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SGW-37529
Revision 0

Waste Control Plan for the 200-TW-1/200-PW-5 Operable Units

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Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

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Richland, Washington

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B. P. Esparza
Fluor Hanford, Inc.

Date Published
May 2008

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Assistant Secretary for Environmental Management

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APPROVAL PAGE

Title: Waste Control Plan for the 200-TW-1/200-PW-5 Operable Units

Approvals:

T. L. Watson
Manager, Soil and Groundwater Remediation Project

Signature — Date: 5/29/2008

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Signature FOR WFB — Date: 5-29-08

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Signature for RWO — Date: 5/28/08

D. Todak
Waste Coordinator, Soil and Groundwater Remediation Project

Signature — Date: 5-29-08

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WASTE CONTROL PLAN

Work Scope Description:

The scope of this waste control plan is bounded by the waste-generating activities associated with the 200-TW-1 Scavenged Waste Group Operable Unit (OU) and 200-PW-5 Fission-Product Rich Waste Group OU site-specific field-sampling plan and well-decommissioning activities. The 200-TW-1/200-PW-5 OUs site-specific field-sampling plan is contained in DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Vol. II, Addendum 3, *Site-Specific Field-Sampling Plans for the 216-B-42 Trench, 216-S-13 Crib, 216-S-21 Crib, 216-T-18 Crib, and 216-T-19 Crib and Tile Field in the 200-TW-1/200-PW-5 Operable Units*. The characterization scope of work includes installing boreholes, drive casings, and direct-push technology holes and collecting soil samples that will be analyzed for radiological and nonradiological contaminants of concern and physical properties. Geophysical logging and electrical-resistivity characterization also will be conducted at select 200-TW-1/200-PW-5 OUs waste sites.

After drilling, sampling, and logging of the boreholes identified in DOE/RL-2007-02 is complete, the casing will be removed and the boreholes will be decommissioned in accordance with WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells." Deviation from the WAC 173-160 decommissioning requirements will follow the state-approved variance process.

List Contaminants of Concern:

Contaminants of concern at the 200-TW-1/200-PW-5 OUs waste sites include radionuclides, metals, anions, and volatile and semivolatile organic compounds. See DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Vol. I, *Work Plan and Appendices*, Table A2-3 and DOE/RL-2007-02-VOLII-ADD3, *Site-Specific Field-Sampling Plans for the 216-B-42 Trench, 216-S-13 Crib, 216-S-21 Crib, 216-T-18 Crib, and 216-T-19 Crib and Tile Field in the 200-TW-1/200-PW-5 Operable Units*.

Site Description:

200-TW-1 OU:
Waste sites in the 200-TW-1 OU are located in the 200 East Area and the 200 West Area of the Hanford Site in southeastern Washington State. The 200-TW-1 OU received scavenged wastes from the uranium recovery process (tributyl phosphate solvent extraction) in 221-U Canyon Facility, 221-B and 221-T Plant Canyon Building, 242-B and 242-T Evaporator, 224-B and 224-T Waste Storage Facility, along with other facilities.

200-PW-5 OU:
Waste sites in the 200-PW-5 OU are located in the 200 East Area and the 200 West Area of the Hanford Site in southeastern Washington State. The 200-PW-5 OU received fission-product rich wastes generated during the fuel-rod enrichment cycle and released when the fuel elements were decladded or dissolved in sodium hydroxide or nitric acid; some facilities associated with these activities include the 221-B Plant Canyon Building, 242-B Evaporator, 202-S Reduction-Oxidation Plant, storage tank condensate from In-Tank Solidification #1 and #2, along with other facilities.

References:

DOE/RL-2000-38, *200-TW-1 Scavenged Waste Group Operable Unit and 200-TW-2 Tank Waste Group Operable Unit RI/FS Work Plan*, Rev. 0, Addendum A.

DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Vol. I, *Work Plans and Appendices*, Vol. II, *Site-Specific Field-Sampling Plan Addenda*, Rev. 0.

Date Approved: May 2008

Preparer: B. P. Esparza **Date** 5-29-08 **Impact Level** N/A
Print/Sign Name

Project Task Lead: W. F. Barrett FOR WFB **IDW Coordinator:** M. W. Vermillion

Planned Drilling Start and Finish Dates: From: August 2008 **To:** November 2009

Waste Storage Facility ID Number(s): N/A

WASTE CONTROL PLAN

Field-Screening Methods

Method	Frequency	Reference	Detection Limit or Range	Analyst
Alpha/beta-gamma detector	As required by radiological risk assessment and work permit	RAP-SGRP-08-028 RAP-SGRP-08-029	500 dpm/100 cm^2 alpha 5,000 dpm/100 cm^2 beta-gamma 10,000 dpm/100 cm^2 removable (tritium)	RCT
Dose rate, gamma	As required by radiological risk assessment and work permit	RAP-SGRP-08-028 RAP-SGRP-08-029	0.5 mR/h	RCT
Passive neutron logging	Continuous from total depth to surface	Per logging contract	Per logging contract	Stoller or Pacific Northwest Geophysics
Spectral gamma logging	Continuous from total depth to surface	Per logging contract	Per logging contract	Stoller or Pacific Northwest Geophysics
Neutron moisture logging	Continuous from water table to surface	Per logging contract	Per logging contract	Stoller or Pacific Northwest Geophysics

Laboratory Methods (Contaminants of Concern)

Method	Frequency	Reference	Detection Range	Analyst
DOE/RL-2007-02, Vol. I, Tables A2-1 and A2-2	DOE/RL-2007-02, Vol. II, Tables AD3 2-1, AD3 3-1, AD3 4-1, AD3 5-1, and AD3 6-1	DOE/RL-2007-02, Vol. II, Addendum 3	DOE/RL-2007-02, Vol. I, Tables A2-1 and A2-2	On- or off-site laboratory

Multiple locations have been identified for installation of boreholes through direct push and drilling methods as shown in Figures 1, 2, 3, 4, and 5 and presented in Table 1.

Decommissioning: The only wells currently identified for decommissioning in this OU are the boreholes to be installed as identified in Table 1 and shown in Figures 1, 2, 3, 4, and 5. As additional wells are identified for decommissioning, formal approval will be sought and granted through the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al., 1989) change notices and entered into the administrative record following discussion at the Unit Manager's Meeting (UMM).

