

Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
200 Area Groundwater and Source Operable Units
1200 Jadwin Avenue, Richland, Washington
November 16, 2006

APPROVAL: *Larry Romine* Date: 1-17-07
Larry Romine, 200 Area Unit Manager, DOE/RL

APPROVAL: *Arlene Tortoso* Date: 1/17/07
Arlene Tortoso, 200 Area Assistant Manager, DOE/RL

APPROVAL: *Craig Cameron* Date: 1/17/07
Craig Cameron, 200 Area Unit Manager, EPA

APPROVAL: *John B. Price* Date: 1/22/2007
John Price, 200 Area Unit Manager, Ecology

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**HARD COPY DISTRIBUTION
UNIT MANAGERS' MEETING,
200 AREA GROUNDWATER SOURCE OPERABLE UNITS
November 16, 2006**

DOE/RL

(No hard copy distribution)

EPA

Craig Cameron

B1-46

Ecology

John Price

H0-57

FH

Mary Todd-Robertson (original)

E6-35

Administrative Record (2)

H6-08

Correspondence Control

A3-01

Minutes of the 200 Area Unit Managers' Meeting of November 16, 2006 are attached.
Minutes are comprised of the following:

Attachment 1	Agenda
Attachment 2	Attendance Record
Attachment 3	Groundwater Operable Units Status
Attachment 4	200-UP-1 Rebound Study, Technetium-99
Attachment 5	200-UP-1 Rebound Study, Uranium
Attachment 6	200-UP-1 RI/FS Schedule
Attachment 7	Tc-99 concentrations in extraction wells 299-W15-44 and 299-W15-765
Attachment 8	New ZP-1 well DD (C5101, 299-W11-86)
Attachment 9	Comparison of Maximum Carbon Tetrachloride Rebound Concentrations Monitored at 200-PW-1 Soil Vapor Extraction Sites FY 2003 – FY 2007
Attachment 10	200-BP-5 Evaluated Historical Groundwater Monitoring Wells
Attachment 11	Northern Technetium-99 Plume
Attachment 12	Locations of Proposed Wells Associated with 200-BP-5 Operable Unit
Attachment 13	Surface Geophysical Exploration Investigation Area
Attachment 14	Source Operable Units and Facilities Status
Attachment 15	Planned Path Forward for 200-CS-1 OU Feasibility Study Comment Resolution
Attachment 16	Agreements and Issues List
Attachment 17	Action Item List

200 AREA UNIT MANAGERS' MEETING DRAFT AGENDA

1200 Jadwin/Rm 1-C-1
November 16, 2006

GROUNDWATER OPERABLE UNITS STATUS (8:30-9:15)

ISSUE RESOLUTION (9:15-)

- (See Issues List)

SOURCE OPERABLE UNITS AND FACILITIES STATUS (9:15-10:00)

General

- Outstanding Action Items
- Open for Regulatory Topics or Action Items

200 Area Unit Managers Status Meeting
November 16, 2006

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Gloria Commings	FH-GEP	PO-1 LEAD	372-2484
JOHN MORSE	DOE-RL	GW	376-0057
Stuart Luttrell	PNNL	GW RCRA	376-6023
ROD A. DEBRANT	DOE-RL	BP-5	373-9626
Jon Lindberg	PNNL	PO-1	376-5005
Dennis Poir	DOE		
Rod Lobos	EPA		
STEPHEN CIMON	OREGON		541 9630853
Craig Cameron	EPA		376-8665
Greg Thomas	FH	BP-5	373-3907
Jean Vanni	EEO	ES	372-7930
Jonice Williams	FIT		372-3553
Virginia Rohay	FH	200-PN-1	373-3803
Arlene Tortoso	DOE	200-Area	373-9631
John Price			
JV Boylen	DOE	GW	373/8304
Bob Bryce	PNNL		
Zelma Jackson	ECK	200 Area GW	372-7910
Ann Shattuck	FH	MW-1 + PW-1	376-8756
Larry Romine	DOE	200 Area	376-4747

200-UP-1, 200-ZP-1, AND 200-ZP-2 GROUNDWATER OPERABLE UNITS

November 16, 2006

GROUNDWATER OPERABLE UNITS STATUS

200-UP-1 OU

- Rebound Study:
 - Tc-99 and uranium concentrations are still below the interim RAOs of 9,000 pCi/L and 480 µg/L respectively (**Attachments 4 and 5**).
 - Ecology is working on an Explanation of Significant Difference (ESD) for the UP-1 interim ROD.
- RI/FS Work Plan:
 - Six of 12 new 200-UP-1 wells (UP1, UP2, UP3, UP4, UP5, and UP11) required by the RI/FS Work Plan have been installed. The remaining six are scheduled for FY2008.
 - High level RI/FS schedule was presented. (**Attachment 6**). Ecology requested that this schedule be taken down to the next level of detail. FH later sent Ecology a detailed schedule through plant mail.

200-ZP-1 OU

- Remediation Treatment Status:
 - Between October 1 and November 5, 2006 the 200-ZP-1 pump-and-treat system average pumping rate was approximately 253 gpm.
 - All 10 200-ZP-1 extraction wells are currently on line pumping at approximately 285 gpm.
 - Only a few very short shutdowns occurred during this reporting period.
 - **Attachment 7** shows the most recent Tc-99 concentrations in extraction wells 299-W15-765 and 299-W15-44. The average Tc-99 concentration of the mixed extraction water entering the ZP-1 treatment building is still below the MCL of 900 pCi/L.
 - The Draft A Treatability Test Plan for Tc-99 removal from groundwater is out for DOE-RL and EPA review. Comments have been received from DOE-RL and are due back from EPA on Friday, November 17, 2006.
 - The implementation schedule shows the installation and testing of the Purolite resin to be performed in the Spring of 2007. MSE is currently in the process of designing the resin column.

- DNAPL Investigation Status:
 - Vista Engineering issued the DNAPL investigation report, DOE/RL-2006-58 Rev. 0, on November 8, 2006, and it is scheduled for distribution on Thursday, November 16.
 - Vista Engineering has now collected 3 groundwater samples from new extraction well 299-W15-6.

- New Well Status:
 - New ZP-1 well DD (C5101, 299-W11-86) (**Attachment 8**) had some problems during well completion and is currently in the process of being re-drilled.
 - New ZP-1 well EE (C5102, 299-W14-71) has reached the lower mud unit and is being completed as a monitoring well that screens the lower portion of the aquifer. This well is about 1,000 feet north of U Plant.
 - New well AA (C5103, 299-W14-72) has reached the lower mud unit and is being completed as a monitoring well that screens the lower portion of the aquifer. This well is between PFP and the Old Laundry Facility.

- RI/FS Status:
 - RI Report:
 - Currently being delivered to DOE-RL.
 - FS Report:
 - The detailed screening of technologies is approximately 90% complete.
 - Data Management Plan is still being finalized.
 - URS Company was selected as the new baseline risk assessment contractor and S. S. Papadopoulos & Associates will be providing groundwater modeling support.

- Tc-99 Investigation Status:
 - Fifteen split-spoon samples will be collected in the vadose zone during drilling of the T-4 (7 samples) and T-5 (8 samples) wells for characterization of the stratigraphic units and contacts. This sampling approach represents a change from the Sampling and Analysis Plan (DOE/RL-2006-46), in which all of the proposed sediment samples were grab samples. The reason for the change is that split-spoon samples will provide a more representative sample for analysis of moisture content. Approval of this change was provided by RL and EPA by email on 11/13/06 and is documented through this UMM.
 - Drilling of the first Tc-99 investigation well is anticipated to begin on November 15, 2006.
 - The draft DQO summary report is being prepared for stakeholder review.

