

National Aeronautics and
Space Administration

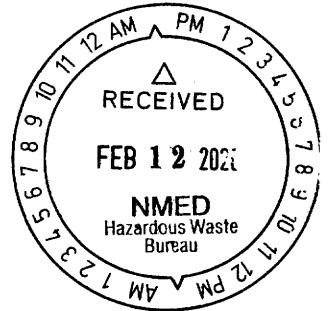
Lyndon B. Johnson Space Center
White Sands Test Facility
P.O. Box 20
Las Cruces, NM 88004-0020



February 11, 2020

Reply to Attn of: RE-20-025

Mr. Kevin Pierard, Bureau Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505



Subject: WSTF Monthly Environmental Activity Report for January 2020

Enclosed is the WSTF Monthly Environmental Activity Report for January 2020. This reporting format includes an Executive Summary that provides important events/observations as Enclosure 1, a paper copy of the report as Enclosure 2, and a CD-ROM with the report in PDF as Enclosure 3.

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

If you have any questions or comments concerning this submittal, please contact Amanda Skarsgard at 575-524-5460.

A handwritten signature in black ink, appearing to read "T J Davis".

Timothy J. Davis
Chief, Environmental Office

3 Enclosures

cc:

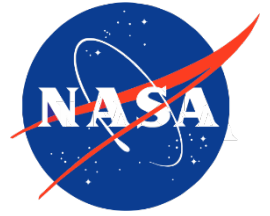
✓ Mr. Gabriel Acevedo
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Executive Summary

The following summarizes important information associated with NASA White Sands Test Facility (WSTF) environmental program activities in January 2020:

- NASA completed nine waste shipments in January 2020.
- NASA sampled 38 of 39 groundwater monitoring wells scheduled for January 2020.
- NASA operated the Plume Front Treatment System on 31 of 31 days in January 2020 and treated 116.8 acre-feet of contaminated groundwater.
- NASA operated the Mid-plume Interception and Treatment System on 31 of 31 days in January 2020 and treated 0.68 acre-feet of contaminated groundwater and 10,004 gallons of investigation-derived waste.
- NASA continued developing responses to NMED approvals with modification or disapprovals of the 200/600 Area Vapor Intrusion Assessment Report (completed and submitted), periodic monitoring reports (completed and submitted), and the Groundwater Monitoring Plan (ongoing).
- NASA continued fieldwork and additional project planning for Phase I of the investigation of the 700 Area Landfill (SWMU 49).
- NASA continued developing the remedy completion report for accelerated corrective measures at the three closed small arms firing ranges (SWMUs 29-31).
- NASA continued project planning and preparations for the proposed site-wide airborne gravity-magnetic geophysical survey, scheduled for the first week of February.
- NASA continued groundwater extraction in accordance with the *Targeted Mobile Remediation Process Pilot Test Work Plan*.
- NASA continued extraction of perched groundwater at monitoring well 600-G-138.
- NASA submitted several documents in January 2020: responses to disapprovals or approvals with modifications; request for extension of time; soil vapor investigation documents; fee assessments; and required submittals to other NMED bureaus or entities.
- There were no reportable non-compliance issues in January 2020.

National Aeronautics and Space Administration



Monthly Environmental Activity Report
January 2020

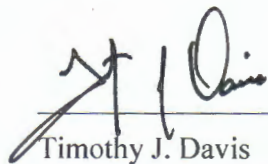
Report Deadline: February 15, 2020

NASA Johnson Space Center White Sands Test Facility
Monthly Environmental Activity Report

January 2020

NM8800019434

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



Timothy J. Davis
Chief, Environmental Office

2/11/2020

Date

National Aeronautics and Space Administration

Johnson Space Center
White Sands Test Facility
12600 NASA Road
Las Cruces, NM 88012
www.nasa.gov/centers/wstf

www.nasa.gov

Executive Summary

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- There were no reportable non-compliance issues in January 2020.

