

**2016 Annual Land-Use Covenant
Inspection Report
for DOE Areas at the Laboratory
for Energy-Related Health
Research/Old Campus Landfill
Superfund Site
University of California, Davis**

January 2017



U.S. DEPARTMENT OF
ENERGY

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Management

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Report Distribution

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Abbreviations

DOE	U.S. Department of Energy
DSS	Domestic Septic System
DTSC	California Department of Toxic Substances Control
EDPs	Eastern Dog Pens
EH&S	Environmental Health and Safety
EPA	U.S. Environmental Protection Agency
LEHR	Laboratory for Energy-Related Health Research
Ra/Sr	Radium/Strontium
SMP	Soil Management Plan
SWT	Southwest Trenches
UC Davis	University of California, Davis
Weiss	Weiss Associates

1.0 Introduction

This report documents inspection of land-use restrictions implemented by the U.S. Department of Energy (DOE) to control exposure to residual soil contaminants at DOE areas of the Laboratory for Energy-Related Health Research/Old Campus Landfill Superfund Site (LEHR site) located at the University of California, Davis (UC Davis) (Figure 1). By controlling land use at the LEHR site, DOE meets the requirement of the Comprehensive Environmental Response, Compensation, and Liability Act to protect human health and the environment from any potential effects of contamination remaining at the DOE areas at the LEHR site. The selection of land-use controls for eight DOE areas at the LEHR site is documented in the *Record of Decision for DOE Areas at the Laboratory for Energy-Related Health Research, University of California, Davis* (DOE 2009). The land-use restrictions were recorded in the *Covenant to Restrict Use of Property, Environmental Restriction (Land-Use Covenant)* (DTSC 2014). Methods for implementation of the land-use restrictions are provided in the *Remedial Design/Remedial Action Work Plan for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis* (RD/RA Work Plan) (DOE 2010).

The DOE areas subject to land-use restrictions (Figure 2) are the Radium/Strontium (Ra/Sr) Treatment Systems Area, Domestic Septic System (DSS) 3 and DSS 4 Areas, Dry Wells A–E Area, Eastern Dog Pens (EDPs), and the Southwest Trenches (SWT) Area. The DSS 2 Area is located within the Ra/Sr Treatment Systems Area. The DSS 4 Area contains a portion subject to a prohibition on residential use.

The Western Remediation Support Area and Eastern Remediation Support Area shown in Figure 2 do not contain residual contamination but are designated for the staging of equipment and supplies if contingent remedial actions were to be implemented at the Ra/Sr Treatment Systems Area, DSS 3 and DSS 4 Areas, Dry Wells A–E Area, EDPs, or SWT Area.

The Land-Use Covenant states that:

- Residential use, use for day care for children, and cultivation of crops for human consumption are prohibited at the location in the DSS 4 Area shown in Figure 2.
- Soil management must be implemented per the Soil Management Plan (SMP) included as Appendix A in the RD/RA Work Plan (DOE 2010) at the Ra/Sr Treatment Systems Area, DSS 3 Area, DSS 4 Area, Dry Wells A–E Area, EDPs Area, and the SWT Area.
- Interference, tampering with, or destruction of the groundwater monitoring system is prohibited.
- The California Department of Toxic Substances Control (DTSC) and the U.S. Environmental Protection Agency (EPA), Region 9 shall have reasonable right of entry and access to the property for periodic inspections to ensure compliance with land-use restrictions.
- Access must be granted to DOE for the purpose of collecting samples and maintaining groundwater monitoring wells.
- An annual inspection verifying compliance with the Land-Use Covenant shall be conducted.

These restrictions shall be maintained until the concentrations of contaminants in the soil are at or below cleanup levels specified in the Record of Decision (DOE 2009).

1.1 Inspection and Reporting Requirements

Annual inspection for compliance with the Land-Use Covenant is required (DTSC 2014). The inspection must include verification of permits obtained for any soil-disturbing activities, a review of soil-disturbing activities for compliance with the SMP (DOE 2010), review of disposal practices for waste generated during soil-disturbing activities, and suggested changes to the SMP.

The inspection report is required to contain:

- The dates and times of inspection and names of those who conducted the inspection and reviewed the report
- How the observations that were the basis for the statements and conclusions (e.g., drive by, fly-over, walk-through) were performed
- The annual inspection results
- Review of compliance with the requirements of the SMP
- Certification of compliance with the Land-Use Covenant
- Discussion of any soil-disturbing activities and wastes generated

If violations are noted, the annual inspection report must detail the steps taken to return to compliance. The inspection report is due to DTSC and EPA on or before January 15.

1.2 Period Covered

This report covers the period from December 10, 2015, to December 9, 2016.

1.3 Activities Conducted During the Reporting Period

Inspections of groundwater monitoring wells, land survey monuments, and DOE areas subject to land-use restrictions were conducted. The UC Davis Environmental Health and Safety (EH&S) Unit conducted annual training to communicate soil management requirements to appropriate units performing or contracting work.