200-PW-1 OU

- Soil Vapor Extraction System (SVE):

- The SVE system is shut down for the winter.
- The passive system remains operational.
- Monthly monitoring results for October 2006 are presented in **Attachment 9**.

200-PO-1 GROUNDWATER OPERABLE UNIT

November 16, 2006

GROUNDWATER OPERABLE UNIT STATUS

200-PO-1 OU

- Regulatory Path Forward:
 - A tentative agreement has been reached on a regulatory path forward as part of M-013-00 & M-015-00 milestone negotiations pending public review and comment.
- DQO:
 - The DQO process continued for a 200-PO-1 OU investigation effort. Work continued on listing and screening of COPCs to be consistent with the efforts done at 200-ZP-1 and 200-UP-1 OUs. A proposed DQO process completion schedule was provided to Ecology on November 1, 2006 as requested.

200-BP-5 GROUNDWATER OPERABLE UNIT

November 16, 2006

GROUNDWATER OPERABLE UNIT STATUS

DQO: Remaining items:

- 1) Revise well location figure used for COPC and COC development (**Attachment 10**).
- 2) Revise modeling discussion to align with current modeling practices sections 3.2 and 3.6.
- 3) Coordinate with waste sites on schedule for vadose zone investigations sections 4.4 and 4.5.
- 4) Refine conceptual model section. Providing additional figures for conceptual model north of the 200 East Area (e.g. Northern Tc-99 plume—**Attachment 11**).
- 5) Refine conclusions Section 7.
- 6) DOE review end of December.

Drilling Status: (See **Attachment 12**)

I well (C5196): Drilling completed and well installation is in process. Geophysical logging at "I" well is completed. Estimated 1.5' of water in the well. Logging report to be completed in 45 days.

J well (C5197): Drilling started this week.

F well (C5195): Drilling to start end of the month.

Work Plan: Internal draft is scheduled for December. Decisional draft to DOE is scheduled in Jan 07.

HRR: Field work is ongoing. (**Attachment 13**)

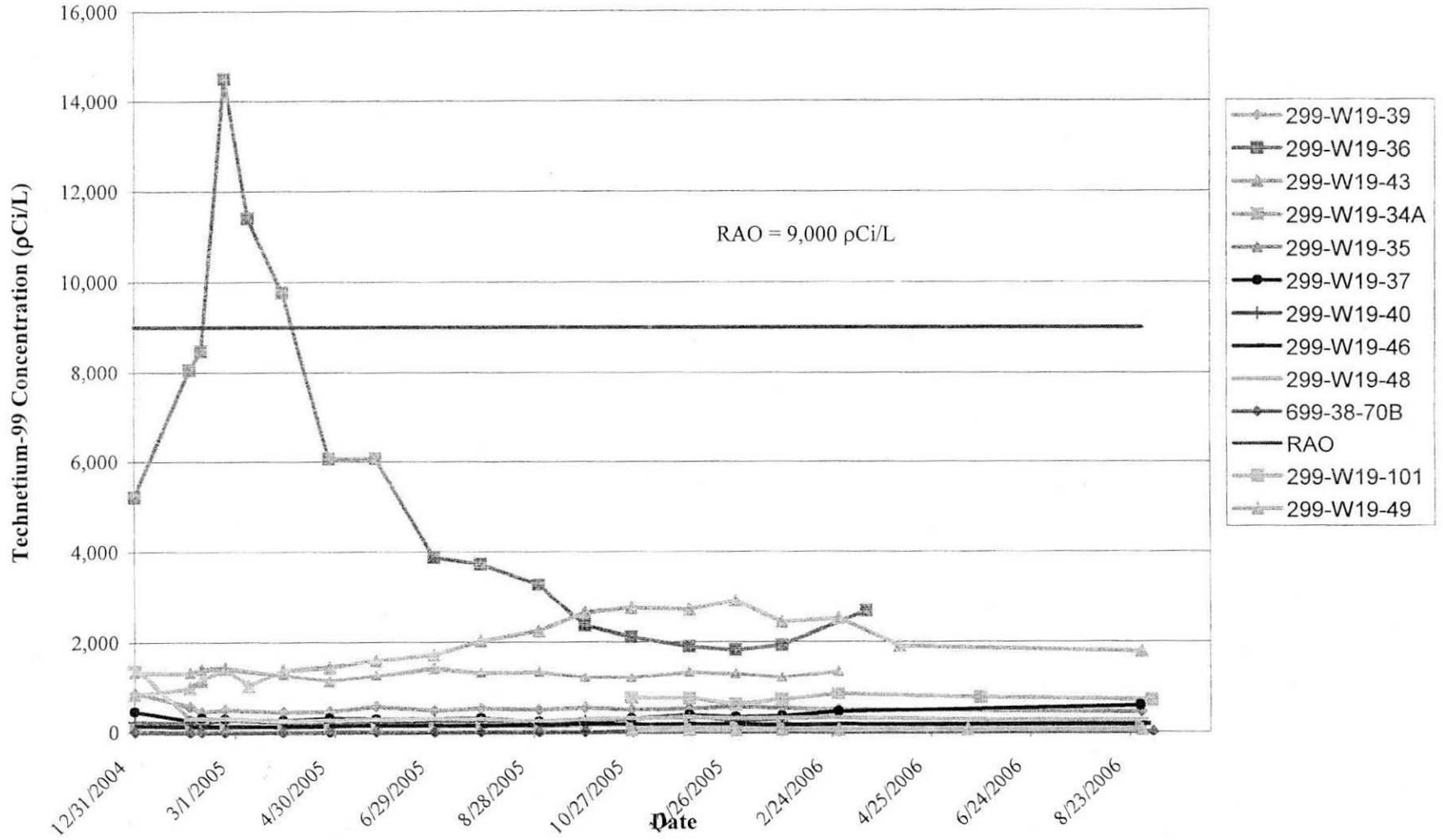
Integration between FH and CHG funding was successfully completed.

Currently installing remote electrodes. 8400 electrodes are being placed throughout the B/BX/BY WMA and adjacent waste sites.

Preparing wells and hooking up well-to-well surveys is planned while electrode placement.

Groundwater Annual Report: Preparing annual report BP-5 section. Drafts due by mid December.

