

Monticello, Utah, National Priorities List Sites Federal Facility Agreement (FFA) Quarterly Report: October 1–December 31, 2011

1.0 Introduction

This report summarizes the status of the Monticello Vicinity Properties (MVP) and the Monticello Mill Tailings Site (MMTS). Both of these sites are located in and near Monticello, Utah. The reporting period is from October through December 2011. The report includes a summary of projected near-term activity and reporting requirements. The report also includes the agenda and notes from the Federal Facilities Agreement meeting conducted by teleconference on November 22, 2011.

The MMTS and MVP were placed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL) in 1989 and 1986, respectively. The U.S. Department of Energy (DOE) implemented remedial actions at the MVP in 1986 and at the MMTS in 1989, to conform to requirements of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act.

MMTS and MVP remedial actions were completed by September 1999, except for the remediation of contaminated groundwater (Operable Unit III [OU III] of the MMTS), which is an ongoing process. As of December 2003, the MMTS and MVP are administered as the Monticello Disposal and Processing Site by the DOE Office of Legacy Management (LM).

2.0 MMTS

2.1 Operable Unit I

2.1.1 Monticello LM Repository (DOE-Owned)

The Monticello LM repository is the site of a waste disposal cell that contains radioactively contaminated soil, sediment, and debris removed from the former uranium and vanadium ore processing mill and surrounding private and municipal properties. The repository also includes support infrastructure that is maintained to ensure that the wastes remain isolated from the environment.

As directed by Section 3.2 of the LM *Long-Term Surveillance and Maintenance Plan for the Monticello NPL Sites* (LTSM plan), monthly and quarterly inspections of the repository are conducted to assess conditions that may affect the integrity of the repository in protecting human health and the environment.

Inspection findings for the reporting period, with reference to the applicable section of the LTSM plan, include the following:

- Condition of disposal site facilities (Section 3.2.2): Monthly and quarterly inspections identified no anomalous conditions at the repository site (see attached Repository Area Surveillance Checklists).
- Meteorological monitoring and storm events (Sections 3.2.2.2, 3.2.2.3, and 4.3.1): No significant storm events occurred during this quarter (see attached meteorological summaries) that required non-routine surveillance of affected properties (those designated as supplemental standards cleanup properties).
- Pond 4 surveillance (Section 3.2.3): Monthly inspections identified no anomalous conditions at Pond 4 (see attached Monthly Pond 4 Surveillance Checklists).
- Disposal Cell and Pond 4 LCRS and LDS Operation (Section 3.3):
 - Disposal cell leachate collection in the upper sumps (i.e., the Leachate Collection and Recovery System [LCRS]) was normal for the quarter. Leachate production has decreased from approximately 30,000 gallons per week following final waste encapsulation in 1999 to current values of about 1,000 gallons per week or less for each of the two sumps (LCRS 1 and 2; see attached graph).
 - Operation of the LCRS at the leachate collection pond (Pond 4) was normal (i.e., no water was collected during the quarter; see attached graph).
 - Disposal cell and Pond 4 leachate collection in the lower sumps (Leak Detection System [LDS]) remains at zero (see attached graphs).
 - All disposal cell and Pond 4 leachate management equipment (pumps, pump controls, monitoring devices, and data transmission devices) are functional.
- Temporary Storage Facility Operation and Maintenance (Section 3.4)
 - The inventory of contaminated material in the Temporary Storage Facility (TSF) is approximately 5 to 6 cubic yards (see attached TSF Record Book Inspection Reports). In accordance with Section 3.4 of the LTSM plan, DOE initiates transfer of material from the TSF to the LM Grand Junction Disposal Site (GJDS) in Grand Junction, Colorado, when contents of the TSF approach 75 cubic yards (TSF capacity is about 100 cubic yards). The most recent transfer of material from the TSF to GJDS occurred in June 2010 (documented in the July 1–September 31, 2010, quarterly report).

2.1.2 Former Mill Site (City-owned)

Surveillance of the former mill site is conducted to ensure compliance with institutional controls implemented to preserve the OU I remedy for soil and groundwater. Findings for this quarter are:

- Routine surveillance of the former mill site (LTSM plan Section 4.2.2): no evidence of non-conformance with groundwater use restrictions or land use restrictions was observed.

2.2 Operable Unit II (Peripheral Properties, Private and City-Owned)

Surveillance of the Peripheral Properties is conducted to ensure compliance with institutional controls implemented to preserve the OU II remedy for soil and groundwater. Findings for this quarter are:

- Routine surveillance of the Montezuma Creek Restrictive Easement Area (Section 4.2.6): No evidence of non-conformance with land use restrictions, groundwater use restrictions, or other institutional controls was observed.
- Routine surveillance of supplemental standards property MP-00176-VL (Section 4.2.6): No evidence of non-conformance with the land use restriction on building construction or evidence of excessive erosion was observed
- The U.S. General Services Administration, in cooperation with DOE, disposed of property MP-01081-VL, located east of the repository site, to non-DOE ownership. The transaction was completed in August 2011.