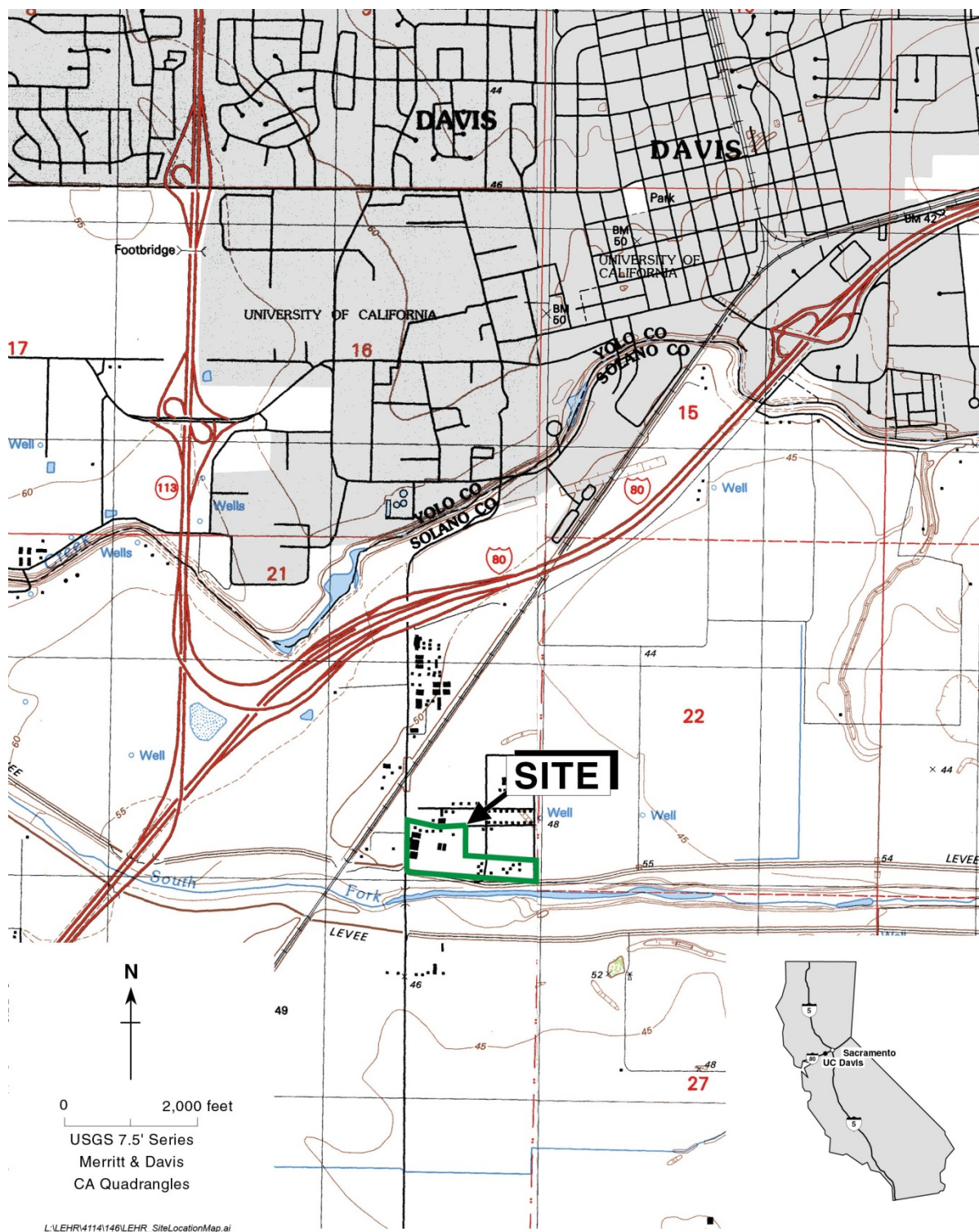


Figure 1. Location of the LEHR Superfund Site, UC Davis, Solano County, California



Figure 2. Areas of the LEHR Superfund Site Subject to Land-Use Restrictions

2.0 Inspections

On November 3, 2016, between 8:00 a.m. and 4:30 p.m., Tim Utterback of Weiss Associates (Weiss) performed walk-through inspections of 24 monuments, 6 DOE areas, and 12 groundwater monitoring wells at the LEHR site. On November 7, 2016, between 12:00 and 12:30 p.m., Tim Utterback of Weiss performed a follow-up inspection of one monument. The inspections are discussed below.

2.1 Inspection of Monuments

All 24 monuments were found in good condition during the November 3, 2016, inspection, except monument 22 at the southeast corner of the EDPs Area was not found that day. On November 7, 2016, Tim Utterback and Brian Bandy of Weiss performed a detailed search for monument 22 using a tape measure, rake, shovel, and metal detector. Brian Bandy of Weiss found monument 22 with the metal detector, and Tim Utterback of Weiss inspected the monument. Monument 22 was in good condition at the time of inspection. Appendix A provides the inspection checklists completed on November 3 and 7, 2016, and Appendix B provides the photographs of the monuments.

2.2 Inspection of Domestic Septic System 4 Area for Prohibited Land Uses

On November 3, 2016, Tim Utterback of Weiss performed walk-through inspections of the DSS 4 Area. No residential use, use for day care for children, or cultivation of crops for human consumption was observed in the DSS 4 Area.

2.3 Inspections of DOE Areas for Compliance with Requirements of the Soil Management Plan

On November 3, 2016, Tim Utterback of Weiss performed walk-through inspections of the DOE areas subject to land-use restrictions to look for signs of soil disturbance. No indication of soil disturbance was found. Appendix A provides the inspection checklist, and Appendix C provides photographs documenting the inspection.

2.3.1 Soil Management Compliance Interview

On November 4, 2016, at 2 p.m., Bob Devany of Weiss interviewed Christopher Wright of the UC Davis EH&S Unit to determine if the unit was aware of any soil-disturbing activities within the DOE areas subject to land-use restrictions. Mr. Wright reported that no soil-disturbing activities occurred within the DOE areas subject to land-use restrictions during the reporting period at the time of the interview. Appendix A provides copies of the interview checklists.

On December 6, 2016, between 9:30 a.m. and 10:00 a.m., Bob Devany of Weiss inspected the DOE areas and observed no evidence of soil-disturbing activities.

2.3.2 Inspection of DOE Areas for Evidence of Soil-Disturbing Activities

During this reporting period, no permit-required soil-disturbing activities occurred within the DOE areas subject to land-use restrictions; therefore, no inspections were necessary to comply with the requirements of the SMP (DOE 2010).

2.4 Inspections of Groundwater Monitoring Wells

On November 3, 2016, Tim Utterback of Weiss performed walk-through inspections of groundwater monitoring wells UCD1-013, UCD1-018, UCD1-021, UCD1-023, UCD1-054, UCD1-063, and UCD1-068 through UCD1-073 (Figure 3). None of the wells showed evidence of tampering. Wells with standpipe completions (UCD1-013, UCD1-018, UCD1-063, UCD1-070, and UCD1-073) were observed to be secured with functioning padlocks. Wells UCD1-054, UCD1-068, UCD1-069, UCD1-071, and UCD1-072 have surface completions and were observed to be secured with bolts. Wells UCD1-021 and UCD1-023 have surface completions and screw-on lids. All well completions, except UCD1-021, were structurally sound, and the wells were in good condition.

