

**Monticello, Utah, National
Priorities List (NPL) Sites
Federal Facility Agreement
(FFA) Quarterly Report:
January 1–March 31, 2020**

May 2020



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Abbreviations

AOA	Area of Attainment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
gpm	gallons per minute
GRO	Groundwater Remedy Optimization
IC	institutional control
LCRS	Leachate Collection and Removal System
LDS	Leak Detection System
LM	Office of Legacy Management
LMS	Legacy Management Support
LTS&M	long-term surveillance and maintenance
MMTS	Monticello Mill Tailings Site
MNA	monitored natural attenuation
MVP	Monticello Vicinity Properties
NPL	National Priorities List
OU	Operable Unit
PRB	permeable reactive barrier
SOARS	System Operation and Analysis at Remote Sites
TSF	Temporary Storage Facility
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
ZVI	zero-valent iron

1.0 Introduction

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) submits this quarterly report to inform the U.S. Environmental Protection Agency (EPA) and the Utah Department of Environmental Quality (UDEQ) of the status of the Monticello Vicinity Properties (MVP) and the Monticello Mill Tailings Site (MMTS) (the LM Monticello, Utah, Disposal and Processing Sites) for the period of January through March 2020. The MVP and MMTS are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Quarterly reports are submitted to EPA and UDEQ in February (for October through December), May (January through March), August (April through June), and November (July through September).

LM assesses MVP and MMTS conditions and remedy protectiveness through (1) inspections (monthly, quarterly, and annually) of site infrastructure and operations as specified under the *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites* (DOE 2018a) (referred to here as the Long-Term Surveillance and Maintenance [LTS&M] Plan), (2) semiannual monitoring of groundwater and surface water under the *Record of Decision for the Monticello Mill Tailings (USDOE) Site Operable Unit III, Surface Water and Ground Water, Monticello, Utah* (DOE 2004), and (3) CERCLA Five-Year Reviews.

The primary LTS&M activities at the MVP and MMTS are conducted to (1) provide radiological control at properties where residual soil contamination from mill tailings remains in place (supplemental standards properties), (2) operate and maintain the mill tailings repository, (3) ensure that institutional controls (ICs) restricting the use of land and water remain effective, (4) monitor water quality restoration progress, and (5) operate the Operable Unit (OU) III pump-and-treat groundwater contingency remedy optimization system. This system, implemented in January 2015, focuses on groundwater remediation within a specified region of the alluvial aquifer that is referred to as the Area of Attainment (AOA).

Annual groundwater reports present comprehensive data evaluation for the groundwater and surface water OU III remedy. LM is utilizing the data presented in the most recent annual groundwater report to update the conceptual site model and develop a three-dimensional numerical fate and transport model to assess remedial time frames.

Project milestones and guiding documents are further described in the *Monticello Site Management Plan* (DOE 2003). Section 5 of that document is updated annually.

1.1 Quarterly Site Status

A summary of the activities and observations for this quarter is as follows:

- The Groundwater Remedy Optimization (GRO) system operated as planned during the current period and pumped approximately 0.24 million gallons of water from the AOA.
- The Monticello Water Use Report was sent to the State of Utah Water Board on February 27, 2020. This completes the yearly requirement.
- On February 26, 2020, the site was closed for an emergency drill planned by LM and the Legacy Management Support (LMS) contractor. Site personnel were able to work remotely

from home, including operating the site's systems through the System Operation and Analysis at Remote Sites (SOARS). The site was reopened on February 27, 2020.

- The LM offices, including the Monticello site, were closed starting March 17, 2020, due to COVID-19 concerns. Site personnel began working remotely from home and have been able to monitor and operate the site's systems through SOARS.
- Weekly site inspections are performed by site personnel to verify the integrity of the site's systems and to monitor activities that might occur on supplemental standards areas (e.g., city streets and utility corridors). Site personnel travel to the site at least one day per week.
- Routine surveillance noted no anomalous conditions for the MVP remedy.
- Routine surveillance noted no violations of MMTS ICs regarding land- and groundwater-use restrictions.
- Routine surveillance noted no anomalous conditions for the surface features of the disposal cell and Pond 4.
- The volume of water pumped from the Pond 4 Leachate Collection and Removal System (LCRS) did not exceed the action level this quarter.
- From February 24, 2020, to March 9, 2020, the amount of water pumped from the Pond 4 Leak Detection System (LDS) increased by approximately 90%, with the week ending March 1, 2020, exceeding the action level identified in the LTS&M Plan. Water pumped through the LDS returned to normal the week following March 9, 2020. Flow meters and transducer settings were calibrated during this time frame.
- In accordance with the LTS&M Plan, LM previously notified EPA and UDEQ of the continued Pond 4 LCRS and LDS pumping water from the sumps.
- Routine surveillance noted no operating deficiencies for the Temporary Storage Facility (TSF).

2.0 Monticello Vicinity Properties

The LTS&M for the MVP consists of providing radiological control at excavations in Monticello roadway and utility corridors, in Utah Department of Transportation (UDOT) rights-of-way within the city limits, and at property MS-00176-VL (privately owned supplemental standards property). Surveillance results for this quarter are as follows:

- Beginning March 17, 2020, site personnel began to work remotely from home due to LM directives. Site personnel did travel to Monticello once per week to monitor the City of Monticello (City) streets and utility corridors and to verify that no excavations had occurred in the supplemental standards areas.
- No anomalous conditions for the MVP remedy were noted.
- LM representatives continued to coordinate with City officials in planning meetings regarding construction and excavation activities by the City, UDOT, and utility companies in roadway and utility corridors. LM follows the normal LTS&M protocol to provide radiological control in the affected roadways.