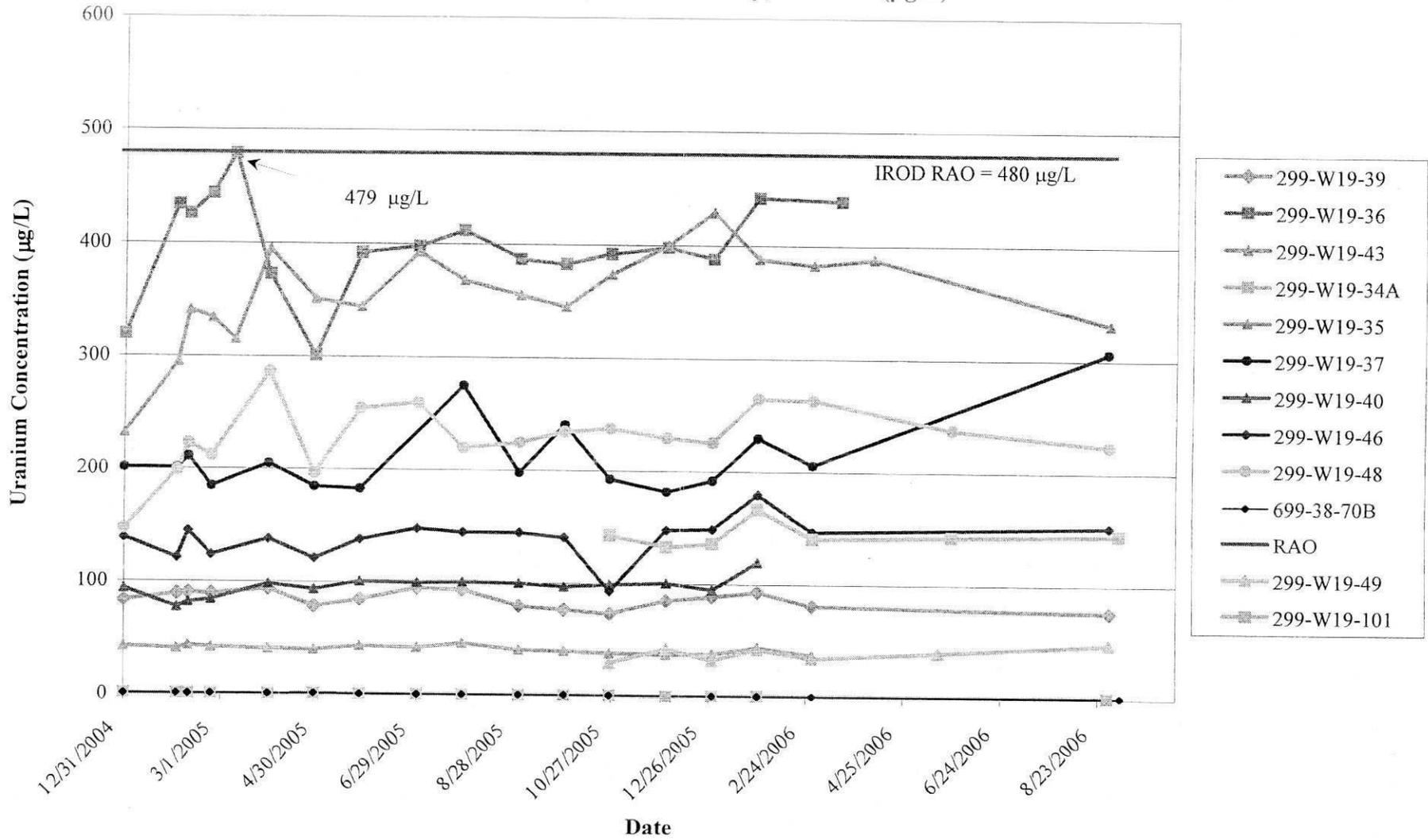
200-UP-1, Rebound Study, Technetium-99 (pCi/L)



Attachment 1

Attachment 4

200-UP-1, Rebound Study, Uranium ($\mu\text{g/L}$)