Well UCD1-021 is located in a paved driveway, and part of the concrete apron surrounding the well vault is broken. The break may leave the well vulnerable to stress from motor vehicle loads. DOE plans to repair the well vault in 2017. The cement pad at the base of the standpipe at well UCD1-070 has a crack, but the standpipe is sound. DOE plans to repair the cracked pad in 2017. Cement pads at the remainder of the DOE areas wells and at the background wells were structurally sound with no surface damage.

On November 3, 2016, an attempt was made to test DOE areas wells and pumps to assess if they are functioning properly for groundwater sample collection. Water levels were too low to perform the pumping tests (approximately 60 feet below the top of casing; the same level as the pumps).

In March of 2016, Alan Bainbridge of Weiss successfully collected groundwater samples from wells UCD1-013, UCD1-021, UCD1-023, UCD1-054, and wells UCD1-068 through UCD1-072 (Figure 3) demonstrating that the onsite pumps and wells were functional. Mr. Bainbridge noted during the March 2016 sampling event that the pump in well UCD1-071 was initially slow to produce water, and the flow was limited to 100 milliliters per minute. On April 29, 2016, Mr. Bainbridge removed the pump from well UCD1-071, replaced the pump's O-rings and check-valve balls, and reinstalled the pump. On the same day, Mr. Bainbridge collected groundwater samples from wells UCD1-021, UCD1-068, UCD1-069, UCD1-070, UCD1-071, and UCD1-072 and noted a flow of approximately 250 milliliters per minute from the pump in well UCD1-071. Although water levels were too low on November 3, 2016, there was no indication of pump or well failure during the inspections. Appendix E provides a photograph of the well UCD1-071 pump maintenance.

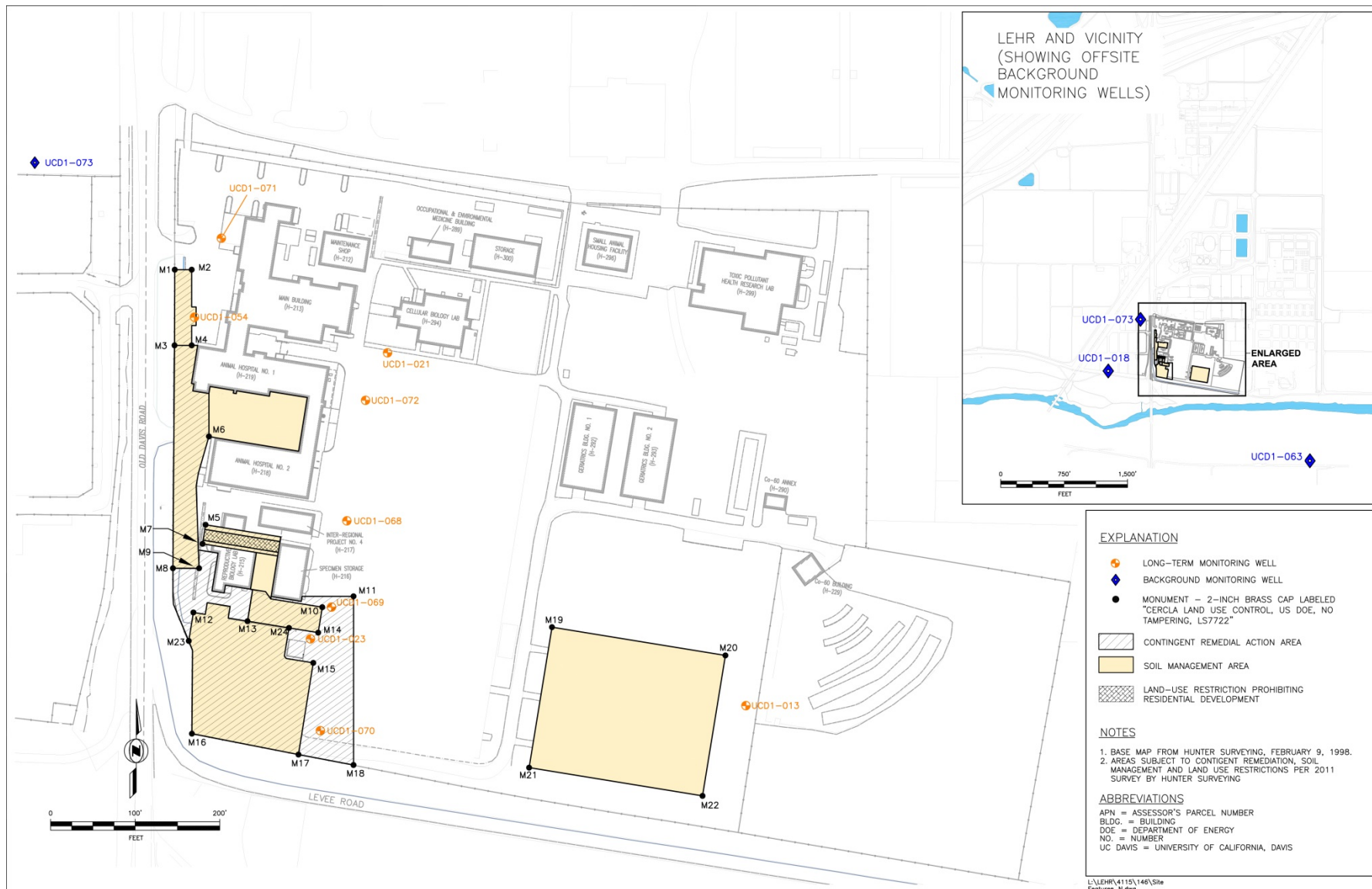


Figure 3. Monitoring Wells and Corner Point Monuments at the LEHR Superfund Site

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3.0 Soil Management Plan Implementation

In accordance with an agreement with DOE, the EH&S Unit at UC Davis is responsible for implementation of the SMP (DOE 2010).

3.1 Training

The EH&S Unit conducted annual training to communicate soil management requirements to applicable units that may perform, manage, or contract for work at and near the project site. Additionally, personnel working in departments located on the project site or near it received annual training.