Waste Container Storage Area(s) Coordinate Location(s): Four waste container storage areas will be established to manage the investigation-derived wastes generated by the proposed drilling, sampling, and decommissioning activities. An existing waste container storage area, in the 200 East Area near the 216-B-57 Trench, will be employed for investigation-derived wastes generated at the 216-B-42 Trench as shown in Figure 1. The recently identified waste container storage areas for the 216-S-13, 216-S-21, and 216-T-18 Cribs and 216-T-19 Crib and Tile Field are shown in Figures 2, 3, 4, and 5, respectively. Operational requirements may mandate minor movement of the specified waste container storage areas, provided they remain in or adjacent to the identified waste sites. If these locations need to be moved to accommodate future work, such changes will be approved in a Tri-Party Agreement change notice and entered into the administrative record following discussion at the UMM.

Requirements for Spoils Pile Sampling (if any): Not applicable. All drill cuttings/spoils will be containerized.

Nonregulated Material Disposal Location(s): An offsite Subtitle D landfill can be used for disposal of nonregulated miscellaneous solid waste that has been surveyed for radiological release in accordance with HNF-13536, *PHMC Radiological Control Procedures*, Section 4.1.1, "Standard Radiological Release Survey for Material and Equipment." Nonregulated soil waste may be returned to the ground at or near the point of excavation in accordance with GRP-EE-02-14.5, *Returning Vadose Zone Drill Cuttings/Soils to the Environment*, the location of which will be documented in the field logbook. Liquid wastes (e.g., purgewater, decontamination fluids) will be collected and taken to the Purgewater Storage and Treatment Facility or the Effluent Treatment Facility.

200-TW-1 and 200-PW-5 OUs Sketch of Work Site: Figures 1, 2, 3, 4, and 5 identify the borehole locations and waste container storage areas at the 216-B-42 Trench; 216-S-13, 216-S-21, and 216-T-18 Cribs; and 216-T-19 Crib and Tile Field.

WASTE CONTROL PLAN	
APPROVALS (Print/Sign Name and Date)	
Laura C. Buckow 5-30-08	Michael Kermilh
Lead Regulatory Agency Representative	**IDW Coordinator**
JOHN G. MORSE 5/28/08 acting	W. F. BARRETT FOR WFB 5-29-08 BRIAN EPPECH
RL	**Project Task Lead**

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TERMS

BH	borehole
CERCLA	*Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CWC	Central Waste Complex
DP	drive point
ERDF	Environmental Restoration Disposal Facility
GPL	geophysical logging
IDW	investigation-derived waste
MSW	miscellaneous solid waste
OU	operable unit
PPE	personal protective equipment
RCT	radiological control technician
Tri-Parties	U.S. Department of Energy, U.S. Environmental Protection Agency, and Washington State Department of Ecology
TRU	Radioactive waste as defined in DOE G 435.1-1, *Implementation Guide for Use with DOE M 435.1-1*
WCSA	waste container storage area
WCP	waste compliance plan
WMS	waste management specialist
WPLIs	waste packaging labeling instruction sheet
WSCF	Waste Sampling and Characterization Facility

METRIC CONVERSION CHART

Into Metric Units			Out of Metric Units		
If you know	*Multiply by*	*To get*	*If you know*	*Multiply by*	*To get*
	Length			**Length**	
inches	25.40	millimeters	millimeters	0.0394	inches
inches	2.54	centimeters	centimeters	0.394	inches
feet	0.305	meters	meters	3.281	feet
yards	0.914	meters	meters	1.094	yards
miles (statute)	1.609	kilometers	kilometers	0.621	miles (statute)
	Area			**Area**	
sq. inches	6.452	sq. centimeters	sq. centimeters	0.155	sq. inches
sq. feet	0.0929	sq. meters	sq. meters	10.764	sq. feet
sq. yards	0.836	sq. meters	sq. meters	1.196	sq. yards
sq. miles	2.591	sq. kilometers	sq. kilometers	0.386	sq. miles
acres	0.405	hectares	hectares	2.471	acres
	Mass (weight)			**Mass (weight)**	
ounces (avoir)	28.349	grams	grams	0.0353	ounces (avoir)
pounds	0.453	kilograms	kilograms	2.205	pounds (avoir)
tons (short)	0.907	ton (metric)	ton (metric)	1.102	tons (short)
	Volume			**Volume**	
teaspoons	5	milliliters	milliliters	0.034	ounces (U.S., liquid)
tablespoons	15	milliliters	liters	2.113	pints
ounces (U.S., liquid)	29.573	milliliters	liters	1.057	quarts (U.S., liquid)
cups	0.24	liters	liters	0.264	gallons (U.S., liquid)
pints	0.473	liters	cubic meters	35.315	cubic feet
quarts (U.S., liquid)	0.946	liters	cubic meters	1.308	cubic yards
gallons (U.S., liquid)	3.785	liters			
cubic feet	0.0283	cubic meters			
cubic yards	0.764	cubic meters			
	Temperature			**Temperature**	
Fahrenheit	(°F-32)*5/9	Centigrade	Centigrade	(°C*9/5)+32	Fahrenheit
	Radioactivity			**Radioactivity**	
picocurie	37	millibecquerel	millibecquerel	0.027	picocurie

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1.0 DESCRIPTION OF WORK

This waste control plan (WCP) governs the management of investigation-derived waste (IDW) generated in the 200-TW-1/200-PW-5 Operable Units (OU) to be investigated under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA). The scope of the work involves vadose-zone characterization activities that include drilling, geophysical logging, electrical resistivity characterization, and well decommissioning in accordance with DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Vol. II, Addendum 3, *Site-Specific Field-Sampling Plans for the 216-B-42 Trench, 216-S-13 Crib, 216-S-21 Crib, 216-T-18 Crib, and 216-T-19 Crib and Tile Field in the 200-TW-1/200-PW-5 Operable Units.*

The 200-TW-1 Scavenged Waste Group OU consists of 12 waste sites and the 200-PW-5 Fission-Product Rich Waste Group OU consists of 9 waste sites. The scope of this WCP covers 3 of the 12 waste sites in the 200-TW-1 OU and 2 of the 9 waste sites in the 200-PW-5 OU. These waste sites previously were characterized under either DOE/RL-2001-01, *Plutonium/Organic-Rich Process Condensate/Process Waste Group Operable Unit RI/FS Work Plan: Includes the 200-PW-1, 200-PW-3, and 200-PW-6 Operable Units*, or DOE/RL-2003-64, *Feasibility Study for the 200-TW-1 Scavenged Waste Group, the 200-TW-2 Tank Waste Group, and the 200-PW-5 Fission-Product Rich Waste Group Operable Units*. As a result of analyzing and evaluating the waste site feasibility study and work plan, the U.S. Department of Energy, U.S. Environmental Protection Agency, and Washington State Department of Ecology (Tri-Parties) concluded that supplemental remedial investigation data are needed to augment the existing data. DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, supports the supplemental remedial investigation activities that the Tri-Parties have determined are necessary to make or augment remedial decisions for waste sites on the Central Plateau of the Hanford Site.