- There were no planned or unplanned excavations in City streets or utility corridors where radiologically contaminated material was encountered that required LM management.
- Neither excessive erosion nor unauthorized excavations were observed at the Highway 191 embankment at Montezuma Creek (supplemental standards property).

Surveillance of property MS-00176-VL identified no excessive erosion of supplemental standards material or violation of the land-use restriction.

3.0 Monticello Mill Tailings Site

LTS&M activities for the MMTS consist of (1) maintaining the onsite repository and operating the associated LCRS and LDS for the disposal cell and Pond 4 (the engineered solar evaporation pond), (2) surveillance of properties affected by groundwater- and land-use ICs on the former mill site and peripheral properties, and (3) operation and maintenance of the OU III groundwater remediation system.

3.1 Operable Unit I

OU I consists of the property of the former Monticello mill (mill site) and the repository. Radioactively contaminated materials were removed from the MVP, the mill site, and peripheral properties (OU II) and encapsulated at the repository as a remedial action that was completed in 1999. LM owns and manages the repository; the City owns the former mill site and manages it as a public park.

3.1.1 Repository

Monthly, quarterly, and annual inspections of the repository ensure that remedy controls remain intact and that the waste remains isolated from the environment. Inspection observations and maintenance activities for the quarter are as follows:

- Beginning March 17, 2020, site personnel began to work remotely from home due to LM directives. Site personnel did travel to the Monticello site once per week to inspect the site and verify that no vandalism had occurred, no problems with erosion existed, and that the operating systems continued to function correctly.
- No area of the cover indicated settling, slumping, fracturing, seepage, ponding, or significant erosion.
- No anomalous surface feature conditions were observed at the disposal cell or Pond 4. Surveillance checklists for this quarter are attached as Appendix A. The minor burrowing on the disposal cell and the Pond 4 berm by voles and small ground squirrels was not observed this quarter.
- The disposal cell LCRS and LDS were operated in accordance with the requirements specified in the LTS&M Plan. Findings for the disposal cell LCRS and LDS this period include:

- Leachate production from the disposal cell was approximately 1020 gallons per week combined for sumps LCRS 1 and LCRS 2. There is no action level for the disposal cell LCRS. See Appendix B for a graphical depiction of leachate production history.
- The disposal cell LDS continues to receive no water; therefore, the disposal cell LDS action level was not exceeded. See Appendix B for a graphical depiction of leachate production history.
- Operation of the GRO system has resulted in increased water collection in the Pond 4 LCRS and LDS. However, the Pond 4 LCRS and LDS monitoring and pumping systems continue to function as designed, to circulate water back to the pond. Findings for the Pond 4 LCRS and LDS this period include:
 - Water collection at the Pond 4 LCRS continued but did not exceed the action levels this quarter (see Appendix B). LM has previously notified EPA and UDEQ of any Pond 4 action level exceedance.
 - Water collection in the Pond 4 LDS remained below the action level (see Appendix B) until the week ending March 1, 2020, when the action limit was exceeded by 41 gallons. LM has previously notified EPA and UDEQ of water collection and removal in the Pond 4 LDS.

3.1.2 Temporary Storage Facility

Routine surveillance of the TSF ensures that maintenance and radiological controls that govern access to and the placement, storage, and transfer of contaminated material in the TSF are current and effective. Surveillance results for this quarter (see surveillance checklists in Appendix A) are as follows:

- The TSF cover, fencing, radiological controls, and signs have been maintained in accordance with the LTS&M Plan, and the TSF has been inspected and verified as ready to receive contaminated materials.

LM is required to initiate the transfer of TSF materials for permanent disposal at the Grand Junction, Colorado, Disposal Site when the contents reach a volume of approximately 75 cubic yards. The following summarizes recent TSF activity:

- The volume of waste stored in the TSF controlled area is approximately 1.5 cubic yards. Currently, there are no soils or excavation products from city street projects or supplemental standards areas stored in the TSF. Present contents consist primarily of used personal protective equipment, one pump, and materials removed from onsite radiological areas during maintenance.

3.1.3 Former Mill Site

LM conducts surveillance of the former mill site (properties MP-00181-VL and MS-00893-VL) to ensure compliance with ICs that were implemented to preserve the OU I remedy for soil and groundwater. The ICs applicable to the former mill site include no installation of domestic-use wells in the alluvial aquifer, no construction of habitable structures, no camping, and preserving the properties as a public park for day-use recreation.

Surveillance results for this quarter are as follows:

- No nonconformance with water- and land-use restrictions was observed.

3.2 Operable Unit II

OU II consists of private and City-owned properties peripheral to the former mill site. LM conducts surveillance of OU II properties to verify compliance with ICs that were implemented to preserve the OU II remedy for soil and groundwater.

Surveillance results for this quarter are as follows:

- **Montezuma Creek Restrictive Easement Area (supplemental standards properties, both City-owned and privately owned):** No evidence of nonconformance with land-use restrictions (no soil removal or construction of habitable structures in supplemental standards areas) was observed.
- **Groundwater-use restrictions (i.e., no installation of domestic-use wells in the alluvial aquifer):** These were applied to several OU II properties under the 2004 covenant by which DOE transferred selected properties to the City. No evidence of nonconformance with this restriction was observed during the quarter.
- **Property MS-00211-VL (City-owned):** No evidence of nonconformance with the land-use restriction on building construction was observed.
- **Pinyon-juniper supplemental standards properties (City-owned):** No evidence of nonconformance with land- and groundwater-use restrictions was observed.
- **Excessive erosion:** No storm events exceeding 2.8 inches of precipitation in a 24-hour period occurred to require surveillance of supplemental standards cleanup properties for excessive erosion.