Information on the following topics was provided:

- Roles and responsibilities for soil management in the DOE areas
- Areas and contaminants subject to soil management requirements
- Soil management during excavation or construction
- Permits for soil-disturbing activities
- Plans and documentation
- Soil management during emergency work
- Waste management
- Waste characterization and disposal
- Inspections

3.2 Soil-Disturbing Activities

On the basis of site inspections and the November 4, 2016, interview with Christopher Wright of the EH&S Unit at UC Davis, no permit-required soil-disturbing activities (routine or emergency) occurred in any of the DOE areas subject to the requirements of the SMP during this reporting period. Consequently, no permits for soil disturbance were issued. The EH&S Unit is providing ongoing training and guidance to university staff to avoid unnecessary soil-disturbing activities in the areas subject to the SMP.

3.3 Soil Disposal

On the basis of site inspections and the interview documented in this report, no soil from the DOE areas subject to the requirements of the SMP was disposed of during this reporting period.

3.4 Soil Management Plan Changes


As recommended in the First Five-Year Review (DOE 2016), the SMP is under revision to include:

- Installing new high-visibility markers at monuments
- Installing new high-visibility markers at flush-mount wells located in fields
- Specifying procedures for handling and disposing of fallen trees

The SMP revisions and marker installations are anticipated for completion in 2017.

4.0 Certification


The U.S. Department of Energy hereby certifies to the best of its knowledge that the information contained in this inspection report is true and accurate and no exceptions to the Land-Use Covenant terms and conditions occurred during this reporting period.



Jeffrey Murl
Site Manager
U.S. Department of Energy
Office of Legacy Management
11025 Dover Street, Suite 1000
Westminster, CO 80021

Date: 01/5/2017

The University of California hereby certifies to the best of its knowledge that the information contained in this inspection report is true and accurate and no exceptions to the Land-Use Covenant terms and conditions occurred during this reporting period.



Christopher Wright
Environmental Manager
UC Davis Environmental Health and Safety
One Shields Avenue
Davis, CA 95616

Date: 1-5-2017

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5.0 References

DOE (U.S. Department of Energy), 2009. *Record of Decision for DOE Areas at the Laboratory for Energy-Related Health Research, University of California, Davis*, LMS/LEH/S05069, Office of Legacy Management, September.

DOE (U.S. Department of Energy), 2010. *Remedial Design/Remedial Action Work Plan for the Former Laboratory for Energy-Related Health Research Federal Facility, University of California, Davis*, LMS/LEH/S05822, Office of Legacy Management, November.

DOE (U.S. Department of Energy), 2016. *First Five-Year Review for the Laboratory for Energy-Related Health Research Federal Facility*, University of California, Davis, LMS/LEH/S13284, Office of Legacy Management, September.

DTSC (California Department of Toxic Substances Control), 2014. *Covenant to Restrict Use of Property, Environmental Restriction (Re: Portions of County of Solano Assessor's Parcel No. 110-05-04 UC Davis, Laboratory for Energy-related Health Research/Old Campus Landfill (LEHR/OCL) Superfund Site, Site Code 100424)*, Solano County Recorder's Office Document Number 201400051822, July 11.

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Appendix A

Inspection and Maintenance Checklists

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LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Dry Wells A – E Area

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

³ Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Urterback

Inspection Date 11-3-16

DOE Area: Dry Wells A – E Area

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
View north over Dry Wells A through E Area; Old Davis Road to left.	3084	
View south over Dry Wells A through E Area; Building H-219 in background/left; facility entrance gate in foreground/right.	3085	
View west over Dry Wells A through E Area; site entrance gate to right; Old Davis Road behind.	3086	
View southwest over Dry Wells A through E Area; Old Davis Road behind.	3087	
View southeast over Dry Wells; CH+E sign in foreground.	3088	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Domestic Septic System 3

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

(3) Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Domestic Septic System 3

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
View east over former leach field part of Domestic Septic System 3 Area; Building H-216 to left; storage unit to right; Western Dog Pens Area in background.	3120	
View east over eastern half of Domestic Septic System 3 Area.	3121	
View west over former leach field part of Domestic Septic System 3 Area; Buildings H-215 and H-216 to right; Southwest Trenches Area to left; shoulder of Old Davis Road in background.	3122	
View south over septic tank part of Domestic Septic System 3 Area; Building H-216 to left; Building H-215 to right.	3123	
View north over septic tank part of Domestic Septic System 3 Area; Building H-215 to left, Building H-216 to right; Domestic Septic System 4 Area in background.	3124	
View south over east end of Domestic Septic System 3 leach field; trailer in background.	3127	
View east; Building H-216 in background, standing north/left of tree.	3125	
View east; Building H-216 in background, standing south/right of tree.	3126	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Domestic Septic System 4

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any indications of a residence, growing plants for human consumption, or a day care center for children observed during walk-thru inspection? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any indications of a change in land use observed during walk-thru inspection? If yes, explain. ²	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> (3)
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

³ Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Domestic Septic System 4

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> <u>Interview conducted by Bob Devany</u> <u>on 11-4-16</u>

Photograph Description	Photo No.	Comments
View north over Domestic Septic System 4 septic tank location and east end of leach field; Building H-215 to left, Building H-216 to right; Building H-217 in background.	3128	
View west over east end of Domestic Septic System 4 leach field; Building H-215 in background.	3129	
View east over Domestic Septic System 4 septic tank location. Building H-216 in background.	3130	
View east over western portion of Domestic Septic System 4 Area; Building H-215 in background.	3131	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Eastern Dog Pens Area

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u>

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

³ Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Eastern Dog Pens Area

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
View northeast over Eastern Dog Pens Area from southwest corner.	3179	
View east over Eastern Dog Pens Area.	3180	
View southeast over Eastern Dog Pens Area from northwest corner.	3185	
View south over Eastern Dog Pens Area.	3186	
View southwest over Eastern Dog Pens Area from northeast corner.	3187	
View west over Eastern Dog Pens Area.	3188	
View northwest into Eastern Dog Pens Area from southeast corner	3189	
View north over Eastern Dog Pens Area from north levee.	3255	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: _____
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: _____
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

³ Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Urrenback

Inspection Date 11-3-16

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
View north over southern portion of Radium/Strontium Treatment Systems Area. Building H-215 to right; Building H-218 back/right.	3108	
View north over middle portion of Radium/Strontium Treatment Systems Area. Building H-218 to right; Building H-219 back/right.	3109	
View south over southern portion of Radium/Strontium Treatment Systems Area. Building H-215 to left.	3110	
View north over northern portion of Radium/Strontium Treatment Systems Area. Building H-219 to right.	3111	
View south over middle/south portion of Radium/Strontium Treatment Systems Area. Building H-218 to left; Old Davis Road to right.	3112	
View east over middle portion of Radium/Strontium Treatment Systems Area. Building H-218 to right; Building H-219 to left.	3113	
View southeast over Domestic Septic System 2 area within Radium/Strontium Treatment Systems Area; Building H-218 behind.	3114	
View west over middle-west portion of Radium/Strontium Treatment Systems Area, west perimeter fence, and Old Davis Road.	3115	
Roof-level view west over middle portion of Radium/Strontium Treatment Systems Area. Building H-219 to right; Building H-218 to left; Old Davis Road in background.	3117	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Uttenback

Inspection Date 11-3-16

DOE Area: Radium/Strontium Treatment Systems Area
Inclusive of Domestic Septic System 2

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
Roof-level view southwest over Domestic Septic System 2 area within middle portion of Radium/Strontium Treatment Systems Area; Building H-218 behind.	3118	
Roof-level view northwest over middle portion of Radium/ Strontium Treatment Systems Area; Building H-219 behind.	3119	
View south over northern portion of Radium/Strontium Treatment Systems Area.	3116	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utrenback

Inspection Date 11-3-16

DOE Area: Southwest Trenches

Inspection Period December 10, 2015 – December 9, 2016

Inspection Item	Y	N	NA	Comments
Were any indications of soil disturbance observed during walk-thru inspection? If yes, explain. ^{1,2}	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were any soil disturbance permit requests filed with UC Davis Environmental Health and Safety (EH&S) Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were any soil disturbance permits issued by the EH&S Unit for this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
Were permitted soil disturbing activities conducted in this DOE Area since December 10, 2015?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③
If permitted soil disturbing activities were conducted in this DOE Area since December 10, 2015, were the activities in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
If waste was generated due to soil disturbing activities since December 10, 2015, was the soil managed and/or disposed in compliance with the Soil Management Plan? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EH&S person contacted: <u>NA</u>
Are there any suggested changes to the Soil Management Plan at this time? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EH&S person contacted: <u>Christopher Wright</u> ③

Notes:

¹ Soil disturbing activities include, but are not limited to excavation, grading, trenching, utility installation or repair, and any other human activities that could potentially bring contaminated soil to the surface.

² Does not apply to landscaping, fire protection, or maintenance work that is conducted at depths less than 1 foot below ground surface and less than 5 cubic yards of soil waste is significantly displaced (e.g., stockpiled, placed in containers) and all soil is returned to the disturbed area. Such work may proceed without restriction.

③ Interview conducted by Bob Devany on 11-4-16

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Area: Southwest Trenches

Inspection Period December 10, 2015 – December 9, 2016

Photograph Description	Photo No.	Comments
View southeast over Southwest Trenches Area; North levee in background.	3148	
View east over Southwest Trenches Area; Storage shed to left; north levee to right; Western Dog Pens Area and UC Davis Southern Trenches Area in background.	3149	
View north over northwest corner of Southwest Trenches Area.	3150	
View south over Southwest Trenches Area; North levee in background; shoulder of Old Davis Road to right.	3177	
View southeast over Southwest Trenches Area.	3178	
View west over Southwest Trenches Area; shoulder of Old Davis Road in background.	3159	
View northwest over Southwest Trenches Area.	3158	
View north over Southwest Trenches Area.	3157	
View north from center of Southwest Trenches Area.	3151	
View west from center of Southwest Trenches Area.	3152	
View south from center of Southwest Trenches Area.	3153	
View east from center of Southwest Trenches Area.	3154	

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

Survey Monuments

Inspection Period December 10, 2015 – December 9, 2016

Monument No.	Close-up Photo ¹	Setting Photo ²	Damaged or missing? (Y/N) If Y, explain	Comments
1	3089	3090	N	
2	3091	3092	N	
3	3093	3094	N	
4	3095	3096	N	
5	3097	3098	N	
6	3099	3100	N	
7	3101	3102	N	
8	3104	3105	N	
9	3106	3107	N	
10	3139	3140	N	
11	3143	3144	N	
12	3132	3133	N	
13	3135	3136	N	
14	3141	3142	N	
15	3145	3146	N	


LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

Survey Monuments

Inspection Period December 10, 2015 – December 9, 2016

Monument No.	Close-up Photo ¹	Setting Photo ²	Damaged or missing? (Y/N) If Y, explain	Comments
16	3168	3171	N	
17	3163	3164	N	
18	3160	3161	N	
19	3183	3184	N	
20	3191	3192	N	
21	3181	3182	N	
22			Y	Monument not found. Cone found on nearby well vault.
23	3175	3176	N	
24	3137	3138	N	

Notes:

¹ Take zoom photograph of monument. Record photograph number.

² Place orange ring marker around monument and step back to take photo of monument location with recognizable site features (ex. buildings, fence, road, etc) in view. Record photograph number.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-7-16

Survey Monuments

Inspection Period December 10, 2015 – December 9, 2016

Monument No.	Close-up Photo ¹	Setting Photo ²	Damaged or missing? (Y/N) If Y, explain	Comments
16				
17				
18				
19				
20				
21				
22	3261	3263	N	Measured approximate location with Tape. Brian Bundy found w/ metal detector
23				
24				

Notes:

¹ Take zoom photograph of monument. Record photograph number.