2.3 Operable Unit III (Contaminated Groundwater and Surface Water)

2.3.1 Groundwater Management Area

Surveillance of properties where residual groundwater contamination is present is conducted to ensure compliance with groundwater use restrictions (institutional controls to prevent exposure to contaminated groundwater). The affected properties comprise the Monticello Ground-Water Restricted Area, as defined by the State of Utah Division of Water Rights. Surveillance findings for this quarter are:

- Routine surveillance of the Monticello Ground-Water Restricted Area (LTSM plan Section 4.2.7 and Appendix I): No evidence of non-conformance with groundwater use restrictions was observed.

2.3.2 Groundwater Remediation

Contaminated alluvial groundwater is extracted and treated on private property at a location approximately 600 feet east of the former mill site. The contaminated groundwater is treated using zero-valent iron in two ex situ treatment vessels. The effluent is discharged to Montezuma Creek or returned to the aquifer by way of an infiltration trench. OU III remedy performance is evaluated and reported annually (LTSM plan Section 5.4). Groundwater treatment by this system began in June 2005. The following summarizes treatment system performance from October through December 2011.

- The system operated continuously during the reporting period (October through December 2011) at the approximate maximum capacity (10 to 12 gpm) excepting the short-term interruption during media exchange in October 2011.
- Approximately 1.05 million gallons of water were treated and approximately 2.6 pounds of uranium were removed from the aquifer during the quarter as a result of groundwater treatment. These treatment rates are consistent with those of normal operating conditions.
- Iron concentration and pH for the quarter are within the discharge allowances (see Table 1).
- Effluent discharge to Montezuma Creek did not exceed the allowed rate (10 gallons per minute [gpm]).
- The reactive media was exchanged during October 10 to 12, 2011. Spent media was transported to the LM Grand Junction Disposal Site, Grand Junction, Colorado, for permanent disposition. Each treatment cell treated approximately 2.1 million gallons since

the previous exchange in October 2010. Bypass flow causing TC1 to be shut down and the approaching winter season were the primary reasons for exchanging the media in October 2011.

- Each treatment cell treated between about 3 and 3.5 million gallons of contaminated groundwater prior to previous media exchanges (March 2009 and October 2010). Treatment of about 3 million gallons of groundwater per cell at similar concentrations of influent uranium is an approximate target volume for future media exchange.
- Discharge to the infiltration trench diminished from 1 gpm during July and August to zero in September. Iron-oxide fouling of the discharge pipe was identified as a possible cause of reduced flow to the trench. Water-jetting was performed November 16, 2011, to cleanse the infiltration pipe of possible iron residue. Results of this process are being evaluated such that the infiltration trench will be utilized to maximize return of treated water to the aquifer.
- The effluent tipping-bucket (effluent rate-measuring device) is being winterized to prevent icing and thus maintain functionality.

Table 1. Treatment System Compliance Summary

Treatment System Effluent to Montezuma Creek	September 2011	October 2011	November 2011	December 2011
pH ^a	7.11	7.29	7.35	7.11
Iron (total, micrograms per liter) ^b	24	40	34	29

^a Discharge allowance range = 6.5–9.0 standard units

^b Discharge limit = 45.4 milligrams per liter at outfall to creek

Table 2. Treatment System Performance Summary

Treatment Parameter	September 2011	October 2011	November 2011	December 2011
Gallons treated	98,836	303,000	358,900	392,200
Average treatment rate, gpm	2.2	6.8	8.3	8.8
Uranium influent, micrograms per liter	338	340	320	330
Uranium outfall, micrograms per liter	50	34	18	35
Uranium mass removed, pounds	0.20	0.77	0.90	0.96
Cumulative uranium mass removed, pounds	48.3	49.1	50.0	50.9
Cumulative volume treated, gallons	20,051,395	20,592,000	20,950,900	21,343,100

2.3.3 Biomonitoring

Biomonitoring has been conducted since 2004 to evaluate the potential risk to ecological receptors from exposure to selenium in OU III (Section 5.5 of the LTSM Plan).

- Future scope of biomonitoring was discussed in November 2011 during a conference call attended by BTAG representatives. DOE is preparing a work plan for biomonitoring activities to be conducted in 2012.

