

2012 Annual Inspection Report for the Weldon Spring, Missouri, Site

January 2013



U.S. DEPARTMENT OF
ENERGY

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**2012 Annual Inspection Report for the
Weldon Spring, Missouri, Site**

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Abbreviations

AEC	U.S. Atomic Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DNT	dinitrotoluene
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
FY	fiscal year
GEMS	Geospatial Environmental Mapping System
GPS	global positioning system
IC	institutional control
LCRS	Leachate Collection and Removal System
LTS&M	Long-term Surveillance and Maintenance
MDC	Missouri Department of Conservation
MDNR	Missouri Department of Natural Resources
MoDOT	Missouri Department of Transportation
MSD	Metropolitan St. Louis Sewer District
O&M	operation and maintenance
OU	Operable Units
pCi/L	picoCuries per liter
TNT	trinitrotoluene

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2012 Annual Inspection Report for the Weldon Spring, Missouri, Site

Executive Summary

The Weldon Spring Site, located in St. Charles, Missouri, was inspected October 23 through 25, 2012. The inspection was conducted in accordance with the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site* (LTS&M Plan) (December 2008), and associated inspection checklist. Representatives from the U.S. Department of Energy (DOE), the DOE contractor S.M. Stoller Corporation (Stoller), U.S. Environmental Protection Agency (EPA), and Missouri Department of Natural Resources (MDNR) participated in the inspection. Representatives from the Missouri Department of Transportation (MoDOT), and St. Charles County, Division of Environmental Health and Protection participated in portions of the inspection. The Weldon Spring Site is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site.

The main areas inspected at the site were the Quarry, the disposal cell, Leachate Collection and Removal System (LCRS), monitoring wells, assorted general features, and areas where institutional controls have been established.

Institutional control areas were inspected to ensure that restrictions such as excavating soil, groundwater withdrawal, residential use, etc., were not being violated. Each area was inspected and no indication of violations of the restrictions was observed.

The disposal cell was inspected by walking ten transects over the cell and around the cell perimeter. Hand-held global positioning system (GPS) equipment was used to navigate the ten transects. Six areas of the cell which had been marked were located and observed for any signs of rock degradation. The LCRS was also inspected and observed to be in good condition. Forty-eight of the 107 groundwater-monitoring wells were inspected and were in good condition. Other site features including the prairie, site markers, and roads also were inspected.

1.0 Introduction

The Weldon Spring Site is located in southern St. Charles County, Missouri, approximately 30 miles west of St. Louis, as shown in Figure 1. The site consists of two main areas, the Weldon Spring Chemical Plant and the Weldon Spring Quarry, both located along Missouri State Route 94.

In 1941, the U.S. Government acquired 17,232 acres of rural land in St. Charles County to establish the Weldon Spring Ordnance Works. From 1941 to 1945, the U.S. Department of the Army (Army) manufactured trinitrotoluene (TNT) and dinitrotoluene (DNT) at the site. These operations resulted in nitroaromatic contamination of soil at the plant site, sediments in drainages originating at the site (Frog Pond Outlet and the Southeast Drainage), groundwater near the site, and some off-site springs.

The former ordnance works property was transferred to the U.S. Atomic Energy Commission (AEC) in 1956 for construction of the Weldon Spring Uranium Feed Materials Plant, now referred to as the Weldon Spring Chemical Plant. The plant converted processed uranium ore concentrates to pure uranium trioxide, intermediate compounds, and uranium metal. A small amount of thorium also was produced. Wastes generated during these operations were stored in four raffinate pits located on the plant property. Uranium processing operations resulted in radiological contamination of similar locations previously contaminated by former Army operations.

The Weldon Spring Quarry was mined for limestone aggregate used in construction of the ordnance works. The Army also used the Quarry for burning wastes from explosives manufacturing and disposal of TNT-contaminated rubble during the operation of the ordnance works. These activities resulted in nitroaromatic contamination of the soil and in rock fractures at the Quarry, in groundwater under the Quarry, and between the Quarry and Femme Osage Slough.

In 1960, the Army transferred the Quarry to the AEC, who used it from 1963 to 1969 as a disposal area for uranium and thorium residues (both drummed and uncontained), from the Chemical Plant.

Uranium processing operations ceased in 1966 and the Quarry and Chemical Plant areas were placed on the National Priorities List in 1987 and 1989, respectively. Remediation of the Weldon Spring site was administratively divided into four Operable Units (OUs): Quarry Bulk Waste OU, Chemical Plant OU, Quarry Residuals OU, and Groundwater OU. The Southeast Drainage was remediated as an interim response action through a separate engineering evaluation/cost analysis process.

The remedy for the Quarry Bulk Waste OU consisted of excavating and removing bulk waste from the Quarry and transporting it along a dedicated haul road to an engineered temporary storage area located at the Chemical Plant with final disposition in an engineered on-site disposal cell. The Chemical Plant OU remedy included removal of contaminated soils, sludge, and sediment, treatment of wastes as appropriate by chemical stabilization/solidification and disposal of the Chemical Plant and Quarry bulk wastes in an engineered on-site disposal facility. The Quarry Residuals OU addressed residual soil contamination in the Quarry proper, surface water and sediments in the Femme Osage Slough, and contaminated groundwater. The Groundwater OU addresses the groundwater at the Chemical Plant area. The Southeast Drainage remediation consisted of removal of selected sediment in accessible areas of the drainage.



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Figure 1. Location of the Weldon Spring, Missouri, Site

The final site conditions from the above remedial actions include the following:

- An on-site disposal cell that contains 1.48 million cubic yards of contaminated material.
- Residual groundwater contamination remains in the shallow aquifer beneath both the Chemical Plant and Quarry.
- Several springs near the Chemical Plant area discharge residually contaminated groundwater.
- Residual soil and sediment contamination remain in the Southeast Drainage.
- Contamination remains at a culvert along Missouri State Route 94.
- Residual soil contamination remains at inaccessible locations within the Quarry.

The purpose of the annual inspection was to confirm the integrity of the visible features (such as disposal cell, LCRS, and monitoring wells) at the site, document the site condition subsequent to remediation and restoration, identify changes in conditions that may affect site integrity, determine if institutional controls are adequately implemented, and determine the need, if any, for maintenance or additional inspections and monitoring.

At the time of the inspection nine Stoller personnel were employed full-time at the site. Stoller is the Legacy Management contractor for DOE. Some of these employees also support other Legacy Management sites around the nation. Also employed at the site are part-time contractor and subcontractor employees.

This report presents the results of the DOE annual inspection of the Weldon Spring Site. The following personnel from Stoller were the lead inspectors during the inspection:

Terri Uhlmeyer, Weldon Spring Site
Randy Thompson, Weldon Spring Site

The following support personnel from Stoller participated in the inspection:

Tom Welton, Weldon Spring Site
Tim Zirbes, Weldon Spring Site
Becky Cato, Weldon Spring Site

The following personnel observed the inspection and provided oversight:

Ken Starr – DOE
Hoai Tran – EPA, Region VII
Patrick Anderson – MDNR
Dan Carey – MDNR
Kevin Wideman – MoDOT
Stowe Johnson – MoDOT
Brittany Poletti – St. Charles County
Ryan Tilley – St. Charles County
Jeff Becker – St. Charles County
Michelle Watkins – St. Charles County
Tom Nelson – Citizen

The inspection was conducted in accordance with the LTS&M Plan, dated December 2008.

2.0 Inspection Results

Prior to the inspection, the site inspection agenda (Appendix A) was reviewed with the inspection participants. A safety briefing was also held prior to the inspection and the corrective action report from the 2011 annual inspection was reviewed (Appendix B). The following is a summary of the inspection results. The inspection base map, which includes the locations of the photographs, is included as Figures 2 and 3. The checklist (from Appendix H of the LTS&M Plan) is included in this report as Appendix C.

2.1 Institutional Controls (ICs) Inspection

Section 2.3.4 of the LTS&M Plan states “DOE will conduct a formal annual inspection of the physical locations addressed by ICs. DOE also will evaluate whether the ICs remain effective in protecting human health and the environment and, in coordination with EPA and MDNR, will take appropriate action if evidence indicates the controls are not effective.”

Easements have been negotiated and finalized with surrounding State agency landowners for implementing use restrictions required on the state properties. The state agencies included the Missouri Department of Conservation (MDC), MDNR-Parks, and MoDOT. The easements are for the purpose of restricting potential use of the contaminated groundwater and the hydraulic buffer zone, and also to restrict land use in the Southeast Drainage area and at the Quarry site. Figures 4 and 5 provide the institutional control location maps from the LTS&M Plan.

The institutional control areas are listed below as they are stated in the inspection checklist.

2.1.1 Land and Shallow Groundwater Use Within the Site Proper Boundary (Outside Disposal Cell Buffer Zone)

Inspection Criteria: Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party has been granted use of portions of the Chemical Plant area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

Inspection Results: This area was inspected and no indications of excavations into soil or bedrock, groundwater withdrawal, or use were observed. At the time of the inspection the demolition of the administration building was close to being completed and a new wastewater treatment package plant was being installed (Photo 1). The new waste water treatment package plant replaces the outdated and problematic old system. The waste water treatment package plant does involve some excavations into this area to install new tanks, but this is considered maintenance which is an exemption to the notation. The site staff is now located in temporary trailers behind where the administration building was located.

2.1.2 Land and Shallow Groundwater Use at DOE Site Proper Disposal Cell and Buffer Zone

Inspection Criteria: Inspect for indications of excavations into soils and bedrock, and for residential use of the shallow groundwater within the buffer zone. Inspect to ensure that the land use continues to be in compliance with the terms of the restrictions within the notation.

Inspection Results: This area was inspected and no indications of excavations into soils or bedrock, and no residential uses of the shallow groundwater within the buffer zone were observed. Current land use remains consistent with the institutional controls.

2.1.3 Groundwater Use in Areas Surrounding the Chemical Plant

Inspection Criteria: Groundwater use is restricted in this area as shown on Figure 4. Inspect affected areas for evidence of groundwater or spring water use (Burgermeister Spring and Spring 6303). Inspect to ensure that land use continues to be in compliance with the terms of the license, easement, or permit and the restrictions contained therein.

Inspection Results: The surrounding area where groundwater use is restricted was inspected. This included property owned by the MDC and the Army. No evidence of groundwater use was observed and current land use remains consistent with institutional controls on both properties. Burgermeister Spring 6301 (Photo 2) and Spring 6303 on MDC property were inspected and there were no indications of spring water use. Spring 6303 was not flowing. All the monitoring wells inspected were appropriately secured. The maintenance on the monitoring wells was also sufficient. The Army has started clearing land for a new large reserve center (Photo 3).

2.1.4 Land and Shallow Groundwater Use on the DOE Quarry Property

Inspection Criteria: Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party had been granted use of portions of the Quarry area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

Inspection Results: The Quarry Property was inspected and no indications of excavation into soil or bedrock, and no groundwater withdrawal or use were observed. Also, no party has been granted use of portions of the Quarry area. Original Quarry backfill continues to provide positive drainage from the Quarry to the Little Femme Osage Creek and vegetative cover remains well established. Current land use remains consistent with institutional controls.

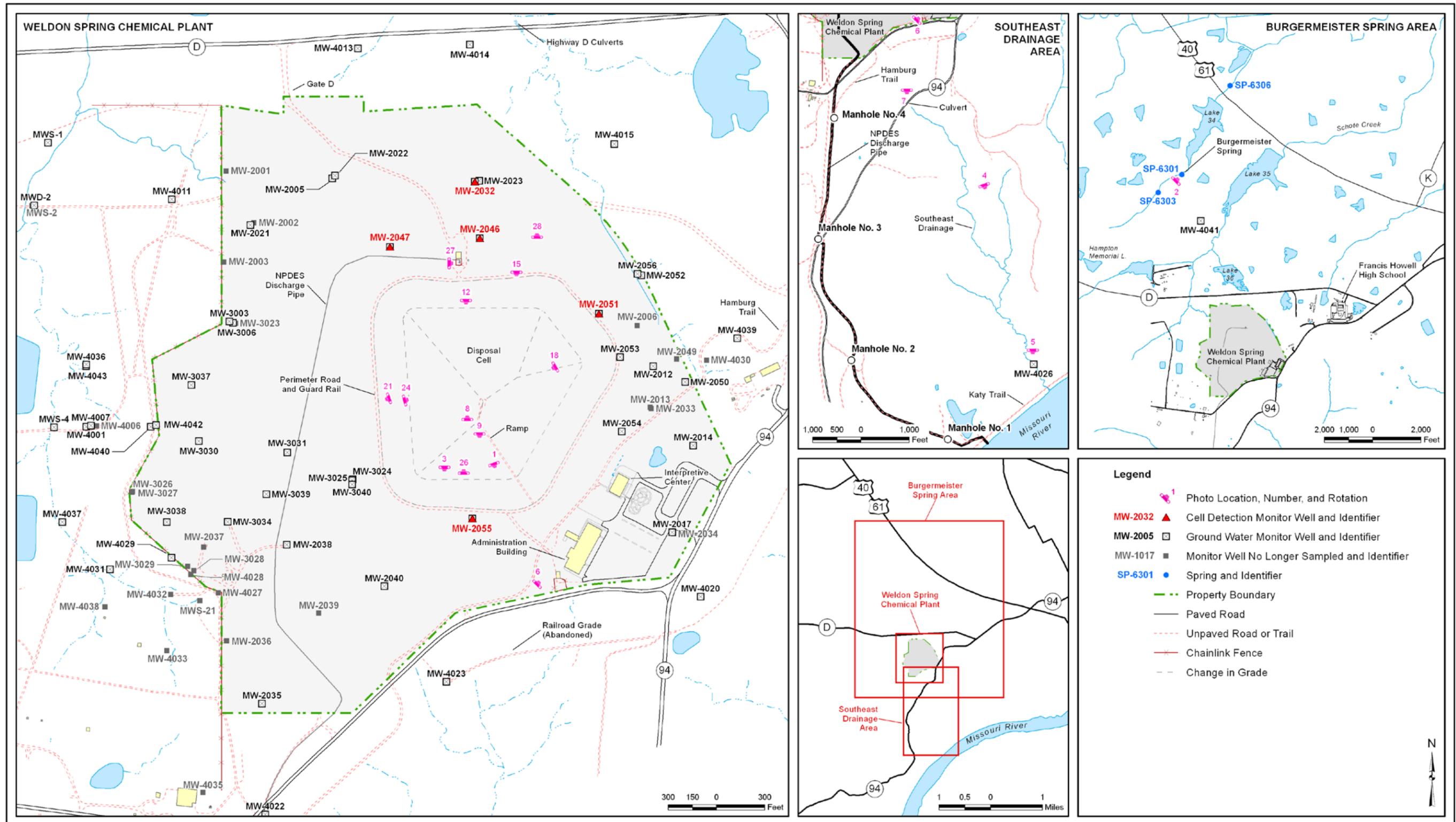
2.1.5 Groundwater (Quarry)

Inspection Criteria: The Quarry groundwater restriction area boundary is shown in Figure 5. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.