Attachment 2

Attachment 5

200-UP-1 RI/FS Schedule

Install Last 6 UP-1 Wells

1 Oct 07 31 Dec 07



2 Year Of Monitoring New Wells

1 Jan 08

1 Jan 10



Combined RI/FS Report

2 Mar 09

30 Nov 10

10 Feb 11



TPA

Proposed Plan

1 Oct 09

30 Nov 10

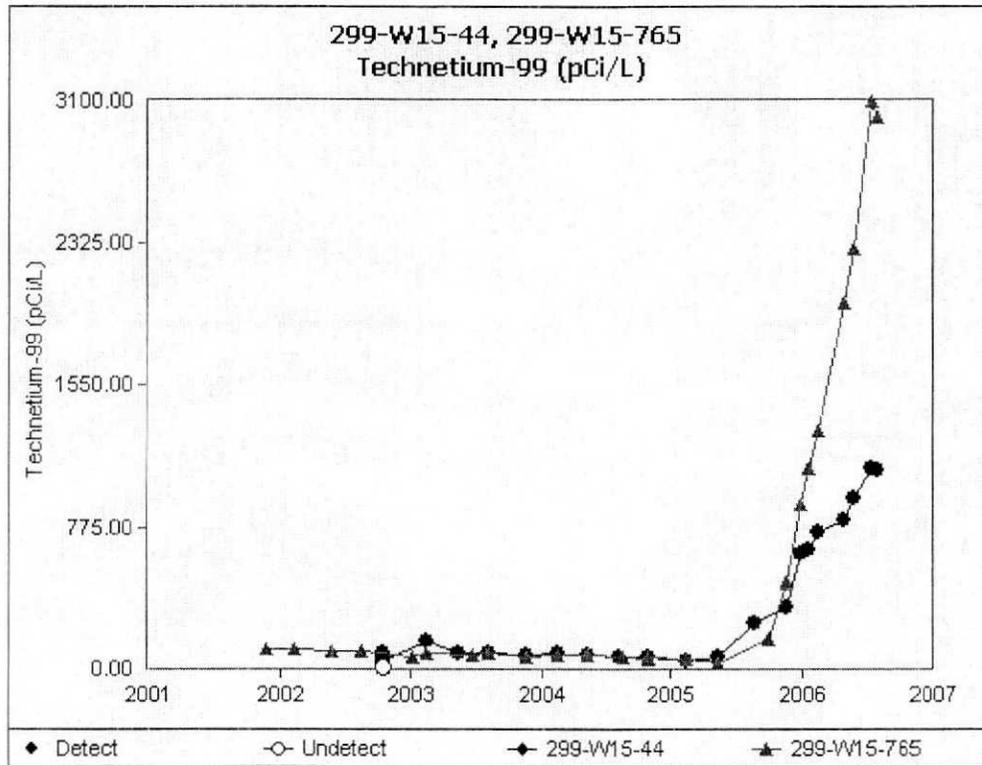
18 Jul 11



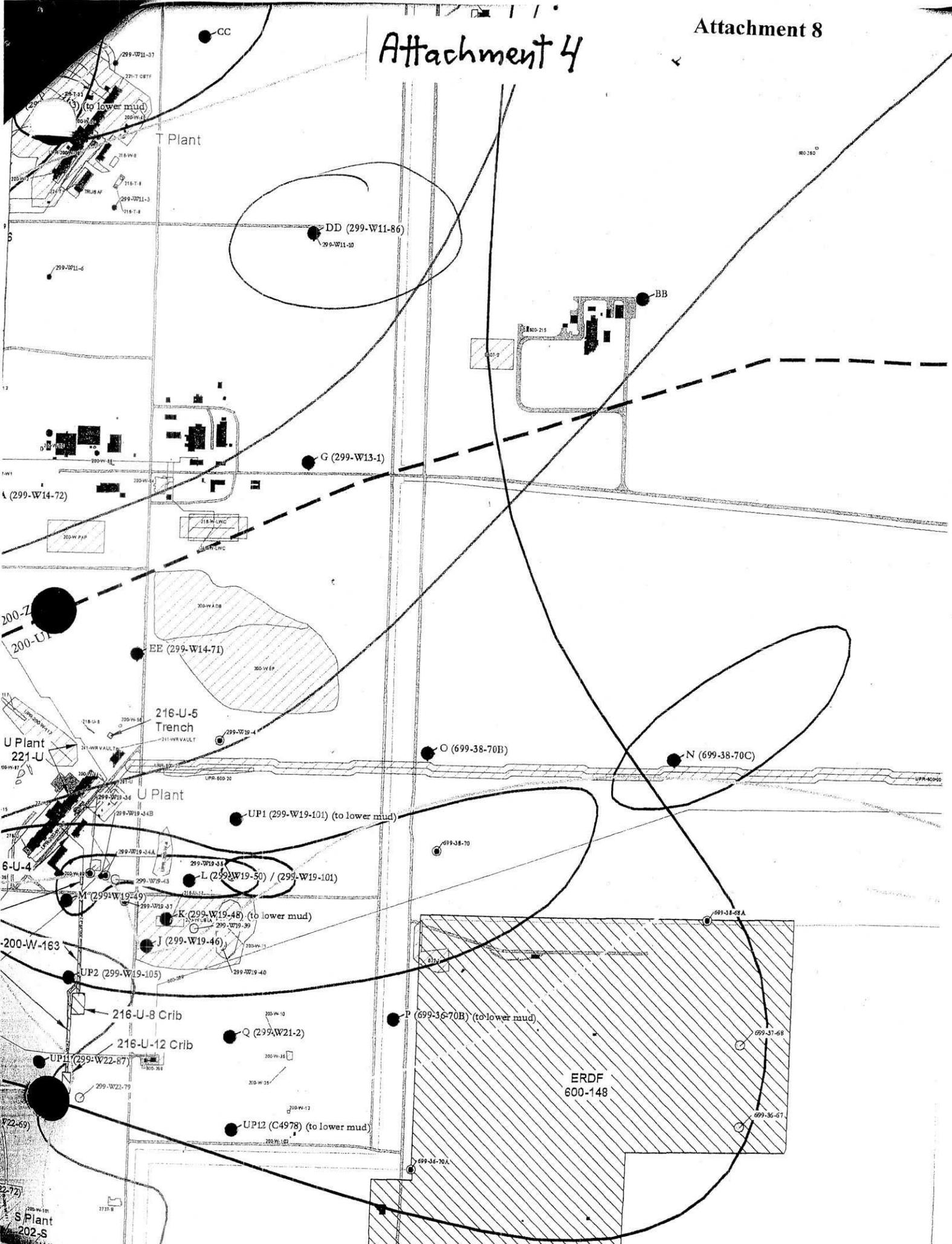
TPA

Attachment 3

Technetium-99 at Extraction Wells 299-W15-44 and 299-W15-765, through August 2006



Attachment 4



Comparison of Maximum Carbon Tetrachloride Rebound Concentrations
 Monitored at 200-PW-1 Soil Vapor Extraction Sites
 FY 2003 - FY 2007

Attachment 9, Figure 1

200-PW-1 (200-ZP-2)	Location (Well or Probe)	Site	July 2002 (Z-9) or October 2003 (Z-1A) - March 2004		July 2002 (Z-9) or April 2004 (Z-1A) - September 2004		October 2004 - June 2005		July 2005 - June 2006		July 2006 - October 2006	
			Maximum Rebound	months*	Maximum Rebound	months*	Maximum Rebound	months*	Maximum Rebound	months*	Maximum Rebound	months*
			Carbon Tetrachloride (ppmv)	of rebound	Carbon Tetrachloride (ppmv)	of rebound	Carbon Tetrachloride (ppmv)	of rebound	Carbon Tetrachloride (ppmv)	of rebound	Carbon Tetrachloride (ppmv)	of rebound
	79-03/ 5 ft	Z-18										
	79-06/ 5 ft	Z-1A										
	79-11/ 5 ft	Z-1A										
	86-05/ 5 ft	Z-9										
	86-05-01/ 5 ft	Z-9										
	86-06/ 5 ft	Z-9										
	87-05/ 5 ft	Z-1A										
	87-09/ 5 ft	Z-1A										
	94-02/ 5 ft	Z-9										
	95-11/ 5 ft	Z-9										
	95-12/ 5 ft	Z-9										
	95-14/ 5 ft	Z-9										
	CPT-13A/ 9 ft	Z-1A										
	CPT-16/ 10 ft	Z-9										
	CPT-17/ 10 ft	Z-9	9.0	21	9.9	27	11.4	5	2.5	12	1.2	1
	CPT-18/ 15 ft	Z-9	2.4	21	2.5	27	3.1	5	0	12		
	CPT-4A/ 25 ft	Z-1A										
	CPT-27/ 15 ft	Z-9									0	1
	CPT-4E/ 25 ft	Z-1A			2.4	0	2.4	9	2.4	0	0	3
	CPT-16/ 25 ft	Z-9	2.8	21	3.6	27	4.4	5	1.6	12	0	1
	CPT-31/ 25 ft	Z-12										
	CPT-32/ 25 ft	Z-1A	5.8	6			8.6	9	6.4	6	0	4
	CPT-30/ 28 ft	Z-18	0	6			1.6	9	1.2	6	0	3
	CPT-13A/ 30 ft	Z-1A	1.8	6	1.9	0	8.3	9	4.1	0	3.3	4
	CPT-7A/ 32 ft	Z-1A	9.5	6	1.9	0	4.4	9	3.8	0	2.0	4
	CPT-27/ 33 ft	Z-9	2.7	21	2.7	27	8.4	5	1.8	12		
	CPT-1A/ 35 ft	Z-12	18.3	6	18.0	0	14.0	9	17.2	0	13.4	4
	CPT-18/ 35 ft	Z-9									0	1
	CPT-28/ 40 ft	Z-9					5.4	0			5.5	0