1.0 Waste Management Activities

1.1 NASA completed the following waste shipments in January 2020.

Date	Shipped To	Type of Waste	No. of Containers	Amount of Waste	Disposition
1/15/20	Safety Kleen, El Paso, TX	Used Oil	12	4,128 lbs	Recycle
1/15/20	Safety Kleen, Cincinnati, OH	Used Oil	2	715 lbs	Recycle
1/15/20	Mesa Environmental, Belen, NM	Used Oil Filters	2	371 lbs	Recycle
1/15/20	Safety Kleen, El Paso, TX	Used Antifreeze	1	55 lbs	Recycle
1/15/20	Corralitos Landfill, Doña Ana County, NM	Asbestos	1	28 kg	Disposal in Special Landfill Cell
1/22/20	Veolia, Henderson, CO	Hazardous	11	274 kg	Incineration
1/22/20	ACT-Albuquerque, NM	Hazardous	8	3,894 kg	Stored/bulked for transport to other TSDF
1/23/20	Clean Harbors, Aragonite, UT	Hazardous Aqueous Hydrazine Waste	1 tanker	7,610 kg	Incineration
1/28/20	Custom Crates and Pallets, El Paso, TX	Non-hazardous pallets	1 53 ft truck	5,930 kg	Recycle

1.2 NMED is reviewing the *Closure Certification Report for the NASA WSTF FTU (Fuel Treatment Unit)* (August 6, 2019).

2.0 Environmental Monitoring

2.1 NASA performed sampling at 38 of 39 groundwater monitoring wells or zones scheduled for sampling in January 2020, in accordance with the *Groundwater Monitoring Plan*. The dedicated sampling pump in well BLM-18-430 failed during scheduled sampling. Evaluation and repair is underway. Previous deviations from the planned sampling schedule are described below:

- Well 200-LV-150, scheduled for sampling in November 2019, failed to recharge adequately to collect representative groundwater samples. NASA is evaluating this well to determine if future sampling is possible. This well may be a candidate for no purge sampling methods.
- Well BLM-28-515, which was reconfigured with a dedicated packer and bladder pump and scheduled for initial sampling in July 2019, cannot be sampled because of sampling system issues. Additional information is provided in Section 3.18.
- The Water FLUTE sampling system was removed from well WW-4 to support the collection of groundwater samples in accordance with the *Abbreviated Investigation Work Plan Groundwater Data Representativeness Phase 1: Water FLUTE Well Evaluation* (July 30, 2019; revised). Routine groundwater sampling required by the *Groundwater Monitoring Plan* is not possible at this time.

NASA White Sands Test Facility

- Well 200-KV-150, scheduled for sampling in December 2018, failed to recharge adequately to collect representative samples. NASA is evaluating this well to determine if future sampling is possible. This well may be a candidate for no purge sampling methods.
- 2.2 NASA performed other regulatory groundwater sampling requirements (such as those included in the Remediation System Monitoring Plan, landfill post-closure care, and discharge plans) as scheduled and as allowed by operational status. NASA did not sample well PFE-2 because the well was not operational due to a previous equipment failure. During January 2020, NASA and the equipment vendor continued troubleshooting to determine the cause of pump failure.
- 2.3 NASA developed the February 2020 groundwater sampling schedule and plans to sample 20 groundwater monitoring wells or zones based on *Groundwater Monitoring Plan* requirements.

3.0 Corrective Actions/Investigations

3.1 Plume Front Treatment System Operations

Days Operated	Average Flow Rate (gpm)	Volume Extracted/Treated (acre-feet)	Volume Injected	Volume Discharged to Grade (acre-feet)	Volume Discharged to Modu-tank (acre-feet)
31 of 31	817	116.8	119.0	1.36	0.0

Shutdown Date	Restart Date	Shutdown Status	Discussion
None			

3.2 Mid-plume Interception and Treatment System Operations

Days Operated	Average Flow Rate (gpm)	Volume of Groundwater Extracted and Treated (acre-feet)	Volume of Groundwater Discharged to Infiltration Basin (acre-feet)	Volume of IDW Treated and Discharged to the Infiltration Basin (gallons)
31 of 31	6.0	0.65	0.68	10,004

Shutdown Date	Restart Date	Shutdown Status	Discussion
1/14/20	1/22/20	Planned	The system was shut down to perform scheduled maintenance.
1/31/20	1/31/20	Unplanned	The system shut down automatically when the level in the surge tank exceeded allowable limits during the introduction of investigation-derived waste.

3.3 200 Area Investigation

- NASA developed the required response to the 12 comments in NMED's June 5, 2019 disapproval of the *200 Area and 600 Area Vapor Intrusion Assessment Report* (June 18, 2018) and submitted the revised report on January 30, 2020.

3.4 Test Stand 301A Release Assessment

- NMED is reviewing the *Response to Disapproval of NASA WSTF Test Stand 301A Abbreviated Investigation Report* (September 24, 2019).