Inspection Results: The groundwater restricted area was inspected and no evidence of groundwater withdrawal or use in the area was observed.

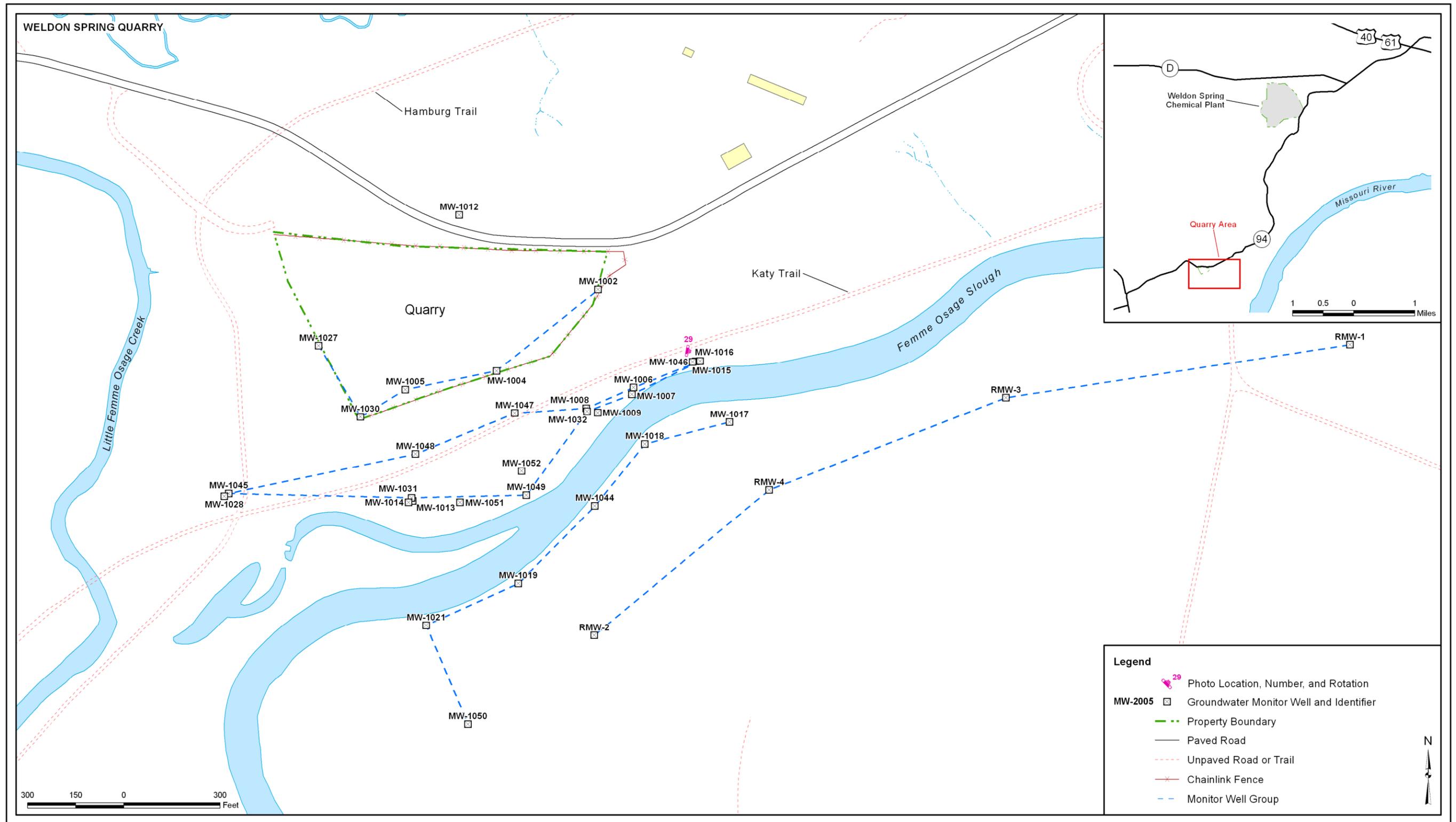
2.1.6 Land Use in Quarry Area Reduction Zone

Inspection Criteria: A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. This area is restricted for excavations and shown on Figure 5. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.



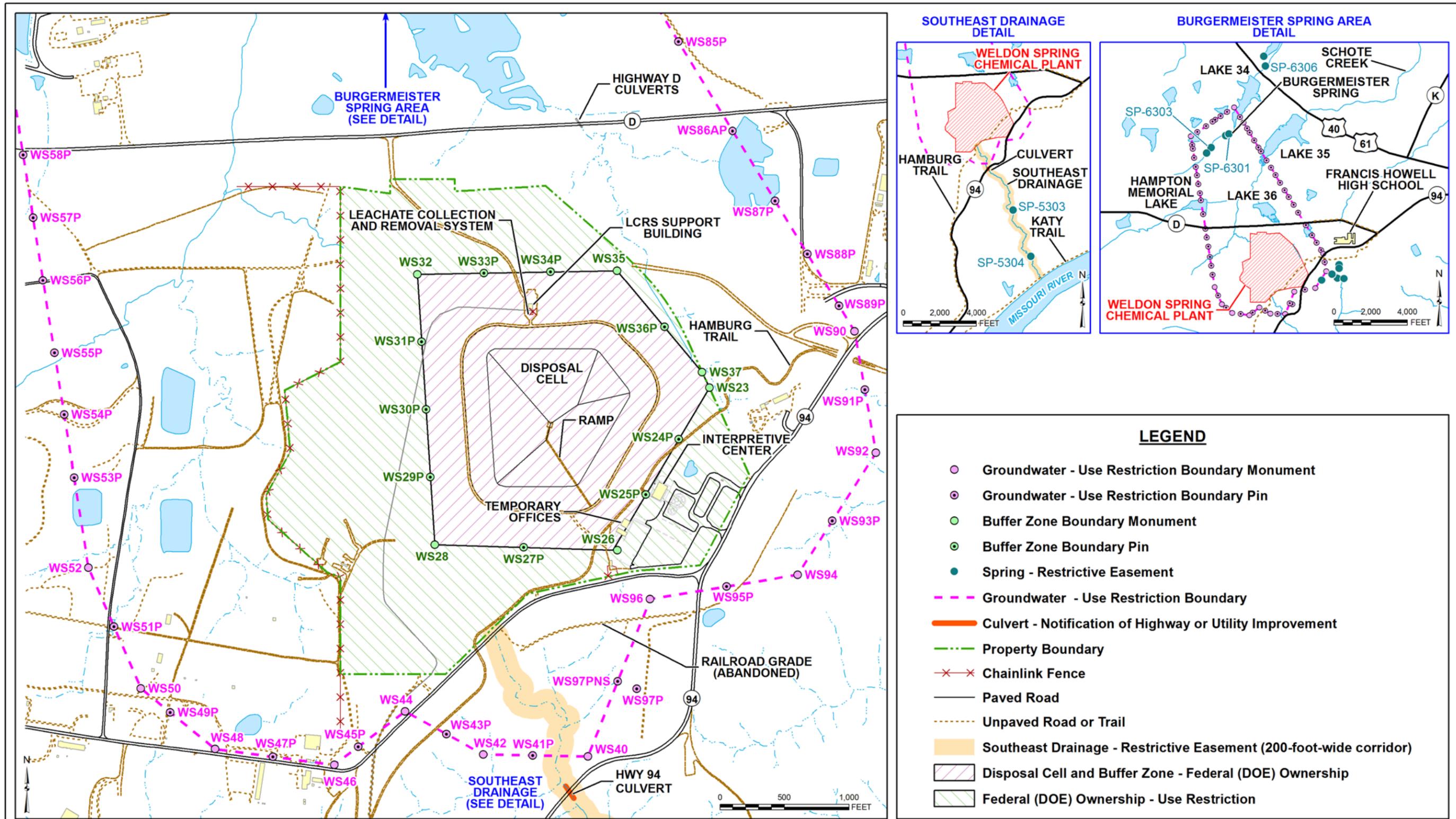
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Figure 2. 2012 Inspection Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site



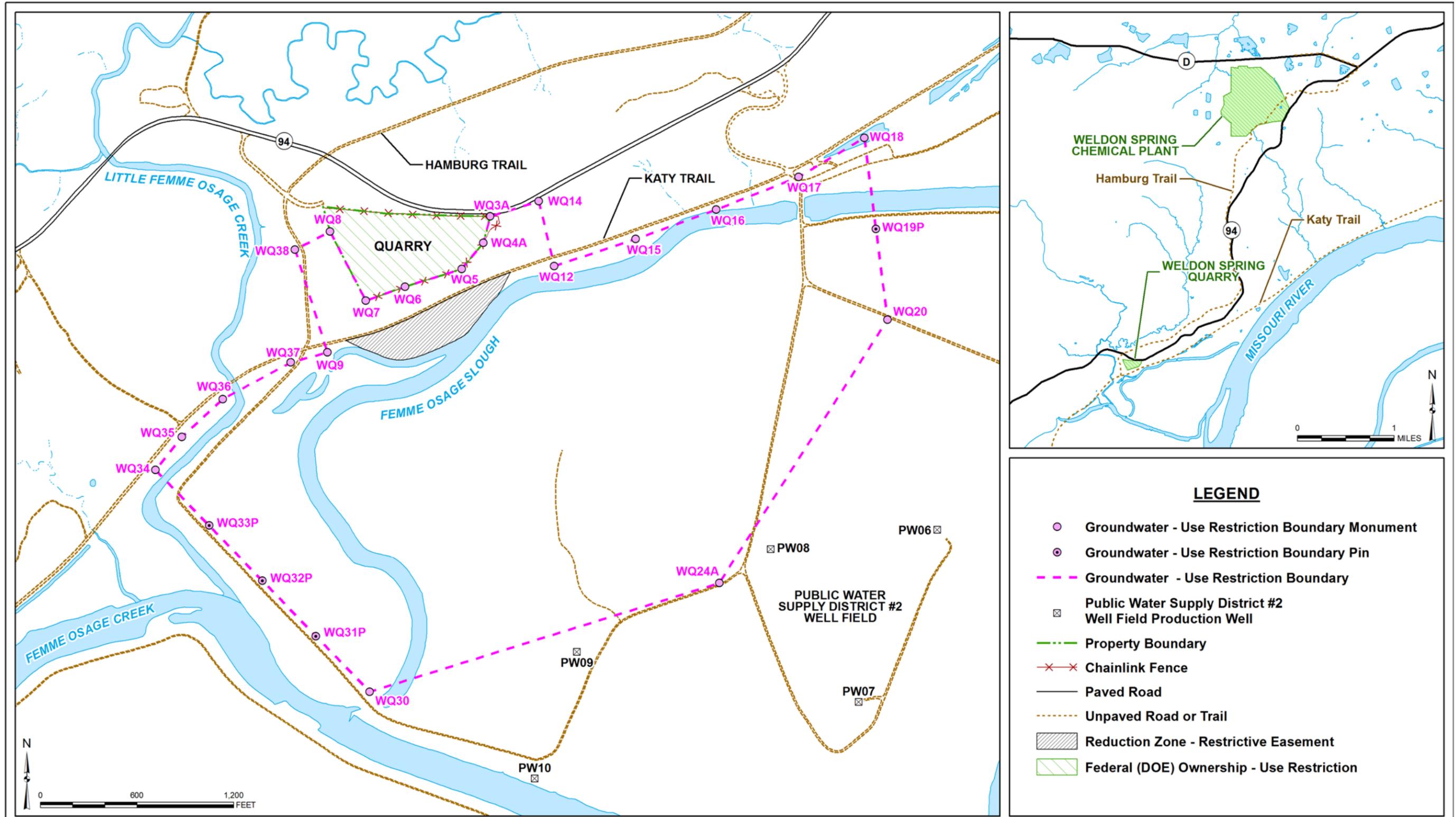
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Figure 3. 2012 Inspection Map for the Quarry Area of the Weldon Spring, Missouri, Site



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Figure 4. Institutional Controls Location Map for the Chemical Plant Area of the Weldon Spring, Missouri, Site



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Figure 5. Institutional Controls Map for the Quarry Area of the Weldon Spring, Missouri, Site

Inspection Results: The Quarry reduction zone area was inspected and no indications of excavation into soils or bedrock were observed. As required by the LTS&M Plan, information signage and contact numbers were posted on monitoring wells at the Quarry Area reduction zone. The labels indicate no digging is allowed in this area and include contact numbers for DOE and MDC. Land use remains consistent with planned institutional controls.

2.1.7 Southeast Drainage

Inspection Criteria: Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide-corridor), or other activity that would indicate non-recreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.