3.3 Operable Unit III

OU III consists of groundwater and surface water contamination resulting from operation of the former Monticello mill. Routine monitoring of OU III (water quality and water level) is performed semiannually in April and October.



Note

Due to travel restrictions, the April sampling event may be delayed.

The contaminated groundwater is within the alluvial aquifer beneath the valley of Montezuma Creek; some sections of Montezuma Creek are contaminated by the discharge of contaminated groundwater. The alluvial aquifer has no record of past or present use; however, a portion of the aquifer is subject to ICs to restrict use. Montezuma Creek is used for limited irrigation and livestock watering. There are no ICs that restrict surface water use.

The current groundwater remedy includes (1) monitored natural attenuation with ICs and (2) pump-and-treat remediation by evaporation that was implemented as the GRO system in January 2015. Operation and performance of the groundwater remedy is reported annually. Previous remediation efforts have included (1) treatment by a zero-valent iron (ZVI) in situ

permeable reactive barrier (PRB) and (2) pump-and-treat remediation that used ex situ ZVI treatment. The ex situ ZVI treatment system was deactivated in December 2014 and replaced by the GRO system, which is described in greater detail in Section 3.3.2. The PRB remains a component of the GRO system as a groundwater flow barrier.

3.3.1 Groundwater Restricted Area/Institutional Controls

During spring and fall, LM conducts surveillance of properties where groundwater contamination is present to ensure compliance with the groundwater-use restriction (i.e., no installation of domestic-use wells in the alluvial aquifer). The affected OU III properties constitute the Monticello Groundwater Restricted Area, as defined and administered by the Utah Department of Natural Resources, Division of Water Rights. Surveillance found:

- No evidence of nonconformance with the groundwater-use restriction since its implementation in May 1999.

3.3.2 OU III Groundwater Contingency Remedy Optimization System

The GRO system includes eight vertical extraction wells strategically placed in the AOA to extract contaminated groundwater and an associated monitoring system. The water from the extraction wells is transmitted in buried pipelines to an aboveground holding tank in the groundwater transfer building; from there it is pumped through a buried water transmission line for about 1 mile to Pond 4 for evaporation.

The associated monitoring system consists of 22 wells installed in the AOA. Sixteen of the 22 wells were installed south of Montezuma Creek in 2014, and six wells were installed north of Montezuma Creek in 2017. These 22 wells are currently sampled following the extraction of approximately 1 million gallons from the GRO system as stated in Section 1.5 of the *Remedial Action Completion Report for Operable Unit III Groundwater Contingency Remedy Optimization System, Monticello Mill Tailings Site, Monticello, Utah* (DOE 2016).



Note

The 1 million gallons of water removed sampling may be delayed due to LM travel restrictions.

3.3.2.1 GRO System Quarterly Performance Summary

The following summarize the performance of the GRO system:

- Groundwater extraction over the quarter was approximately 0.24 million gallons, equivalent to an average flow rate of 1.81 gallons per minute (gpm). Assuming the concentration of extracted water throughout the quarter was equal to the uranium concentration of the tank effluent on October 14, 2019 (the most recent sample collected), a total of 1.0 pound of uranium was removed during this quarter.
- During the quarter, the volume of water stored in Pond 4 increased by approximately 0.33 million gallons. The GRO system is operated by balancing the extraction rate and the Pond 4 evaporation rate while maintaining the Pond 4 storage volume at approximately 8 million gallons (the maximum storage volume of Pond 4 is approximately 15.6 million gallons).

- Water-level monitoring during the quarter consisted of:
 - Continuous water-level monitoring in AOA extraction and monitoring wells using pressure transducers and data loggers (programed to record at 5-minute intervals) connected to the LM SOARS system.
- Cumulatively, the system has removed 21.4 million gallons of contaminated groundwater from the aquifer since system startup in January 2015 (Table 1). Assuming a minimum AOA uranium plume pore volume of 2.4 million gallons and a maximum pore volume of 3.3 million gallons, the GRO system has removed between 6.5 and 8.9 pore volumes since system startup.
- From January 2015 through October 14, 2019, the GRO system removed approximately 111 pounds of uranium from the AOA aquifer (Table 2).

Table 1. GRO System Treatment: Monthly Volumes and Rates for This Quarter and Cumulative Volumes Since January 2015

Calendar Month	Approximate Volume Pumped (million gallons)	Effective Pumping Rate (gpm)	Approximate Cumulative Volume ^a (million gallons)
January 2020	0.10	2.2	21.3
February 2020	0.07	1.7	21.4
March 2020 ^b	0.07	1.6	21.4

Notes:

^a Cumulative volume is based on the volume of groundwater extracted by the GRO system since system startup in January 2015.

^b Reporting end date is March 31, 2020.

Table 2. Uranium Mass Removal from Groundwater in the AOA

Tank Effluent Sample Date ^a	Effluent Tank Uranium Concentration (µg/L)	Volume Removed Between Tank Samples (million gallons)	Uranium Removed (pounds) ^b	Cumulative Mass Uranium Removed ^c (pounds)
April 22, 2019	610	1.14	4.5	106
October 14, 2019	520	1.12	5.3	111

Notes:

^a Sampling occurs following the extraction of approximately 1 million gallons.

^b Based on median concentration between sampling dates.

^c Since GRO system startup in January 2015. Cumulative mass removed estimates are updated every sampling event.