Soil samples will be obtained at all boring and select drive point locations. Table 1 lists the planned boreholes/drive points near each of the waste sites. Soil samples will be collected and analyzed for radiological and chemical contaminants of concern and the physical properties of the boreholes. Drill cutting will be containerized as IDW, and the casing may require management and disposal as IDW if decontamination procedures are not effective in removing contaminants. The estimated IDW that will be generated is provided in Table 2.

Geophysical logging may be performed under this WCP during the borehole/drive point installation process. Only miscellaneous IDW, personal protective equipment, and wipes will be generated at these sites for the associated geophysical logging activities.

Hanford Site well identification numbers and area locations for the planned wells are listed in Table 1.

Table 1. List of Planned Boreholes/Drive Points.

200-PW-5 OU Drill Site Coordinate Location:			
Well ID	**Coordinate Location**	**Associated Site**	**Description**
C6408	TBD	216-S-13 Crib	DEEP BOREHOLE (to groundwater)
C6409	TBD	216-S-21 Crib	DRIVE POINT
200-TW-1 OU Drill Site Coordinate Location:			
C6407	TBD	216-B-42 Trench	DEEP BOREHOLE (to groundwater)
C6410	TBD	216-T-18 Crib	4 DRIVE POINTS, the final drive point (C6413) will be sited at the location with the highest plutonium contamination levels, as determined from geophysical logging of the first 3 drive points.
C6411	TBD		
C6412	TBD		
C6413	*See description column*		
C6414	TBD	216-T-19 Crib and Tile Field	DEEP BOREHOLE (to groundwater)

TBD = to be determined

Any wastes generated during this project will be managed in accordance with this WCP and the project-specific waste packaging labeling instruction sheet (WPLIs) to be provided by the assigned waste management specialist. This WCP is based on Washington State Department of Ecology (Ecology), U.S. Environmental Protection Agency (EPA), and U.S. Department of Energy (DOE), 1999, "Environmental Restoration Program Strategy for Management of Investigation Derived Waste." Every effort will be made to minimize waste generated during this project.

1.1 WASTE STREAMS

One or all of the below waste streams are anticipated and may fall into any combination of the following categories: transuranic (TRU[1]), radioactive, mixed, hazardous, dangerous, suspect radioactive, suspect dangerous, suspect mixed, and nonregulated:

Miscellaneous solid waste (MSW) (e.g., rubber, glass, paper, personal protective equipment, cloth, plastic, and metal)

Drill cuttings, soils, and slurries

Decontamination fluids

Equipment and construction materials (e.g., well casing, drill string, drive barrel, construction equipment and materials, sampling equipment, decommissioning materials, and wooden pallets)

[1] Radioactive waste as defined in DOE G 435.1-1, *Implementation Guide for Use with DOE M 435.1-1.*

Nondangerous/no-radiation-added (nonradioactive) solid waste (e.g., paper, wood, construction debris, metal, plastic, and glass)

Unplanned release and associated cleanup material

Well decommissioning waste (e.g., MSW, drill cuttings, soils and slurry, decontamination fluids and purgewater, equipment and construction debris).

1.2 WASTE GENERATION AND MANAGEMENT

All waste generated will be recorded in the geologist and/or buyer technical representative logbook, with such details as waste location and type, sample depth, date of initial placement into container, date the container was sealed, and package identification number. Marking, labeling, segregation, and staging of waste containers will be performed in accordance with a waste packaging and labeling instruction (WPLIs) or as directed by the waste management specialist (WMS).

IDW will be stored at the site-specific waste container storage areas or centralized waste container storage areas as shown in Figures 1, 2, 3, 4, and 5. The IDW will be stored at these areas until analytical data are evaluated for proper waste designation and will be disposed at the Environmental Restoration Disposal Facility (ERDF) if it meets WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria.* If TRU waste is encountered, it will be sent to the Hanford Site Central Waste Complex (CWC) for temporary storage. In addition, if any waste needs to be transported to the CWC, the U.S. Environmental Protection Agency will be contacted to make an offsite determination before the waste is shipped. Waste transported to the CWC for temporary storage must be dispositioned in accordance with the work plan required by Tri-Party Agreement Milestone M-016-93 for TRU waste generated by CERCLA cleanup actions of the Hanford Site, and the final MO-016 cleanup schedule. Additional explanation is provided in Section 1.4.

If the waste must be stored for longer than 6 months after designation, the U.S. Department of Energy, Richland Operations Office will obtain concurrence from the lead regulatory agency on the schedule and location for disposition of the waste.

Details on the types and management of expected wastes are provided in the following subsections.

Figure 1. 216-B-42 Trench Location Map and Waste Container Storage Areas.