Inspection Results: The inspectors walked down the entire Southeast Drainage (Photo 4) and no indications of residential use, construction, or any other activity that would indicate non-recreational use of the area were observed. The springs also were inspected and no indications of residential, commercial, or agricultural use of the springs were observed. Both of the springs were observed to be flowing. Current land use remains consistent with planned institutional controls. It was recommended during the 2011 inspection that monitoring well MW-4026 be repainted and it was noted during this inspection that the well had been repainted. (Photo 5). It was observed during the 2011 inspection that erosion is occurring under the culvert which crossed under the Hamburg Trail (Photo 6). John Vogel of MDC had noted this issue during the 2011 inspection as they are responsible for maintenance of the Hamburg Trail under a formal agreement between DOE and MDC. The erosion was again observed during the 2012 inspection and an email was sent on November 2, 2012, to John Vogel informing him of the observation.

2.1.8 State Route 94 Culvert

Inspection Criteria: Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area.

Inspection Results: The State Route 94 culvert was inspected. It was noted during the inspection that the culvert inlet was filled with tree debris (Photo 7). The MoDOT representative, Kevin Wideman, stated that he would inform the local MoDOT representatives.

2.1.9 NPDES Discharge Pipeline from LCRS to Missouri River

Inspection Criteria: Inspect the entire length of the NPDES discharge pipeline and outfall for any disturbance or maintenance needs.

Inspection Results: The area of the pipeline was inspected. A map of the pipeline, indicating the manhole locations, is shown in Figure 6. It was noted that there were no on-site disturbances of the pipeline and there were no apparent disturbances in the area of the pipeline or manholes in the off-site areas. It was observed that there is some minor debris in the opening of the discharge pipe at the Missouri River. This pipeline serves as a contingency for discharge of disposal cell leachate. The pipeline has not been used for that purpose to date.

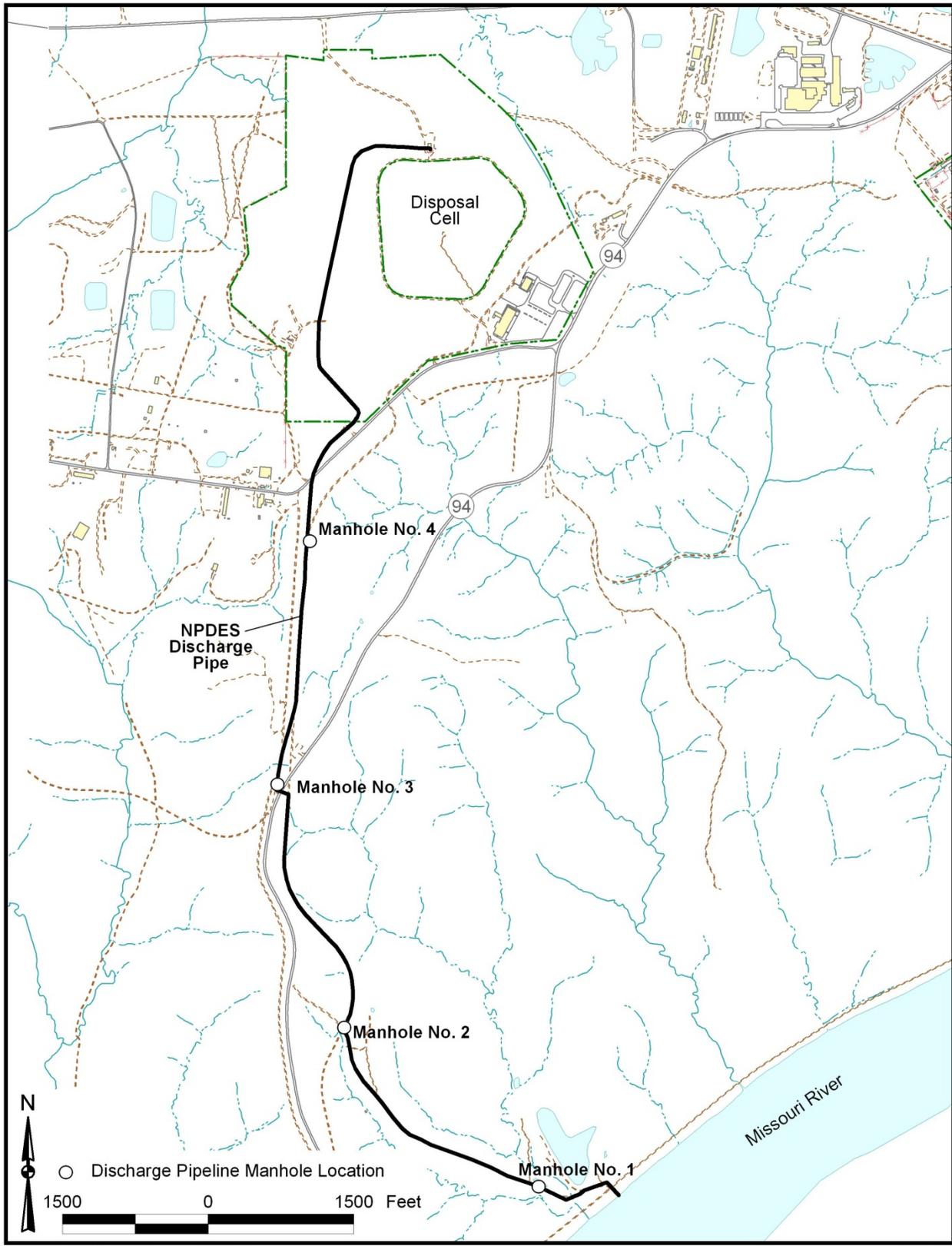


Figure 6. NPDES Discharge Pipeline Between the LCRS Support Building at the Missouri River, Weldon Spring, Missouri, Site

2.2 Disposal Cell

The disposal cell was inspected in accordance with the LTS&M Plan and the annual inspection checklist (Photos 8 and 9). The cell was divided into ten transects (Figure 7). The inspectors separated into two groups and walked five transects each. The inspectors looked for depressions, shifts of cell plane vertices, and other indications of settlement. Other items for inspection were vegetation, wet areas, apron drains, guardrails, and the stairs. The six rock test plot areas were also inspected. The inspectors took photographs of these delineated sections and compared them to photographs from the previous inspection of the same areas and observed no rock degradation. The test plot areas are shown from the original inspection in 2003, 2011, and this year for comparison purposes. Refer to Photos 10 through 26. It was noted during the 2010 inspection that some rocks had been removed by vandals from the Test Plot #5 during the 2010 inspection. A new test plot (Test Plot #6) had been marked during 2011 in response to a request from MDNR during the 2010 inspection. This new plot is located on the southern face of the disposal cell (Figure 7). It was noted during the 2011 inspection that the painted lines around the test plots had faded a great deal and it was recommended that the lines be repainted. The lines had all been repainted during 2012.

In accordance with the inspection criteria included in the checklist, the inspectors also evaluated the cell cover for wet areas or water drainage and observed that none were present. The toe and apron drains were inspected and found to be functioning as designed. The guardrail and stairs were in good condition. No vegetation was found on the disposal cell during the inspection. It has been observed the past four years that much of the rock is darker than in previous years and is assumed to be due to weathering. The darkened rock is not an issue that could compromise the disposal cell, just an observation of a changed condition.

2.3 Leachate Collection and Removal System (LCRS)

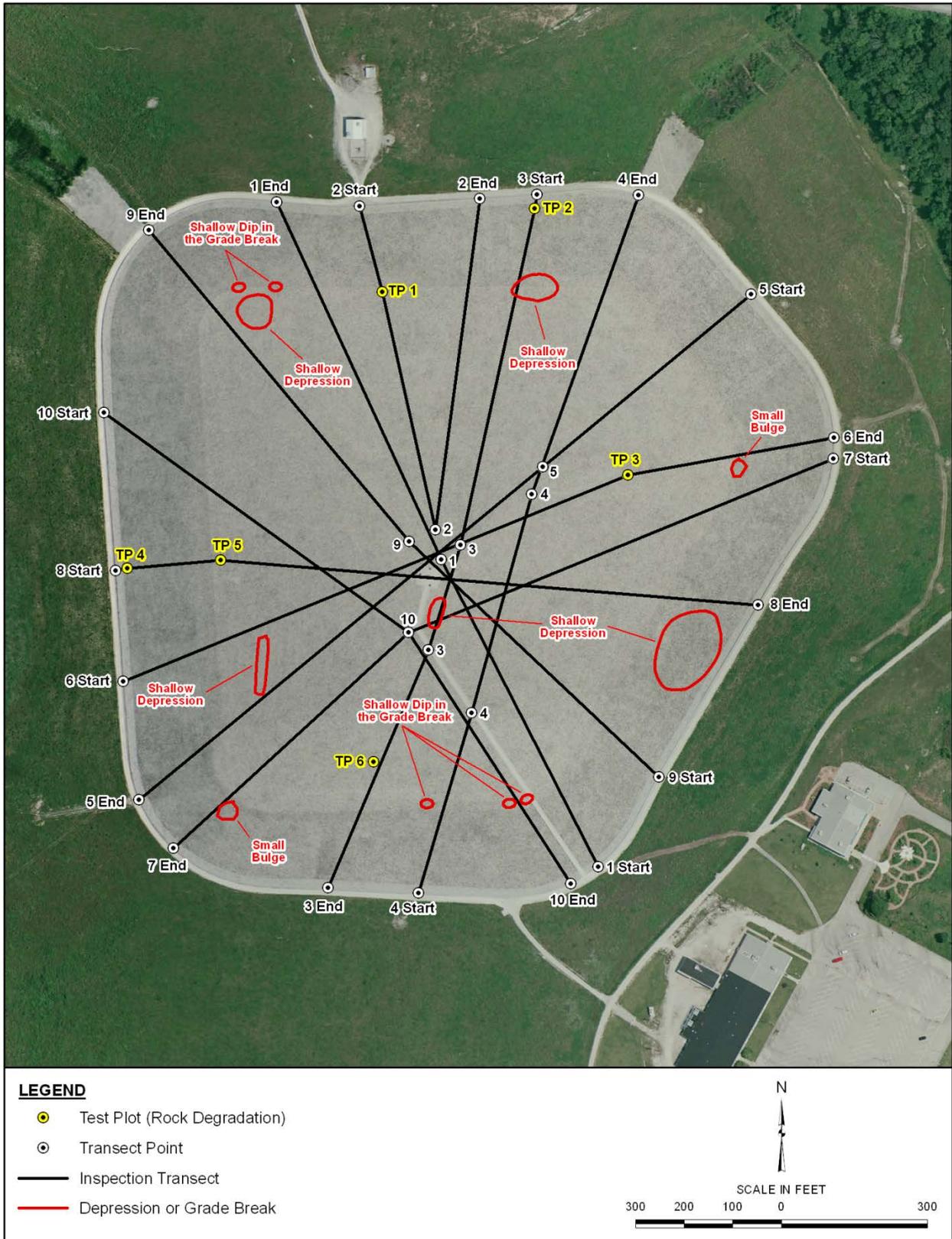
Operations of the LCRS were discussed with the inspection participants, the LCRS data and the SOARS system was presented, and the system was inspected (Photo 27). The fences and doors were locked and were in good condition. The system was functioning as designed. The leachate production rates, uranium levels, and flow rates are provided in Appendix D.

The DOE continues to exercise its pretreatment contingency process equipment by pre-treating the leachate through a system of cartridge filters and ion exchange media that is selective for uranium. The leachate is sampled and continues to be well below the limit for uranium. The leachate will continue to be managed in this manner until the untreated leachate is consistently below the 20 picoCuries per liter (pCi/L) level for uranium.

2.4 Erosion

2.4.1 Chemical Plant Area

The erosion areas were observed during the inspection. Erosion channels within the entire prairie have been mapped with GPS annually since 2007 (Figure 8). The resulting information will be used to track the nature and extent of erosion and to determine possible action if deemed necessary.



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Figure 7. Disposal Cell Inspection Transects and Rock Test Plot Locations at the Weldon Spring, Missouri, Site

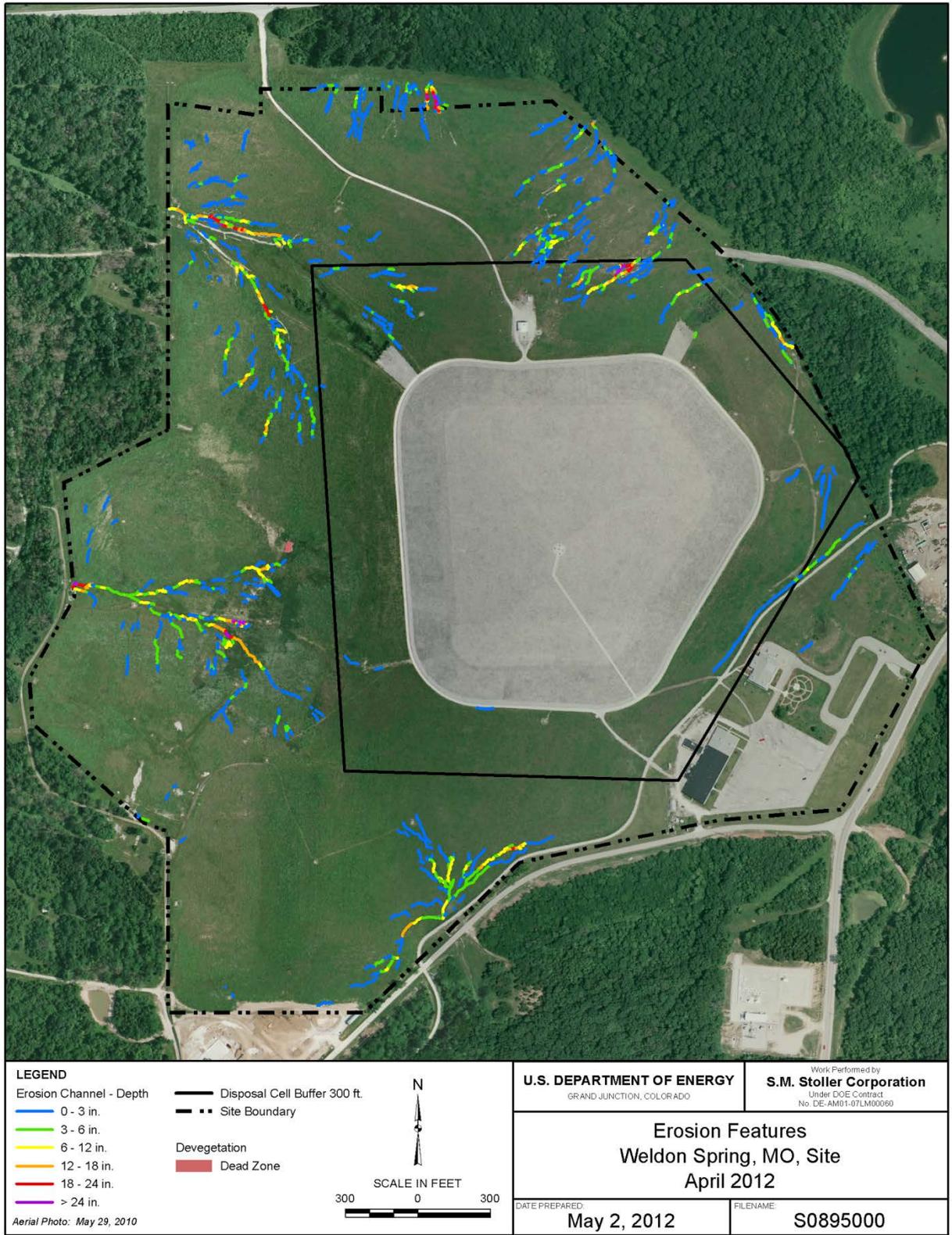


Figure 8. Erosion Channels within the Prairie

2.4.2 Quarry Area

No erosion areas were noted during the inspection of the Quarry area. Subsidence due to drought conditions was noted and a contractor will be selected to remediate any damage to surface casing seals.

