75-28-5	PPBV		4.125 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Pentane	109-66-0	PPBV		4.365 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.53 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Pentane, 3-methyl-	96-14-0	PPBV		0.855 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Propane	74-98-6	PPBV		6.3 NJ
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	61.71 J

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	91.32 J
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Toluene	108-88-3	PPTV	150	507.27
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Chloroform	67-66-3	PPTV	150	13.23 J
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	59.13 J
CEMRC	2/4/2015	2/13/2015	9189	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	0.12 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	0.44
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.4	0.36 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	0.14 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Butane	106-97-8	PPBV		8.5 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.84 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		1 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.44 NJ

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Isobutane	75-28-5	PPBV		4.56 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Pentane	109-66-0	PPBV		4.36 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.32 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Pentane, 3-methyl-	96-14-0	PPBV		0.7 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Propane	74-98-6	PPBV		8 NJ
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	200	72.52 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	432.58
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	57.74 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Toluene	108-88-3	PPTV	200	377.72
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	200	46.9 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	46.86 J
CEMRC	2/4/2015	2/13/2015	9187	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	138.84 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	0.36 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Butane	106-97-8	PPBV		8.76 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.8 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		1.1 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.54 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.46 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Heptane	142-82-5	PPBV		0.44 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Isobutane	75-28-5	PPBV		4.64 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Pentane	109-66-0	PPBV		4.52 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.34 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Propane	74-98-6	PPBV		7.98 NJ
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	72.34 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	136.4 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	13.24 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	379.9
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	17.06 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	31.72 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	49.72 J
CEMRC	2/4/2015	2/13/2015	9188	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	17.62 J

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	0.09 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Toluene	108-88-3	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Acetone	67-64-1	PPBV		0.315 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Butane	106-97-8	PPBV		3 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		0.375 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Isobutane	75-28-5	PPBV		1.695 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Pentane	109-66-0	PPBV		1.38 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Propane	74-98-6	PPBV		2.76 NJ
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	69.24 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	96.18 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Toluene	108-88-3	PPTV	150	112.52 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Chloroform	67-66-3	PPTV	150	14.73 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

U = Compound not detected above the MDL.

NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	22.91 J
CEMRC	2/5/2015	2/13/2015	9192	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Butane	106-97-8	PPBV		3.84 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.88 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.46 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Isobutane	75-28-5	PPBV		2.08 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Pentane	109-66-0	PPBV		1.68 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.44 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Propane	74-98-6	PPBV		3.98 NJ
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	200	77.82 J
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	122.38 J
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	8.42 J

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Toluene	108-88-3	PPTV	200	146.82 J
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	200	17.18 J
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	27.42 J
CEMRC	2/5/2015	2/13/2015	9190	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	8.14 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Butane	106-97-8	PPBV		3.56 NJ
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.46 NJ
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Dichlorodifluoromethane	75-71-8	PPBV		0.4 NJ
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Isobutane	75-28-5	PPBV		1.98 NJ
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Pentane	109-66-0	PPBV		1.62 NJ
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Propane	74-98-6	PPBV		3.62 NJ

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	79.1 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	116.28 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	7.82 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	152.68 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	14.72 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	27.98 J
CEMRC	2/5/2015	2/13/2015	9191	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	7.04 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Toluene	108-88-3	PPBV	0.6	0.39 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Chloroform	67-66-3	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.6	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Butane	106-97-8	PPBV		7.26 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		3.63 NJ