Abbreviation:

µg/L = micrograms per liter

Monitoring and reporting guidelines for the GRO system are described in the *Final Groundwater Contingency Remedy Optimization Remedial Design/Remedial Action Work Plan for the Monticello Mill Tailings Site Operable Unit III, Monticello, Utah* (DOE 2014). Evaluation of water quality trends and whether remediation goals are being met, in the AOA and sitewide, is beyond the scope of this Federal Facility Agreement (FFA) quarterly report but is provided in annual groundwater reports that are submitted to EPA and UDEQ.

3.3.3 OU III Closure Strategy

Several scenarios are being evaluated to develop a closure strategy for OU III and are detailed in the *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah* (DOE 2018b). These scenarios include (Scenario 1) monitored natural attenuation (MNA) and ICs, with remedy transition, decommissioning, and long-term monitoring; (Scenario 2) GRO system termination based on asymptotic trends prior to transitioning to MNA and ICs; and (Scenario 3) evaluation of alternative technologies and technical impracticability waiver. Efforts to determine the best possible closure strategy include hydrogeologic and geochemical characterization along with the development of a three-dimensional numerical fate and transport model to forecast remedial time frames. OU III closure strategy accomplishments this quarter are as follows:

- Finished geochemical modeling for input into groundwater model
- Completed calibration of the fate and transport model and conducted preliminary forecasts

4.0 Schedule of Activities and Deliverables

Table 3 summarizes the completion of recently completed and near-term planned activities and deliverables for the Monticello National Priorities List (NPL) sites.

Table 3. Monticello Sites Recent and Near-Term Activities and Deliverables

Activity or Deliverable	Schedule
Recent	
<i>Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: October 1–December 31, 2019</i> (DOE 2019a)	Submitted to EPA and UDEQ February 14, 2020
Monticello Water Use Report	Submitted to the State of Utah Water Board February 27, 2020
Travel restrictions result in the operation of the site being performed remotely	Starting March 17, 2020
Near-Term	
<i>Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: January 1–March 31, 2020</i>	Submit to EPA and UDEQ by May 15, 2020
Monticello Quality Assurance Program Plan	Scheduled for April 2020
Monticello Modeling Quality Assurance Program Plan	Scheduled for May 2020
Meeting with LM, EPA, UDEQ, and LMS contractor to discuss fate and transport model and performance metrics	Scheduled for May 2020
Spring Semiannual Sampling Event	Schedule to be determined

5.0 References

DOE (U.S. Department of Energy), 2003. *Monticello Site Management Plan*, GJO-2003-493-TAC, Section 5 (this section is continually updated), Office of Legacy Management, October.

DOE (U.S. Department of Energy), 2004. *Record of Decision for the Monticello Mill Tailings (USDOE) Site Operable Unit III, Surface Water and Ground Water, Monticello, Utah*, DOE-LM/GJ629-2004, May.

DOE (U.S. Department of Energy), 2014. *Final Groundwater Contingency Remedy Optimization Remedial Design/Remedial Action Work Plan for the Monticello Mill Tailings Site Operable Unit III, Monticello, Utah*, LMS/MNT/S10629, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2016. *Remedial Action Completion Report for Operable Unit III Groundwater Contingency Remedy Optimization System, Monticello Mill Tailings Site, Monticello, Utah*, LMS/MNT/S13373, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2018a. *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites*, LMS/MNT/S00387, Office of Legacy Management, June.

DOE (U.S. Department of Energy), 2018b. *OU III Closure Strategy for the Monticello Mill Tailings Site, Monticello, Utah*, LMS/MNT/S18146, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2019a. *Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: October 1–December 31, 2019*, LMS/MNT/S28746, Office of Legacy Management, October.

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Appendix A

Monthly and Quarterly Surveillance Checklists

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Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 8.661

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Snow packed.
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A section of Rad rope was replaced on the southwest corner of the pond and the posting (sign) was re-hung to the Rad rope.
Visible piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Boat remains at the pond.
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Additional comments: The pond is frozen over with several inches of snow on the ground but things appears to be in good condition.

Monticello LM Representative: Gary L. McKinnon Digitally signed by Gary L. McKinnon Date: 2020.01.30 12:48:53 -07'00" Date: 1/30/2020



Repository Area Surveillance Checklist

- Monthly surveillance Quarterly surveillance: February May August November
- Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Snow packed. _____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional Quarterly Surveillance Requirements
Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input type="checkbox"/>	<input type="checkbox"/>	_____
Manholes ^b	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sediment ponds	<input type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Structural instability	<input type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: The repository is covered with snow but appears to be in good condition.

Signature: Gary L. McKinnon Digitally signed by Gary L. McKinnon
 Date: 2020.01.29 15:18:29 -07'00' Date: 1/29/2020
 Monticello LM Representative

^aInspections required following a significant storm event
^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for JAN. 2020