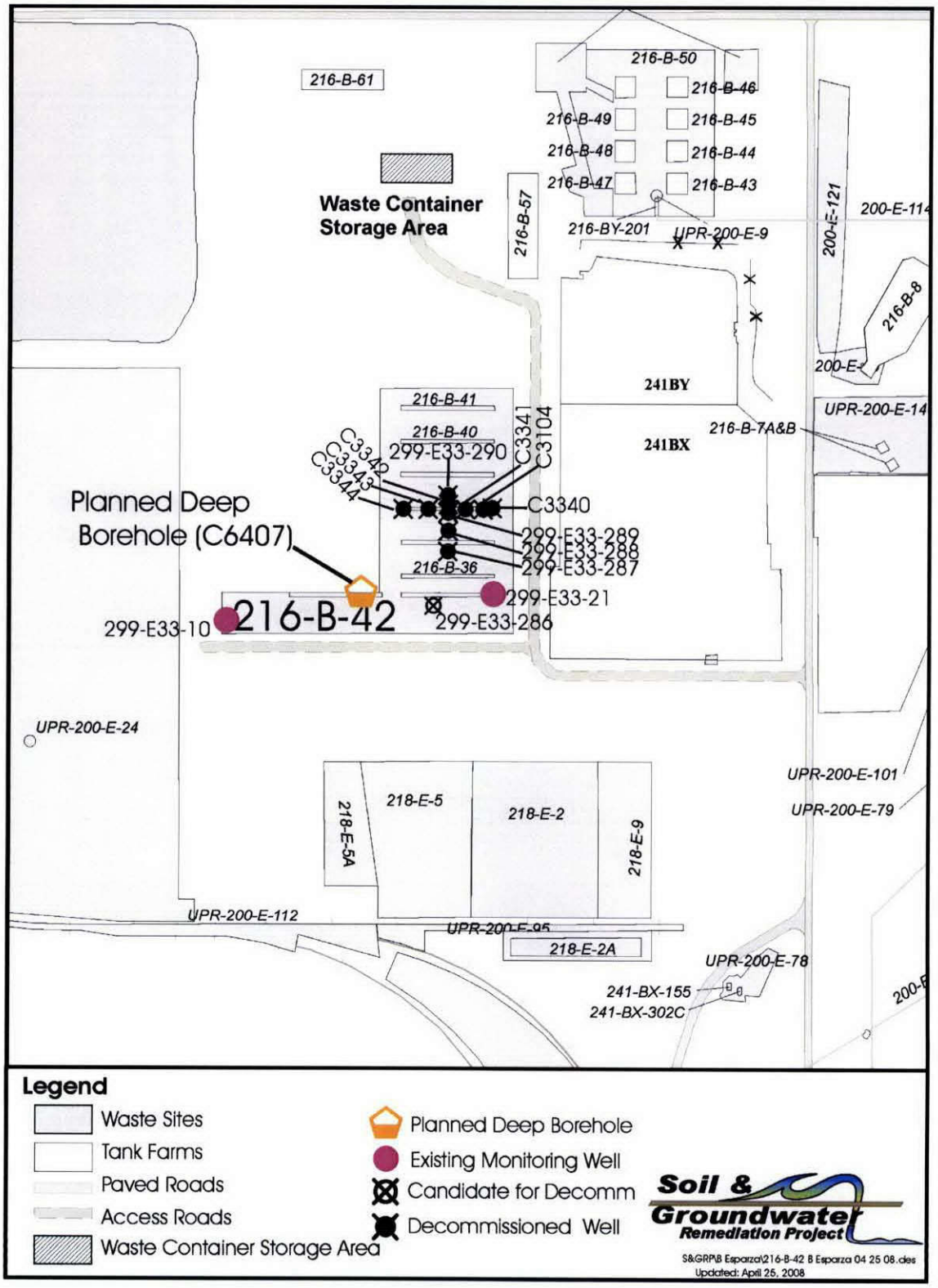


Figure 2. 216-S-13 Crib Location Map and Waste Container Storage Areas.

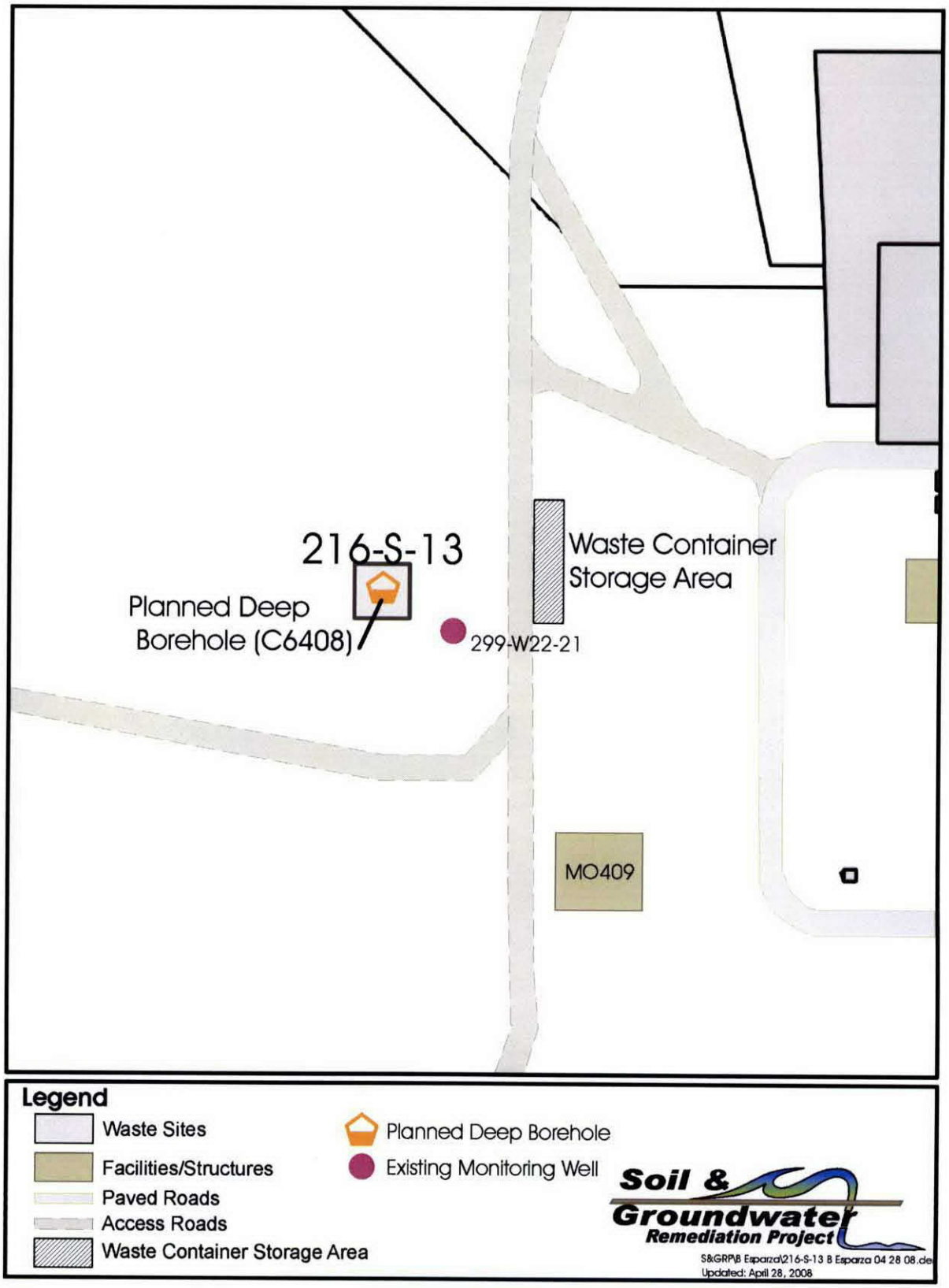


Figure 3. 216-S-21 Crib Location Map and Waste Container Storage Areas.