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.93 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		1.29 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Isobutane	75-28-5	PPBV		3.93 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Pentane	109-66-0	PPBV		4.8 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		1.29 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Propane	74-98-6	PPBV		8.19 NJ
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Methylene Chloride	75-09-2	PPTV	300	47.79 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	300	86.7 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	300	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Chlorobenzene	108-90-7	PPTV	300	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Toluene	108-88-3	PPTV	300	398.85
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Chloroform	67-66-3	PPTV	300	10.65 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	300	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	300	U
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	300	36.21 J
CEMRC	2/11/2015	2/18/2015	9195	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	300	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.4	0.56
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Butane	106-97-8	PPBV		6.52 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Butane, 2-methyl-	78-78-4	PPBV		3.14 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		1.08 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		1.24 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.44 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Isobutane	75-28-5	PPBV		3.48 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Pentane	109-66-0	PPBV		4.5 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.38 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Propane	74-98-6	PPBV		6.74 NJ
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	200	49.02 J
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	108 J
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	11.5 J
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Toluene	108-88-3	PPTV	200	582.34
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	200	14.34 J
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	37.12 J
CEMRC	2/11/2015	2/18/2015	9193	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	20.92 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	0.075 J

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.375
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.3	0.645
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	0.135 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Benzene	71-43-2	PPBV		0.39 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Butane	106-97-8	PPBV		5.955 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.76 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		1.08 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.975 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.405 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Heptane	142-82-5	PPBV		0.435 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Isobutane	75-28-5	PPBV		3.15 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Pentane	109-66-0	PPBV		4.095 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		1.26 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Pentane, 3-methyl-	96-14-0	PPBV		0.675 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Propane	74-98-6	PPBV		5.1 NJ
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	150	50.91 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	354.44

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	55.23 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Toluene	108-88-3	PPTV	150	690.03
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Chloroform	67-66-3	PPTV	150	38.91 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	37.58 J
CEMRC	2/11/2015	2/18/2015	9194	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	128.09 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Toluene	108-88-3	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Acetone	67-64-1	PPBV		0.465 NJ
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Butane	106-97-8	PPBV		1.44 NJ
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Dichlorodifluoromethane	75-71-8	PPBV		1.185 NJ
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Isobutane	75-28-5	PPBV		1.065 NJ

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Pentane	109-66-0	PPBV		0.675 NJ
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Propane	74-98-6	PPBV		2.07 NJ
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	62.52 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	88.59 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Toluene	108-88-3	PPTV	150	92.55 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Chloroform	67-66-3	PPTV	150	14.03 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	18.92 J
CEMRC	2/12/2015	2/18/2015	9198	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	0.1 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Butane	106-97-8	PPBV		1.26 NJ

Qualifiers:

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Pentane	109-66-0	PPBV		0.62 NJ
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Propane	74-98-6	PPBV		1.46 NJ
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	200	68.72 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	91.84 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Toluene	108-88-3	PPTV	200	99.18 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	200	14.04 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	18.34 J
CEMRC	2/12/2015	2/18/2015	9196	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.4	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Butane	106-97-8	PPBV		1.14 NJ

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Pentane	109-66-0	PPBV		0.56 NJ
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Propane	74-98-6	PPBV		1.34 NJ
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	200	67.4 J
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	200	84.3 J
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Toluene	108-88-3	PPTV	200	90.4 J
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Chloroform	67-66-3	PPTV	200	12.86 J
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	200	U
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	200	17.46 J
CEMRC	2/12/2015	2/18/2015	9197	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	200	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	0.075 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.21 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Butane	106-97-8	PPBV		4.965 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		2.085 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.45 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.495 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Isobutane	75-28-5	PPBV		2.73 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Pentane	109-66-0	PPBV		3.12 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.78 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Propane	74-98-6	PPBV		5.295 NJ
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	59.79 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	80.84 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Toluene	108-88-3	PPTV	150	228.77
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Chloroform	67-66-3	PPTV	150	13.34 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	27.9 J
CEMRC	2/18/2015	2/19/2015	9201	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.165 J
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.3	0.24 J

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Notes:

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Butane	106-97-8	PPBV		5.145 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.235 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.51 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.585 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Isobutane	75-28-5	PPBV		2.745 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Pentane	109-66-0	PPBV		3.315 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.9 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Propane	74-98-6	PPBV		5.4 NJ
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	150	62.75 J
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	162.02
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	20.6 J
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Toluene	108-88-3	PPTV	150	266.13
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	150	20.61 J
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	30.39 J
CEMRC	2/18/2015	2/19/2015	9199	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	33.98 J

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

U = Compound not detected above the MDL.

NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.15 J
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.3	0.27 J
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Butane	106-97-8	PPBV		5.265 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		2.235 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.51 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.6 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.835 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Nonanal	124-19-6	PPBV		0.42 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Pentane	109-66-0	PPBV		3.39 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.9 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Pentane, 3-methyl-	96-14-0	PPBV		0.435 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Propane	74-98-6	PPBV		5.415 NJ
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	150	63.39 J
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	157.79
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	16.91 J

Qualifiers:

J = Estimated value; below laboratory's method reporting limit (MRL), but above method detection limit (MDL).

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Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Toluene	108-88-3	PPTV	150	285.2
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Chloroform	67-66-3	PPTV	150	21.21 J
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	30.11 J
CEMRC	2/18/2015	2/19/2015	9200	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	31.04 J
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Toluene	108-88-3	PPBV	0.3	0.315
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Trichloroethylene (1)	79-01-6	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Butane	106-97-8	PPBV		4.275 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Butane, 2-methyl-	78-78-4	PPBV		1.905 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Cyclohexane, methyl-	108-87-2	PPBV		0.57 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Cyclopentane, methyl-	96-37-7	PPBV		0.555 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Isobutane	75-28-5	PPBV		2.205 NJ

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Notes:

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* A value will not appear in the MRL column for TICs.

Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Pentane	109-66-0	PPBV		2.865 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Pentane, 2-methyl-	107-83-5	PPBV		0.825 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Propane	74-98-6	PPBV		4.44 NJ
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Methylene Chloride	75-09-2	PPTV	150	59.36 J
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Carbon Tetrachloride	56-23-5	PPTV	150	81.03 J
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1,1-Trichloroethane	71-55-6	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Toluene	108-88-3	PPTV	150	322.62
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Chloroform	67-66-3	PPTV	150	12.41 J
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	1,2-Dichloroethane	107-06-2	PPTV	150	28.95 J
CEMRC	2/19/2015	2/19/2015	9204	WQSP-4	Trichloroethylene (1)	79-01-6	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Toluene	108-88-3	PPBV	0.3	0.285 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	U

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Butane	106-97-8	PPBV		4.08 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.875 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.57 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.555 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Cyclopropane, ethyl-	1191-96-4	PPBV		0.78 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Isobutane	75-28-5	PPBV		2.055 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Pentane	109-66-0	PPBV		2.7 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Propane	74-98-6	PPBV		4.185 NJ
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Methylene Chloride	75-09-2	PPTV	150	63.24 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	127.08 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	12.77 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Toluene	108-88-3	PPTV	150	305.13
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Chloroform	67-66-3	PPTV	150	16.74 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	29.45 J
CEMRC	2/19/2015	2/19/2015	9202	Building 489 North Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	17.43 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Methylene Chloride	75-09-2	PPBV	0.3	0.075 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPBV	0.3	0.555
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Chlorobenzene	108-90-7	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Toluene	108-88-3	PPBV	0.3	0.3

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Notes:

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Validated VOC Monitoring Data – Surface Sampling at the WIPP

analytical services by Carlsbad Environmental Monitoring & Research Center (CEMRC)