2.5 General Site Conditions

General site conditions as listed in the checklist were inspected and are discussed below.

2.5.1 Roads

The roads consist of asphalt roads leading into the property and a gravel road that extends around the disposal cell and to Gate D. The roads were in good condition.

2.5.2 Vandalism

Although the site is publicly accessible, signs are clearly posted at the disposal cell that the viewing platform is open during daylight hours only. Public use of the site continues to increase. Because of on-going issues associated with this use (e.g., littering at various locations throughout the site including at the top of the disposal cell, increasing evidence of nighttime access, etc.), a private security firm was hired to provide seasonal patrol coverage of the site during the evening hours. These patrols, along with the upgraded safety-oriented security system have dramatically curtailed the degree of undesirable activities at the site. Signs were also posted at the disposal cell entrance and the top of the disposal cell that state that video surveillance is being conducted. This was a result of a recommendation made during the 2010 inspection.

The disposal cell monument plaques were observed to have been vandalized during 2010. The corners of the plaques have been bent down by the use of excessive force. It was noted during the 2011 and 2012 inspections, that the plaques are continuing to be vandalized. The plaques are still functional and nothing further will be done at this time.

On September 19, 2012, it was discovered that wells MW-3031 and MW-3037 had been vandalized. Upon inspection, it was determined that the aluminum top caps had been broken off of both wells. Attempts to measure the static water level in MW-3031 revealed that a large rock had been forced down MW-3031 and was lodged in the casing approximately 4.5 feet from the top of the casing. It appears the rock cannot be removed from the well casing. It is not known if any additional rocks or other materials are present below this rock. It is planned to abandon this well. No additional damage was observed on MW-3037. Well caps that are more vandal-proof are being researched for the groundwater monitoring wells.

2.5.3 Personal Injury Risks

No personal injury risks were observed.

2.5.4 Site Markers (Four Information Plaques on Top of Cell, Historical Markers, and Other Information Markers)

The four information plaques on top of the cell were generally in good condition (See Section 2.5.2.). There was vandalism noted to the plaques in that the corners had been bent down

from the use of excessive force as noted above. The historical markers were inspected and were in good condition.

The LTS&M Plan also states that signs are required to be posted on the LCRS fence to inform the public that trespassing is forbidden and that persons may call the DOE 24-hour security telephone number (970-248-6070 or 877-695-5322) for information. During the 2012 inspection, it was noted that these signs were posted on the LCRS fence and were in good condition.

2.6 Monitoring Wells

Monitoring wells in the Disposal Cell Monitoring Well Network, Chemical Plant Monitoring Well Network, and Quarry Monitoring Well Network were inspected. The inspection checklist required all the disposal cell wells to be inspected, and greater than 10 percent of the Chemical Plant and Quarry wells to be inspected. The checklist required the wells to be inspected to ensure they are properly secured and locked, in good condition, and to check if they need maintenance and have the proper ID number on the well. The maintenance on the wells looked good, with many wells having been freshly painted. Prior to the inspection during regular sampling and inspection of the wells it was noted that several of the wells and/or well casings had settled and caused damage to the wells or the concrete pads (Photo 29). It is assumed that the extreme drought over the summer caused the settling. The following wells from the Chemical Plant were affected: MW-2033, 2034, 4001. The wells affected at the Quarry were MW-1013, 1015, 1016, 1018, and 1046. It is planned to hire a subcontractor to repair the affected wells.

2.6.1 Disposal Cell Monitoring Well Network

Each well in the disposal cell network was inspected and is listed below:

MW-2032, 2046, 2047, 2051, 2055.

2.6.2 Chemical Plant Area Monitoring Well Network

The inspection checklist requires at least 10 percent of the wells be inspected from the Chemical Plant monitoring well network. The monitoring well network consists of 68 wells owned by DOE and 4 wells owned by the Army. This number does not include the 5 disposal cell wells, although some of those wells are monitored for the groundwater remedy. Twenty-four wells were inspected (35 percent). Only 43 DOE-owned wells are monitored for the groundwater remedy of monitored natural attenuation. The remaining wells are monitored quarterly for static water levels only. The wells that were inspected are listed below:

MW-2006, 2017, 2023, 2034, 2053, 3024, 3025, 3027, 3028, 3029, 3031, 3040, 4001, 4006, 4007, 4026, 4027, 4028, 4029, 4036, 4040, 4041, 4042, 4043.

2.6.3 Quarry Monitoring Well Network

The inspection checklist requires greater than 10 percent of the wells in the Quarry monitoring well network be inspected. The monitoring well network consists of 34 wells. Nineteen wells were inspected (55 percent). The wells that were inspected are listed below:

MW-1002, 1004, 1005, 1006, 1007, 1008, 1009, 1013, 1014, 1015, 1016, 1027, 1030, 1031, 1032, 1046, 1048, 1049, 1052.

2.7 On-site Document and Record Verification

The following on-site documents and records were verified:

- Surveillance and Maintenance Plan: (*Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site*, December 2008)
- Maintenance log (Plan of the Day/Week forms)
- NPDES Storm water permit and associated Storm Water Pollution Prevention Plan and inspection checklists. The storm water permit was obtained for the land disturbance from the demolition of the administration building and waste water treatment plant installation.
- NPDES permit(s): #MO-0107701, 0129917
- Metropolitan St. Louis Sewer District (MSD) agreement and records
- Groundwater monitoring records
- Leachate records
- Interpretive Center sign-in logs
- Telecons and interview records

2.8 Contacts

Several stakeholders were notified prior to the inspection in accordance with the checklist. The purpose of this notification is to keep contact with the stakeholders and determine if there are any issues or concerns. These included:

- St. Charles County Sheriff
- Cottleville Fire District
- Francis Howell High School
- Simplex-Grinnel
- St. Charles County

The institutional control contacts also were notified in regard to the inspection and to maintain annual contact with the representatives relevant to institutional control issues. This annual contact is used to verify cognizance of the institutional controls and to reiterate the requirements and/or restrictions with each representative. The representatives contacted are listed below.

- John Vogel – Missouri Department of Conservation
- Joel Porath – Missouri Department of Conservation
- Alan Leary – Missouri Department of Conservation
- Mary Bryan – Missouri Department of Natural Resources – Parks
- Quinn Kellner – Missouri Department of Natural Resources – Parks
- Marsha Keeran/John Downing – U.S. Army
- Tom Blair – Missouri Department of Transportation
- Tom Evers - Missouri Department of Transportation
- Kevin Wideman - Missouri Department of Transportation

The St. Charles Planning and Zoning Department also was contacted and they verified that no planning and zoning activities were currently taking place within one-quarter mile of the Chemical Plant and Quarry Property. The Notation of Land Ownership and easements with the state property owners were verified to be filed and present at the St. Charles Recorder of Deeds office by checking the county website at www.sccmo.org.

The Stoller Site Manager and Environmental Data Manager, Randy Thompson, (who at this time is the same person) was interviewed also as required by the inspection checklist. He was interviewed regarding the status of the project and to discuss any issues as well as the status of the monitoring data. No issues were identified during this interview.

All conversations and interviews were recorded on an Interview Record form adapted from the EPA *Comprehensive Five-Year Review Guidance*. The forms for each of these contacts and interviews are attached as Appendix E.

2.9 Costs

The fiscal year (FY) 2012 cost for operating the Weldon Spring Site from October 1, 2011, to September 30, 2012, was \$2,535,428. The costs were higher than typical years due to demolition of the administration building (which required relocation of staff into trailers) and the installation of a new waste water treatment package plant.

2.10 Environmental Monitoring Data

The environmental data from the Weldon Spring Site are available on the following DOE website: www.lm.doe.gov/land/sites/mo/weldon/weldon.htm under the Geospatial Environmental Mapping System (GEMS) link. The environmental monitoring data are also summarized in an annual report which is available on the website.

2.11 Prairie Maintenance

Section 2.6 of the LTS&M Plan states that routine maintenance of the prairie completed during the previous 12 months will be summarized in the annual inspection report. This summary is as follows:

Several prairie maintenance activities were performed throughout the previous 12 months. Due to unfavorable weather in the spring of 2012 there was no controlled burn performed during this period. In June and July, spot-spraying individual small trees and *Sericea lespedeza* and *Robinia pseudoacacia* plants with herbicide was performed as part of on-going efforts to reduce numbers and control encroachment of invasive weed and tree species throughout the prairie area. An increase in the numbers of trees was observed during this season's eradication efforts. Garden maintenance of the areas surrounding the interpretive center continued in 2012. This consisted of manual weeding and frequent irrigation in 2012 and was performed throughout the growing season. Mulching of the beds was performed to reduce the weeds and control moisture. Dried seed heads from forbs were harvested and utilized for hand overseeding on the prairie area of the site in December 2012. Locations in the prairie with erosion and less plant establishment were targeted for overseeding. Several volunteers continued to perform garden maintenance activities throughout this period.

3.0 Findings and Recommendations

1. Recommendation: Repair wells which have been observed to be damaged by ground subsidence. These include MW-1013, 1015, 1016, 1018, 1046, 2033, 2034, and 4001.

Action: Repair wells which have been observed to be damaged by settling. These include MW-1013, 1015, 1016, 1018, 1046, 2033, 2034, and 4001.

Target Date: September 2013

2. Recommendation: Continue to monitor and evaluate erosion on the Chemical Plant Site.

Action: Continue to monitor and evaluate erosion on the Chemical Plant Site.

Target Date: Ongoing.

4.0 Photographs



Photo 1. View from the disposal cell of new wastewater treatment plant installation.



Photo 2. Burgermeister Spring



Photo 3. View from the disposal cell of the clearing on the Army Property.



Photo 4. Southeast drainage.



Photo 5. Monitoring well MW-4026.



Photo 6. Erosion under Hamburg Trail culvert.



Photo 7. Culvert inlet under Highway 94..



Photo 8. Disposal cell looking north.



Photo 9. Disposal cell looking south.



Photo 10. 2003-Cell cover test plot TP1; north edge of north facet.



Photo 11. 2011-Cell cover test plot TP1; north edge of north facet.



Photo 12. 2012-Cell cover test plot TP1; north edge of north facet.



Photo 13. 2003-TP2; foot of north side slope of disposal cell.



Photo 14. 2011-Cell cover test plot TP2; bottom of north side slope.



Photo 15. 2012-Cell cover test plot TP2; bottom of north side slope.



Photo 16. 2003-Cell cover test plot TP3; northeast ridgeline.



Photo 17. 2011-Cell cover test plot TP3; northeast ridgeline.



Photo 18. 2012-Cell cover test plot TP3; northeast ridgeline.



Photo 19. 2003-Cell cover test plot TP4; located on upper west side.



Photo 20. 2011-Cell cover test plot TP4; located on upper west side.



Photo 21. 2012-Cell cover test plot TP4; located on upper west side.



Photo 22. 2003-Cell cover test plot TP5; located on lower west side.



Photo 23. 2011-Cell cover test plot TP5; located on lower west side.



Photo 24. 2012-Cell cover test plot TP5; located on lower west side.



Photo 25. 2011-Cell cover test plot TP6; located on upper south side.



Photo 26. 2012-Cell cover test plot TP6; located on upper south side.



Photo 27. Sump outside LCRS Building.



Photo 28. Erosion north of the disposal cell..



Photo 29. Monitoring well MW-1016; one of wells damaged from the drought due to ground subsidence.

Appendix A
Inspection Agenda

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WELDON SPRING ANNUAL INSPECTION
AGENDA

Tuesday, October 23, 2012

8:30 – 9:00 am

Inspectors/observers will divide into 2 separate groups. Review agenda, inspection teams, and safe work issues. Review inspection report and findings/corrective actions on last year's inspection. Team 1 (Team Leader – Terri Uhlmeyer) will cover the Chemical Plant Area. Team 2 (Team Leader – Randy Thompson) will cover the Southeast Drainage and the Quarry Area.