NAME: Monticello Office CITY: STATE:
 ELEV: 7069 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	17.2	25.8	4:00p	9.9	5:00a	47.8	0.0	0.00	3.1	13.0	10:30a	SE
2	24.4	29.4	1:30p	15.3	1:30a	40.6	0.0	0.00	13.3	29.0	6:30a	NW
3	26.4	33.5	2:30p	19.5	7:00a	38.6	0.0	0.00	8.6	22.0	1:30a	NW
4	23.4	30.8	3:30p	17.8	9:00p	41.6	0.0	0.00	6.0	31.0	1:30p	WSW
5	28.1	38.2	4:00p	19.5	3:30a	36.9	0.0	0.00	8.3	30.0	12:00p	SSE
6	22.9	32.6	2:00p	15.0	6:30a	42.1	0.0	0.00	4.5	21.0	2:30a	WNW
7	25.6	35.7	2:30p	15.5	1:30a	39.4	0.0	0.00	4.6	22.0	12:00m	SE
8	30.0	33.6	1:30p	23.4	10:30p	35.0	0.0	0.00	11.8	35.0	10:30a	S
9	22.6	27.8	12:30p	15.2	12:00m	42.4	0.0	0.00	5.0	19.0	2:00p	SSE
10	18.6	23.1	7:00a	11.0	12:00m	46.4	0.0	0.00	10.8	32.0	12:00p	WNW
11	16.7	24.5	3:00p	7.0	7:00a	48.3	0.0	0.00	6.5	30.0	11:30a	SSE
12	20.4	28.9	3:00p	10.1	6:30a	44.6	0.0	0.00	6.7	23.0	10:30a	SE
13	27.1	33.1	4:00p	20.7	9:00a	37.9	0.0	0.00	9.7	27.0	6:30p	SSE
14	32.9	38.9	3:30p	24.8	2:00a	32.1	0.0	0.00	13.2	35.0	5:00a	S
15	30.8	38.3	2:30p	23.7	2:30a	34.2	0.0	0.00	6.6	17.0	3:00a	S
16	33.0	38.8	12:00p	26.3	7:30a	32.0	0.0	0.00	7.7	23.0	6:30p	SSE
17	26.4	31.8	12:30a	13.5	9:00p	38.6	0.0	0.02	10.5	34.0	3:30p	SSE
18	22.5	35.8	3:30p	13.6	5:30a	42.5	0.0	0.02	4.3	18.0	11:30p	NNW
19	29.2	37.3	4:00p	19.7	6:00a	35.8	0.0	0.00	6.9	18.0	9:30a	NW
20	32.5	38.6	3:00p	22.2	4:00a	32.5	0.0	0.00	5.3	17.0	1:00p	S
21	32.0	36.8	2:30a	28.8	12:00m	33.0	0.0	0.10	5.8	23.0	4:00p	S
22	29.9	39.1	2:00p	20.9	8:00a	35.1	0.0	0.02	4.5	21.0	3:30p	NW
23	32.2	38.9	2:30p	25.5	1:00a	32.8	0.0	0.00	8.8	24.0	4:00p	WNW
24	31.7	40.2	11:30a	25.1	6:30a	33.3	0.0	0.00	3.7	12.0	1:30p	WSW
25	30.7	40.4	1:00p	23.3	7:30a	34.3	0.0	0.00	4.6	22.0	2:30p	NNW
26	32.7	41.6	3:30p	24.1	4:00a	32.3	0.0	0.00	3.9	15.0	12:00m	SE
27	31.2	36.3	1:30a	24.6	8:30p	33.8	0.0	0.05	13.7	38.0	9:30a	NW
28	28.0	35.1	3:00p	22.7	8:00a	37.0	0.0	0.00	6.3	26.0	12:30a	NW
29	27.0	31.6	12:30p	22.3	8:00a	38.0	0.0	0.00	9.9	28.0	3:00p	NW
30	26.9	31.7	1:30p	18.9	7:00a	38.1	0.0	0.00	11.5	30.0	6:30p	NW
31	28.9	36.6	4:30p	19.7	8:00a	36.1	0.0	0.00	7.4	18.0	2:00p	NNW
	27.2	41.6	26	7.0	11	1173.1	0.0	0.21	7.5	38.0	27	NW

Max >= 90.0: 0
 Max <= 32.0: 10
 Min <= 32.0: 31
 Min <= 0.0: 0
 Max Rain: 0.10 ON 01/21/20
 Days of Rain: 5 (>.01 in) 0 (>.1 in) 0 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration



Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 8.736

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Snow packed.</u>
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Visible piping	<input type="checkbox"/>	<input type="checkbox"/>	_____
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Boat remains at the pond.</u>
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: The pond is frozen over with a few inches of snow on the ground but things appears to be in good condition.

Monticello LM Representative: Gary L. McKinnon Digitally signed by Gary L. McKinnon Date: 2020.02.25 08:57:52 -07'00' Date: 02/25/2020



Repository Area Surveillance Checklist

- Monthly surveillance
 Quarterly surveillance:
 February
 May
 August
 November
 Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional Quarterly Surveillance Requirements

Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes ^b	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Sediment ponds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Structural instability	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: There are still a few inches of snow on the repository and repository roads but the site appears to be in good condition.

Signature: Gary L. McKinnon Digitally signed by Gary L. McKinnon
 Date: 2020.02.25 14:54:25 -07'00' Date: 2/25/2020
 Monticello LM Representative

^aInspections required following a significant storm event
^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for FEB. 2020