Lab	Sample Date	Analysis Date	Sample ID	Location	Compound	CAS	UNITS	MRL*	Concentration
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Chloroform	67-66-3	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPBV	0.3	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPBV	0.3	0.18 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Butane	106-97-8	PPBV		4.035 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Butane, 2-methyl-	78-78-4	PPBV		1.875 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Cyclohexane, methyl-	108-87-2	PPBV		0.57 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Cyclopentane, methyl-	96-37-7	PPBV		0.555 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Isobutane	75-28-5	PPBV		2.055 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Pentane	109-66-0	PPBV		2.685 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Pentane, 2-methyl-	107-83-5	PPBV		0.765 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Propane	74-98-6	PPBV		4.095 NJ
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Methylene Chloride	75-09-2	PPTV	150	70.65 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Carbon Tetrachloride	56-23-5	PPTV	150	559.46
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1,1-Trichloroethane	71-55-6	PPTV	150	107.13 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Chlorobenzene	108-90-7	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Toluene	108-88-3	PPTV	150	308.78
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Chloroform	67-66-3	PPTV	150	46.07 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1-Dichloroethylene	75-35-4	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,1,2,2-Tetrachloroethane	79-34-5	PPTV	150	U
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	1,2-Dichloroethane	107-06-2	PPTV	150	27.92 J
CEMRC	2/19/2015	2/19/2015	9203	Building 489 Air Intake	Trichloroethylene (1)	79-01-6	PPTV	150	181.89

Qualifiers:

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U = Compound not detected above the MDL.

NJ = Presumptive evidence of the presence of the compound at an estimated quantity; only used for tentatively identified compounds (TICs).

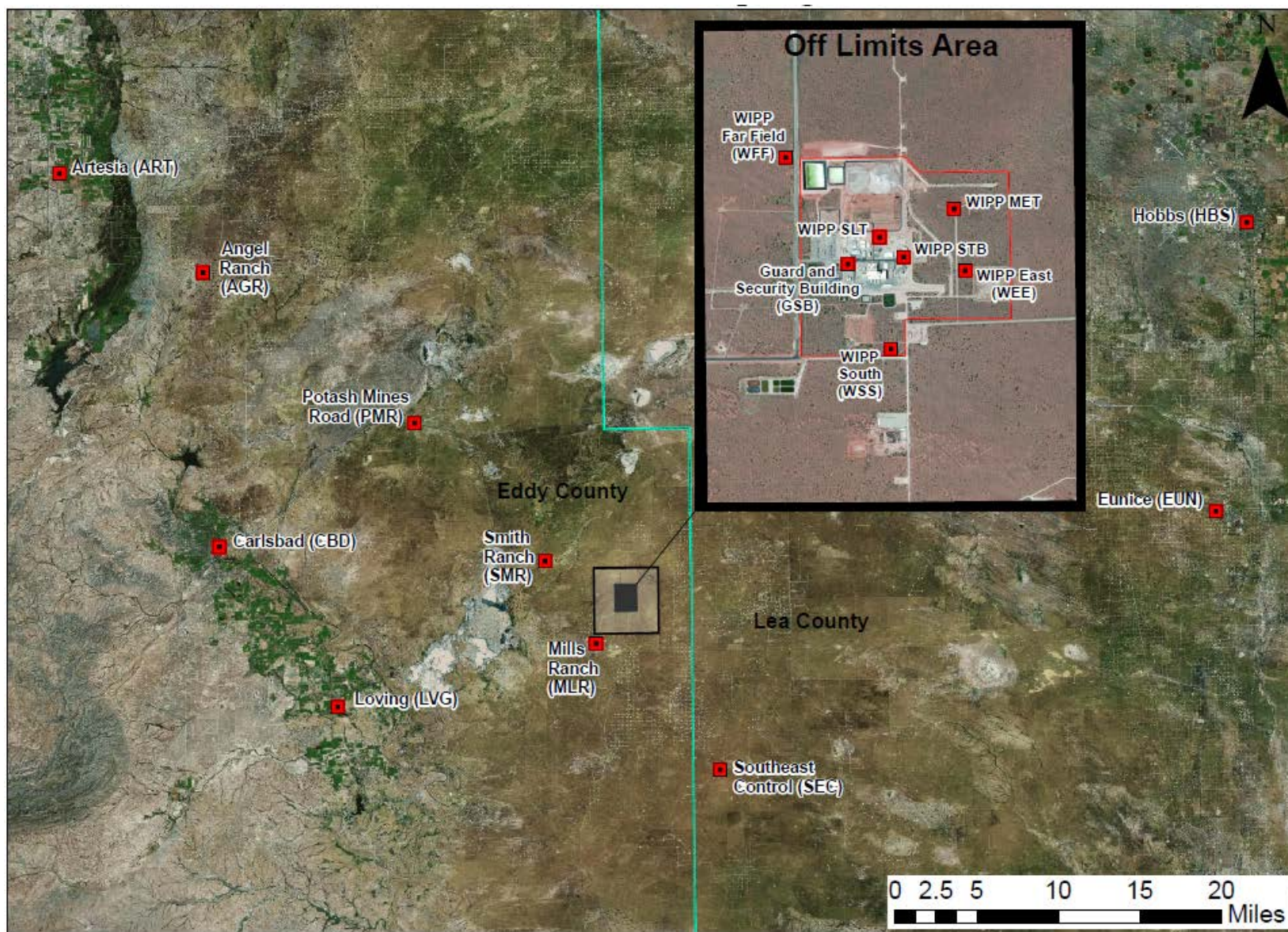
Notes:

(1) Starting with samples collected on or after May 12, 2014, trichloroethylene (TCE) is a target analyte in compliance with Administrative Order dated 5/12/2014. For samples collected before 5/12/2014, TCE is an additional requested analyte; not a Permit-prescribed target analyte but included in the laboratory quantitative analysis.

3/31/2015 7:42 AM

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* A value will not appear in the MRL column for TICs.



Active DOE Air Sampling Sites

Environmental Monitoring & Hydrology Airborne Particulates Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
WIPP Far Field (WFF)	EE-WFF-20150217-1.2	02/24/2015	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF) co-located	EE-WFF-20150217-2.2	02/24/2015	Below MDC	Below MDC	Below MDC
WIPP East (WEE)	EE-WEE-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
WIPP South (WSS)	EE-WSS-20150217-1.2	02/24/2015	Below MDC	Below MDC	Below MDC
WIPP South (WSS) co-located	EE-WSS-20150217-2.2	02/24/2015	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR)	EE-MLR-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Carlsbad (CBD)	EE-CBD-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR)	EE-SMR-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Southeast Control (SEC)	EE-SEC-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Meteorology Tower Building (MET) [†]	EE-MET-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Salt Hoist (SLT) [†]	EE-SLT-20150217-1.2	02/24/2015	Below MDC	Below MDC	Below MDC
Salt Hoist (SLT) co-located	EE-SLT-20150217-2.2	02/24/2015	Below MDC	Below MDC	Below MDC
Southeast of Training Building (STB) [†]	EE-STB-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Guard and Security Building (GSB) [‡]	EE-GSB-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Artesia (ART) [§]	EE-ART-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Eunice (EUN) [§]	EE-EUN-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Hobbs (HBS) [§]	EE-HBS-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Loving (LVG) [§] – aborted	EE-LVG-20150217-1.1	02/24/2015	---	---	---
Potash Mines Road (PMR) ^{††}	EE-PMR-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
Angel Ranch (ANG) ^{§§}	EE-ANG-20150217-1.1	02/24/2015	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF)	EE-WFF-20150303-1.2	03/10/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01