9:00 – 11:30 am

Team 1: Inspect land & shallow groundwater use on Army property and DOE property:

- Monitoring wells along Army property roads
- Drive all Army roads in IC area and note any land disturbance
- Disposal Cell buffer zone
- Monitoring wells on DOE Chemical Plant property

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area:

- Southeast Drainage from Army Road to Hwy 94
- Hwy 94 culvert
- Southeast Drainage from Hwy 94 to Missouri River, incl Springs 5303 & 5304

11:30 am – 12:30 pm

Lunch

12:30 – 4:00 pm

Team 1: Inspect land & shallow groundwater use on Missouri Department of Conservation property, August A. Busch Conservation Area:

- Burgermeister Spring
- Spring 6303
- Monitoring wells along MDC roads

Team 2: Inspect land & shallow groundwater use on Missouri Department of Conservation property, Weldon Spring Conservation Area and DOE property:

- DOE Quarry Property (Quarry rim wells)
- DOE Quarry Property (Quarry proper)
- Reduction zone area
- Public Water District #2 well field area

4:00 – 4:30 pm

- Discuss data collected to date regarding uranium in the unweathered bedrock unit
- Discuss future public meetings

Wednesday, October 24, 2012

8:30 – 9:00 am

Review previous day's findings and current day's inspection objectives. Inspectors/observers divide into 2 separate groups to cover 5 transects each on the disposal cell. The Team Leaders will be Terri Uhlmeier and Randy Thompson

9:00 – 11:30 am

Disposal Cell Inspection – Potential settlement, rock degradation, vegetation
Team 1: Walk 5 Transects
Team 2: Walk 5 Transects

11:30 am – 12:30 pm

Lunch

12:30 pm – 1:00 pm

Teams 1 & 2: reconvene in Room 3A for trip to LCRS.

1:00– 3:00 pm

Inspection of LCRS (No confined space entry planned).
Walk disposal cell buffer zone inspecting for erosion issues.

3:00 – 4:00 pm

Document and paperwork review

4:00 – 4:30 pm

Debriefing for DOE and Stoller management of preliminary inspection findings

Thursday, October 25, 2012

8:30-11:30

This time period will be used to conduct any items that do not fit within the 2 previous days, such as additional paperwork review, erosion inspections, walk-down of the LCRS pipeline, and inspection of the historical markers.

Appendix B
Corrective Action Report

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Corrective Actions from 2011 Weldon Spring LTS&M Annual Inspection

1. Recommendation: Wells that required some type of maintenance:

- Need new contact label: MW-4027
- Need painted: MW-4026

Action: Applied the required maintenance to these wells

Completed Date: 5/12 and 10/12

2. Recommendation: Repaint Rock Degradation Test Plots

Action: Repainted Rock Degradation Test Plots

Completed Date: 10/12

3. Recommendation: Repair erosion area on northeast of the apron drain located on the northeast side of the disposal cell.

Action: It was determined to just continue to monitor this area.

4. Recommendation: Continue to monitor and evaluate erosion control on the Chemical Plant Site.

Action: Continue to monitor and evaluate erosion control on the Chemical Plant Site.

Completed Date: Ongoing

5. Recommendation: Remove the reference to inspection of the survey monuments from the LTS&M Plan and future inspections. With use of GPS, the survey monuments are not critical to the project and there is no need to inspect them.

Action: The monuments will no longer be inspected during the annual inspection and the reference will be deleted from the LTS&M Plan.

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Appendix C
Inspection Checklist

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Annual Site Inspection Checklist

Purpose of the Checklist

This checklist has been developed from the EPA guidance document *Comprehensive Five Year Review Guidance* dated June 2001 (OSWER No. 9355.7-03B-P) and from Section 2.3 of the *Long-Term Surveillance and Maintenance Plan for the Weldon Spring, Missouri, Site*. The checklist was modified to site-specific conditions as recommended by the guidance document. The checklist will be completed annually during the Weldon Spring Site annual surveillance and maintenance inspection. The checklist will also be used to assist in compiling information for the five-year review.

I. SITE INFORMATION	
Site name: DOE Weldon Spring Site	Date(s) of inspection: Oct 23-25, 2012
Location: St. Charles, MO	EPA ID: MO6210022830
Agencies accompanying DOE for portions of the annual inspection: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> EPA, Region 7 <input checked="" type="checkbox"/> MDNR <input checked="" type="checkbox"/> Other (list): MoDOT, St. Charles County 	Weather: <ul style="list-style-type: none"> Tues Oct 23: Rain in the a.m. 60° Wed Oct 24: cloudy 70°
Remedy Includes: <ul style="list-style-type: none"> Disposal Cell Institutional controls Monitored Natural Attenuation Long Term Monitoring Other 	
Inspectors <u>Terri Uhlmeier (Stoller) Randy Thompson (Stoller)</u> Participants <u>Ken Starr (DOE)</u> <u>Hoi Tran (EPA)</u> <u>Patrick Anderson (MDNR)</u> <u>Dan Carey (MDNR)</u> <u>Kevin Wideman (MoDOT)</u> <u>Steve Johnson (MoDOT)</u> <u>Brittany Politti (St. Charles County)</u> <u>Ryan Tilley (St. Charles County)</u> <u>Jeff Becker (St. Charles County)</u> <u>Michelle Watkins (St. Charles County)</u> <u>Tom Nelson (Citizen)</u> <u>Becky Cato (Stoller)</u> <u>Tom Welton (Stoller)</u> <u>Tim Zirbes (Stoller)</u>	

5. Stakeholders: Contact to notify of annual inspection and to determine if there are any concerns or issues.

Agency: Francis Howell High School Contact Name: Mr. Randy Carter, Assistant Principal
 Contact Name Current yes no
 Phone Number Current yes no same (new phone no. if applicable)

Contact same same 10/10/12 636-851-4700
 Name (if different than above) Title Date Phone no.
 Problems; suggestions; Report attached email:ed.philip.carter@fhdschools.org

Agency: St. Charles County Contact Name: Ryan Tilley, Environmental Public Health Manager
 Contact Name Current yes no
 Phone Number Current yes no same (new phone no. if applicable)

Contact same same 9/28/12 636-949-7406
 Name (if different than above) Title Date Phone no.
 Problems; suggestions; Report attached

6. Other interviews Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. Documents
 Surveillance and Maintenance Plan Readily available Up to date N/A
 Maintenance logs (Plan of Week) Readily available Up to date N/A
 Remarks _____

2. Health and Safety Procedures Readily available Up to date N/A
 Remarks Procedures are online

3. Permits and Service Agreements
 NPDES Permits Readily available Up to date N/A
 MSD agreement and records Readily available Up to date N/A
 Other permits stormwater Readily available Up to date N/A
 Remarks _____

4. Groundwater Monitoring Records Readily available Up to date N/A
 Remarks _____

5. Leachate Records Readily available Up to date N/A
 Remarks _____

6. Interpretative Center Sign-In Logs Readily available Up to date N/A
 Remarks _____

II. INTERVIEWS (Check all that apply)				
1. Local Site Manager	<u>Randy Thompson</u> Name	<u>Site Manager</u> Title	<u>10/19/12</u> Date	
Interviewed <input checked="" type="checkbox"/> at site <input checked="" type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. <u>636-300-2640</u>				
Problems, suggestions; <input checked="" type="checkbox"/> Report attached _____				
2. Environmental Data Manager	<u>Randy Thompson</u> Name	<u>Data Manager</u> Title	<u>10/19/12</u> Date	
Interviewed <input type="checkbox"/> at site <input checked="" type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. <u>636-300-2640</u>				
Check to ensure that environmental data is reviewed and trended.				
Problems, suggestions; <input type="checkbox"/> Report attached _____				
3. Other Staff (as applicable)	<u>N/A</u> Name			
Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone no. _____				
Problems, suggestions; <input type="checkbox"/> Report attached _____				
4. Local response agencies: Contact to notify of annual inspection and to determine if there are any concerns or issues.				
Agency:	<u>St. Charles County Sheriff</u>			
Contact	<u>James Hudson</u> Name	<u>Captain</u> Title	<u>9/20/12</u> Date	<u>636-949-7325</u> Phone no.
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____				
Agency:	<u>Cottleville Fire Department</u>			
Contact	<u>Mark Boewle</u> Name	<u>Asst Fire Chief</u> Title	<u>9/20/12</u> Date	<u>636-447-6655</u> Phone no. <u>18703</u>
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____				
Agency:	<u>SimplexGrinnel (LCRS and Interpretive Center Alarm Company)</u>			
Contact	<u>Katie</u> Name		<u>10/19/12</u> Date	<u>888-746-7539</u> Phone no.
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____				
Agency:	<u>N/A</u>			
Contact				
Problems; suggestions; <input type="checkbox"/> Report attached _____				

IV. O&M COSTS

1. O&M Cost Records (This information may be reviewed and completed prior to the inspection)

Original O&M cost estimate \$ 1,252,146

Total annual cost for prior federal fiscal year:

From Oct. 1, 2011 To Sept. 30, 2012 \$ 2,535,428
Date Date Total cost

2. Unanticipated or Unusually High O&M Costs During Review Period

Describe costs and reasons: Decision to demolish the administration building which also required relocation of staff into trailers and also the installation of a new waste water treatment system.

V. INSTITUTIONAL CONTROLS

Institutional Control (IC) Inspections

1. Land and Shallow Groundwater Use within the Chemical Plant Site and Quarry Property

Inspect for indications of excavations into soil or bedrock and groundwater withdrawal or use in restricted areas. If any party has been granted use of portions of the Chemical Plant or Quarry area, inspect to ensure that land use is in compliance with the terms of the restrictions within the notation.

Note any observations: No indications of excavations or groundwater withdrawal or use. The administration building demolition was close to being completed. A new waste water treatment system was being installed.

2. Groundwater Use in Areas Surrounding the Chemical Plant

Groundwater use is restricted in areas. Inspect affected areas for evidence of groundwater or spring water use (Burgermeister Spring and Spring 6303). Inspect to ensure that land use continues to be in compliance with the terms of the license, easement, or permit and the restrictions contained therein.

Note any observations: Inspected wells at the Army and the one well at Bush. Inspected springs. No evidence of groundwater or spring water use. No restrictions were being violated.

3. Groundwater (Quarry)

Groundwater use is restricted in areas. Inspect affected areas for evidence of groundwater withdrawal or use in the area of impact. Inspect to ensure that land use continues to be in compliance with the terms of the license and the restrictions contained therein.

Note any observations: No evidence of groundwater use. No land use changes. Inspected wells

4. **Land Use in Quarry Area Reduction Zone**
 A naturally occurring reduction zone exists in soil south of the Katy Trail and north of the Femme Osage Slough. Inspect for indications of excavations into soils and bedrock in the uranium reduction zone. Inspect to ensure that land use continues to be in compliance with the terms of the easement and the restrictions contained therein.
 Note any observations: No evidence of excavations into soil or bedrocks. "No Dig" labels were present on wells & ballards in reduction zone

5. **Southeast Drainage**
 Check for indications of residential use or construction in the Southeast Drainage (200-foot-wide corridor), or other activity that would indicate nonrecreational use of the area. Check Springs 5303 and 5304 for residential, commercial, or agricultural use of spring water.
 Note any observations: No indications of residential use or construction in the SE Drainage or corridor. No use of springs was noted.

6. **State Route 94 Culvert**
 Check for signs of disturbance of the affected region where the culvert passes beneath State Route 94 and in the utility rights-of-way in the affected area. Observe culvert that has been cut.
 Note any observations: The inlet pipe was covered with debris. Kevin Widenman stated he would inform the Local MoDOT.

7. **Pipeline from LCRS to Missouri River**
 Inspect the entire length of the pipeline and outfall for any disturbances or maintenance needs.
 Note any observations: No disturbances in areas of the pipeline or manholes.

Institutional Control Annual Contact Log

In accordance with the LTS&M Plan, the following will be contacted to verify cognizance of institutional controls and real estate agreements. Fill in all that apply.

1. **Agency:** Missouri Department of Conservation **Contact Name:** Joel Porath, Wildlife Regional Supv.
Address: August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304
Institutional Control and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, Quarry Area Groundwater Use Restriction, Quarry Reduction Zone Land Use Restriction, Southeast Drainage Residential Use Restriction, North Gate Access, Well Sampling Access Agreement, Effluent Discharge Pipeline, Hamburg Trail Use Agreement.
 Contact Name Current yes no 636-300-1453 x 4108
 Phone Number Current yes no same (new phone no. if applicable)
 Contact sum 10/9/12 636-441-4554 x4108

Name (if different than above)	Title	Date	Phone no.
Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			
2. Agency: Missouri Department of Conservation Contact Name: John Vogel, Area Manager Address: August A. Busch Memorial Conservation Area, 2360 Highway D, St. Charles, MO 63304 Institutional Control and Real Estate Licenses to Verify: See No. 1 Contact Name Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Phone Number Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <u>same</u> (new phone no. if applicable) Contact <u>same</u> <u>same</u> <u>9/27/12</u> <u>636-300-1953 X 4131</u> Name (if different than above) Title Date Phone no. Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			
3. Agency: Missouri Department of Conservation Contact Name: Alan Leary, Policy Coordinator Address: P.O. Box 180, Jefferson City, MO 65102 Institutional Control and Real Estate Licenses to Verify: See No. 1 Contact Name Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Phone Number Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <u>same</u> (new phone no. if applicable) Contact <u>new contact -</u> _____ <u>10/16/12</u> <u>573-522-4115 x3346</u> Name (if different than above) Title Date Phone no. Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			
4. Agency: Missouri Department of Natural Resources Contact Name: Mary Bryan, Real Estate Manager Address: P.O. Box 176, Jefferson City, MO 65102 Institutional Controls and Real Estate Licenses to Verify: Quarry Area Groundwater Use Restriction, Southeast Drainage Residential Use Restriction, Well Sampling Access Agreement, Effluent Discharge Pipeline Contact Name Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Phone Number Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <u>same</u> (new phone no. if applicable) Contact <u>same</u> _____ <u>10/11/12</u> <u>573-751-7987</u> Name (if different than above) Title Date Phone no. Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			
5. Agency: Missouri Department of Natural Resources Contact Name: Quinn Kellner, Natural Resource Manager, Jones-Confluence Point State Park Address: P.O. Box 67, West Alton, MO 63386 Institutional Controls and Real Estate Licenses to Verify: Quarry Area Groundwater Use Restriction, Southeast Drainage Residential Use Restriction, Well Sampling Access Agreement, Effluent Discharge Pipeline Contact Name Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Phone Number Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <u>same</u> (new phone no. if applicable) Contact <u>same</u> _____ <u>10/9/12</u> <u>636-899-1135</u> Name (if different than above) Title Date Phone no. Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			