	CPT-33/ 40 ft	Z-18					3.9	9			1.6	3
	CPT-34/ 40 ft	Z-18			1.8	0	3.0	9	2.0	0	1.3	3
	CPT-21A/ 45 ft	Z-9					7.9	0				
	CPT-30/ 48 ft	Z-18									0	4
	W15-220ST/ 52 ft	Z-9										
	CPT-9A/ 60 ft	Z-9	35.9	21	35.9	27	32.4	5	29.2	12	15.7	1
	CPT-28/ 60 ft	Z-9					68.3	0				
	CPT-C3872 / 61 ft	Z-1A					15.5	9	9.9	6	3.5	4
	CPT-18/ 65 ft	Z-9			4.2	27	6.7	5	5.6	0		
	CPT-21A/ 65 ft	Z-9	150	21	150	27	170	0	167	12	158	1
	CPT-1A/ 68 ft	Z-12					13.7	9			13.2	3
	CPT-30/ 68 ft	Z-18										
	CPT-13A/ 70 ft	Z-1A										
	CPT-24/ 70 ft	Z-9			9.1	27			5.2	12		
	CPT-32/ 70 ft	Z-1A									4.3	3
	W15-219SST/ 70 ft	Z-9			5.7	22						
	CPT-4A/ 75 ft	Z-1A										
	CPT-18/ 75 ft	Z-9			8.3	27			4.3	12		
	CPT-31/ 76 ft	Z-12										
	CPT-33/ 80 ft	Z-18										
	W15-82/ 83 ft	Z-9	85.8	21	85.8	27	95.8	5	8.1	12	0	1
	CPT-21A/ 86 ft	Z-9	244	21	244	27	209	5	223	12	194	1
	CPT-34/ 86 ft	Z-18										
	W15-95U/ 86 ft	Z-9										
	W15-218SST/ 86 ft	Z-9										
	CPT-28/ 87 ft	Z-9	258	21	258	27	246	5	245	12	218	1
	CPT-4B/ 90 ft	Z-1A										
	CPT-1A/ 91 ft	Z-12										
	CPT-4A/ 91 ft	Z-1A										
	CPT-9A/ 91 ft	Z-9										
	W15-85/ 91 ft	Z-9										
	W18-252SST/ 100	Z-1A										
	W18-182/ 101 ft	Z-12	12.4	6			16.0	9	16.2	6	13.3	4
	W15-8U/ 103 ft	Z-9							10.4	12	2.4	1
	CPT-4E/ 103 ft	Z-1A										
	W18-167/ 106 ft	Z-1A	266	6			196	9	174	6	0	4
	CPT-4F/ 109 ft	Z-1A					11.9	9			2.9	3
	W18-165/ 109 ft	Z-1A	205	6			35.2	9	394	6	0	4
	W15-217/ 114 ft	Z-9	458	21	467	27	374	5	19.7	12	0	1
	CPT-24/ 118 ft	Z-9			15.3	27			23.9	12		
	W15-220SST/ 118	Z-9			26.0	27			25.2	12		
	W18-168L/ 120 ft	Z-1A										
	W15-219SST/ 130	Z-9			0	22						
	W18-249/ 130 ft	Z-18	41.0	6			64.9	9	24.1	6	19.4	4
	W18-248/ 131 ft	Z-1A	180	6			249	9	67.0	6	43.0	4
	W15-95L/ 144 ft	Z-9	40.3	21	40.3	27	26.7	5	25.7	12	10.0	1
	W15-219SST/ 155	Z-9			9.5	22						
	W15-220L/ 163 ft	Z-9			7.5	27			13.2	12		
	W15-219L/ 175 ft	Z-9			23.0	27			12.2	12		
	W15-8U/ 176 ft	Z-9	13.1	21	13.1	27	2.1	5	5.4	12	4.7	1
	W15-84L/ 180 ft	Z-9	25.9	21	25.9	27	23.0	5	14.0	12		
	W15-8L/ 182 ft	Z-9										
	W15-220SST/ 185	Z-9										
	W18-7/ 197 ft	Z-1A										
	W18-12/ 198 ft	Z-18										
	W18-6L/ 208 ft	Z-1A										
	W15-4S/ 217 ft	Z-9							4.7	12	0	1