3.0 MVP

3.1 City Streets and Utilities, Utah Department of Transportation (UDOT) Rights-of-Way, and Property MS-00176-VL

Surveillance findings for this quarter are:

- Routine surveillance of city street and utility corridors and UDOT rights-of-way (supplemental standards properties; LTSM plan Section 4.2.3):
 - On-site LM personnel continued to coordinate with the City of Monticello, UDOT, and utility company officials regarding radiological control at roadway and utility excavations.
 - No erosion or unauthorized excavations occurred on the Highway 191 embankment at Montezuma Creek.
 - Upgrades to City, State, and private utility infrastructure continued during the reporting period. No radiologically contaminated material was encountered at the excavations. Approximately 5 to 6 cubic yards of radiologically contaminated material encountered in excavations during the previous quarter remains in the TSF and is managed in accordance with Section 4.2.3.2 of the LTSM plan.
- Routine surveillance of supplemental standards property MS-00176-VL (LTSM plan Section 4.2.5) identified no violation of the land use restriction institutional control.

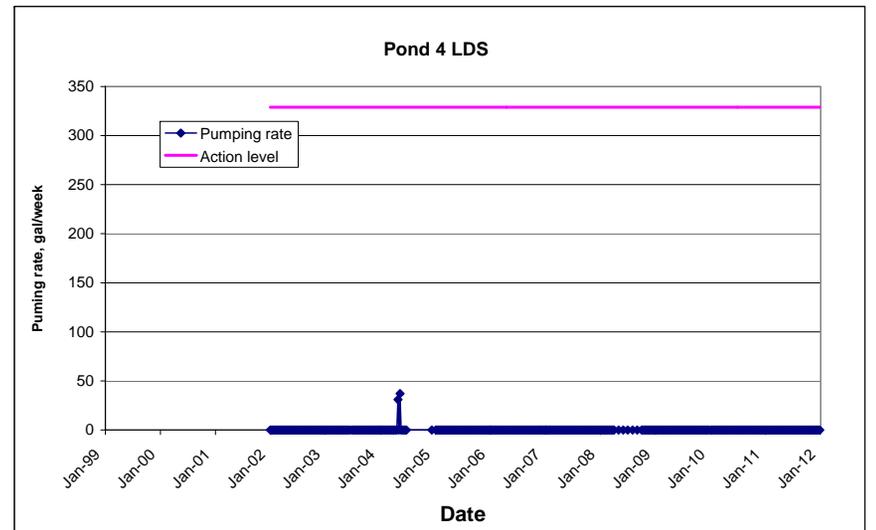
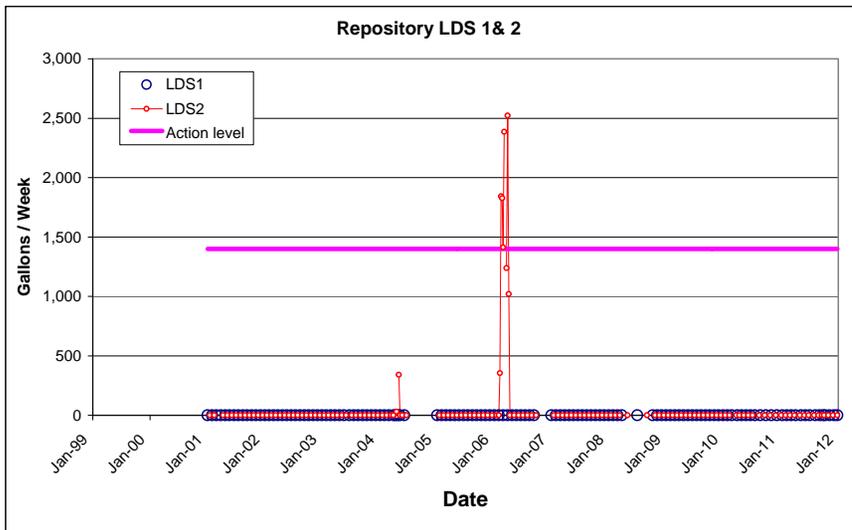
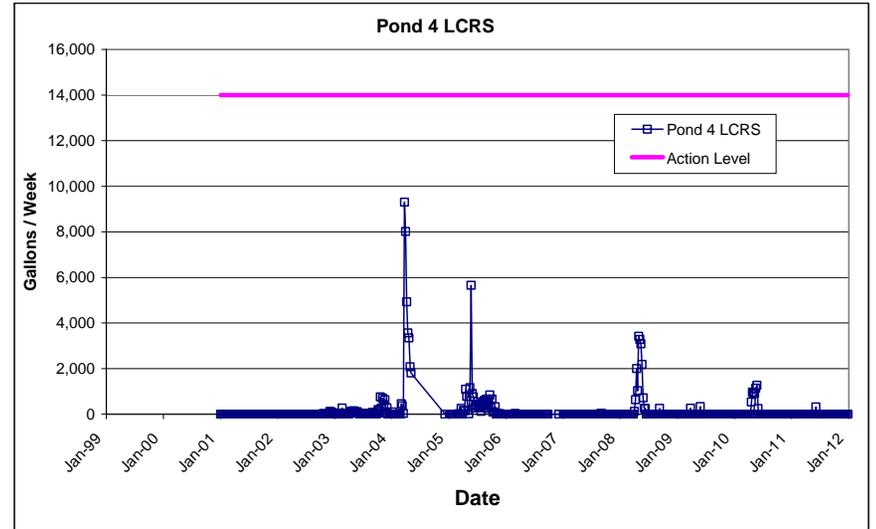
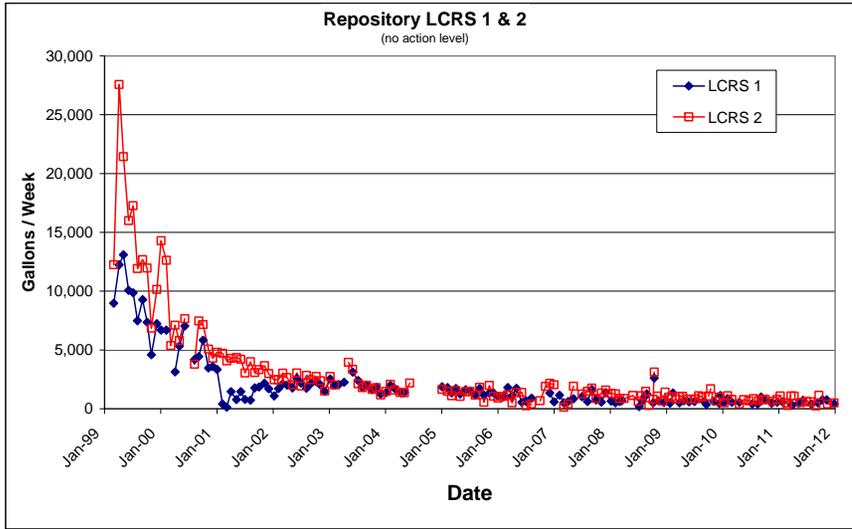
4.0 Schedule