NAME: Monticello Office CITY: STATE:
 ELEV: 7069 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	34.4	44.7	3:30p	24.2	2:30a	30.6	0.0	0.00	3.9	13.0	10:30a	NNW
2	33.7	42.0	3:30p	23.0	3:30a	31.3	0.0	0.00	9.0	30.0	10:30a	SSE
3	26.1	34.9	12:30a	12.8	12:00m	38.9	0.0	0.00	12.6	33.0	9:30a	S
4	11.9	15.8	3:00p	7.1	11:30p	53.1	0.0	0.00	15.3	32.0	12:00p	NW
5	14.0	20.2	3:30p	5.6	8:00a	51.0	0.0	0.00	10.2	24.0	2:30p	NW
6	27.7	39.8	3:00p	13.6	4:00a	37.3	0.0	0.00	10.2	39.0	7:30p	WNW
7	38.0	46.5	2:30p	29.0	7:30a	27.0	0.0	0.00	6.0	25.0	11:30a	WNW
8	37.6	44.5	4:30p	28.4	7:30a	27.4	0.0	0.00	9.6	26.0	10:00a	SE
9	30.7	39.3	12:30a	26.0	12:00m	34.3	0.0	0.00	6.8	20.0	4:00p	NNW
10	28.9	39.4	3:30p	22.0	12:00m	36.1	0.0	0.00	7.6	25.0	8:00p	NNW
11	23.2	30.6	3:30p	18.1	9:00p	41.8	0.0	0.00	9.3	25.0	1:00a	NW
12	25.1	33.0	3:00p	15.8	4:00a	39.9	0.0	0.00	7.8	23.0	9:00a	NW
13	27.3	41.8	5:30p	16.5	7:00a	37.7	0.0	0.00	3.2	14.0	5:00a	SW
14	32.9	41.2	4:00p	21.6	3:30a	32.1	0.0	0.00	8.5	25.0	3:00p	SSE
15	33.8	43.1	2:00p	22.7	7:30a	31.2	0.0	0.00	4.5	20.0	12:30a	SSE
16	36.1	44.3	4:30p	27.8	6:30a	28.9	0.0	0.00	8.4	31.0	12:00p	S
17	36.4	43.0	4:30p	27.7	12:00m	28.6	0.0	0.00	8.3	24.0	10:30a	NW
18	27.9	37.7	4:00p	20.4	7:00a	37.1	0.0	0.00	6.1	19.0	12:30a	WNW
19	32.6	41.0	12:00p	25.2	12:00m	32.4	0.0	0.00	6.2	20.0	5:00p	NW
20	26.2	37.3	4:30p	13.0	6:30a	38.8	0.0	0.00	6.0	17.0	12:30a	NNW
21	35.5	45.5	4:00p	23.8	12:30a	29.5	0.0	0.00	5.4	19.0	11:30a	SSE
22	38.6	45.7	12:30p	33.0	11:30p	26.4	0.0	0.21	6.1	33.0	11:30p	SSE
23	33.6	37.9	12:00p	30.2	7:30a	31.4	0.0	0.20	6.4	26.0	6:00p	SSE
24	30.4	37.4	7:30a	21.6	11:30p	34.6	0.0	0.00	13.5	40.0	8:30a	NW
25	22.1	28.9	3:30p	17.6	11:30p	42.9	0.0	0.00	10.8	32.0	5:00p	NW
26	24.8	37.6	4:30p	12.2	6:30a	40.2	0.0	0.00	4.8	18.0	3:00p	NNW
27	33.8	43.9	3:30p	22.5	5:30a	31.2	0.0	0.00	6.4	21.0	2:00p	NW
28	37.8	50.5	3:00p	27.0	4:30a	27.2	0.0	0.00	4.1	14.0	3:30p	W
29	39.6	50.4	4:00p	31.4	3:00a	25.4	0.0	0.00	6.7	21.0	9:30a	S

	30.4	50.5	28	5.6	5	1004.3	0.0	0.41	7.7	40.0	24	NW

Max >= 90.0: 0

Max <= 32.0: 4

Min <= 32.0: 28

Min <= 0.0: 0

Max Rain: 0.21 ON 02/22/20

Days of Rain: 2 (>.01 in) 2 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration



Contractor to the U.S. Department of Energy Office of Legacy Management

Monticello Long-Term Surveillance and Maintenance Temporary Storage Facility (TSF) Record Book Inspection Report

Acceptable?

Yes No

- X Was the gate locked upon arrival?
- X Are signs posted in accordance with Section 3.4.4?
- X Are all posting legible?
- X Are enclosures on the concrete bin and stored drum containers tight?
- X Are containers in good physical condition (no rust, no holes, no bulges, etc.)?
- X How much radiologically contaminated material is in the concrete bin? Note: the material should be shipped when the volume in storage approaches 75 percent of the storage capacity.
- X Is the surface area of the TSF in good physical condition (no erosion, no flood damage, no excessive vegetation growth, etc.)?
- X Has radiological monitoring been conducted in accordance with Section 3.4.5?
- X Is the security fence in good condition?

Comments: There is no radiologically contaminated material in the concrete bin.

Gary L. McKinnon

Digitally signed by Gary L. McKinnon

Date: 2020.02.25 10:17:39 -07'00'

Signature of Monticello LM Representative

02-25-2020

Date of Inspection



Monthly Pond 4 Surveillance Checklist

Level of water in Pond 4 8.8549

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Roads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Visible piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Visible liner and anchors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Rescue equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Boat remains at the pond.</u>
Evidence of erosion of:			
Top of Pond 4 berm	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Pond 4 sideslopes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Seepage from Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Overtopping of Pond 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: Things appear to be in good condition.

Monticello LM Representative: Gary L. McKinnon Digitally signed by Gary L. McKinnon Date: 2020.03.30 11:56:07 -06'00' Date: 3/30/2020



Repository Area Surveillance Checklist

- Monthly surveillance Quarterly surveillance: February May August November
- Storm event triggered surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable		Comments and Recommendation
	Yes	No	
Condition of:			
Fences, gates, and locks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Roads ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Signs	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Site monuments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Drainage ditches ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Manholes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of erosion of:			
Top of disposal cell ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Disposal cell sideslopes ^a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Ditches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Surrounding area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Vandalism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by livestock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Burrowing animal damage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Intrusion by humans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
Accumulation of trash	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____

Additional Quarterly Surveillance Requirements
Note: All transects, shown in Figure 3-1, must be walked during this inspection.

Condition of:			
Settlement plate structures	<input type="checkbox"/>	<input type="checkbox"/>	_____
Manholes ^b	<input type="checkbox"/>	<input type="checkbox"/>	_____
Sediment ponds	<input type="checkbox"/>	<input type="checkbox"/>	_____
Evidence of:			
Structural instability	<input type="checkbox"/>	<input type="checkbox"/>	_____

Additional comments: The repository and site roads appear to be in good condition.