- based on location (Z-1A/18/12 or Z-9) of monitoring point; specific points may be beyond SVE zone of influence during particular operating configurations
 - Z-18 and Z-12 wells off-line Oct 96 - Apr 98
 - CPT-1A, CPT-9A, and possibly CPT-7A appeared to be beyond SVE zone of influence in Oct 96 based on differential pressure (BHI-01105, p. 6-1)
 - CPT-8A, CPT-21A, CPT-28 beyond SVE zone of influence in May 98 based on CCl4 concentrations and airflow modeling based on measured vacuums (BHI-01105, p. 6-1)

Carbon Tetrachloride Rebound Concentrations
Monitored at 200-PW-1 Soil Vapor Extraction Sites
October 2005 - October 2006

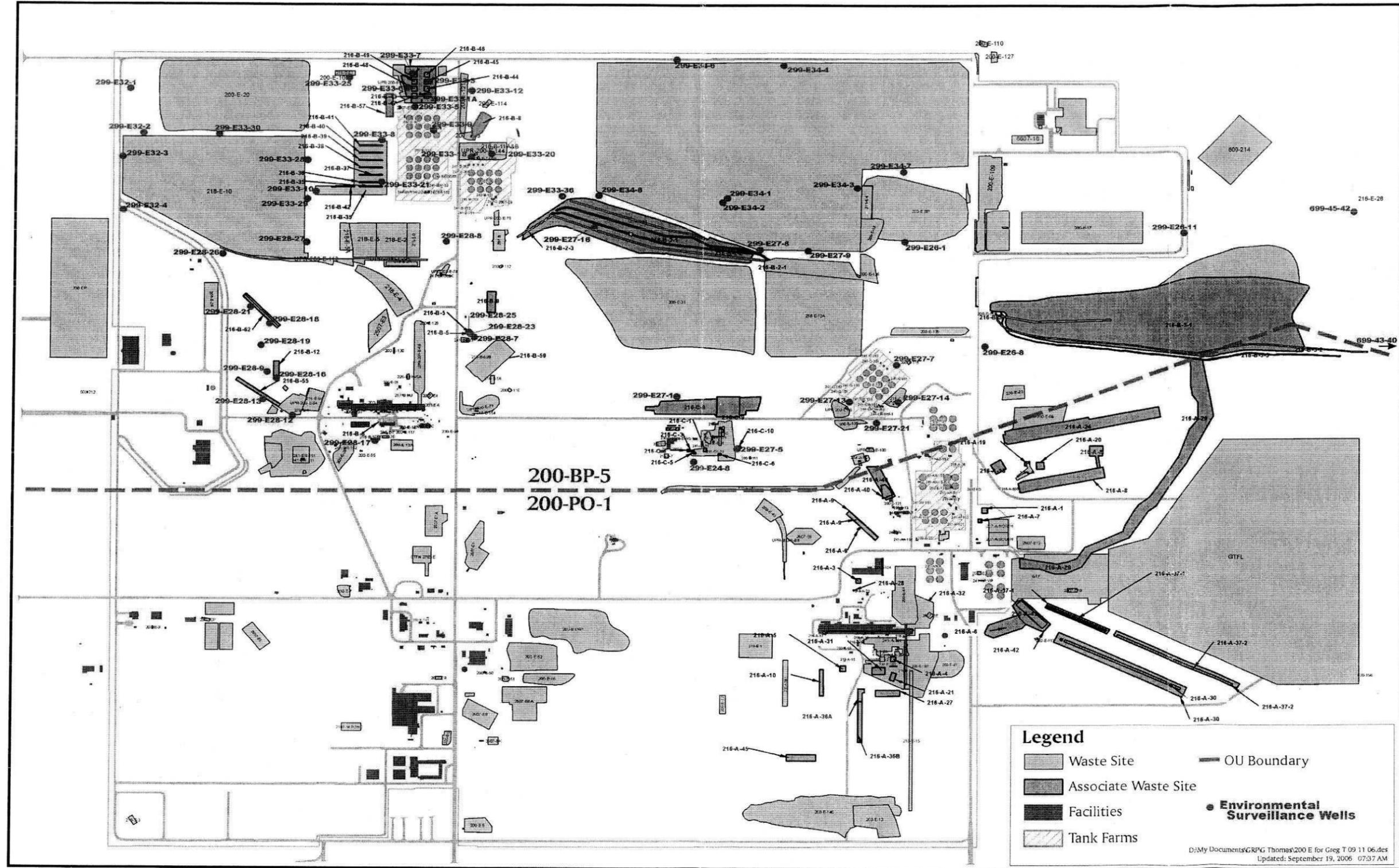
200-PW-1 (200-ZP-2)		10/25/2005	11/01/2005	11/28/2005	12/20/2005	01/26/2006	02/23/2006	03/28/2006	04/28/2006	05/26/2006	06/29/2006	07/26/2006	08/30/2006	09/26/2006	10/25/2006
Location (Well or Probe) /feet bgs	Site	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)	CCl4 (ppmv)
CPT-17/ 10 ft	Z-9	---(n)	1.4	1.2	1.2	1.3	1.5	1.7	2.0	2.2	2.3				1.2
CPT-18/ 15 ft	Z-9	0		0	0	0	0	0	0	0	0				
CPT-27/ 15 ft	Z-9														
CPT-4E/ 25 ft	Z-1A								2.4	1.7	0	0	0		0
CPT-16/ 25 ft	Z-9	1.6		1.2	1.4	1.1	1.1	1.1	1.0	0	0				0
CPT-32/ 25 ft	Z-1A			1.1	3.4	4.0	4.8	6.4							0
CPT-30/ 28 ft	Z-1A	1.2		0	1.1	0	0	0							0
CPT-13A/ 30 ft	Z-1A	3.6		4.1	3.9	3.6	3.5	3.3	3.6	3.8	3.3	2.4	2.5	2.4	3.3
CPT-7A/ 32 ft	Z-1A	2.3		2.7	2.2	2.8	3.3	3.8	2.4	2.4	1.8	2.0	1.9	1.2	1.9
CPT-27/ 33 ft	Z-9	1.8		0	0	0	0	0	0	0	0				
CPT-1A/ 35 ft	Z-12	17.2		9.1	3.6	7.7	6.0	7.4	6.2	8.9	13.2	11.0	13.4	10.2	10.0
CPT-18/ 35 ft	Z-9														0
CPT-28/ 40 ft	Z-9											5.5	4.3	4.8	
CPT-33/ 40 ft	Z-18											0	1.3	1.6	
CPT-34/ 40 ft	Z-18	1.8							1.3	1.7	1.2	0	1.3	1.3	
CPT-21A/ 45 ft	Z-9														
CPT-30/ 48 ft	Z-9														0
CPT-9A/ 50 ft	Z-9	52.8		50.9	50.6	48.1	50.4	46.1	46.9	49.0	39.1	32.8	40.7	43.3	30.6
CPT-9A/ 60 ft	Z-9	25.5		21.2	18.6	17.4	11.4	16.0	17.3	24.4	13.3	12.8	9.8	15.7	14.2
CPT-28/ 60 ft	Z-9														
CPT-C3872 / 61 ft	Z-1A	4.0		4.3	3.7	5.1	6.3	9.9				2.1	2.2	2.4	3.5
CPT-9A/ 64 ft	Z-9	38.6		36.9	36.9	33.4	36.2	36.6	33.1	36.4	33.1	33.8	33.8	33.9	28.1
CPT-16/ 65 ft	Z-9								5.3	5.6	4.6				
CPT-21A/ 65 ft	Z-9	151		137	140	139	146	145	139	160	137	153	132	137	123
CPT-1A/ 68 ft	Z-12											13.2	12.5	5.6	
CPT-24/ 70 ft	Z-9								4.4	5.2	4.3				
CPT-32/ 70 ft	Z-1A											4.2	4.3	3.5	
W15-219SST/ 70 ft	Z-9														
CPT-18/ 75 ft	Z-9								3.4	3.7	4.3				
W15-82/ 83 ft	Z-9	8.1		1.4	---(m)	---(m)	---(m)	---(m)	2.2	6.8	0				0
CPT-21A/ 86 ft	Z-9	208		198	---(p)	186	194	201	192	204	165	179	171	194	159
CPT-28/ 87 ft	Z-9	241		219	224	213	226	217	217	223	174	180	185	216	181
W18-152/ 101 ft	Z-12	12.7		14.2	14.5	15.4	15.2	16.2				10.8	12.5	13.3	13.0
W15-8U/ 103 ft	Z-9	10.4		2.6	5.1	3.1	4.5	1.3	1.5	2.8	5.5				2.42
W18-167/ 106 ft	Z-1A	63.1		174	---(m)	---(m)	---(m)	---(m)				0	0	0	0
CPT-4F/ 109 ft	Z-1A											1.2	2.9	0	0
W18-165/ 109 ft	Z-1A	65.1		394	220	161	160	164				---(q)	0	0	0
W15-217/ 114 ft	Z-9	16.1		1.7	8.4	11.5	19.7	12.1							0
CPT-24/ 118 ft	Z-9								1.0	8.6	0				0
W15-220SST/ 118 ft	Z-9								22.9	23.9	16.0				
W18-249/ 130 ft	Z-18	22.5		22.0	12.2	12.4	17.1	24.1	17.9	22.0	21.5				
W15-219SST/ 130 ft	Z-9											4.6	19.4	18.1	16.8
W18-248/ 131 ft	Z-1A	67.0		23.1	---(m)	---(m)	---(m)	---(m)				---(m)	27.2	43.0	42.1
W15-95L/ 144 ft	Z-9	15.8		16.7	19.0	19.9	22.6	20.6	17.8	17.8	25.7				10.0
W15-219SST/ 155 ft	Z-9														
W15-220L/ 163 ft	Z-9								2.4	9.3	7.3				
W15-219L/ 175 ft	Z-9								4.5	12.2	11.7				
W15-9L/ 176 ft	Z-9	4.0		0	0	4.0	5.4	3.5	1.5	2.4	0				4.7
W15-84L/ 180 ft	Z-9								4.2	14.0	4.1				
W15-46/ 217 ft	Z-9	3.0	---(o)	0	0	4.7	---(p)	2.1	0	2.6	0				0
		(m) Unable to sample; well in use by Vista Engineering													
		(n) Unable to sample; aboveground tubing needs to be repaired. Repaired and sampled on 11/1/2005.													
		(o) On 10/25/05, well 299-W15-46 sampled at a depth of approximately 172 ft. E-tape could only be advanced to a depth of 173 ft.													
		(p) Unable to pull representative sample.													
		(q) Unable to sample; well in use for geophysical logging													

**Carbon Tetrachloride Concentrations
Monitored at 200-PW-1 Passive Soil Vapor Extraction Wells
October 2005 - October 2006**

200-PW-1 (200-ZP-2)	10/19/2005	11/23/2005	12/15/2005	1/27/2006	2/28/2006	3/27/2006	4/28/2006	5/26/2006	6/29/2006	7/26/2006	8/29/2006	9/26/2006	10/26/2006
Location (Well or Probe) /feet bgs	CCl4 (ppmv)												
W18-6L/ 208 ft	19.8	---(b)	15.8	3.7									
W18-7/ 197 ft	0	9.2	11.7	15.8	16.2	15.3	33.8	20.3	5.9	11.0	15.3	0	5.6
W18-10L/ 183 ft	8.4	11.6	4.0	12.1	13.0	3.9	14.1	11.4	11.2	10.0	12.7	11.7	0
W18-11L/ 199 ft	0	5.9	0	7.6	9.0	0	5.4	7.2	1.8	3.0	8.4	1.3	0
W18-12/ 198 ft	0	1.6	0	4.9	9.4	1.3	0	2.4	0	0	4.8	0	0
W18-246L/ 170 ft	13.0	---(b)	3.7	1.7									
W18-247L/ 167 ft	0	0	2.4	5.1	7.6	0	3.0	1.8	1.3	0	5.7	1.0	0
W18-252L/ 175 ft	0	---(b)											
(b) in use by Vista Engineering for cross-well seismic investigation													