Table 3 summarizes the schedule of recent and near-term activities for the Monticello NPL Sites and DOE reporting requirements.

Table 3. Activity and Near-Term Schedule

Activity	Schedule
FFA quarterly report: January –March 2012.	Submit to EPA and Utah Department of Environmental Quality (UDEQ) by April 10, 2012.
FFA semiannual meeting, November 22, 2011.	Conducted by teleconference. Meeting agenda and notes attached.
OU III biomonitoring.	Work Plan in preparation for 2012 biomonitoring activities. Draft report to be submitted by DOE to EPA and UDEQ for review in January 2012. Field reconnaissance scheduled for March or April 2012 with DOE, EPA, and UDEQ representatives.
Annual OU III water quality report.	Submitted to EPA and UDEQ in hard copy on September 28, 2011. Annual report for 2012 to be submitted in September 2012.
Site Management Plan (Section 5 update-draft).	Final submitted to EPA and UDEQ on November 11, 2011, incorporating EPA and UDEQ review comments received by e-mail on October 19, 2011.
Annual site inspection.	Submitted to EPA and UDEQ (and City of Monticello) on November 23, 2011. The report is not subject to formal review by EPA and UDEQ.
CERCLA 5-year reviews (MVP and MMTS).	Submit draft reviews to EPA and UDEQ in winter 2012. Final reviews are scheduled for June 30, 2012.

Graphs Showing Performance History for Repository and Pond 4 Leachate Collection and Recovery System (LCRS) and Leak Detection System (LDS)



Repository Area Surveillance Checklist

____ Monthly Surveillance ____ Quarterly Surveillance (Feb., May, Aug., Nov.)

____ Storm Event Triggered Surveillance due to ____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	yes	_____
Roads ^a	yes	_____
Signs	yes	_____
Site monuments	yes	_____
Drainage ditches ^a	yes	_____
Manholes	yes	_____
Vegetation	yes	_____
Evidence of erosion of:		
Top of disposal cell ^a	NO	_____
Disposal cell sideslopes ^a	NO	_____
Ditches	NO	_____
Surrounding area	NO	_____
Evidence of:		
Vandalism	NO	_____
Intrusion by livestock	NO	_____
Burrowing animal damage	NO	_____
Intrusion by humans	NO	_____
Accumulation of trash	NO	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	_____	_____
Manholes ^b	_____	_____
Sediment Ponds	_____	_____
Evidence of:		
Structural Instability	_____	_____

Additional Comments _____

Signature Scott Moran
 Monticello LM Representative

Date 10-5-11

^aInspections required following a significant storm event

^bOpen to inspect quarterly

Repository Area Surveillance Checklist

Monthly Surveillance
 Quarterly Surveillance (Feb., May, Aug. **Nov.**)