3.5 400 Area

- NMED is reviewing the *400 Area Supplemental Groundwater and Soil Vapor Monitoring Plan* (May 28, 2019), the related *300 Area Supplemental Abbreviated Drilling Work Plan* for two additional multiport soil vapor and groundwater monitoring wells in the 300 Area (May 30, 2019), and the *400 Area Closure Investigation Report – NMED Second Disapproval Response* (December 30, 2019).

3.6 600 Area Perched Groundwater Extraction Pilot Test and Investigation

- In January 2020, NASA continued extraction of perched groundwater from monitoring well 600-G-138 in accordance with NMED's March 1, 2013, *Approval Time Extension for Implementation of the Perched Groundwater Extraction Pilot Test at the 600 Area*. Approximately 158 gallons of perched groundwater were removed from 600-G-138 during the month. Extracted groundwater was containerized for treatment and disposal at the MPITS in accordance with DP-1255.
- NMED is reviewing the *Synopsis of the Findings of the 600 Area Closure Geophysical Seismic Refraction Tomography and Reflection Surveys with Revised Soil Boring Locations Submitted for NMED Approval* (December 19, 2019).

3.7 SWMUs 2, 8, and 34 and AOC 51 (Wastewater Lagoons)

- In January 2020, NASA coordinated with the off-site subcontracted drilling company to mobilize to WSTF in mid-February 2020 to complete the installation of additional soil borings at the STGT Wastewater Lagoons. NASA expects the installation of soil borings and soil sample collection to be completed in February 2020. This activity will complete all investigation fieldwork described in the NMED-approved work plan.
- NMED is reviewing the *NASA WSTF 100 Area Wastewater Lagoons Closure (SWMU 2) Interim Status Report* (May 29, 2019), the *NASA White Sands Test Facility (WSTF) 200 Area Wastewater Lagoons Closure (SWMU 8) Investigation Report* (November 25, 2019), the *NASA White Sands Test Facility (WSTF) 600 Area Wastewater Lagoons Closure (SWMU 34) Investigation Report* (November 26, 2019), and the *Response to Approval with Modifications for NASA WSTF STGT Wastewater Lagoons Liner Management Plan Addendum* (December 5, 2019).
- NASA continued data evaluation and preparation of investigation reports for the 100 Area and STGT Wastewater Lagoons.

3.8 SWMU 10 (200 Area Hazardous Waste Transmission Lines)

- NMED is reviewing the *Response to Disapproval of the NASA WSTF 200 Area HWTL (SWMU 10) Investigation Report* (July 30, 2019).

- 3.9 SWMU 16 (600 Area BLM Off-site Soil Pile)
- NMED is reviewing the *Response to Fourth Disapproval of NASA WSTF SWMU 16 (600 Area BLM Off-Site Soil Pile) Investigation Report* (December 18, 2019).
- 3.10 SWMU 19 (800 Area Below Grade Storage Tank)
- NMED is reviewing the *Response to Disapproval of Revised SWMU 19 (800 Area Below Grade Storage Tank) Investigation Report* (June 27, 2019).
- 3.11 SWMUs 21-27 (Septic Tanks)
- NMED is reviewing the *Response to Disapproval of NASA WSTF Septic Tanks (SWMUs 21-27) Investigation Report* (July 23, 2019).
- 3.12 SWMUs 29-31 (Small Arms Firing Ranges)
- NASA continued additional fieldwork required to respond to NMED's February 21, 2019, *Second Disapproval of Small Arms Firing Ranges (SWMUs 29-31) Remedy Completion Report* (March 30, 2018). NASA continued managing approximately 4 cubic yards of lead-impacted soil and expects to ship the waste off-site in February 2020.
 - NASA determined that additional time was required to complete the planned human and ecological health risk assessment for the three SWMUs and submitted the *Second Request for Extension of Time for NASA WSTF Small Arms Firing Ranges (SWMUs 29-31) Response to Second Disapproval Remedy Completion Report* on January 29, 2020.
- 3.13 SWMU 47 (500 Area Fuel Storage)
- NMED is reviewing the *Response to Disapproval of 500 Area Fuel Storage Area (SWMU 47) Investigation Work Plan* (November 21, 2019).
- 3.14 SWMU 49 (700 Area Landfill)
- In December 2019 and early January 2020, NASA completed the mechanical removal of brush along investigation gridlines on the landfill closure cap and relocated gridlines and sample points disturbed by that work.
 - NASA received and began reviewing analytical data from the 159 passive soil vapor samplers recovered from conduits, landfill methane monitoring wells, and groundwater monitoring wells (Investigation Phase 1A) as described in the *SWMU 49 (700 Area Landfill) Phase I Investigation Work Plan* (August 8, 2019; revised).
 - A contract was awarded to perform the electromagnetic induction and magnetic gradient surveys and coordinated with the vendor to perform those surveys in mid-February 2020. NASA continued procurement of ground penetrating radar and passive seismic surveys as described in the NMED-approved landfill investigation.
- 3.15 SWMU 50 (TDRSS Diesel Release)
- NMED is reviewing the *First Tracking and Data Relay Satellite System (TDRSS) Diesel Release (SWMU 50) Investigation Report* (March 14, 2019).
- 3.16 Augmented Soil Background Study
- NMED is reviewing the *Response to Disapproval of Augmented Soil Background Study Abbreviated Investigation Work Plan* (June 24, 2019).