Environmental Monitoring & Hydrology Airborne Particulates Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
WIPP Far Field (WFF) co-located	EE-WFF-20150303-2.2	03/10/2015	Below MDC	Below MDC	Below MDC
WIPP East (WEE)	EE-WEE-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
WIPP South (WSS)	EE-WSS-20150303-1.2	03/10/2015	Below MDC	Below MDC	Below MDC
WIPP South (WSS) co-located	EE-WSS-20150303-2.2	03/10/2015	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR)	EE-MLR-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Carlsbad (CBD)	EE-CBD-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR)	EE-SMR-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Southeast Control (SEC)	EE-SEC-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Meteorology Tower Building (MET) [†]	EE-MET-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Salt Hoist (SLT) [†]	EE-SLT-20150303-1.2	03/10/2015	Below MDC	Below MDC	Below MDC
Salt Hoist (SLT) co-located	EE-SLT-20150303-2.2	03/10/2015	Below MDC	Below MDC	Below MDC
Southeast of Training Building (STB) [†]	EE-STB-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Guard and Security Building (GSB) [‡]	EE-GSB-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Artesia (ART) [§]	EE-ART-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Eunice (EUN) [§]	EE-EUN-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Hobbs (HBS) [§]	EE-HBS-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Loving (LVG) [§]	EE-LVG-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Potash Mines Road (PMR) ^{‡‡}	EE-PMR-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC
Angel Ranch (ANG) ^{§§}	EE-ANG-20150303-1.1	03/10/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01

Environmental Monitoring & Hydrology Airborne Particulates Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
WIPP Far Field (WFF) 1st Quarter 2014	AL-WFF...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
WIPP East (WEE) 1st Quarter 2014	AL-WEE...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
WIPP South (WSS) 1st Quarter 2014	AL-WSS...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR) 1st Quarter 2014	AL-MLR...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
Carlsbad (CBD) 1st Quarter 2014	AL-CBD...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR) 1st Quarter 2014	AL-SMR...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
Southeast Control (SEC) 1st Quarter 2014	AL-SEC...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
Southeast Control (SEC) Dup 1st Quarter 2014	AL-SEC...(Composite 6 samples)	---	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF) 2nd Quarter 2014	AL-WFF...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
WIPP East (WEE) 2nd Quarter 2014	AL-WEE...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
WIPP South (WSS) 2nd Quarter 2014	AL-WSS...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR) 2nd Quarter 2014	AL-MLR...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
Carlsbad (CBD) 2nd Quarter 2014	AL-CBD...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01

Environmental Monitoring & Hydrology Airborne Particulates Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
Smith Ranch (SMR) 2nd Quarter 2014	AL-SMR...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
Southeast Control (SEC) 2nd Quarter 2014	AL-SEC...(Composite 7 samples)	---	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF) 3rd Quarter 2014	AL-WFF...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
WIPP East (WEE) 3rd Quarter 2014	AL-WEE...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
WIPP South (WSS) 3rd Quarter 2014	AL-WSS...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR) 3rd Quarter 2014	AL-MLR...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
Carlsbad (CBD) 3rd Quarter 2014	AL-CBD...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR) 3rd Quarter 2014	AL-SMR...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR) Dup 3rd Quarter 2014	AL-SMR...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01