² Place orange ring marker around monument and step back to take photo of monument location with recognizable site features (ex. buildings, fence, road, etc) in view. Record photograph number.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Areas Monitoring Wells

Inspection Period December 10, 2015 – December 9, 2016

Well ID and Completion Type	Photographs		Evidence of tampering? (Y/N) If Y, explain	Locks/Bolts Secure? ³ (Y/N) If N, explain	ID Plaques OK? ⁴ (Y/N) If N, explain	Vault and Seal Sound? ⁵ (Y/N) If N, explain	Pump OK? ⁶ (Y/N) If N, explain	Comments
	Wellhead / tag ¹	Vault / tag ²						
UCD1-013 standpipe	3195/ 3197	3198/ 3199	N	Y	Y	Y	NA	Water level below pump Well dry to 65 ft
UCD1-018 standpipe	3240/ 3241	3242/ 3243	N	Y	Y	Y	NA	Water level at 61 ft; Too low to test pump
UCD1-021 flush	3218/ 3219	3220/ 3221	N	Y	Y	N	NA	Concrete around vault failing. Water level at 61 ft; Too low to test pump
UCD1-023 flush	3200/ 3201	3202/ 3203	N	Y	Y	Y	NA	Water level at 61 ft; Too low to test pump
UCD1-054 flush	3231/ 3233	3234/ 3235	N	Y	Y	Y	NA	Water level at 61 ft; Too low to test pump
UCD1-063 standpipe	3250/ 3252	3253/ 3254	N	Y	Y	Y	NA	Water level at 63 feet; Too low to test pump
UCD1-068 flush	3213/ 3215	3216/ 3217	N	Y	Y	Y	NA	Well dry to top of pump at 60 ft; water level Too low to test pump
UCD1-069 flush	3204/ 3205	3206/ 3207	N	Y	Y	Y	NA	Well dry to top of pump at 59 ft; water level too low to test pump.

LAND USE CONTROL INSPECTION CHECKLIST

Inspector Tim Utterback

Inspection Date 11-3-16

DOE Areas Monitoring Wells

Inspection Period December 10, 2015 – December 9, 2016

Well ID and Completion Type	Photographs		Evidence of tampering? (Y/N) If Y, explain	Locks/Bolts Secure? ³ (Y/N) If N, explain	ID Plaques OK? ⁴ (Y/N) If N, explain	Vault and Seal Sound? ⁵ (Y/N) If N, explain	Pump OK? ⁶ (Y/N) If N, explain	Comments
	Wellhead / tag ¹	Vault / tag ²						
UCD1-070 standpipe	3222/ 3230	3224/ 3229	N	Y	Y	Y	NA	Well dry to top of pump at 61 ft; water level too low to test pump. Cracks in concrete apron
UCD1-071 flush	3236/ 3237	3238/ 3239	N	Y	Y	Y	NA	Well dry to top of pump at 61 ft; water level too low to test pump.
UCD1-072 flush	3208/ 3210	3211/ 3212	N	Y	Y	Y	NA	Well dry to top of pump at 60 ft; water level too low to test pump.
UCD1-073 standpipe	3244/ 3247	3248/ 3249	N	Y	Y	Y	NA	Well dry to top of pump at 60 ft; water level too low to test pump.

Notes:

¹ Take photograph inclusive of wellhead features including concrete pad. Take zoom photograph of wellhead identification plaque (tag). Record photograph numbers.

² Open well vault and take photograph inclusive of vault inner features. Take zoom photograph of identification plaque (tag) stored in vault. Record photograph numbers.

³ Verify that standpipe well locks are present, in good condition, and secured with the lock at the time of inspection. Verify that flush mount well bolts are present, in good condition, and properly secured at the time of inspection. Document any issues.

⁴ Verify that well identification plaques fixed to the outside of the well and stored inside the well are legible and in good condition. Document any issues.

⁵ Verify that concrete pads are structurally sound. Document any issues.

⁶ Connect pump to controller and discharge approximately 300 milliliters of water to bucket. Document any issues.

Appendix B

Photographs of Monuments at Permanent Reference Points for Areas Subject to Land-Use Restrictions

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Monument 1: northwest corner of Dry Wells A-E Area (photo No. 3089).



Monument 2: northeast corner of Dry Wells A-E Area (photo No. 3091).



View northwest: Monument 1, within orange ring in foreground; entrance sign in background (photo No. 3090).



View northwest: Monument 2, within orange ring; entrance and retracted entrance gate in background (photo No. 3092).



*Monument 3: southwest corner of Dry Wells A–E Area
(photo No. 3093).*



*View west: Monument 3, within orange ring;
west perimeter fence and Old Davis Road in background
(photo No. 3094).*



*Monument 4: southeast corner of Dry Wells A–E Area
(photo No. 3095).*



*View east: Monument 4 with Building H-219 in background
(photo No. 3096).*



Monument 5: northwest corner of Domestic Septic System 4 (photo No. 3097).



View east: Monument 5, within orange ring; Building H-215 in background (photo No. 3098).



Monument 6: adjacent to northwest corner of Building H-218; Radium/Strontium Treatment Systems Area (photo No. 3099).



View east: Monument 6 within orange ring; corner of Building H-218 in background (photo No. 3100).



Monument 7: southwest corner of Domestic Septic System 4 (photo No. 3101).



View east: Monument 7, within orange ring; Building H-215 in background (photo No. 3102).



Monument 8: southwest corner of radium-226 leach trench; Radium/Strontium Treatment Systems Area (photo No. 3104).



View southwest: Monument 8, within orange ring; west perimeter fence upper right (photo No. 3105).



*Monument 9: southeast corner of radium-226 leach trench;
Radium/Strontium Treatment Systems Area (photo No. 3106).*



*View east: Monument 9, within orange ring;
Building H-215 in background right (photo No. 3107).*



*Monument 10: northeast corner of former leach field in
Domestic Septic System 3 Area (photo No. 3139).*



*View northwest: Monument 10, within orange ring in foreground;
Building H-216 in background right (photo No. 3140).*



Monument 11: northeast corner of Eastern Remediation Support Area (photo No. 3143).



View west: Monument 11, within orange ring in foreground; Building H-216 in background (photo No. 3144).



Monument 12: northwest corner of Southwest Trenches Area (photo No. 3132).



View south: Monument 12, within orange ring in foreground; water hydrant in background (photo No. 3133).