3.17 Monitoring Well Installation and Decommissioning

- NASA awaits delivery of the groundwater sampling systems for installation in new groundwater monitoring wells BLM-42 and PL-12 as described in the *Work Plan for Abandonment of NASA WSTF Monitoring Well BLM-37 and Replacement with Monitoring Well BLM-42* (January 30, 2018) and the *NASA WSTF Drilling Work Plan for Groundwater Monitoring Well PL-12* (December 27, 2017). The off-site vendor encountered additional delays in obtaining some materials and could not deliver the sampling systems until late January 2020. The well completion reports due to NMED by February 28, 2020 may be impacted by this delay.
- NASA continued managing investigation-derived waste generated during the installation and development of new monitoring well PL-12 in accordance with the approved work plan and requests for “contained-in” determinations, approved by NMED on October 8, October 22, and October 22, 2019. In January 2020, NASA coordinated with a waste management contractor to complete the disposal of residual drilling fluids and drilling mud from well PL-12. Waste management and disposal will be performed in February 2020.

3.18 Westbay Monitoring Well Reconfiguration

- NASA continues to evaluate whether the BLM-28 borehole can be used for future groundwater monitoring.
- NMED is reviewing the *Work Plan for Abandonment of NASA WSTF Well BLM-30 and Replacement with Monitoring Well BLM-43* (August 29, 2019).

3.19 Targeted Mobile Remediation Process (TMRP)

- During January 2020, NASA continued TMRP fieldwork in accordance with the *Targeted Mobile Remediation Process Pilot Test Work Plan* (April 26, 2019; updated).
- NASA continued groundwater extraction at monitoring well ST-3-666 throughout January 2020, removing an additional 11,918 gallons of groundwater.
- NASA completed fabrication of an additional mobile pumping system, tested the unit, and installed it in monitoring well ST-3-735 on January 22, 2020. NASA removed 2,904 gallons of groundwater from this well during the month. NASA expects to continue groundwater extraction at well ST-3-735 through February 2020.
- NASA initiated groundwater extraction at monitoring well NASA 6 on January 16, 2020 and used the dedicated groundwater sampling pump to remove 255 gallons of groundwater during the month. NASA expects to continue groundwater extraction at well NASA 6 through February 2020.
- NASA transported extracted groundwater to the MPITS in accordance with the approved work plan and Discharge Plan DP-1255.

3.20 Groundwater Data Representativeness Evaluation

- NASA continued development of the report on the investigation performed at monitoring well WW-4 in accordance with the *Abbreviated Investigation Work Plan Groundwater Data Representativeness Phase I: Water FLUTE Well Evaluation* (July 30, 2019; revised). The report is due to NMED by February 28, 2020.

3.21 Site-Wide Geophysical Survey Investigation

- NASA initiated field activities in accordance with the *Site-wide Geophysical Survey Investigation Work Plan* (December 12, 2019; revised). On January 31, 2020 the contractor for

the airborne gravity magnetic survey mobilized to WSTF. NASA completed all visitor orientation, safety training, final project coordination, and equipment inspections and prepared for the airborne survey to commence on February 1, 2020.

- A NASA contractor performed a passive 3-D seismic pilot study in the Western Boundary Fault Zone during the week of January 13, 2020, to collect baseline data to support potential larger scale passive 3-D studies at WSTF. A second contractor mobilized to WSTF on January 31, 2020 and initiated another pilot test.