6. **Agency:** Missouri Department of Transportation **Contact Name:** Tom Blair, Asst. District Engineer
Address: 1590 Woodlake Dr., Chesterfield, MO 63017
Institutional Controls to and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, and question MoDOT regarding Missouri State Highway 94 Culvert and Highway D culverts about plans for repairs/replacements.
 Contact Name Current yes no
 Phone Number Current yes no Same (new phone no. if applicable)

Contact Same _____ 10/10/12 314-340-4203
 Name (if different than above) Title Date Phone no.
 Problems; suggestions; Report attached emailed Tom Blair
Thomas.Blair@modot.mo.gov

7. **Agency:** Missouri Department of Transportation **Contact Name:** Kevin Wideman, Sr. Environmental Specialist
Address: P.O. Box 270, Jefferson City, MO 65102
Institutional Controls to and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, and question MoDOT regarding Missouri State Highway 94 Culvert and Highway D culverts about plans for repairs/replacements.
 Contact Name Current yes no
 Phone Number Current yes no Same (new phone no. if applicable)

Contact Same _____ same 10/9/12 573-526-4171
 Name (if different than above) Title Date Phone no.
 Problems; suggestions; Report attached _____

8. **Agency:** Missouri Department of Transportation **Contact Name:** Tom Evers, St. Charles County Area Engineer
Address: 6780 Old Hwy. N. St. Charles, MO 63304
Institutional Controls to and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, and question MoDOT regarding Missouri State Highway 94 Culvert and Highway D culverts about plans for repairs/replacements.
 Contact Name Current yes no
 Phone Number Current yes no Same (new phone no. if applicable)

Contact Same _____ _____ 10/10/12 636-240-5277
 Name (if different than above) Title Date Phone no.
 Problems; suggestions; Report attached emailed Tom Evers: thomas.evers@modot.mo.gov

9. **Agency:** U.S. Dept. of Army **Contact Name:** Marsha Keeran, Facility Manager
Address: Weldon Spring Training Area, 7301 Hwy 94 S. St. Charles, MO 63304
Institutional Controls to and Real Estate Licenses to Verify: Chemical Plant Groundwater Use Restriction, Effluent Discharge Pipeline, Well Sampling Access Agreement
 Contact Name Current yes no
 Phone Number Current yes no _____ (new phone no. if applicable)

	Contact <u>Same</u>	Title <u>Same</u>	Date <u>10/12/12</u>	Phone no. <u>636-329-1243x2505</u>
	Name (if different than above) _____			
	Problems; suggestions; <input checked="" type="checkbox"/> Report attached _____			
10.	Agency: St. Charles County Recorder of Deeds Address: 201 N 2 nd , St. Charles, MO 63301 Institutional Controls to and Real Estate Licenses to Verify: Recorded real estate restrictions at the Recorder of Deeds Office or on the Internet at www.sccmo.org			
	Contact <u>N/A</u>	Name _____	Title _____	Date _____
	Phone no. _____			
	Problems; suggestions; <input type="checkbox"/> Report attached <u>Verified on the above website that the notation of land ownership and the easements with MDC, MDNR- Parks and MoDOT are recorded and present on the website.</u>			
11.	Agency: St. Charles County Planning and Zoning Department Contact Name: Wayne Anthony Address: 201 N 2 nd , St. Charles, MO 63301 Institutional Controls to and Real Estate Licenses to Verify: Awareness of Restrictions Contact Name Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Phone Number Current <input checked="" type="checkbox"/> yes <input type="checkbox"/> no _____ (new phone no. if applicable)			
	Contact <u>Same</u>	Name _____	Title <u>Same</u>	Date <u>10/15/12</u>
	Phone no. <u>636-949-7900x7221</u>			
	Problems; Report attached <input checked="" type="checkbox"/> suggestions; _____			
General				
1.	Land Use Changes On Site <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Remarks <u>Administration Building was demolished and new office trailers installed. New wastewater treatment system is being installed</u>			
2.	Land Use Changes Off Site that could affect site <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Remarks _____			
VI. GENERAL SITE CONDITIONS				
1.	Roads <input checked="" type="checkbox"/> Location shown on site map Roads adequate <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Remarks _____			

2.	Vandalism	<input type="checkbox"/> Location shown on site map	Vandalism noted	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks <u>Minor rock movement</u> <u>Vandalism to MW-3031 and MW-3037 was discovered</u> <u>on 9/19/12. Details are included in the report.</u>					
3.	Personal Injury Risks	Housekeeping maintained	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks _____					
4.	Site Markers (Four Information Plaques on Top of Cell, Historical Markers, and Other Information Markers)				
	<input checked="" type="checkbox"/> Location shown on site map	Legible and Secure	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
		In Good Condition	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Remarks _____					
5.	Guard Rail Around Cell	<input checked="" type="checkbox"/> Location shown on site map	Secure	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks _____					
6.	Stairs to Top of Cell	<input checked="" type="checkbox"/> Location shown on site map	Stairs in good condition	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
			Handrail stable and in good condition	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Remarks _____					
7.	Other Site Conditions:				
Remarks <u>N/A</u>					

VII. EROSION

1.	Chemical Plant Areas	<input checked="" type="checkbox"/> Location shown on site map	Erosion evident	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	Depth	_____			
	Remarks	The erosion has been mapped 2007-2012. The erosion figure is included in the report.			

2.	Quarry Area	<input type="checkbox"/> Location shown on site map	Erosion evident	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Depth	_____			
	Remarks	_____			

VIII. CHEMICAL PLANT DISPOSAL CELL

1. **Settlement /Bulges** Location shown on site map New settlement noted Yes No

A. Annually: Walk along the grade break at the top of the side slopes, around the cell perimeter, and along 10 transects across the cell surface. Inspect for local depressions, regional departures from planar surfaces, and shifts in intersections (vertices) of cell surface planes. Inspect for vertical shear of the cover layers indicated by sudden, abrupt steps that exceed an approximately 6-inch change of surface level over no more than 10 feet distance.

B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals): Conduct an aerial mapping survey with a vertical resolution not less precise than 0.5 feet. Produce and record maps and survey data for the cell surface represented by 1.0 foot contour intervals. Evaluate the data for indications of settlement. Consider the position and spacing of contour lines as indications of elevation change and possible settlement.

Remarks The inspectors walked the 10 transects. A few
minor depression areas were noted.

2. **Rock Cover** Signs of degradation Yes No Signs of intrusion Yes No

A. Annually: During settlement monitoring inspection also visually inspect for departures from original rock conditions or from the previous inspection. Note observable discoloration on areas larger than 2,500 square feet, presence of finer materials at surface and apparent rock gradation changes. Document rock conditions annually with photographs.

B. During 5-Year Review Inspections (Beginning 2005 and at 5-year Intervals): Inspect cell cover for gradation changes by walking 10 transects across the cell. Concentrations of degraded, split, or weathered pieces of limestone will be mapped, photodocumented and visually assessed as a percentage of rock exposed within each mapped area. If degraded rock is evenly distributed, inspectors will estimate the overall percentage of degraded rock. If the amount of degraded rock appears to be increasing, based on a review of previous annual rock quality assessments, additional monitoring or gradation testing will be performed. If rock does not appear degraded, photodocumentation of several GPS located areas will establish rock conditions for future reference.

Remarks The 6 rock degradation test plots were compared
to previous years photos. The rocks had not changed or
degraded. The rock plots had been repainted.

3. **Vegetative Growth** Weeds or Plants on Cell Yes No

Remarks _____

4.	Wet Areas/ Water Damage	Wet areas <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Ponding <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Seeps <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map	Areal extent _____ Areal extent _____ Areal extent _____
Remarks _____				
5.	Toe/Apron Drains	Proper drainage <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Erosion <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Silting <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Remarks _____				
6.	Slope Instability	<input type="checkbox"/> Location shown on site map Evidence of slope instability <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks _____				
7.	Leachate Collection and Removal System	<input checked="" type="checkbox"/> Fence/Gates/Locks in good condition <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> No Trespassing sign posted <input checked="" type="checkbox"/> Correct Phone Numbers Posted Data Issues <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Flow Rate Issues <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Remarks _____				
8.	Condition of 300 Ft. Buffer Zone	Erosion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Remarks <u>The erosion is being monitored</u>		
9.	Condition of Prairie	Erosion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Remarks <u>The condition of the prairie is good.</u>		
IX. GROUNDWATER MONITORING				
1.	Disposal Cell Monitoring Well Network	<input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Good condition <input checked="" type="checkbox"/> Evidence of surface water infiltration at casing <input type="checkbox"/> Needs maintenance <input checked="" type="checkbox"/> Proper ID on each well Remarks <u>Inspected all 5 wells MW-2032, 2046, 2047, 2051, 2055</u>		
Remarks _____				

<p>2. Chemical Plant Groundwater Monitoring Well Network <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of surface water infiltration at casing <input type="checkbox"/> Needs maintenance* List wells checked by number (> 10% of wells) MW-2006, 2017, 2023, 2034, 2053, 3024, 3025, 3027, 3028, 3029, 3031, 3040, 4001, 4006, 4007, 4026, 4027, 4028, 4029, 4036, 4040, 4041, 4042, 4045. Remarks* It has been noted that 3 wells at the Chemical Plant require maintenance due to settling (MW-2033, 2034, 4001)</p>
<p>3. Quarry Monitoring Well Network <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> Evidence of surface water infiltration at casing <input type="checkbox"/> Needs maintenance* List wells checked by number (> 10% of wells) MW-1002, 1004, 1005, 1006, 1007, 1008, 1009, 1013, 1014, 1015, 1016, 1027, 1030, 1031, 1032, 1046, 1048, 1049, 1052 Remarks* It has been noted that 5 wells at the Quarry require maintenance due to settling (MW-1013, 1015, 1016, 1018 and 1046)</p>
<p>X. OVERALL OBSERVATIONS</p>
<p>Implementation of the Remedies</p> <p>Describe issues and observations relating to whether the remedies are effective and functioning as designed.</p> <p style="text-align: center;">None</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<p>Adequacy of O&M</p> <p>Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedies.</p> <p style="text-align: center;">None</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of one or more of the remedies may be compromised in the future.

none

Opportunities for Optimization

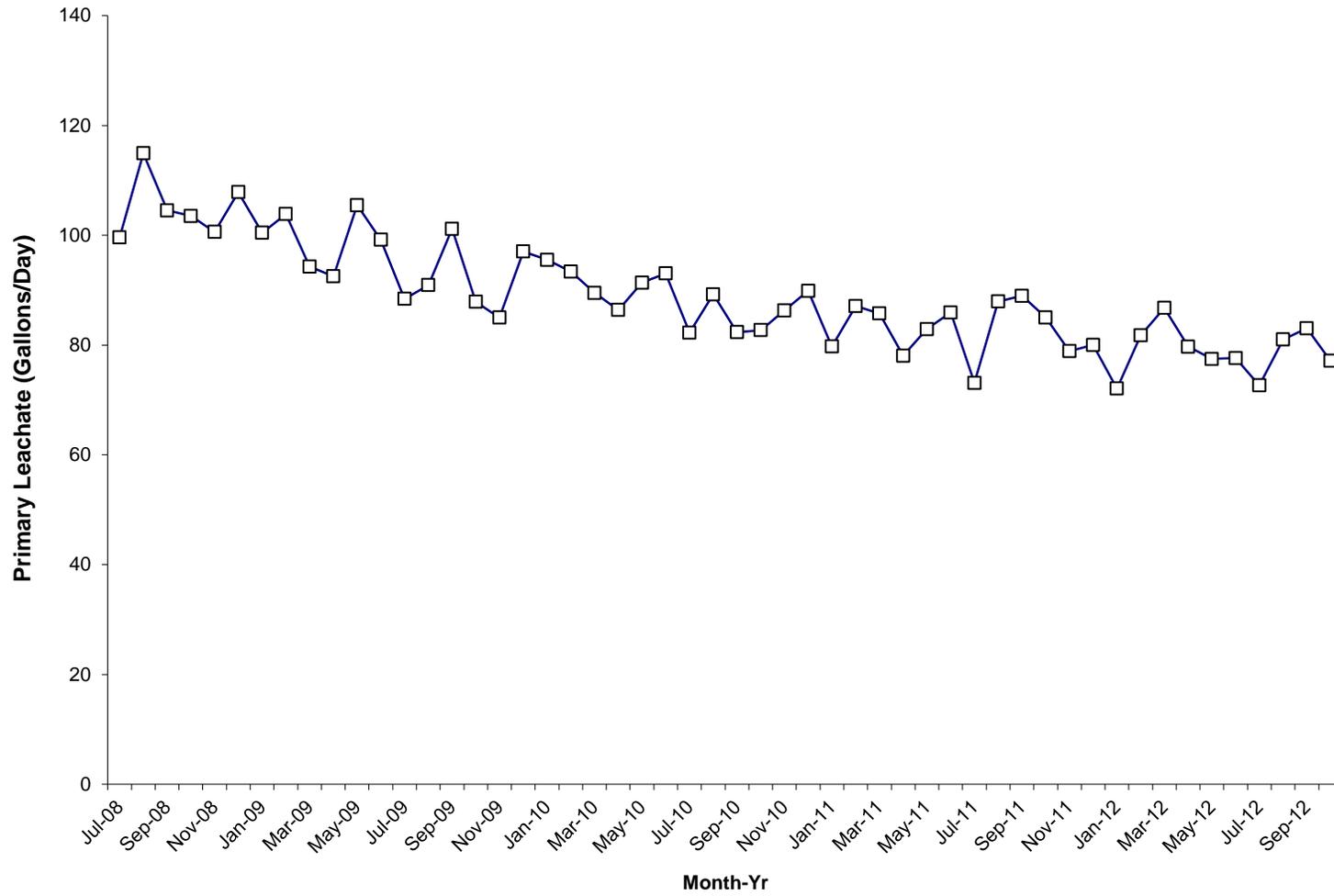
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedies.