Storm Event Triggered Surveillance due to _____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	Yes	_____
Roads ^a	Yes	_____
Signs	Yes	_____
Site monuments	Yes	_____
Drainage ditches ^a	Yes	_____
Manholes	Yes	_____
Vegetation	Yes	_____
Evidence of erosion of:		
Top of disposal cell ^a	NO	_____
Disposal cell sideslopes ^a	NO	_____
Ditches	NO	_____
Surrounding area	NO	_____
Evidence of:		
Vandalism	NO	_____
Intrusion by livestock	NO	_____
Burrowing animal damage	NO	_____
Intrusion by humans	NO	_____
Accumulation of trash	NO	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	OK	Dec plates will be surveyed.
Manholes ^b	OK	_____
Sediment Ponds	OK	_____
Evidence of:		
Structural Instability	NO	_____

Additional Comments _____

Signature _____
Monticello LM Representative

Date 11-9-11

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

Repository Area Surveillance Checklist

____ Monthly Surveillance ____ Quarterly Surveillance (Feb., May, Aug., Nov.)

____ Storm Event Triggered Surveillance due to ____ inches of rainfall over the past 24 hours.

Inspection Item	Acceptable (Yes/No)	Comments and Recommendations
Condition of:		
Fences and gates	YES	_____
Roads ^a	YES	_____
Signs	YES	_____
Site monuments	YES	_____
Drainage ditches ^a	YES	_____
Manholes	YES	_____
Vegetation	YES	_____
Evidence of erosion of:		
Top of disposal cell ^a	NO	_____
Disposal cell sideslopes ^a	NO	_____
Ditches	NO	_____
Surrounding area	NO	_____
Evidence of:		
Vandalism	NO	_____
Intrusion by livestock	NO	_____
Burrowing animal damage	NO	_____
Intrusion by humans	NO	_____
Accumulation of trash	NO	_____

Additional Quarterly Surveillance Requirements

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

Condition of:		
Settlement plate structures	_____	_____
Manholes ^b	_____	_____
Sediment Ponds	_____	_____
Evidence of:		
Structural Instability	_____	_____

Additional Comments _____

Signature Judd Moon
 Monticello LM Representative

Date 12-7-11

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

MONTHLY CLIMATOLOGICAL SUMMARY for OCT. 2011

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 06' 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	61.1	73.7	3:30p	47.9	4:30a	6.1	2.2	0.00	5.3	20.0	12:30p	SW
2	59.2	70.7	1:30p	50.4	7:30a	6.7	0.9	0.00	5.9	20.0	1:00p	WNW
3	58.4	69.0	4:00p	49.8	2:00a	7.0	0.4	0.00	6.3	21.0	11:00a	S
4	50.6	54.9	3:00a	46.4	10:30p	14.4	0.0	0.41	5.5	20.0	7:30p	SSE
5	46.7	52.2	4:00p	43.8	8:00a	18.3	0.0	0.39	16.1	34.0	3:30p	S
6	38.6	44.9	3:00a	28.2	12:00m	26.4	0.0	0.42	9.9	35.0	6:30a	SSW
7	35.0	43.6	12:30p	28.0	12:30a	30.0	0.0	0.01	5.5	18.0	9:30p	NW
8	36.8	43.4	3:00p	28.8	8:00a	28.2	0.0	0.00	7.8	25.0	11:30p	NW
9	39.7	48.3	6:00p	31.7	7:30a	25.3	0.0	0.00	5.0	19.0	12:30a	N
10	43.7	54.1	3:30p	31.4	7:00a	21.3	0.0	0.00	6.8	24.0	1:00p	S
11	50.0	62.3	4:00p	38.9	7:00a	15.0	0.0	0.00	5.5	28.0	2:30p	NNW
12	51.0	61.2	4:00p	40.7	5:00a	14.0	0.0	0.00	8.6	28.0	3:00p	NW
13	55.3	67.5	3:30p	44.8	4:30a	10.0	0.3	0.00	7.2	21.0	3:30p	NNW
14	57.2	70.9	4:00p	44.6	7:30a	8.8	1.0	0.00	5.3	20.0	4:30p	W
15	59.1	72.8	3:00p	47.6	7:00a	7.5	1.6	0.00	6.8	25.0	12:00p	W
16	59.4	69.0	5:00p	48.2	5:00a	6.3	0.7	0.00	8.4	27.0	10:30p	SSW
17	53.4	61.1	3:00a	43.1	12:00m	11.6	0.0	0.00	13.8	44.0	8:30a	NNW
18	48.6	57.8	4:00p	41.2	6:00a	16.4	0.0	0.00	9.9	24.0	3:00p	NNW
19	48.9	62.5	4:00p	38.1	7:30a	16.1	0.0	0.00	6.9	24.0	2:00p	SSW
20	52.7	63.4	3:30p	41.4	12:30a	12.3	0.0	0.00	7.7	26.0	12:30p	N
21	52.4	64.2	4:00p	41.3	7:30a	12.6	0.0	0.00	5.0	18.0	5:00p	WNW
22	52.2	61.8	3:30p	43.2	8:00a	12.8	0.0	0.00	8.9	26.0	2:30p	NNW
23	53.5	67.2	4:30p	42.1	11:30p	11.7	0.2	0.00	6.0	21.0	7:30a	NW
24	52.5	64.0	4:00p	39.3	2:30a	12.5	0.0	0.00	7.2	24.0	2:30p	S
25	50.3	57.9	4:00a	41.5	10:30p	14.7	0.0	0.11	8.4	32.0	5:30a	S
26	36.5	44.0	12:30a	31.2	10:00p	28.5	0.0	0.05	14.8	34.0	4:30a	NNW
27	34.5	44.0	3:00p	28.4	6:30a	30.5	0.0	0.00	9.5	32.0	3:00a	N
28	38.2	52.5	5:00p	26.2	3:30a	26.8	0.0	0.00	4.4	15.0	3:30a	NNE
29	41.2	56.7	2:30p	28.2	6:30a	23.8	0.0	0.00	4.3	23.0	3:00p	NNE
30	45.5	56.8	3:30p	34.7	7:30a	19.5	0.0	0.00	6.8	19.0	1:30p	NNE
31	45.1	58.0	3:00p	34.8	2:30a	19.9	0.0	0.00	4.8	21.0	12:00p	NW