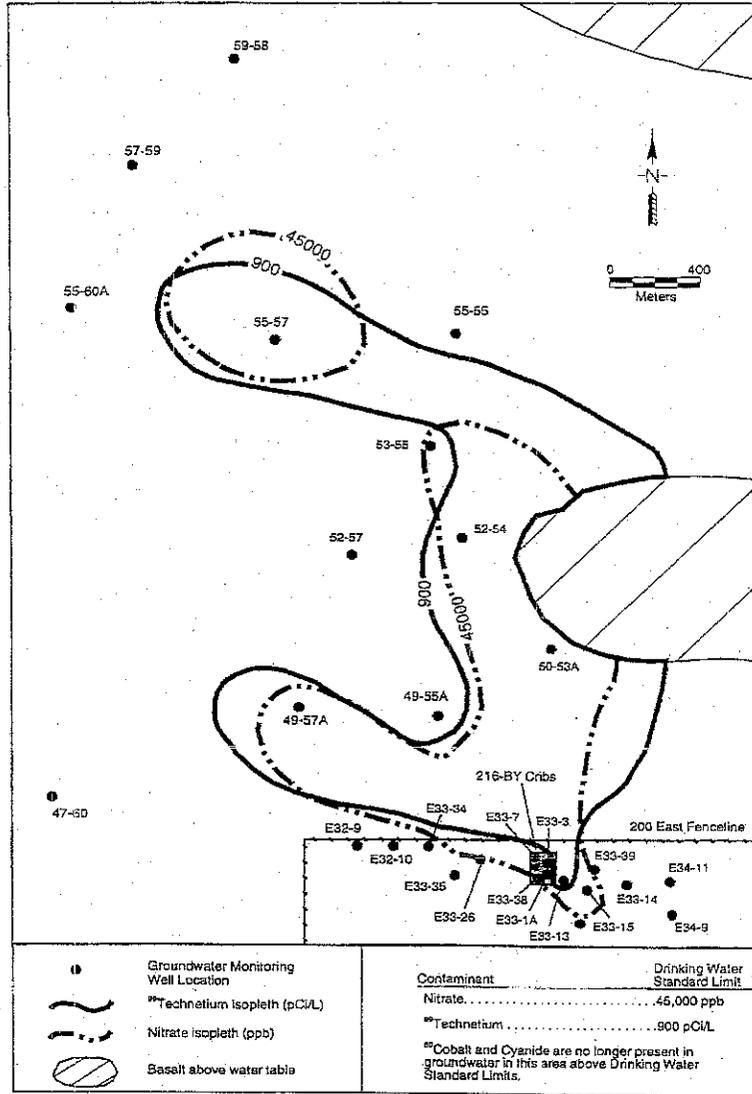
Attachment 10

Figure F-1. 200-BP-5 Evaluated Historical Groundwater Monitoring Wells



9613494_0016 DOE/RL-95-59
Rev. 0

Figure 1-5. 216-BY Cribs Plume.
(1995)