Signature: Gary L. McKinnon Digitally signed by Gary L. McKinnon Date: 2020.03.30 13:39:46 -06'00' Date: 3/30/2020
 Monticello LM Representative

^aInspections required following a significant storm event
^bOpen to inspect quarterly

MONTHLY CLIMATOLOGICAL SUMMARY for MAR. 2020

NAME: Monticello Office CITY: STATE:
 ELEV: 7069 ft LAT: 37° 54' 00" N LONG: 109° 18' 00" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	38.4	47.7	3:00p	31.5	7:00a	26.6	0.0	0.00	6.8	30.0	4:00p	S
2	32.6	40.9	4:00p	25.2	7:30a	32.4	0.0	0.01	4.5	16.0	2:30p	WNW
3	37.5	46.3	3:00p	29.1	1:30a	27.5	0.0	0.01	12.2	29.0	5:30p	NW
4	41.7	55.2	2:30p	30.2	7:00a	23.3	0.0	0.00	5.9	20.0	12:30a	WNW
5	44.3	58.0	4:30p	34.7	7:00a	20.7	0.0	0.00	5.1	15.0	1:00p	WNW
6	45.3	55.0	1:30p	35.2	3:30a	19.7	0.0	0.00	8.5	27.0	2:00p	SSE
7	45.6	56.3	2:30p	32.2	7:00a	19.4	0.0	0.00	8.3	27.0	6:00p	S
8	41.9	51.3	4:00p	32.6	12:00m	22.1	0.0	0.00	6.2	26.0	3:00p	SSE
9	40.2	49.5	3:30p	30.8	8:00a	24.8	0.0	0.00	6.2	24.0	1:30p	S
10	39.8	47.0	3:30p	34.8	11:00p	25.2	0.0	0.00	6.2	21.0	1:30p	S
11	41.3	50.3	6:00p	36.1	12:30a	23.7	0.0	0.17	6.7	21.0	2:00p	S
12	43.2	53.3	2:00p	34.4	5:00a	21.8	0.0	0.00	3.5	17.0	3:00p	SSE
13	39.4	44.0	5:00p	34.9	3:00p	25.6	0.0	0.33	9.0	30.0	5:00p	SSE
14	36.3	43.8	4:30p	31.4	6:00a	28.7	0.0	0.00	9.4	21.0	4:00p	SSE
15	40.7	51.2	6:00p	33.7	6:30a	24.3	0.0	0.01	6.2	22.0	2:30p	SSE
16	43.2	53.8	4:00p	32.9	7:30a	21.8	0.0	0.00	5.9	22.0	1:30p	SSE
17	45.5	54.5	5:00p	37.3	12:00m	19.5	0.0	0.00	11.4	30.0	12:30p	S
18	37.2	44.9	10:30a	32.8	12:00m	27.8	0.0	0.19	8.6	29.0	10:30a	SSE
19	32.9	40.6	3:30p	28.7	7:00a	32.1	0.0	0.19	8.6	24.0	11:00a	SSE
20	32.3	38.5	4:30p	27.9	6:30a	32.7	0.0	0.00	8.3	27.0	3:30p	S
21	37.9	48.5	6:00p	27.6	3:30a	27.1	0.0	0.00	4.5	21.0	3:30p	SSW
22	38.4	47.1	5:00p	28.7	7:30a	26.6	0.0	0.00	3.6	16.0	2:30a	SSE
23	37.5	46.4	4:00p	30.6	12:00m	27.5	0.0	0.03	6.1	26.0	1:30p	SSE
24	38.1	50.0	5:00p	28.6	3:00a	26.9	0.0	0.01	10.0	28.0	5:00p	SSE
25	44.0	53.6	4:00p	35.7	7:00a	21.0	0.0	0.00	13.7	33.0	12:00p	S
26	42.5	54.0	5:00p	33.5	6:00a	22.5	0.0	0.00	12.5	38.0	10:30a	S
27	30.3	38.5	12:30a	24.6	10:00p	34.7	0.0	0.00	8.0	30.0	5:30p	SSE
28	30.2	40.4	4:30p	17.2	6:30a	34.8	0.0	0.00	6.7	26.0	12:30a	NW
29	37.5	47.5	5:00p	27.7	2:00a	27.5	0.0	0.00	6.0	25.0	3:00p	SSE
30	39.1	49.3	4:30p	31.6	7:00a	25.9	0.0	0.01	6.7	27.0	2:30p	NW
31	45.5	57.2	5:00p	32.5	7:00a	19.5	0.0	0.00	8.4	36.0	2:30p	SSE
	39.4	58.0	5	17.2	28	793.7	0.0	0.96	7.5	38.0	26	SSE

Max >= 90.0: 0
 Max <= 32.0: 0
 Min <= 32.0: 16
 Min <= 0.0: 0

Max Rain: 0.33 ON 03/13/20

Days of Rain: 5 (>.01 in) 4 (>.1 in) 0 (>1 in)