	48.6	73.7	1	26.2	28	515.0	7.3	1.39	7.6	44.0	17	NNW

Max >= 90.0: 0

Max <= 32.0: 0

Min <= 32.0: 9

Min <= 0.0: 0

Max Rain: 0.42 ON 10/06/11

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

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for NOV. 2011

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 06' 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	44.2	57.5	4:00p	28.4	12:00m	20.8	0.0	0.00	11.8	42.0	12:00m	SSW
2	29.0	36.8	4:00p	25.4	10:30p	36.0	0.0	0.00	17.5	45.0	2:00a	NNW
3	34.9	45.9	3:30p	21.8	4:00a	30.1	0.0	0.00	9.2	29.0	12:00p	SSW
4	43.6	51.3	3:30p	31.5	3:00a	21.4	0.0	0.00	11.4	29.0	2:30p	SSW
5	32.6	46.5	12:30a	27.0	12:00m	32.4	0.0	0.56	7.4	32.0	1:30a	SW
6	28.2	32.6	12:00p	23.7	7:00a	36.8	0.0	0.00	7.0	23.0	1:00p	SW
7	30.3	37.6	1:00p	27.3	12:30a	34.7	0.0	0.22	6.0	32.0	12:00m	S
8	29.1	35.2	2:30p	21.2	11:30p	35.9	0.0	0.00	12.8	32.0	12:30a	NNW
9	30.3	39.6	2:30p	21.9	12:30a	34.7	0.0	0.00	7.0	18.0	5:00a	NNW
10	31.3	41.9	2:30p	21.9	7:30a	33.7	0.0	0.00	4.4	18.0	12:30p	WNW
11	33.5	40.6	12:30p	24.7	12:30a	31.5	0.0	0.00	8.4	22.0	1:00p	SSW
12	38.1	45.6	3:30p	30.7	6:00a	26.9	0.0	0.00	10.7	30.0	3:30p	S
13	35.7	40.7	10:00p	30.3	7:00a	29.3	0.0	0.03	7.8	26.0	5:00a	S
14	35.8	45.5	1:30p	28.5	5:30a	29.2	0.0	0.00	6.9	25.0	1:00p	W
15	36.8	46.1	2:30p	27.0	7:00a	28.2	0.0	0.00	5.0	18.0	10:00p	SSE
16	32.3	40.3	2:00p	24.9	10:00p	32.7	0.0	0.00	7.1	23.0	11:30a	N
17	35.3	45.3	3:00p	23.9	1:30a	29.7	0.0	0.00	9.2	31.0	12:00p	S
18	37.7	45.9	3:30p	30.1	5:00a	27.3	0.0	0.00	15.6	39.0	12:00m	SSW
19	38.6	48.1	3:30p	33.3	5:30a	26.4	0.0	0.00	8.2	40.0	12:30a	SSW
20	37.2	47.0	3:30p	29.5	5:30a	27.8	0.0	0.00	5.3	25.0	1:30p	SSW
21	35.7	43.9	12:00p	30.6	10:30p	29.3	0.0	0.08	3.7	21.0	2:30p	S
22	35.9	47.2	3:30p	27.1	5:00a	29.1	0.0	0.00	3.6	13.0	12:00p	WNW
23	39.7	50.7	2:30p	30.2	5:30a	25.3	0.0	0.00	6.6	21.0	9:30a	S
24	42.8	48.6	12:00p	38.7	12:00m	22.2	0.0	0.00	8.6	23.0	11:00a	SW
25	38.4	45.5	1:00p	30.2	4:30a	26.6	0.0	0.00	12.0	38.0	7:30p	NNW
26	30.8	36.8	2:00p	22.9	7:00a	34.2	0.0	0.00	12.8	32.0	1:30p	N
27	36.3	50.3	2:00p	25.7	7:30a	28.7	0.0	0.00	3.9	17.0	2:30a	NNE
28	39.0	56.1	2:30p	28.7	3:30a	26.0	0.0	0.00	3.0	13.0	2:30p	NNE
29	40.4	51.9	1:30p	29.6	12:00m	24.6	0.0	0.00	5.8	18.0	7:30a	NNE
30	36.7	47.6	2:00p	25.9	2:30a	28.3	0.0	0.00	9.1	30.0	8:30a	SSW