4.0 Non-compliance Issues

The NASA Hazardous Waste Permit requires that other non-compliance conditions be reported to NMED. There were no instances of other non-compliance conditions during this reporting period that require notification under the Permit. The criteria for non-compliance reporting in this report (as defined by 40 CFR 270.30 (l)(10) and EPA interpretations at RCRA Faxbacks 13142 and 13686) would be any non-compliance with permit conditions that is not classified as minor recordkeeping, reporting, and similar oversights that were corrected once discovered. Additionally, there were no issues meeting the previously defined criteria (minor items immediately corrected) that were part of a repeating pattern of non-compliance.

5.0 Documents Submitted

5.1 Documents submitted to the Hazardous Waste Bureau in January 2020

- NASA submitted the *Fee Assessment for Periodic Monitoring Report for Third Quarter 2019* on January 13, 2020.
- NASA submitted the *NASA WSTF 2020 Soil Vapor Risk Based Concentrations (RBC) Memorandum* on January 14, 2020.
- NASA submitted the *Response to Approval with Modifications of the NASA WSTF Periodic Monitoring Report – Fourth Quarter 2018* on January 15, 2020.
- NASA submitted the *Fee Assessment for NASA WSTF Class 1 Permit Modification Without Prior Approval* on January 16, 2020.
- NASA submitted the *Response to Approval with Modifications of NASA WSTF Periodic Monitoring Report – First Quarter 2019* on January 22, 2020.
- NASA submitted the *Second Request for Extension of Time for NASA WSTF Small Arms Firing Ranges (SWMUs 29-31) Response to Second Disapproval Remedy Completion Report* on January 29, 2020.
- NASA submitted the *NASA WSTF Annual Waste Accumulation Areas Location Map* on January 30, 2020.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – Fourth Quarter 2019* on January 30, 2020.
- NASA submitted the *NMED Disapproval Response for 200 Area and 600 Area Vapor Intrusion Assessment Report* on January 30, 2020.

5.2 Pertinent documents submitted to other NMED bureaus or entities in January 2020

- NASA submitted the *NASA JSC White Sands Test Facility – FF Fourth Quarter 2019 Disinfectant Residual Monitoring Report* to the NMED Drinking Water Bureau on January 6, 2020.
- NASA submitted the *NASA WSTF 700 Area Landfill Detection Monitoring Results for 2019 Second Semi-annual Sampling Event* to the NMED Solid Waste Bureau on January 9, 2020. The SWB responded to the report on January 22, 2020 stating that NASA is in compliance with landfill groundwater monitoring requirements.
- NASA submitted the *Water Easement WM-14 Quarterly Report – Fourth Quarter 2019* to the New Mexico State Land Office on January 16, 2020.
- NASA submitted the *Semi-Annual Compliance Report, National Emission Standards for Hazardous Air Pollutants (NESHAP): Reciprocating Internal Combustion Engines (RICE), for the period July 1 through December 31, 2019* to the NMED Air Quality Bureau on January 22, 2020.
- NASA submitted *Opacity/Visible Emission Test Results* to the NMED Air Quality Bureau on January 22, 2020.
- NASA submitted the *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units – 40 CFR Part 0, Subpart Dc (NSPS Dc) Quarterly Report for Period October 1 through December 31, 2019* to the NMED Air Quality Bureau on January 22, 2020.
- NASA submitted the *2020 Air Quality Bureau Annual Minor Source Permit Fee for the NASA WSTF* to the NMED Air Quality Bureau on January 28, 2020.
- NASA submitted the *Annual Report of Significant Environmental Activities* to the U.S. Army White Sands Missile Range on January 28, 2020.
- NASA submitted the *NASA WSTF Analytical Results for Discharge Plan DP-392 (100, 200, and 600 Area Sewage Lagoons)* to the NMED Ground Water Pollution Prevention Section on January 29, 2020.
- NASA submitted the *NASA WSTF Discharge Plan DP-1170 Semi-Annual Monitoring Report* to the NMED Ground Water Quality Bureau on January 30, 2020.
- NASA submitted the *Easement Deed No. 57-6235-3-48 Groundwater Monitoring Report for 2019* to the USDA Agricultural Research Service on January 30, 2020.