Monument 13: southwest corner of Domestic Septic System 3, at northern perimeter of Southwest Trenches Area (photo No. 3135).



View north: Monument 13 within orange ring at edge of concrete swale; Buildings H-215 and H-216 in background (photo No. 3136).



Monument 14: southeast corner of Domestic Septic System 3 (photo No. 3141).



View northwest: Monument 14, within orange ring in foreground; Building H-216 in background (photo No. 3142).



Monument 15: eastern corner of Southwest Trenches Area (photo No. 3145).



View southeast: Monument 15, within orange ring in foreground; former Western Dog Pens silt fence in left of background and trailer shed fence in right of background (photo No. 3146).



Monument 16: southwest corner of Southwest Trenches Area (photo No. 3168).



View southwest: Monument 16, within orange ring; southwest corner post of perimeter fence in background (photo No. 3171).



Monument 17: southeast corner of Southwest Trenches Area (photo No. 3163).



Monument 18: southeast corner of Eastern Remediation Support Area (photo No. 3160).



View south: Monument 17, within orange ring; south perimeter fence behind; foot of North Levee in background (photo No. 3164).



View south: Monument 18, within orange ring; foot of North Levee in background (photo No. 3161).



Monument 19: northwest corner of Eastern Dog Pens Area (photo No. 3183).



View southeast: Monument 19, within orange ring; Eastern Dog Pens Area in background (photo No. 3184).



Monument 20: northeast corner of Eastern Dog Pens Area (photo No. 3191).



View southwest: Monument 20, within orange ring; Eastern Dog Pens Area in background (photo No. 3192).



Monument 21: southwest corner of Eastern Dog Pens Area
(photo No. 3181).



View northeast: Monument 21, within orange ring;
Eastern Dog Pens Area in background (photo No. 3182).



Monument 22: southeast corner of Eastern Dog Pens Area
(photo No. 3261).



View east: Monument 22, within orange ring;
Cobalt-60 Area fence in background (photo No. 3263).



Monument 23: western perimeter point of Southwest Trenches Area (photo No. 3175).



View west: Monument 23, within orange ring; west perimeter fence in background (photo No. 3176).



Monument 24: northeast corner of Southwest Trenches Area, at southern perimeter of Domestic Septic System 3 (photo No. 3137).



View southeast: Monument 24, within orange ring on edge of concrete swale—waste bin and trailer shed behind; rose planter in right of background (photo No. 3138).

Appendix C

Photographs of DOE Areas Subject to Land-Use Restrictions

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View southeast over Southwest Trenches Area: North Levee in background (photo No. 3148).



View east over Southwest Trenches Area: Western Dog Pens Area and UC Davis Southern Trenches Area in background (photo No. 3149).



Northwest corner of Southwest Trenches Area (photo No. 3150).



View south over Southwest Trenches Area: North Levee in background (photo No. 3177).



View southeast over Southwest Trenches Area (photo No. 3178).



View west over Southwest Trenches Area: shoulder of Old Davis Road in background (photo No. 3159).



View northwest over Southwest Trenches Area (photo No. 3158).



View north over Southwest Trenches Area (photo No. 3157).



*View north from center of Southwest Trenches Area
(photo No. 3151).*



*View west from center of Southwest Trenches Area
(photo No. 3152).*



*View south from center of Southwest Trenches Area
(photo No. 3153).*



*View east from center of Southwest Trenches Area
(photo No. 3154).*



View east over former leach field part of Domestic Septic System 3 Area: Building H-216 to left; storage unit to right; Western Dog Pens Area in background (photo No. 3120).



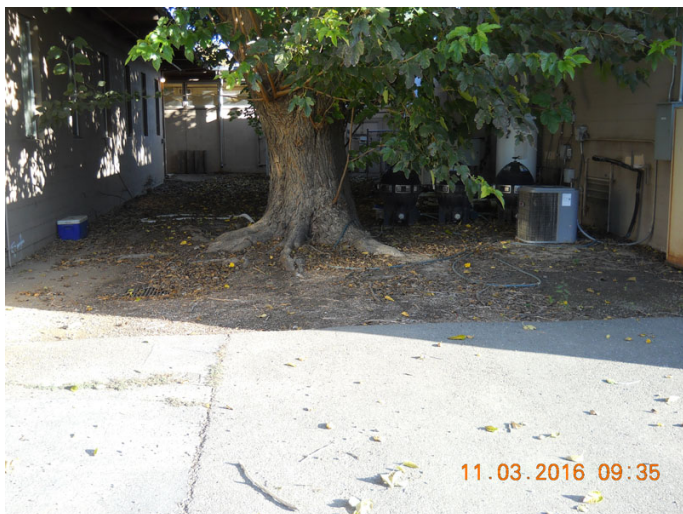
View east over eastern half of Domestic Septic System 3 Area (photo No. 3121).



View west over former leach field part of Domestic Septic System 3 Area: Buildings H-215 and H-216 to right; shoulder of Old Davis Road in background (photo No. 3122).



View south over septic tank part of Domestic Septic System 3 Area: Building H-216 to left; Building H-215 to right (photo No. 3123).



View north over septic tank part of Domestic Septic System 3 Area: Building H-215 to left, Building H-216 to right; Domestic Septic System 4 Area in background (photo No. 3124).



View south over east end of Domestic Septic System 3 leach field: trailer in background (photo No. 3127).



View east: Building H-216 in background, standing north/left of tree (photo No. 3125).



View east: Building H-216 in background, standing south/right of tree (photo No. 3126).



View north over Domestic Septic System 4 septic tank location and east end of leach field: Building H-215 to left, Building H-216 to right; Building H-217 in background (photo No. 3128).



View west over east end of Domestic Septic System 4 leach field: Building H-215 in background (photo No. 3129).



View east over Domestic Septic System 4 septic tank location: Building H-216 in background (photo No. 3130).



View east over western portion of Domestic Septic System 4 Area: Building H-215 in background (photo No. 3131).



View north over southern portion of Radium/Strontium Treatment Systems Area: Building H-215 to right; Buildings H-218 and H-219 in background (photo No. 3108).



View north over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 in background (photo No. 3109).



View south over southern portion of Radium/Strontium Treatment Systems Area: Building H-215 to left (photo No. 3110).