	35.7	57.5	1	21.2	8	879.8	0.0	0.89	8.3	45.0	2	S

Max >= 90.0: 0
 Max <= 32.0: 0
 Min <= 32.0: 28
 Min <= 0.0: 0

Max Rain: 0.56 ON 11/05/11

Days of Rain: 4 (>.01 in) 2 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for DEC. 2011

NAME: Monticello CITY: STATE:
 ELEV: 7000 ft LAT: 37° 36' 00" N LONG: 122° 06' 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	32.5	39.2	12:30p	26.2	4:30a	32.5	0.0	0.14	5.9	26.0	3:30p	SW
2	28.0	33.8	12:30a	24.9	8:30a	37.0	0.0	0.03	7.8	23.0	4:00a	SSW
3	24.9	27.9	1:00a	18.7	11:00p	40.1	0.0	0.18	7.9	23.0	3:00p	NNW
4	18.6	23.7	2:00a	13.7	7:00a	46.4	0.0	0.00	9.5	23.0	7:00p	NNW
5	14.6	18.1	11:30a	11.5	12:00m	50.4	0.0	0.00	10.7	22.0	5:00a	NNW
6	14.9	25.2	3:30p	5.8	7:30a	50.1	0.0	0.00	5.3	17.0	12:30a	N
7	20.4	34.1	2:30p	9.9	7:00a	44.6	0.0	0.00	1.9	18.0	12:30a	N
8	23.3	33.6	4:00p	12.6	1:00a	41.7	0.0	0.00	3.8	14.0	2:30p	NE
9	27.1	38.5	3:00p	18.5	7:00a	37.9	0.0	0.00	4.7	14.0	9:30a	NNE
10	26.6	37.0	4:00p	18.2	7:00a	38.4	0.0	0.00	3.1	9.0	2:00p	NNE
11	30.1	35.8	1:30p	22.2	12:30a	34.9	0.0	0.00	6.8	21.0	10:30a	S
12	31.0	34.6	11:00a	28.5	1:30p	34.0	0.0	0.17	8.3	26.0	12:30p	SSW
13	31.8	33.3	2:30p	28.8	12:00m	33.2	0.0	0.31	6.3	27.0	3:30a	S
14	25.5	32.2	12:00p	16.4	11:30p	39.5	0.0	0.02	2.8	15.0	10:00a	SSW
15	20.3	29.9	3:30p	14.2	7:30a	44.7	0.0	0.00	4.1	13.0	1:00p	SSW
16	22.6	31.5	3:30p	16.2	6:00a	42.4	0.0	0.00	5.4	18.0	4:30p	SW
17	26.5	39.5	1:00p	16.4	6:00a	38.5	0.0	0.00	4.4	10.0	2:00a	NNW
18	34.6	48.2	1:00p	23.9	6:00a	30.4	0.0	0.00	2.8	13.0	4:00a	W
19	34.4	38.7	6:30a	24.2	12:00m	30.6	0.0	0.00	12.4	32.0	9:00a	NNW
20	26.1	35.8	3:00p	17.7	12:00m	38.9	0.0	0.00	2.6	13.0	9:30a	ENE
21	23.7	34.1	1:30p	14.4	6:00a	41.3	0.0	0.00	6.1	32.0	9:00p	E
22	17.5	22.8	12:00p	11.3	6:30a	47.5	0.0	0.00	7.7	27.0	12:30a	NNW
23	25.0	30.8	3:00p	17.3	3:00a	40.0	0.0	0.00	11.7	25.0	7:00a	NNW
24	29.8	38.7	2:00p	16.0	9:00p	35.2	0.0	0.00	9.4	28.0	6:30a	N
25	29.3	38.2	2:30p	14.8	7:30a	35.7	0.0	0.00	4.3	22.0	3:30a	NNE
26	27.9	41.9	2:30p	19.8	5:30a	37.1	0.0	0.00	2.9	11.0	2:00p	NNE
27	28.6	39.3	4:30p	19.7	6:00a	36.4	0.0	0.00	5.6	24.0	10:30p	SSE
28	32.4	43.7	3:00p	20.8	3:00a	32.6	0.0	0.00	3.0	11.0	12:30a	N
29	28.9	33.1	2:30a	24.3	7:30a	12.0	0.0	0.00	3.1	11.0	4:30a	N
30												
31												