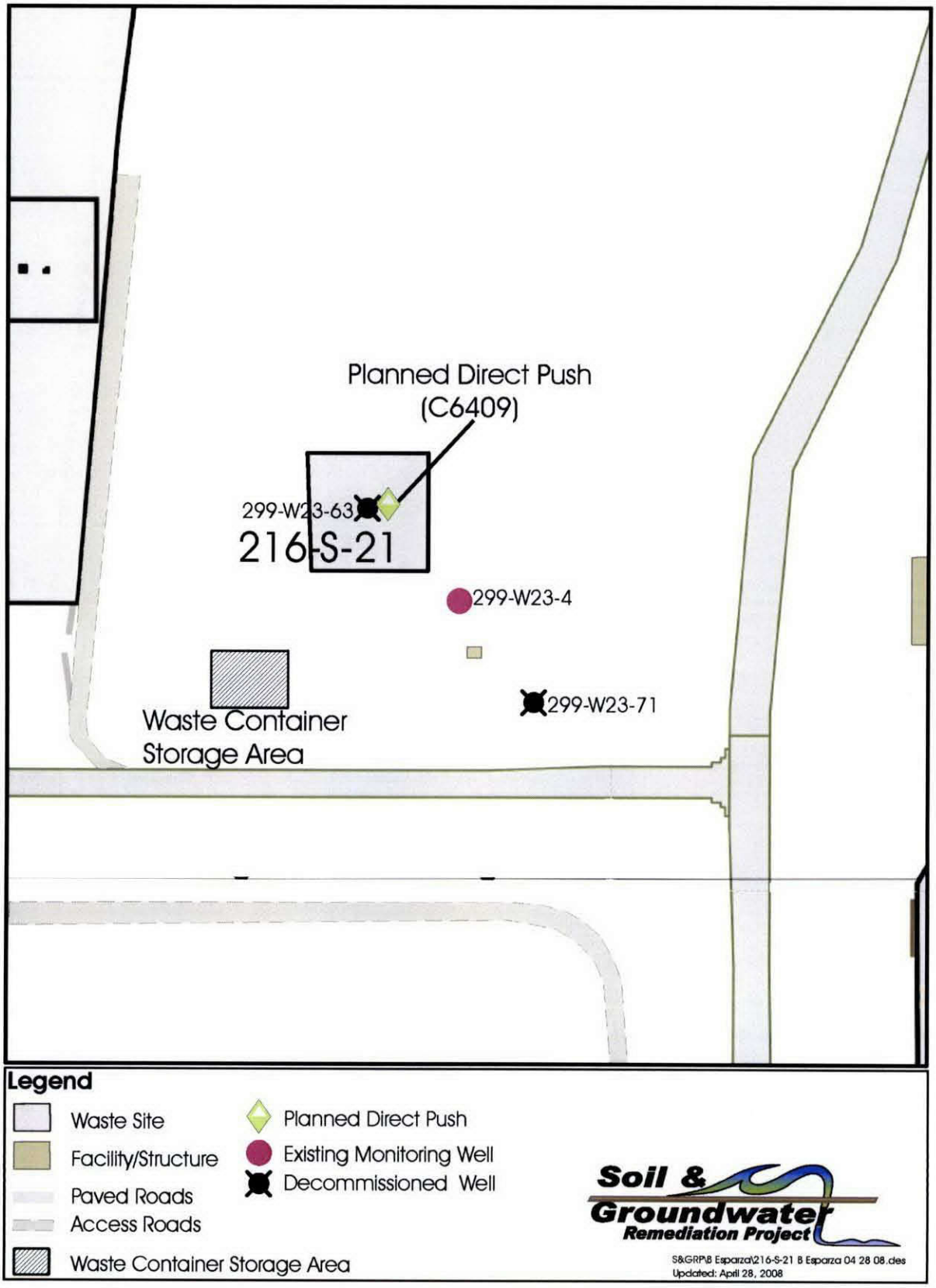


Figure 4. 216-T-18 Crib Location Map and Waste Container Storage Areas.