Environmental Monitoring & Hydrology Airborne Particulates Sampling

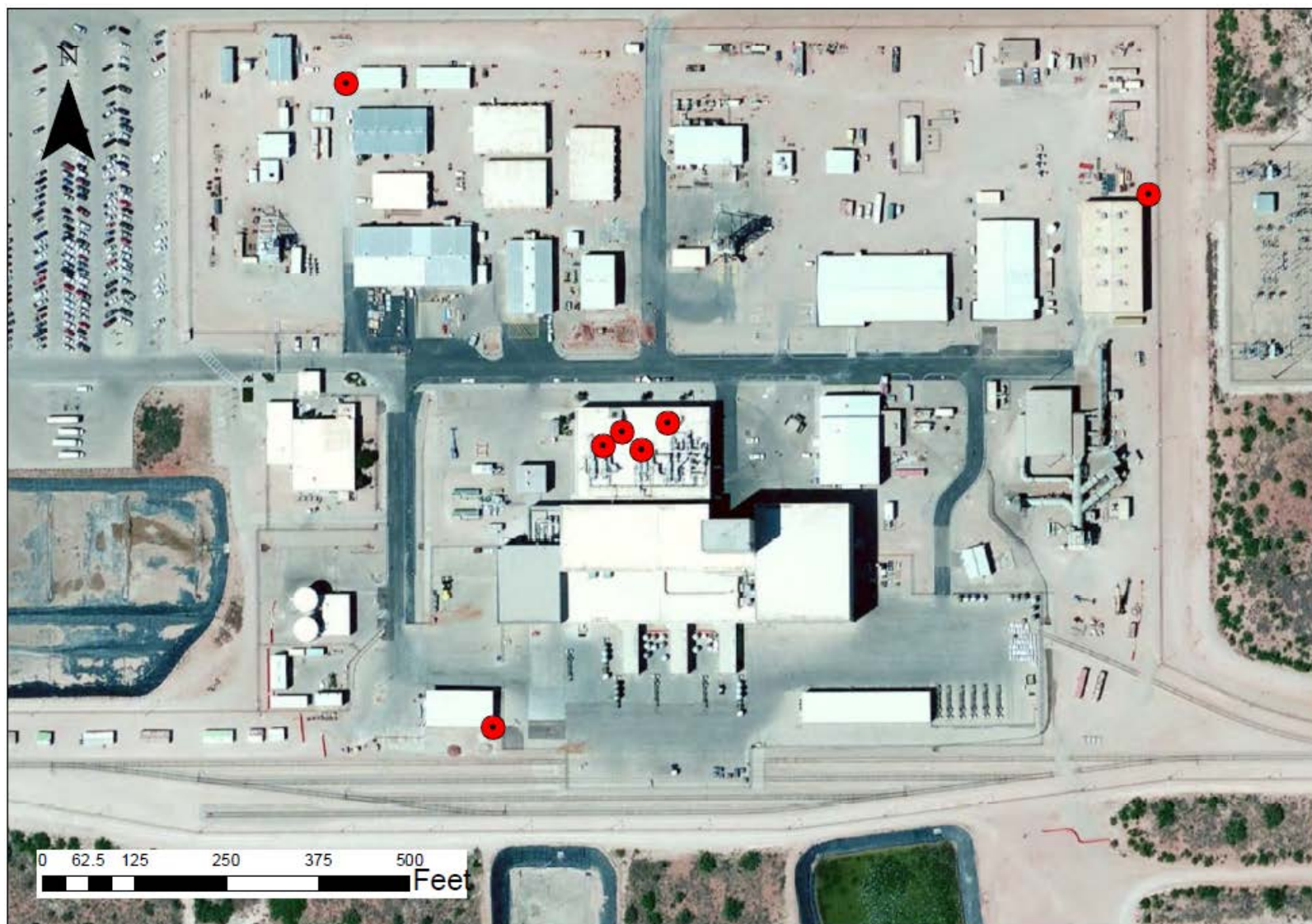
Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/sample)	Pu-238 (dpm/sample)	Pu-239/240 (dpm/sample)
Southeast Control (SEC) 3rd Quarter 2014	AL-SEC...(Composite 14 samples)	---	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF) 4th Quarter 2014	AL-WFF...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
WIPP Far Field (WFF) Dup 4th Quarter 2014	AL-WFF...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
WIPP East (WEE) 4th Quarter 2014	AL-WEE...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
WIPP South (WSS) 4th Quarter 2014	AL-WSS...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
Mills Ranch (MLR) 4th Quarter 2014	AL-MLR...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
Carlsbad (CBD) 4th Quarter 2014	AL-CBD...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
Smith Ranch (SMR) 4th Quarter 2014	AL-SMR...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC
Southeast Control (SEC) 4th Quarter 2014	AL-SEC...(Composite 13 samples)	---	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/sample): 1.89E-02 to 5.05E-01