none

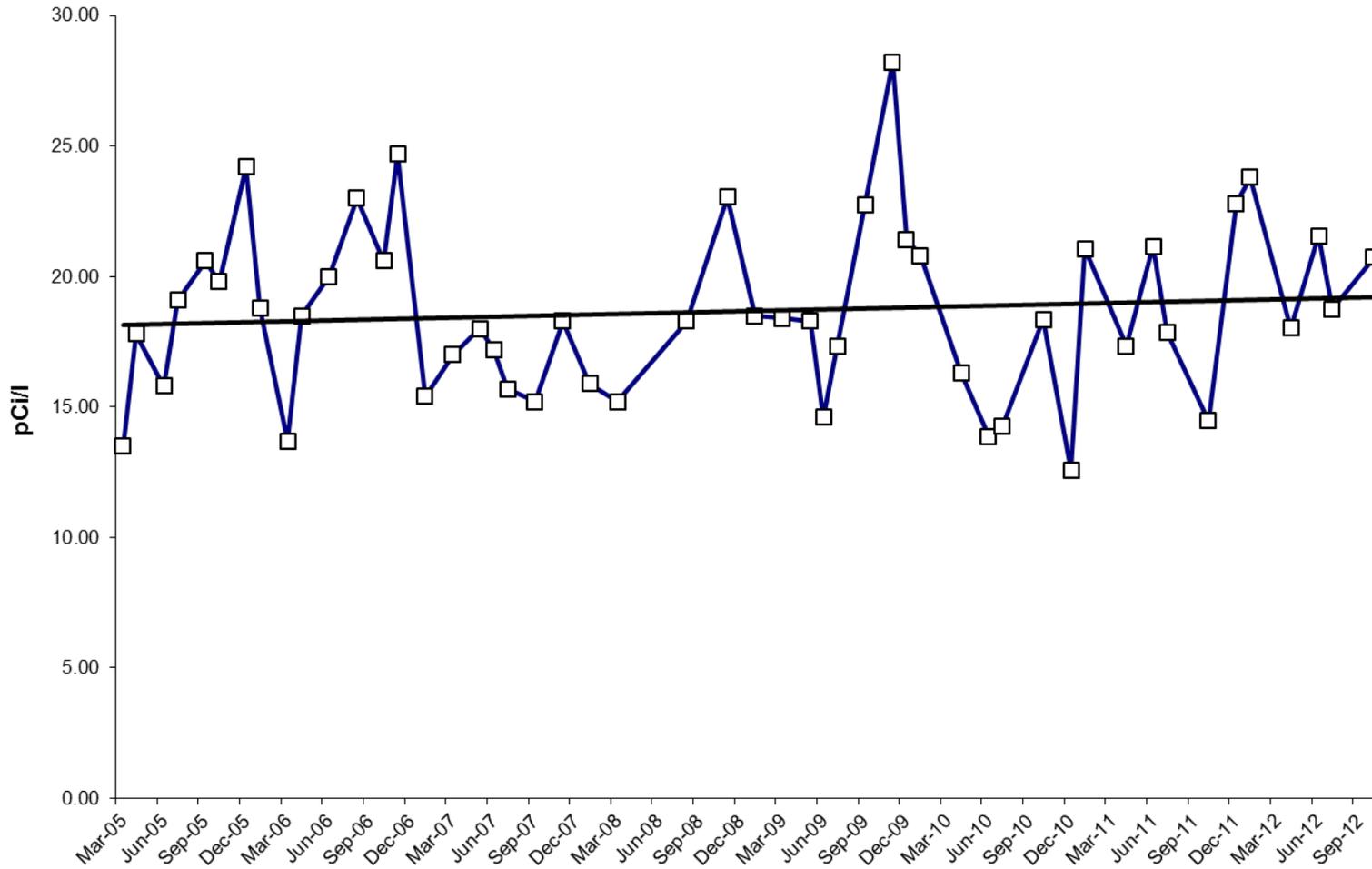
Appendix D
LCRS Data

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PRIMARY LEACHATE FLOW Daily Averages



Total Uranium Levels in the Primary Leachate



Leachate Production Summary Table

Month/Year	Days	Sump Volume Start (gal)	Sump Volume End of Month (gal)	Transferred from sump (gal)	Transferred to Sump from the Burrito (gal)	Purge water transferred to Sump (gal)	East Secondary Total per Month (gal)	West Secondary Total per Month (gal)	Primary Leachate Total Volume per month (gal)	Primary Leachate (gal/day)	East Secondary (gal/day)	West Secondary (gal/day)	Burrito Flow (gal/day)	Combined Leachate Flow Rate from Primary, Secondary and Burrito Water (gal/day)	Combined Secondary and Burrito Water Leak Rate (gal/acre/day)
Jan-10	31	5,138	2,149	6,250	201	0	81	18	2961	96	2.6	0.6	6.5	105	0.40
Feb-10	28	2,149	5,038	0	155	35.9	72	11	2615	93	2.6	0.4	5.5	102	0.35
Mar-10	31	5,038	8,077	0	169	0	82	13	2775	90	2.6	0.4	5.5	98	0.35
Apr-10	30	8,077	3347	7,587	177	0	77	11	2592	86	2.6	0.4	5.9	95	0.37
May-10	31	3,347	6509	0	236	0	81	13	2832	91	2.6	0.4	7.6	102	0.44
Jun-10	30	6,509	9,651	0	265	0	75	11	2791	93	2.5	0.4	8.8	105	0.49
Jul-10	31	9,651	2755	9,826	294	0	76	10	2550	82	2.5	0.3	9.5	95	0.51
Aug-10	31	2755	5906	0	301	0	73	11	2766	89	2.4	0.4	9.7	102	0.52
Sep-10	30	5906	8740	0	285	0	69	10	2470	82	2.3	0.3	9.5	94	0.51
Oct-10	31	8740	3955	7,685	255	0	69	12	2564	83	2.2	0.4	8.2	94	0.45
Nov-10	30	3955	6888	0	229	38	67	10	2589	86	2.2	0.3	7.6	97	0.43
Dec-10	31	6888	9981	0	228	0	69	10	2786	90	2.2	0.3	7.4	100	0.41
Jan-11	31	9981	3142	9586	202	0	65	8	2472	80	2.1	0.3	6.5	89	0.37
Feb-11	28	3142	5826	0	171	0	63	11	2439	87	2.3	0.4	6.1	96	0.36
Mar-11	31	5826	8744	0	178	0	71	10.5	2659	86	2.3	0.3	5.7	94	0.35
Apr-11	30	8744	3834	7536	198	23.5	56	7	2342	78	1.9	0.2	6.6	87	0.36
May-11	31	3834	6711	0	232	0	66	9.4	2570	83	2.1	0.3	7.5	93	0.41
Jun-11	30	6711	9644	0	274	0	70	11	2578	86	2.3	0.4	9.1	98	0.49
Jul-11	31	9644	2573	9696	287	0	63	9	2266	73	2.0	0.3	9.3	85	0.48
Aug-11	31	2573	5643	0	276	0	60	8	2726	88	1.9	0.3	8.9	99	0.46
Sep-11	30	5643	8621	0	250	0	52	7	2669	89	1.7	0.2	8.3	99	0.43
Oct-11	30	8621	3650	7853	260	0	62	9	2551	85	2.1	0.3	8.7	96	0.46
Nov-11	31	3650	6426	0	271	0	53	7	2445	79	1.7	0.2	8.7	90	0.44
Dec-11	31	6426	9246	0	273	0	57	9	2481	80	1.8	0.3	8.8	91	0.46
Jan-12	31	9246	2707	9069	231	0	57	8	2234	72	1.8	0.3	7.5	82	0.40
Feb-12	29	2707	5380	0	206	40.3	49	7	2371	82	1.7	0.2	7.1	91	0.38
Mar-12	31	5380	8367	0	229	0	57	11	2690	87	1.8	0.4	7.4	96	0.40
April-12	30	8367	1147	9934	267	0	49	7	2391	80	1.6	0.2	8.9	90	0.45
May-12	31	1147	3869	0	263	0	56	1.1	2402	77	1.8	0.0	8.5	88	0.43
June-12	30	3869	6530	0	281	0	51		2329	78	1.7	0.0	9.4	89	0.46
Jul-12	31	6530	3248	5887	277	31	45		2252	73	1.5	0.0	8.9	83	0.43
Aug-12	31	3248	6096	0	286	0	51		2511	81	1.6	0.0	9.2	92	0.45
Sep-12	30	6096	8976	0	335	0	53		2492	83	1.8	0.0	11.2	96	0.54
Oct-12	31	8976	2567	9179	330	0	49		2391	77	1.6	0.0	10.6	89	0.51

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Appendix E
Interviews and Contacts