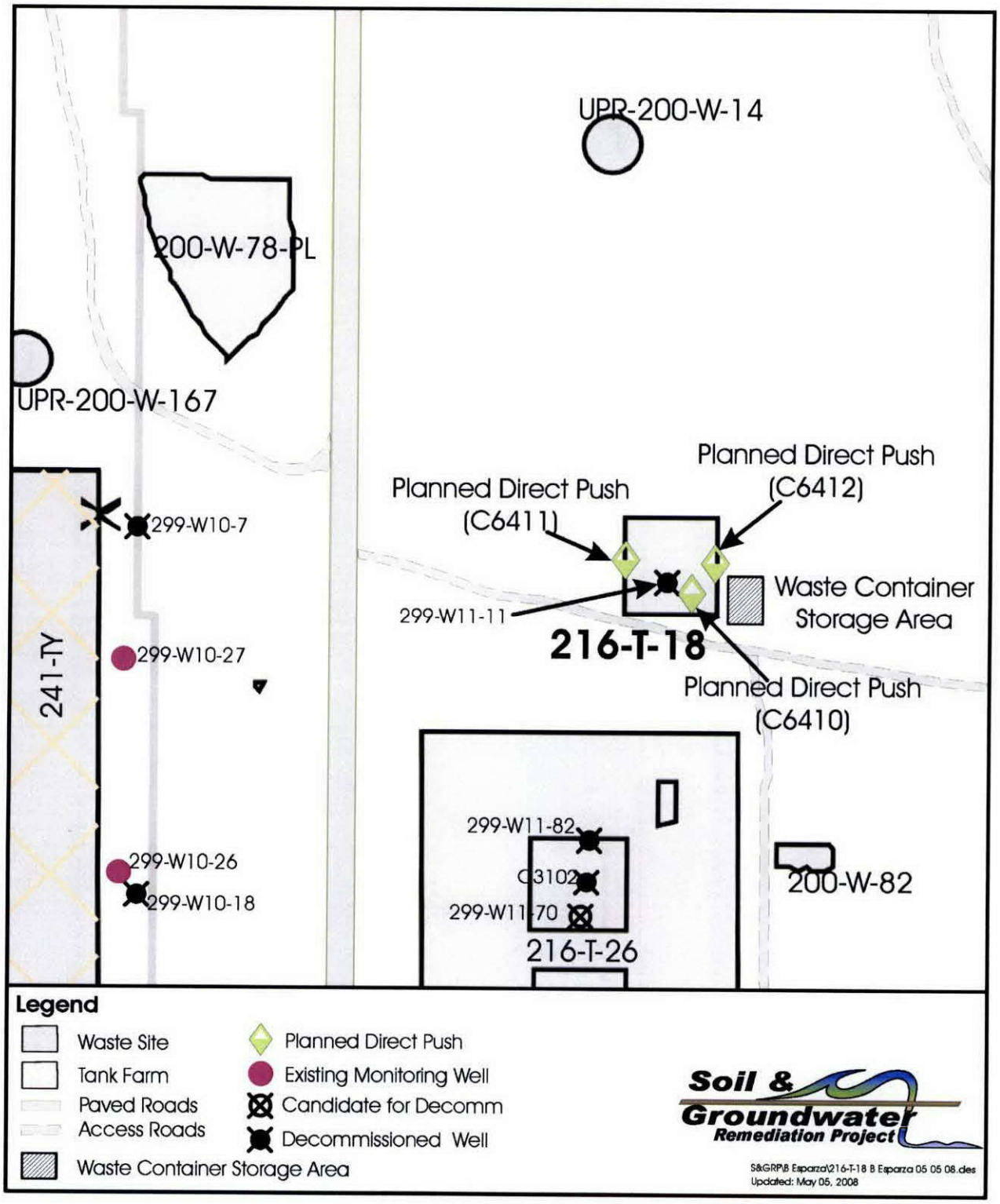
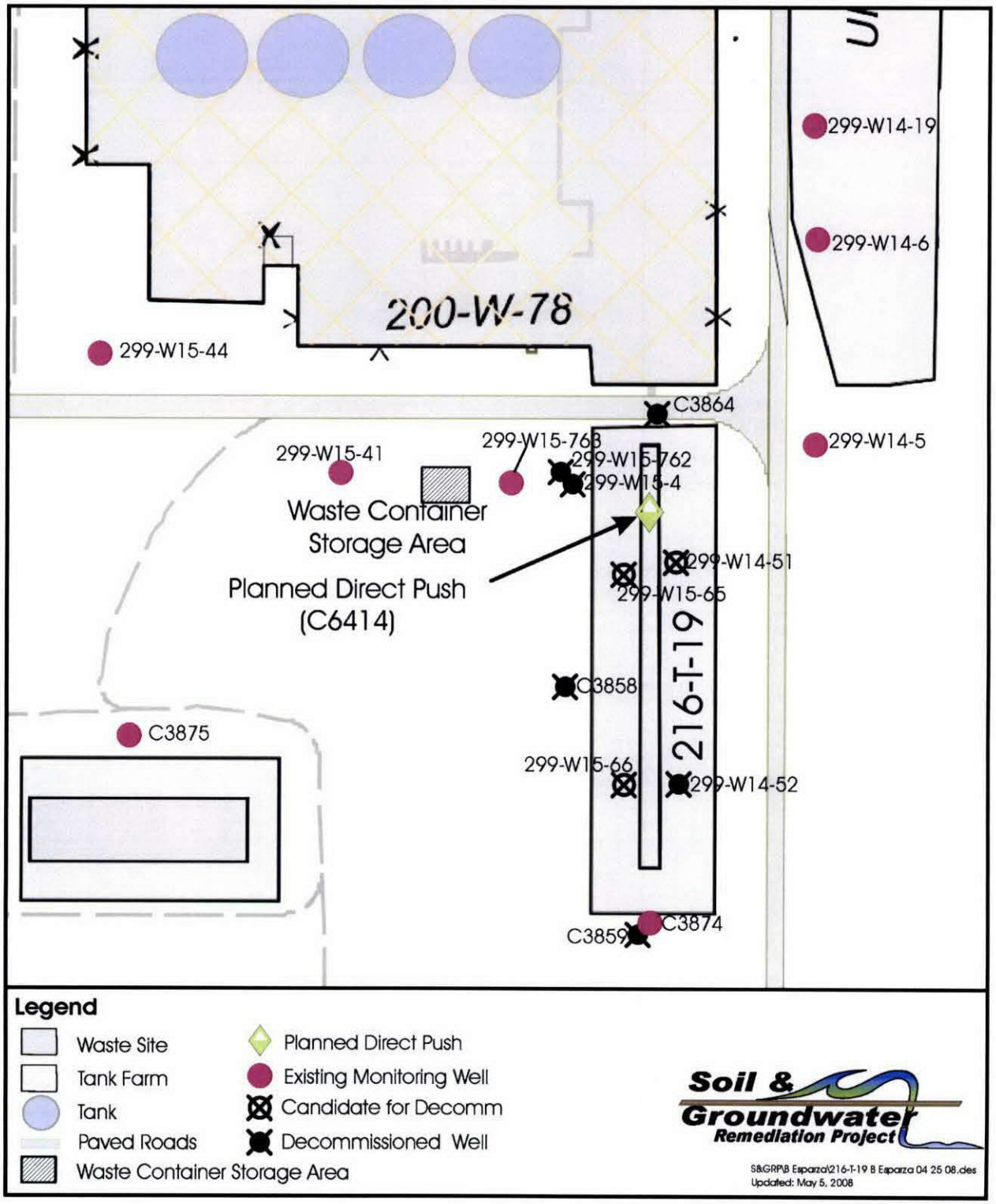


Figure 5. 216-T-19 Crib and Tile Field Location Map and Waste Container Storage Areas.



1.2.1 Miscellaneous Solid Waste

MSW, including that from geophysical logging activities, that has contacted suspect dangerous or suspect mixed waste will be treated as such. Field screening will be used to segregate radioactive IDW from no-radiation-added (nonradioactive) IDW except where process knowledge and/or analytical data dictate management as radioactive regardless of field-screening results. MSW will be placed in plastic bags, taped closed, marked to indicate the associated borehole footage interval, and placed in container(s) specific to each potential contamination area. Container(s) will be properly marked and labeled. The containers will be segregated from other materials, based on field-screening results and location, and then staged at the designated site-specific waste container storage area. The MSW containers will be dispositioned using process knowledge and/or analytical results obtained from proximal or representative waste site soils.

Well decommissioning wastes are to be treated as suspect dangerous or suspect mixed waste based on process knowledge and proximal and/or representative waste site characterization sample results. The specific data quality objective report provides process knowledge and representative waste-site analytical data. Some waste associated with decommissioning may be considered environmentally controlled material or nondangerous/no-radiation-added solid waste based on process knowledge and representative analytical data.