5.3 Status of documents previously submitted to the NMED Hazardous Waste Bureau for which activity was recorded in January 2020

- NASA submitted the *NASA WSTF Small Arms Firing Ranges (SWMUs 29-31) Remedy Completion Report* on March 30, 2017. NASA received NMED's April 28, 2017 fee assessment for review of the report and submitted the \$6,500 review fee to NMED on May 31, 2017. NASA received NMED's September 7, 2017 disapproval of the report. NASA submitted the *Request for Extension of Time for Response to Small Arms Firing Ranges (SWMUs 29-31)* on November 8, 2017. NMED approved the request for extension on December 1, 2017, extending the due date from December 29, 2017 to March 30, 2018. NASA submitted the *Response to Disapproval Small Arms Firing Ranges (SWMUs 29-31) Remedy Completion Report* on March 30, 2018. NMED disapproved the report on February 21, 2019 and directed NASA to address seven NMED comments and submit a revised report no later than December 31, 2019. NASA submitted the *Request for Extension of Time for NASA WSTF Small Arms Firing Ranges (SWMUs 29 – 31) Response to Second Disapproval Remedy Completion Report*

on October 28, 2019. NMED approved the request on November 13, 2019, extending the due date for the revised report from December 31, 2019 to February 28, 2019. NASA submitted the *Second Request for Extension of Time for NASA WSTF Small Arms Firing Ranges (SWMUs 29-31) Response to Second Disapproval Remedy Completion Report* on January 29, 2020.

- NASA submitted the *200 Area and 600 Area Vapor Intrusion Assessment Report* on June 18, 2018. NASA received NMED's July 11, 2018 fee assessment for review of the report on August 13, 2018 and provided the \$4,500 review fee to NMED on October 2, 2018. NASA received NMED's June 5, 2019 disapproval on June 10, 2019 and is reviewing NMED comments. Responses to the comments and a revised investigation report are due to NMED by October 31, 2019. NASA submitted the *Request for Extension of Time for Response to Disapproval 200 Area and 600 Area Vapor Intrusion Assessment Report* on September 17, 2019. NMED approved the request on October 7, 2019, extending the due date for the revised report to December 20, 2019. NASA submitted the *Request for Second Extension of Time for Response to Disapproval 200 and 600 Area Vapor Intrusion Assessment Report* on December 17, 2019. NMED approved the request, extending the due date for submittal of the revised report to February 3, 2020. NASA submitted the *NMED Disapproval Response for 200 Area and 600 Area Vapor Intrusion Assessment Report* on January 30, 2020.
- NASA submitted the *Mid-Plume Fracture Enhancement Pilot Test Work Plan* on February 19, 2019. NASA received NMED's March 20, 2019 fee assessment for review of the plan on April 3, 2019 and provided the \$1,000 review fee to NMED on April 25, 2019. NASA received NMED's December 18, 2019 disapproval of the work plan on January 8, 2020. NMED directed NASA to address 17 NMED comments and submit a revised work plan no later than May 29, 2020.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – Fourth Quarter 2018* on February 19, 2019. NASA received NMED's March 20, 2019 fee assessment for review of the report on April 3, 2019 and provided the \$2,000 review fee to NMED on April 26, 2019. NMED disapproved the report on July 31, 2019 and directed NASA to address six multi-part comments and submit a revised report no later than October 25, 2019. NASA submitted the *Response to Disapproval of NASA WSTF Periodic Monitoring Report – Fourth Quarter 2018* on October 24, 2019. NMED approved the revised PMR with modifications on December 12, 2019 and directed NASA to address two comments and revise the report no later than January 31, 2020. NASA submitted the *Response to Approval with Modifications of the NASA WSTF Periodic Monitoring Report – Fourth Quarter 2018* on January 15, 2020.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – First Quarter 2019* on April 29, 2019. NASA received NMED's May 31, 2019 fee assessment for review of the report on June 6, 2019 and provided the \$2,000 review fee to NMED on July 2, 2019. NMED approved the PMR with a modification on December 12, 2019 and directed NASA to address one NMED comment and submit a revised report no later than January 31, 2020. NASA submitted the *Response to Approval with Modifications of NASA WSTF Periodic Monitoring Report – First Quarter 2019* on January 22, 2020.
- NASA submitted the *NASA WSTF Periodic Monitoring Report – Third Quarter 2019* on October 30, 2019. NASA received NMED's December 11, 2019 fee assessment for review of the report on December 23, 2019 and provided the \$2,000 review fee to NMED on January 13, 2020.
- NASA submitted the *Notification of a Class 1 Permit Modification Without Prior Approval – Update of Attachment 3 - Contingency Plan for the NASA White Sands Test Facility (WSTF) Hazardous Waste Permit No. NM880019434* on October 31, 2019. NASA received NMED's

NASA White Sands Test Facility

December 11, 2019 Administrative Completeness and Fee Assessment on December 23, 2019 and provided the \$500 review fee to NMED on January 16, 2020.