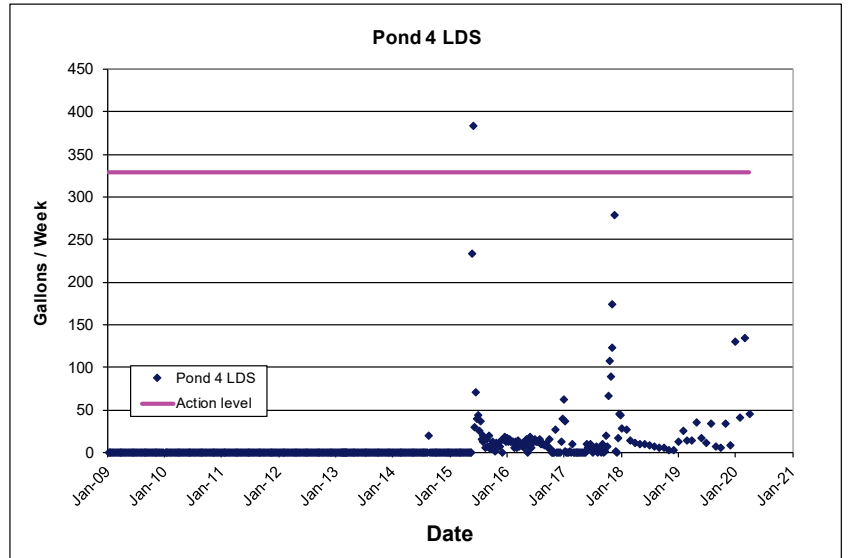
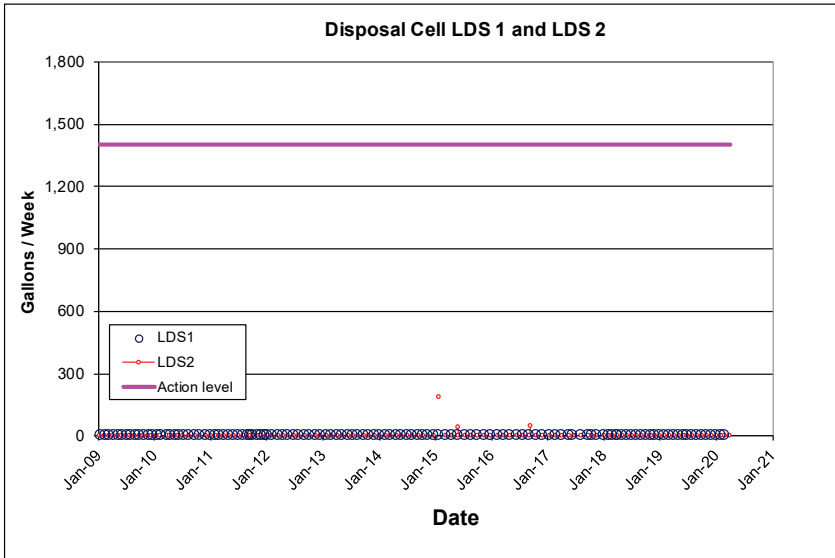
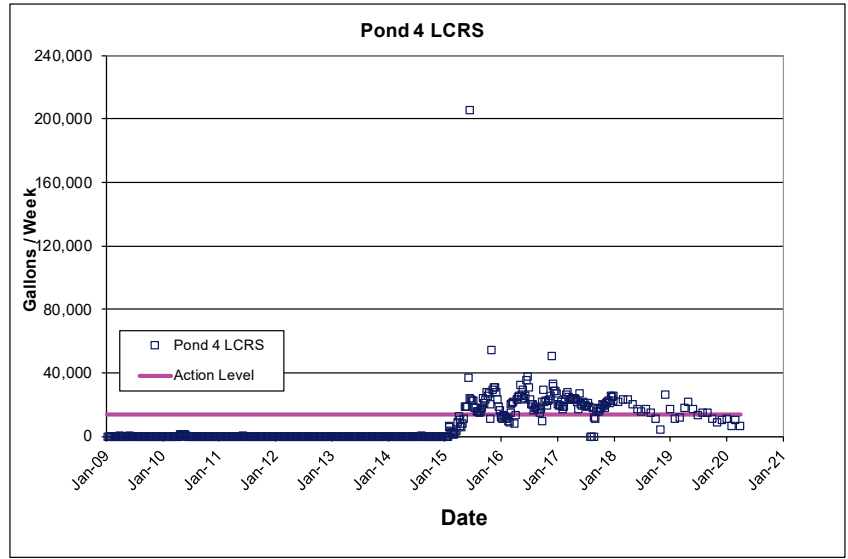
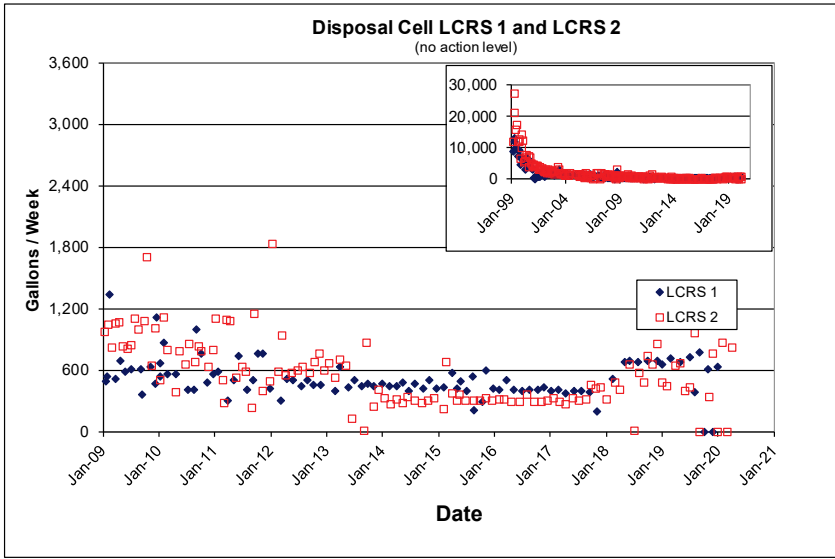
Heat Base: 65.0 Cool Base: 65.0 Method: Integration

Appendix B

Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS

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Graphs Showing Performance History for Disposal Cell and Pond 4 LCRS and LDS



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