1.2.2 Drill Cuttings

The majority of drill cuttings generated by this project will be from the vadose zone (i.e., above the historical high groundwater mark). Vadose-zone drill cuttings are to be treated as radioactive, mixed, hazardous, dangerous, suspect radioactive, suspect dangerous, suspect mixed, suspect hazardous, or nonregulated, based on process knowledge and field-screening results. Nonregulated drill cuttings will be collected in stockpiles on plastic sheeting near the point of generation.

Those drill cuttings generated by drilling below the historical high groundwater mark will be managed as saturated zone cuttings and segregated from vadose-zone cuttings. Containerized saturated drill cuttings will be dewatered; free liquids remaining in the container will be mitigated to 1 percent or less by volume and/or absorbed prior to disposal as necessary. Dewatering slurries and mitigating free liquids are authorized without prior approval. The water generated from this activity will be managed as purgewater.

Regardless of whether cuttings are generated in the vadose zone or the saturated zone, all cuttings identified as radioactive, mixed, hazardous, dangerous, suspect radioactive, suspect dangerous, or suspect mixed shall be properly containerized/packaged to mitigate the spread of contaminants to the environment. Containers/packages will be properly marked and labeled. The container lid will be marked with the date, well name, start and close date, start depth and ending depth, gross weight or estimated gross weight, and sampling date. The containers will be segregated from other materials, based on field-screening results and location, and then staged at the designated site-specific waste container storage area or temporarily near the point of generation (e.g., drilling accumulated waste) until the waste samples are returned and/or the

proper waste shipping papers are completed. The drill cutting containers will be dispositioned using analytical results associated with the contaminated media contacted.

IDW soil that is not designated as dangerous waste, is below Method B clean up standards (WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards"), has been determined to be low risk for radiological contamination, and field surveyed to verify there is no detectable radioactivity above background, may be returned to the ground at or near the point of generation once an approval had been obtained from the return-to-environment review team.

1.2.3 Decontamination Fluids

Decontamination fluids (water and/or nondangerous cleaning solutions) generated from cleaning equipment and tools in the OU will be contained, transported, and discharged at the 200 Area Effluent Treatment Facility, or at the Hanford Site 600 Area Purgewater Storage and Treatment Facility (ModuTanks)[2] in accordance with Appendix F of the *Hanford Federal Facility Agreement and Consent Order* (Ecology et al., 1989). If necessary, decontamination fluids can be containerized and stored at the designated site-specific waste container storage area.

Additional chemical decontamination of sample equipment may be conducted at the Waste Sampling and Characterization Facility (WSCF) because decontamination and containment systems already are established at this location. The waste generated at the WSCF is not considered IDW and will be managed in accordance with applicable regulations and requirements.

1.2.4 Equipment and Construction Materials

Equipment and construction materials in contact with suspect dangerous and suspect mixed waste will be decontaminated with a three-bucket wash or a high-temperature and high-pressure wash (180 °F and >1000 lbf/in^2) within a wash basin capable of retaining rinsate, or it will be treated as MSW. Water used for decontamination activities shall be potable (i.e., Hanford Site potable water or City of Richland water). Rinsate shall be managed as described in Section 1.2.3. Sampling equipment shall be cleaned and decontaminated for chemical contamination after radiological release by a radiological control technician (RCT). If contamination is determined to be fixed for any equipment or materials, the RCT and task manager will decide whether to remove the contamination using more aggressive methods or to dispose of the equipment. If necessary, equipment and construction materials can be containerized and stored at the designated site-specific waste container storage area.

1.2.5 Nondangerous/No-Radiation-Added Solid Waste

Nondangerous/no-radiation-added (nonradioactive) solid waste that is radiologically released will be disposed to an offsite solid waste landfill. This waste will not have contacted any suspect

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[2] ModuTank is a trademark of ModuTank Inc., Long Island City, New York.

dangerous or mixed waste and will be liquid free. Items in this category include paper, wood, construction debris, metals, plastic, food waste, glass, etc. A radiological release certification form, the well identification number and date of generation shall be attached and visible from outside the trash bag. If necessary, nondangerous/no-radiation-added solid waste can be containerized, segregated, and stored at the designated site-specific waste container storage area.

1.2.6 Unplanned Release

The initial response to emergency and non-emergency events and conditions shall follow the direction provided in the individual work location health and safety plan. Once the initial assessment is completed and appropriate measures have been taken to curtail and contain the spill or release, the WMS will ensure compatible waste container(s) are properly marked, labeled, and segregated from other materials based on process knowledge, field-screening results, and location and then will be staged at a designated site-specific waste container storage area. The containers will be dispositioned using analytical results or process knowledge. These actions will be conducted in accordance with the requirements of WAC 173-303 "Dangerous Waste Regulations," and 40 CFR 302, "Designation, Reportable Quantities, and Notification."

1.3 MANAGEMENT OF WASTE CONTAINERS

The containers will be stored inside the applicable site-specific waste container storage area (WCSA). The WCSAs shown in Figures 1, 2, 3, 4, and/or 5 may be relocated within or adjacent to the identified waste sites to accommodate changes in the field operations. If a WCSA is to be relocated to an area not within or adjacent to the identified waste site, the lead regulatory agency will be notified before the change occurs. Containers awaiting analytical results will be marked and labeled "Waste Pending Analysis," as prescribed in the preceding sections. Weekly inspections will be performed to document the integrity, container marking/labeling, physical container placement, storage area boundaries/identification/warning signs, and spill control. Containers showing signs of deterioration will be identified on the container inspection form and immediately will be overpacked or repackaged. Spills or releases will be reported as stated above. In the event of a spill or release, appropriate immediate action will be taken to protect human health and the environment.

1.4 STORAGE AND FINAL DISPOSAL

It is anticipated that IDW will be stored at the site-specific WCSA until the waste samples are returned and the proper waste shipping papers are completed. In the event that sample returns are delayed, the majority of waste containers may be shipped for disposal, provided that sufficient, appropriate containers remain in the waste container storage area for packaging of samples upon their return. The process to develop proper waste shipping papers includes the following: receipt of analytical results, designation, profiling, and proper disposal paperwork. The designation process ensures the waste will be profiled for the proper disposal facility. Waste profiling provides information concerning each waste stream. The designation and profiling are conducted in accordance with dangerous waste regulation requirements (WAC 173-303-070, "Designation of Dangerous Waste" through 173-303-100, "Dangerous Waste Criteria").