MDC Pu-238 (dpm/sample): 1.89E-02 to 1.57E+01

MDC Pu-239/240 (dpm/sample): 1.70E-02 to 5.94E-01



Surface Water Sampling Locations
Samples of Opportunity, January 31, 2015

Environmental Monitoring & Hydrology Surface Water Sampling

Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/L)	Pu-238 (dpm/L)	Pu-239/240 (dpm/L)
Sample of Opportunity	WS-SOO-20150131-1.6	1/31/2015	Below MDC	Below MDC	Below MDC
Sample of Opportunity (Dup)	WS-SOO-20150131-2.6	1/31/2015	Below MDC	Below MDC	Below MDC
Sample of Opportunity	WS-SOO-20150131-3.6	1/31/2015	Below MDC	Below MDC	Below MDC
Sample of Opportunity	WS-SOO-20150131-4.6	1/31/2015	Below MDC	Below MDC	Below MDC
Sample of Opportunity	WS-SOO-20150131-5.6	1/31/2015	Below MDC	Below MDC	Below MDC
Blank	WS-BLK-20150131-6.6	1/31/2015	Below MDC	Below MDC	Below MDC

MDC ranges are:

MDC Am-241 (dpm/L): 4.34E-02 to 1.51E-01

MDC Pu-238 (dpm/L): 2.84E-02 to 9.47E-02

MDC Pu-239/240 (dpm/L): 2.79E-02 to 7.60E-02

Environmental Monitoring & Hydrology Biota Sampling - Fauna

Tissue Type/Location	Sample ID Number	Sample Date	WIPP Labs Radiochemistry		
			Am-241 (dpm/g)	Pu-238 (dpm/g)	Pu-239/240 (dpm/g)
Biotic Rabbit/Sample of Opportunity	BR-SOO-20150120-1.1	1/20/2015	Below MDC	Below MDC	Below MDC
Biotic Quail/WIPP East	BQ-WEE-20150129-1.1	1/29/2015	Below MDC	Below MDC	Below MDC

MDCs ranges are:

MDC Am-241 (dpm/g): 2.01E-02 to 5.01E-02

MDC Pu-238 (dpm/g): 1.27E-02 to 2.60E-02

MDC Pu-239/240 (dpm/g): 8.64E-03 to 2.52E-02

Attachment 4
Surface and Underground Derived Waste Currently in Storage at the WIPP Facility

Site of Origin	Shipment	Receipt Date/Time	ICV Closure Date/Time	Venting Deadline	Venting Date	WHB Deadline	Assembly	Unemplaced Containers	Waste Volume ¹ (ft ³)
WIPP ²	---	3/1/2015	---	---	---	05/06/15	WISD012 ³	1 SWB	66.3

Notes:

¹55G Drum=7.4 ft³, SWB=66.3 ft³, TDOP=160 ft³, 85G Drum=11.4 ft³, 100G Drum=13.4 ft³, SLB2=261 ft³ (Permit Part 3, Section 3.3.1)

²Waste generated at the WIPP facility as a result of decontamination activities and characterized as derived waste (Permit Part 2, Section 2.3.5)

³Derived-waste container number

SWB – standard waste box

WHB – Waste Handling Building

Attachment 5
Status of RCRA Contingency Plan Required Activities (reserved)

Attachment 6
Corrective Actions Required for Recovery (reserved)

Attachment 7
As-Found Condition of Panel 7



Project Reach team members work to obtain video of emplacement waste located in Panel 7, Room 7 where the radiological release occurred.



Project Reach's 90-foot boom is positioned over the top of waste containers in Panel 7, Room 7, as a remotely operated video camera collects photographic evidence.

Attachment 8
Panel 7 Recovery-Related Work

Attachment 9
As-Found Condition of Panel 6



As-Found Condition of Panel 6, S-3080 Drift between W-30 and W-170



As-Found Condition of Panel 6, S-2750 Drift