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INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 11:00 am Date: 9/20/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Mark Boehle	Title: Assistant Fire Chief	Organization: Cottleville Fire Dept
Telephone No: 636-447-6655 ext. 8703	Street Address: PO Box 385	
Fax No:	City, State, Zip: Cottleville, MO 63338	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Mark Boehle of the Cottleville Fire Department and informed him that DOE would be conducting the Long-Term Surveillance and Maintenance annual inspection at the Weldon Spring Site on October 23-25, 2012. I told him that as we discussed the last several years, DOE would be conducting this inspection every year and would use this call in the future to keep in contact with the Cottleville Fire Department and to find out if they have any concerns or issues. We discussed the fact that the administration building was being demolished and I had informed Mark of this well in advance and had discussed certain issues regarding the demolition and fire protection over the past few months. We had also donated 9 fire extinguishers to the Cottleville fire department.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 2:00 pm Date: 9/20/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Jim Hudson	Title: Captain	Organization: St. Charles County Sheriff Office
Telephone No: 636-949-7325		Street Address: City, State, Zip:
Fax No: 636-949-7525		
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Captain Jim Hudson of the St. Charles County Sheriff's Office and informed him that the annual LTS&M inspection would be taking place on October 23-25, 2012. I had talked to Captain Hudson the last nine years and reminded him that we would be contacting the Sheriff's office annually to keep in contact with them and check to see if they had any issues or concerns. Captain Hudson said he did not know of any concerns at this time.</p> <p>We discussed the past vandalism issues and the use of security patrols and signs which have helped curtail the vandalism. I did inform him of the recent vandalism to the wells in the prairie. I also informed him that we were demolishing the administration building at this time and the staff had moved to trailers behind the old admin building.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 9:35 am Date: 9/27/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit: Weldon Spring Site		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: John Vogel	Title: Area Manager	Organization: August A. Busch Memorial Conservation Area, Missouri Dept. of Conservation
Telephone No: 636-300-1953 ext. 4131	Street Address: 2360 Hwy D	
Fax No:	City, State, Zip: St. Charles, MO 63304	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted John Vogel, to notify him of the annual inspection that was going to take place on October 23-25, 2012. DOE had previously sent John a copy of the notification and agenda for the inspection. He said he planned to participate in the inspection of the Southeast Drainage. He said that the only hunting that would be going on would be the possibility of squirrel hunters in the area. John said he did not have any issues or concerns at this time.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 10:00 am Date: 9/28/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Ryan Tilley	Title: Director, Division of Environmental Health and Protection	Organization: St. Charles County
Telephone No: 636-949-7406 Fax No: E-Mail Address: RTilley@sccmo.org	Street Address: 201 North Second Street, Suite 537 City, State, Zip: St. Charles, MO 63301	
Summary Of Conversation		
<p>I contacted Ryan Tilley, Director, Division of Environmental Health and Protection for St. Charles County. I explained that DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. Ryan had replaced the former Director Pieter Sheehan, but had attended a previous annual inspection with Pieter. I informed Ryan that our inspection this year would be Oct. 23-25. Also noted that we had sent him a copy of the 30-day notification and copy of the agenda. He said that he planned to attend the first day of the inspection with 1 to 2 additional inspectors from the county. I updated him on the demotion of the administration building and the installation of a new waste water treatment plant. He said he did not have any concerns to discuss at this time.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 12:05 pm Date: 10/9/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Quinn Kellner	Title: Natural Resource Manager Jones-Confluence State Park	Organization: MDNR-Parks
Telephone No: 636-899-1135 Fax No: E-Mail Address: Quinn.kellner@dnr.mo.gov	Street Address: PO Box 67 City, State, Zip: West Alton, MO 63386	
Summary Of Conversation		
<p>I contacted Quinn Kellner, MDNR-Parks and notified him of the LTS&M annual inspection at the Weldon Spring site on October 23-25, 2012. He had been previously notified by copy of the regulator 30-day notification letter and a copy of the agenda. He stated that he would not be attending the inspection this year and that he did not have any concerns. He attended the 2008 inspection and came familiar with the areas along the Katy Trail referenced in the DOE easement with MDNR-Parks. He did not foresee any work in the affected areas in the future at this time. I told Quinn I would send him an email so that he would have my email address and telephone number in case he ever had any concerns or issues.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 1:30 pm Date: 10/9/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Joel Porath	Title: Wildlife Regional Supv.	Organization: August A. Busch Memorial Conservation Area, Missouri Department of Conservation
Telephone No: 636-300-1953 x 4108	Fax No:	Street Address: 2360 Hwy D
E-Mail Address: joel.porath@mdc.mo.gov		City, State, Zip: St. Charles, MO 63304
Summary Of Conversation		
<p>I contacted Joel Porath and notified him of the Weldon Spring Site's LTS&M annual inspection on October 23-25, 2012. I informed him that we would be on MDC property inspecting the Southeast Drainage, Burgermeister Spring, Spring 6303 and MW -4041. I updated him on the activities at the site, including the demolition of the administration building and the replacement of the waste water treatment system. He said John Vogel would probably attend the inspection. I emailed Joel a copy of the agenda.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 9:15 am Date: 10/9/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Kevin Wideman	Title: Sr. Environmental Specialist	Organization: Missouri Department of Transportation
Telephone No: 573-526-4171	Address: P.O. Box 270	
Fax No:	City, State, Zip: Jefferson City, Mo 65102	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Kevin Wideman of the Missouri Department of Transportation. I discussed with Kevin that DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year (which he attended the past 4 years) and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Wideman that our inspection this year would be on October 23-25. Kevin had been copied on the 30-day notification and the agenda. He stated that he planned to attend the first day of the inspection and will bring his replacement as he will be retiring on November 30. We discussed that the culvert on Hwy D would not be inspected anymore as it had been removed and the easement between MDOT and DOE had been signed this year.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 12:44 pm Date: 10/10/12
Type: ___ Telephone ___ Visit ___x___ Email		___ Incoming ___x___ Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Tom Blair	Title: Assistant District Engineer	Organization: Missouri Department of Transportation
Telephone No: 314-453-1803 Fax No: E-Mail Address: Thomas.blair@modot.mo.gov		Street Address: 1590 Woodlake Dr. City, State, Zip: Chesterfield, Mo 63017
Summary Of Conversation		
<p>I contacted Tom Blair of the Missouri Department of Transportation by email. I explained to Tom that as I had told him the past 7 years, DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we would be contacting certain stakeholders to maintain contact with them and to determine if they had any concerns or issues about the site. I informed Mr. Blair that our inspection this year would be on October 23-25. I told him that I had been in contact with Kevin Wideman, who would be attending the inspection and that I would also contact Tom Evers. I also stated the following:</p> <p>Regarding our history and relationship with MoDOT, the culvert on Highway D was removed by DOE as the shoulders were widened last August, so that is no longer a concern for DOE and will no longer be inspected. We still have the culvert on Hwy 94 where we have fixed radiological contamination inside the culvert. We cut a part of that off for MoDOT a couple years ago. We were also successful in getting the easement signed with MoDOT on the property that is next to the site. I am attaching a copy for you. The main purpose of this easement is to restrict the drilling of groundwater wells on the MoDOT property. Also to note that MoDOT vacated that property last November and we have been notified that there will be a tower constructed on the property. The representatives contacted us with questions about boring into the ground which we did not have issue with. Anyway, I just wanted to catch up with you and maintain contact. I would appreciate it if you could respond to this email and let me know if there are any issues or concerns. Thanks!</p> <p>Tom responded and thanked me for the thorough update and copied several people in MoDOT.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 3:28 pm Date: 10/10/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Randy Carter	Title: Assistant Principal	Organization: Francis Howell High School
Telephone No: 636-851-4080 x4701 Fax No: E-Mail Address: Philip.carter@fhdschools.org	Street Address: 7001 Hwy 94 South City, State, Zip: St. Charles, MO 63304	
Summary Of Conversation		
<p>I contacted Randy Carter, the assistant principal of Francis Howell High School, by email. Randy has been my contact for the past 6 years, and explained the following in the email:</p> <p>Our annual long-term surveillance and maintenance inspection will be held October 23-25 this year. This is when DOE does a thorough inspection of the site, disposal cell, records, maintenance, groundwater wells, institutional controls, etc., accompanied by the EPA and State regulators. We also use this time to contact our stakeholders to stay in contact and see if you all have any concerns or issues. I have contacted you for the last 6 years by my records. As you know we have demolished our administration building and that was completed this week. We have our interpretive center for anyone who wants to visit it and gather information and your students use the disposal cell and trail by the site for their PE classes. We are here if the school ever has any concerns or issues or any other kind of requests. I have included a link to our website below.</p> <p>http://www.lm.doe.gov/weldon/Sites.aspx</p> <p>Please respond and let me know if you have any questions, issues or concerns. Thanks!</p> <p>Randy responded and stated that he forwarded the email to his staff.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 10:36 am Date: 10/11/12
Type: ___ Telephone ___ Visit <u> x </u> Email		___ Incoming <u> x </u> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Mary Bryan	Title: Real Estate Manager	Organization: MDNR-Parks
Telephone No: 573-751-7987	Street Address: PO Box 176	
Fax No:	City, State, Zip: Jefferson City, MO 65102	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Mary Bryan MDNR-Parks by email and explained as I discussed with her the last several years, DOE conducts an annual Long-Term Surveillance and Maintenance inspection each year and as part of the inspection we contact certain stakeholders to maintain contact with them, to discuss the ICs and to determine if they had any concerns or issues about the site. I informed Ms. Bryan that our inspection this year would be on October 23-25. I told her that I had also contacted Quinn Kellner and sent him a copy of the agenda. I also stated the following:</p> <p>Regarding our history and relationship with MDNR-Parks, we have the easement that was signed a few years ago. The main purpose of this easement is to restrict the drilling of groundwater wells in certain areas of the Katy Trail. Also, we had a couple of licenses with MDNR-Parks come up for renewal recently which the real estate staff has been coordinating with your office. These were for the DOE discharge pipeline to cross MDNR-Parks property and to monitor the wells which are within the Katy Trail Easement. This discharge pipeline is not currently in use but is still in place as a contingency in case DOE ever needs to use it.</p> <p>Mary responded that there were no concerns at this time and they would certainly let us know if there are any in the future.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 1:30 pm Date: 10/12/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input checked="" type="checkbox"/> Email		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: John Downing/Marsha Keeran	Title: Material Handler/Storage Branch Supervisor	Organization: Army
Telephone No: 636-329-1243 ext2505 and 2504 Fax No: E-Mail Address: john.downingjr@usar.army.mil Marsha.j.keeran@usar.army.mil	Street Address: 7301 Hwy. 94 South City, State, Zip: St. Charles, MO 63304	
Summary Of Conversation		
<p>I contacted John Downing of the 88th Regional Readiness Command at the Weldon Spring Army site by telephone and notified him that DOE would be conducting the annual LTS&M inspection at the Weldon Spring Site on October 23-25, and that we would be on Army property on the morning of the 23th. I told him we would be driving around on the Army site and inspecting our wells. He said the gate was always open during this time as the army is doing a lot of clearing and construction to prepare for building the new Army Reserve Center. Marsha Keeran is on vacation this week. I also sent an email to Marsha Keeran on October 12 to inform her of the inspection and to let us know if they had any questions or concerns.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 10:15 am Date: 10/13/11
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Tom Evers	Title: St. Charles County Area Engineer	Organization: Missouri Department of Transportation
Telephone No: 636-240-5277		Address: 6780 Old Hwy. N City, State, Zip: St. Charles, Mo 63304
Fax No:		
E-Mail Address: Thomas.Evers@modot.mo.gov		
Summary Of Conversation		
<p>I contacted Tom Evers of the Missouri Department of Transportation by email and emailed the following information to him:</p> <p>I thought it might be easier to contact you by email rather than phone. I know that Tom Blair had copied you on my email to him, but wanted to also contact you. As we spoke last year, I represent the Department of Energy as a contractor at the Weldon Spring Site and every year we conduct an annual long-term surveillance and maintenance inspection at the Site. This is our tenth inspection. We also use this time to contact our stakeholders and surrounding property owners to maintain contact with them and to determine if they have any concerns or issues about the site. Our inspection this year will be October 23 – 25 and Kevin Wideman and Stowe Johnson of MDOT plan to attend for a portion of it.</p> <p>Regarding our history and relationship with MoDOT, the culvert on Highway D was removed by DOE as the shoulders were widened last August, so that is no longer a concern for DOE and will no longer be inspected. We still have the culvert on Hwy 94 where we have fixed radiological contamination inside the culvert. We cut a part of that off for MoDOT a couple years ago. We were also successful in getting the easement signed with MoDOT on the property that is next to the site. I am attaching a copy for you. The main purpose of this easement is to restrict the drilling of groundwater wells on the MoDOT property. Also to note that MoDOT vacated that property last November and we have been notified that there will be a tower constructed on the property. The representatives contacted us with questions about boring into the ground which we did not have issue with. Anyway, I just wanted to catch up with you and maintain contact. I would appreciate it if you could respond to this email and let me know if there are any issues or concerns. Thanks!</p> <p>His response was as follows: I have no issues or concerns with this site. I do appreciate the update and information and you and the Dept. of Energy have always been great about keeping us up to speed on regular inspections and status.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 10:30 am Date: 10/15/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeier	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Wayne Anthony	Title: Director, Community Development, St. Charles County	Organization: St. Charles Planning and Zoning Department
Telephone No: 636-949-7900 x7221	Street Address: 201 N. Second St.	
Fax No:	City, State, Zip: St. Charles, MO 63301	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Wayne Anthony of the St. Charles Planning and Zoning Department. Mr. Anthony had been the project's previous contact in this department in regards to the county's master plan. I informed Mr. Anthony that DOE would be conducting their annual LTS&M inspection on October 23-25 and I asked him if there were any planning and zoning activities currently in the one-quarter mile surrounding the chemical plant and quarry properties. Mr. Anthony verified that there were not any such activities that he was aware of.</p>		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 8:30am Date: 10/19/12
Type: ___ Telephone <u> x </u> Visit ___ Other		<input type="checkbox"/> Incoming <input type="checkbox"/> Outgoing
Location of Visit: Administration Building		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: S.M. Stoller Corp.
Individual Contacted:		
Name: Randy Thompson	Title: Site Manager	Organization: S.M. Stoller Corp.
Telephone No: 636-300-2640	Street Address: 7295 Hwy. 94 South	
Fax No: 636-300-2626	City, State, Zip: St. Charles, MO 63304	
E-Mail Address: randy.thompson@lm.doe.gov		
Summary Of Conversation		
<p>I interviewed Randy Thompson, the S.M. Stoller Site Manager at the Weldon Spring Site. The interviewing of the Site Manager is a requirement included in the Annual Inspection Checklist. Most of the interview questions were from the CERCLA Five-year Review Guidance.</p> <ol style="list-style-type: none"> 1. Current Status of the Project: Long-term surveillance and maintenance. 2. Any problems encountered with the remedies? None at this time. 3. Are the remedies functioning as expected? Yes. 4. Any vandalism or trespassing issues? As discussed in past Annual Inspection interviews, public use of the site is frequent. Nighttime access of the disposal cell viewing platform and other undesirable behaviors been reduced in 2012 due a private security firm's seasonal patrol coverage of the site during evening hours. Several monitoring wells at the chemical plant were also discussed have been vandalized in September and are working to see if any modifications are necessary to secure some of the well caps. 5. What is the current on-site presence? Describe staff and activities. There are 9 full-time contractor employees and numerous part-time contractor and subcontractor employees. Activities include long-term surveillance and maintenance operations, project management, data evaluation, operation of the interpretive center, preparation of site-related regulatory documents, support in establishment of institutional controls, support of site IT and telephone issues, landscape management and general administrative support. On-site staff also provide support on other DOE sites such as Mound, Fernald, and Pinellas and to other projects such as Reuse and Property Management. Environmental sampling personnel support sampling activities at other sites in the Legacy Management system. Since April 2011 when Lindenwood University terminated the use-agreement with DOE, SM Stoller continues to operate and maintain the site facilities and associated property that Lindenwood was providing for DOE. 6. Are there any issues associated with the site at this time? None concerning site protectiveness to the environment or the public. Recently completed the demolition of the Administration Building and moved into new trailers/laboratory. Also, the replacement of the current waste water treatment plant with a smaller non-permitted plant and leachate field is close to completion. 7. Any suggestions or comments regarding annual inspection? The inspection continues to provide as useful mechanism to have regulators on-site and evaluate the site including the protectiveness to environment and public. 		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.: MO6210022830
Subject: Annual Inspection		Time: 8:00 am Date: 10/19/12
Type: ___ Telephone <u> x </u> Visit ___ Other		___ Incoming ___ Outgoing
Location of Visit: Weldon Spring Site		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Randy Thompson/Melissa Lutz	Title: Site/Operation Manager	Organization: SM Stoller, Corp.
Telephone No: 636-300-2640 Fax No: 636-300-2626 E-Mail Address: Melissa.lutz@gjo.doe.gov	Street Address: Weldon Spring Site City, State, Zip:	
<p>I interviewed Randy Thompson, Site Manager, and Melissa Lutz, Operations Manager, who are responsible for sampling programs at the Weldon Spring Site. The interviewing of the data (operations) manager is a requirement included in the Annual Inspection Checklist.</p> <ol style="list-style-type: none"> 1. What is the current status of data validation/reporting? Data validation and review is completed for data through August 2012. The data validation and review is being worked for samples collected during August through September 2011. October sampling has not be reported. 2. How is the data reported? After data validation and review, the qualification flags are applied and the data is then available on the LM/Weldon Spring website the next day. We continue to prepare data validation reports and the quality control data are summarized in the annual environmental report. 3. What is the current status of the data on the website? Are we meeting our 90-day commitment as stated in the LTSM? Yes, we are meeting our 90-day commitment. The data are reviewed and validated through August 2012 and are available online. The September/October 201 data are either not reported or are being validated. Data will be released once the validation process is completed. 4. Are there any trends that show contaminants increasing or decreasing? Trend analysis is performed annually and summarized for the Annual Site Environmental Report. 		

INTERVIEW RECORD		
Site Name: Weldon Spring Site		EPA ID No.:MO6210022830
Subject: Annual Inspection		Time: 10:30 am Date: 10/19/12
Type: <input checked="" type="checkbox"/> Telephone <input type="checkbox"/> Visit <input type="checkbox"/> Other		<input type="checkbox"/> Incoming <input checked="" type="checkbox"/> Outgoing
Location of Visit:		
Contact Made By:		
Name: Terri Uhlmeyer	Title: Compliance Manager	Organization: SM Stoller, Corp.
Individual Contacted:		
Name: Katie	Title:	Organization: Simplex/Grinnell
Telephone No: 888-746-7539	Street Address:	
Fax No:	City, State, Zip:	
E-Mail Address:		
Summary Of Conversation		
<p>I contacted Simplex/Grinnell, the alarm company for the project, and talked to Katie. I verified that they had the correct three people as contacts and that they also had the correct work, home and cell number for each person.</p>		