	26.1	48.2	18	5.8	6	1104.0	0.0	0.85	5.9	32.0	19	NNW

Max >= 90.0: 0
 Max <= 32.0: 8
 Min <= 32.0: 29
 Min <= 0.0: 0

Max Rain: 0.31 ON 12/13/11

Days of Rain: 6 (>.01 in) 4 (>.1 in) 0 (>1 in)

Heat Base: 65.0 Cool Base: 65.0 Method: Integration

**Monticello Long-Term Surveillance and Maintenance
Temporary Storage Facility Record Book
Inspection Report**

Acceptable?

Yes / No

- Yes Was the gate locked upon arrival?
- Yes Are signs posted in accordance with Section 3.4.4?
- Yes Are all postings legible?
- Yes Are enclosures on the concrete bin and stored drum containers tight?
- Yes Are containers in good physical condition (no rust, no holes, no bulges, etc.)?
- Yes ^{3m} 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.
- Yes Is the surface area of the TSF in good physical condition (no erosion, no flood damage, no excessive vegetation growth, etc.)?
- Yes Has radiological monitoring been conducted in accordance with Section 3.4.5?
- Yes Is the security fence in good condition?

Comments: _____

Jedd Mann
Signature of Monticello LM Representative

10-5-11
Date of Inspection

**Monticello Long-Term Surveillance and Maintenance
Temporary Storage Facility Record Book
Inspection Report**

Acceptable?

Yes / No

- yes Was the gate locked upon arrival?
- yes Are signs posted in accordance with Section 3.4.4?
- yes Are all postings legible?
- yes Are enclosures on the concrete bin and stored drum containers tight?
- yes Are containers in good physical condition (no rust, no holes, no bulges, etc.)?
- yes ^{LM} 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.
- yes Is the surface area of the TSF in good physical condition (no erosion, no flood damage, no excessive vegetation growth, etc.)?
- yes Has radiological monitoring been conducted in accordance with Section 3.4.5?
- yes Is the security fence in good condition?

Comments: _____

Jedd Moon
Signature of Monticello LM Representative

11-9-11
Date of Inspection

**Monticello Long-Term Surveillance and Maintenance
Temporary Storage Facility Record Book
Inspection Report**

Acceptable?

Yes / No

yes Was the gate locked upon arrival?

yes Are signs posted in accordance with Section 3.4.4?

yes Are all postings legible?

yes Are enclosures on the concrete bin and stored drum containers tight?

yes Are containers in good physical condition (no rust, no holes, no bulges, etc.)?

yes 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.

yes Is the surface area of the TSF in good physical condition (no erosion, no flood damage, no excessive vegetation growth, etc.)?

yes Has radiological monitoring been conducted in accordance with Section 3.4.5?

yes Is the security fence in good condition?

Comments: _____

Judd Mason
Signature of Monticello LM Representative

12-7-11
Date of Inspection

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 1.5

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments _____

Monticello LM Representative Zedd Moon Date 10-5-11

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 1.7

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments _____

Monticello LM Representative Judd Moran Date 11-9-11

Monthly Pond 4 Surveillance Checklist

Level of Water in Pond 4 2.0

Inspection Item	Acceptable (Yes/No)	Comments & Recommendation
Condition of:		
Fences, gates, and locks	<u>yes</u>	_____
Roads	<u>yes</u>	_____
Signs	<u>yes</u>	_____
Visible piping	<u>yes</u>	_____
Visible liner and anchors	<u>yes</u>	_____
Rescue equipment	<u>yes</u>	_____
 Evidence of erosion of:		
Top of Pond 4 berm	<u>NO</u>	_____
Pond 4 sideslopes	<u>NO</u>	_____
Ditches	<u>NO</u>	_____
Surrounding area	<u>NO</u>	_____
Seepage from Pond 4	<u>NO</u>	_____
Overtopping of Pond 4	<u>NO</u>	_____
 Evidence of:		
Vandalism	<u>NO</u>	_____
Intrusion by wildlife	<u>NO</u>	_____
Intrusion by humans	<u>NO</u>	_____
Accumulation of trash	<u>NO</u>	_____

Additional Comments _____

Monticello LM Representative Jared Mann Date 12-7-11