View north over northern portion of Radium/Strontium Treatment Systems Area: Building H-219 to right (photo No. 3111).



View south over the middle-south portion of Radium/Strontium Treatment Systems Area: Building H-218 to left (photo No. 3112).



View east over middle portion of Radium/Strontium Treatment Systems Area: Building H-218 to right; Building H-219 to left (photo No. 3113).



View west over Domestic Septic System 2 area within middle-west portion of Radium/Strontium Treatment Systems Area (photo No. 3115).



Roof-level view west over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 to right, Building H-218 to left (photo No. 3117).



Roof-level view southwest over middle portion of Radium/Strontium Treatment Systems Area: Building H-218 in background (photo No. 3118).



Roof-level view northwest over middle portion of Radium/Strontium Treatment Systems Area: Building H-219 in background (photo No. 3119).



View south over northern portion of Radium/Strontium Treatment Systems Area: Building H-219 to left, west perimeter fence and Old Davis Road to right (photo No. 3116).



View north over Dry Wells A-E Area: Old Davis Road to left (photo No. 3084).



View south over Dry Wells A-E Area: Building H-219 in background/left; retracted site entrance gate to right (photo No. 3085).



View west over Dry Wells A-E Area: retracted site entrance gate and Old Davis Road in background (photo No. 3086).



View southwest over Dry Wells A-E Area (photo No. 3087).



View southeast over Dry Wells A-E Area: entrance sign in foreground (photo No. 3088).



*View northeast over Eastern Dog Pens Area
(photo No. 3179).*



View east over Eastern Dog Pens Area (photo No. 3180).



*View southeast over Eastern Dog Pens Area from
northwest corner (photo No. 3185).*



View south over Eastern Dog Pens Area (photo No. 3186).



View southwest over Eastern Dog Pens Area from northeast corner (photo No. 3187).



View west over Eastern Dog Pens Area (photo No. 3188).



View northwest into Eastern Dog Pens Area (photo No. 3189).



View north over Eastern Dog Pens Area from North Levee (photo No. 3255).

Appendix D

Photographs of Groundwater Monitoring Wells

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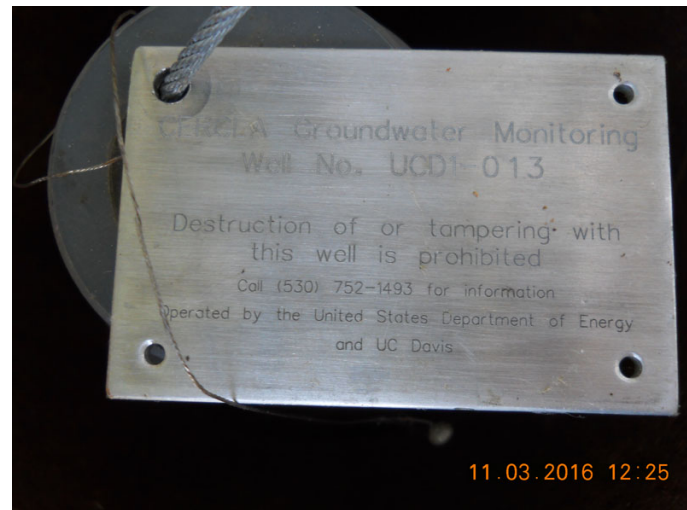
UCD1-013 Wellhead (photo No. 3195).



UCD1-013 Wellhead plaque (photo No. 3197).



UCD1-013 Interior (photo No. 3198).



UCD1-013 Interior plaque (photo No. 3199).



UCD1-018 Wellhead (photo No. 3240).



UCD1-018 Wellhead plaque (photo No. 3241).



UCD1-018 Interior (photo No. 3242).



UCD1-018 Interior plaque (photo No. 3243).



UCD1-021 Wellhead (photo No. 3218).



UCD1-021 Wellhead plaque (photo No. 3219).



UCD1-021 Interior (photo No. 3220).



UCD1-021 Interior plaque (photo No. 3221).



UCD1-023 Wellhead (photo No. 3200).



UCD1-023 Wellhead plaque (photo No. 3201).



UCD1-023 Interior (photo No. 3202).



UCD1-023 Interior plaque (photo No. 3203).



UCD1-054 Wellhead (photo No. 3231).



UCD1-054 Wellhead plaque (photo No. 3233).



UCD1-054 Interior (photo No. 3234).



UCD1-054 Interior plaque (photo No. 3235).



UCD1-063 Wellhead (photo No. 3250).



UCD1-063 Wellhead plaque (photo No. 3252).



UCD1-063 Interior (photo No. 3253).



UCD1-063 Interior plaque (photo No. 3254).



UCD1-068 Wellhead (photo No. 3213).



UCD1-068 Wellhead plaque (photo No. 3215).



UCD1-068 Interior (photo No. 3216).



UCD1-068 Interior plaque (photo No. 3217).



UCD1-069 Wellhead (photo No. 3204).



UCD1-069 Wellhead plaque (photo No. 3205).



UCD1-069 Interior (photo No. 3206).



UCD1-069 Interior plaque (photo No. 3207).



UCD1-070 Wellhead (photo No. 3222).



UCD1-070 Wellhead plaque (photo No. 3230).



UCD1-070 Interior (photo No. 3224).



UCD1-070 Interior plaque (photo No. 3229).



UCD1-071 Wellhead (photo No. 3236).



UCD1-071 Wellhead plaque (photo No. 3237).



UCD1-071 Interior (photo No. 3238).



UCD1-071 Interior plaque (photo No. 3239).



UCD1-072 Wellhead (photo No. 3208).



UCD1-072 Wellhead plaque (photo No. 3210).



UCD1-072 Interior (photo No. 3211).



UCD1-072 Interior plaque (photo No. 3212).



UCD1-073 Wellhead (photo No. 3244).



UCD1-073 Wellhead plaque (photo No. 3247).



UCD1-073 Interior (photo No. 3248).



UCD1-073 Interior plaque (photo No. 3249).

Appendix E

Photographs of Completed Maintenance Work

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UCD1-071: Replacement of pump O-rings and check-valve balls.

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