Dangerous waste will be evaluated for applicable land disposal restrictions in accordance with WAC 173-303-140, "Land Disposal Restrictions." The presence of polychlorinated biphenyls will be evaluated in accordance with the *Toxic Substances Control Act of 1976* and WAC 173-303-9904, "Dangerous Waste Sources List." Radiological wastes will be determined to be acceptable for near-surface (onsite) disposal if the concentrations of radionuclides are below those listed in WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria.*

The IDW that does not meet the ERDF waste acceptance criteria will remain at the designated site-specific WCSA pending disposal at an appropriate location. A case-by-case disposal determination will be made in instances where IDW exceeds the ERDF waste acceptance criteria. IDW requiring treatment before disposal requires approval by the lead regulatory agency. IDW treatment at an off-site facility would be contigent upon a determination of facility acceptability by the EPA.

Wastes that cannot be radiologically released that do meet the ERDF waste acceptance criteria will be transported to the ERDF for disposal (ERDF is an "onsite" approved waste disposal facility). Nonradiologically contaminated dangerous waste may be shipped onsite to ERDF or to an offsite facility, contingent upon the waste meeting the offsite *Resource Conservation and Recovery Act of 1976* disposal facility's waste acceptance criteria and the CERCLA offsite determination of acceptability granted by EPA.

If TRU levels of contamination are encountered, the suspect waste will be placed within engineering segregated boundaries of the designated storage area and posted according to radiological posting requirements. After representative samples are analyzed and the material is designated/characterized, the proper disposal facility will be selected. If the CWC is selected for temporary storage, soil sample(s) designated as TRU waste will be returned and placed back into the stored waste drum associated with the interval from which the sample was taken before it is shipped. Offsite determination of acceptability for waste selected for temporary storage at the CWC will be obtained from EPA. In addition, if waste needs to be transported to the CWC, the U.S. Environmental Protection Agency will be contacted to make any offsite determination before the waste is shipped. Waste transported to the CWC must be dispositioned in accordance with the work plan required by Tri-Party Agreement Milestone M-016-93 for TRU waste generated by CERCLA cleanup actions at the Hanford Site and in accordance with the final M-016 cleanup schedule.

MSW identified as nondangerous/no-radiation-added solid waste that does not require disposal at ERDF and meets the Hanford Site free-release criteria may be disposed in an appropriate solid-waste disposal facility (Subtitle D landfill).

1.5 RECORDS

Original copies of all sampling records, waste inventory documentation, and waste container certification forms will be forwarded to the assigned WMS to be included in the waste file and to initiate waste tracking in the *Solid Waste Information Tracking System*. The completed waste files will be included in the project file following final waste disposition in accordance with applicable records management processes.

1.6 ESTIMATE OF INVESTIGATION-DERIVED WASTE QUANTITIES

Estimates of the amount of waste that will be generated during this field investigation are given in Table 2. These quantities are based on IDW generated during previous 200 Areas drilling activities.

Table 2. 200-TW-1/200-PW-5 Operable Units Estimate of Investigation-Derived Waste Quantities.

Waste Site	DP#	BH#	GPL	Liquid Wastes	Soil Wastes	Miscellaneous Solid Waste	
				Purgewater and Decontamination Fluids (Drums [a])	Cuttings (Drums [a])	PPE/Trash (Drums [a])	Disposable Equipment
216-B-42 Trench		1	X	4	55	6	275 linear feet drill casing
216-S-13 Crib		1	X	3	45	5	225 linear feet drill casing
216-S-21 Crib	1		X	1	2	2	100 linear feet 4-in. push rod
216-T-18 Crib	4		X	1	1	2	350 linear feet 4-in. push rod
216-T-19 Crib and Tile Field		1	X	3	45	5	225 linear feet drill casing

[a] 208 L (55-gal) drums.

BH# = number of boreholes.
DP# = number of drive points.
GPL = geophysical logging.
PPE = personal protective equipment.

Table 3. 200-TW-1/200-PW-5 Operable Units Well List (2 pages)

Operable Unit	Waste Site Code	Site Type	Hanford Well Name	Hanford Well Identification Number
200-TW-1	216-B-42	Trench	N/A	C6407*
200-TW-1	216-T-18	Crib	N/A	C6410*
200-TW-1	216-T-18	Crib	N/A	C6411*
200-TW-1	216-T-18	Crib	N/A	C6412*
200-TW-1	216-T-18	Crib	N/A	C6413*,#
200-TW-1	216-T-19	Crib and Tile Field	299-W14-51	A7335
200-TW-1	216-T-19	Crib and Tile Field	299-W15-65	A7366
200-TW-1	216-T-19	Crib and Tile Field	299-W15-66	A7367
200-TW-1	216-T-19	Crib and Tile Field	C3874	C3874
200-TW-1	216-T-19	Crib and Tile Field	N/A	C6414*

Table 3. 200-TW-1/200-PW-5 Operable Units Well List (2 pages)				
Operable Unit	**Waste Site Code**	**Site Type**	**Hanford Well Name**	**Hanford Well Identification Number**
200-TW-1	216-T-26	Crib	299-W11-70	A7312
200-PW-5	216-B-62	Crib	299-E28-91	A6842
200-PW-5	216-S-13	Crib	N/A	C6408*
200-PW-5	216-S-21	Crib	N/A	C6409*

* New wells to be drilled and decommissioned in association with the work described in this waste control plan and DOE/RL-2007-02, *Supplemental Remedial Investigation/Feasibility Study Work Plan for the 200 Areas Central Plateau Operable Units*, Vol. II, Addendum 3, *Site-Specific Field-Sampling Plans for the 216-B-42 Trench, 216-S-13 Crib, 216-S-21 Crib, 216-T-18 Crib, and 216-T-19 Crib and Tile Field in the 200-TW-1/200-PW-5 Operable Units.*

Drive point to be installed adjacent to the previously geophysically logged drive points for 216-T-18 Crib with the highest plutonium concentration.

2.0 REFERENCES

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WAC 173-303, "Dangerous Waste Regulations," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WAC 173-340-740, "Unrestricted Land Use Soil Cleanup Standards," *Washington Administrative Code*, as amended, Washington State Department of Ecology, Olympia, Washington.

WCH-191, 2008, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*, Rev. 0, Washington Closure Hanford, Richland, Washington. Available on the Internet at (http://www.wch-rcc.com/pgs/readroom/WCH/wch191.pdf.

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