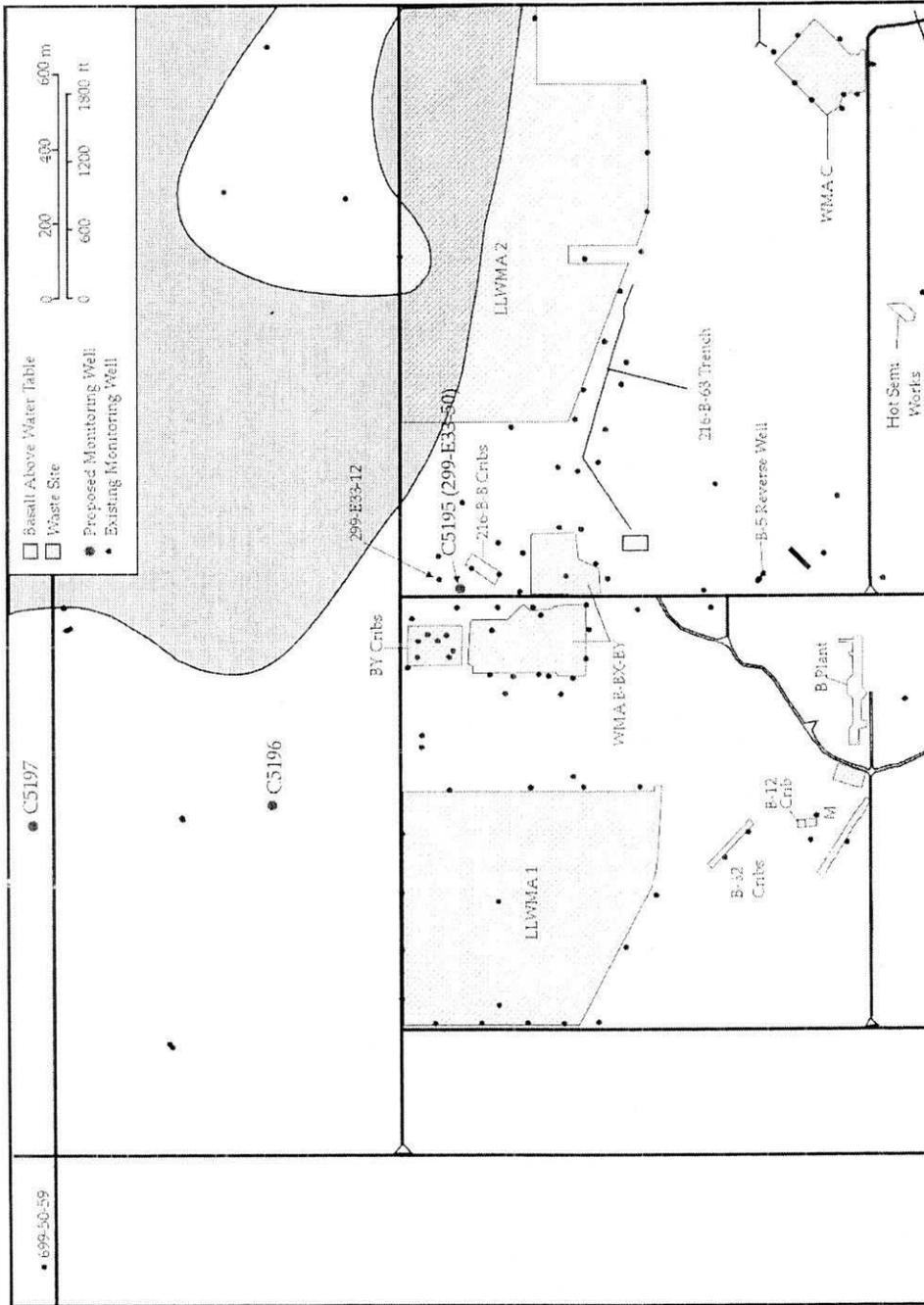


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1F-5

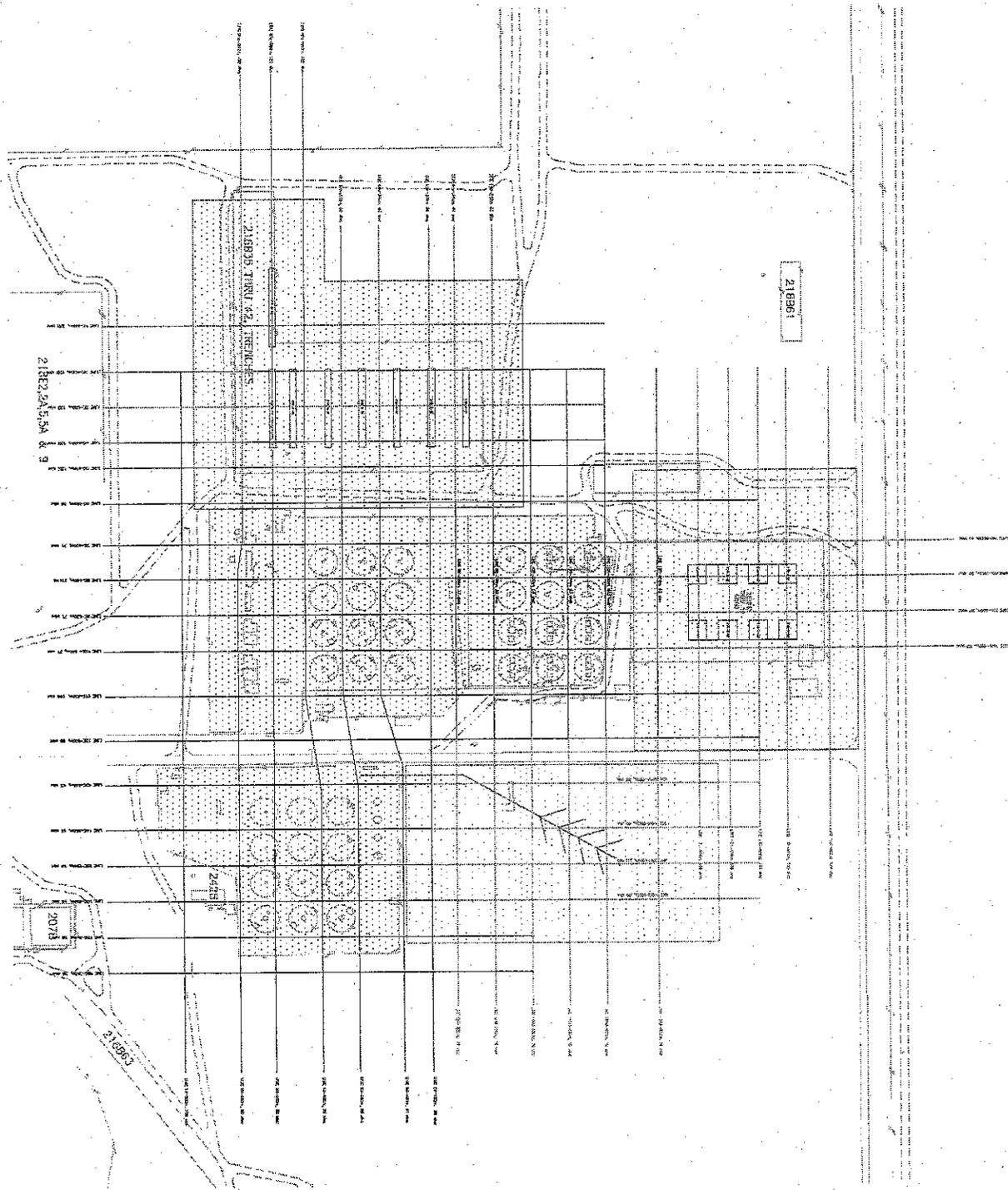
Attachment 12

Figure 3. Locations of Proposed Wells Associated with 200-BP-5 Operable Unit.



Attachment 13

Figure 4 Surface Geophysical Exploration Investigation Area



BEST AVAILABLE COPY

200 AREA UNIT MANAGERS' MEETING SOURCE OPERABLE UNITS AND FACILITIES STATUS

November 16, 2006

SOURCE OPERABLE UNITS STATUS

M-15 TPA Milestones

- "Proposed Tri-Party Agreement Modifications for Central Plateau Waste Site and Groundwater Remediation" (a.k.a. M-15 Tentative Agreement) is out for public comment.

200-PW-1, 200-PW-3, & 200-PW-6

- RI Report Draft A was transmitted to the regulators on 10/27/06, meeting TPA milestone M-015-45A.
- Vista Engineering has initiated vadose zone sampling in the Z-9 area using the Hydraulic Hammer Rig for subsurface access. Eight of the nine planned locations at Z-9 have been completed.
- Vista Engineering drilled a well 190 ft deep at the headend of Z-1A to support the cross-well seismic test, which has been completed. The well was geophysically logged on 6/29 and will be completed as SVE well 299-W18-253 (C4965).
- Vista Engineering is continuing to collect data from the two instrument trees installed in the air space of the 216-Z-9 trench in May 2006.
- Vista Engineering issued Rev. 0 of the report on the DNAPL investigation (DOE/RL-2006-58, Carbon Tetrachloride Dense Non-Aqueous Phase Liquid (DNAPL) Source Term Interim Characterization Report) on 11/8/06. The report will be distributed on 11/16.
- FH has created an integrated team for PW-1 and ZP-1 and the key contributors for PW-1 and ZP-1 FSs will be the same.

200-TW-1, 200-TW-2 & 200-PW-5

- Draft Addendum to the Work Plan has been prepared and is being reviewed internally.

200-CW-1 & 200-CW-3 (no change)

- On October 16th met with EPA to present the path forward. The project is moving forward with geo-logging and push sampling for waste characterization.

200-PW-2 & 200-PW-4

- Received a letter from Ecology dated 9/21/06 extending the FS review period to October 31, 2006.
- At the October UMM Ecology stated that subsequent to the finalization of the M-15 TPA Change Request, Ecology plans to send a letter to DOE-RL responding to the submitted FS including a resultant path forward.

200-CS-1

- In response to Ecology's July 31, 2006 letter, DOE-RL submitted a plan to Ecology on 8/31/06 to update the Feasibility Study with scheduled events leading to submittal of FS and PP Draft B's by September 30, 2007. Discussions to seek clarification on a portion of Ecology's July 3, 2006 comments are underway (Attachment X is path forward for comment resolution).

15
LR

200-CW-5, CW-2, CW-4, & SC-1

- Initiated Z-Ditch Study.

Ecological Risk Assessment

- Phase III soil sampling activities began on 11/06/06. To date, soil sampling activities in the BC Controlled Area, West Lake sediment and salt crust sampling, and the non-waste site sampling areas 1A, 1B, 1C, 2A, 2B and 2C of the Southwest transect have been completed.
- The preliminary results of the confirmatory DOH Sr-90 analysis of residual CP eco mouse samples have been received. The data indicate that the original rad-Sr analysis was erroneous and that the suspect mouse samples were not contaminated.
- A temporary use permit application has been filed with the Washington State Department of Fish and Wildlife to obtain access to State owned land for offsite reference site sampling.
- 45 passive soil detectors were installed in the vicinity of the carbon tetrachloride waste sites in 200 West Area and in the unused habitat areas of the 218-W-4C Burial Ground Annex. The results were used to select locations for installation of 6 artificial animal burrows, 3 of which were placed near the 216-Z-1A Tile Field and 3 in the burial ground annex.
- The Ecological Risk Assessment Report was kicked-off on 10/24/06. The first activity being undertaken is the development of an annotated report outline. The outline will generally follow the requirements of ERAGS, but will include site-specific elements that align with the Hanford site configuration.

200-IS-1 & 200-ST-1

- Initiated Work Plan development
- Discussed sample priority with Ecology
- Identification of new global and technical issues may impact submittal of the 200-IS-1 and 200-ST-1 Work Plan and Sampling and Analysis Plan.
- Inability to finalize Ecology comments is cause for concern in meeting the proposed WP milestone for 200-IS and 200-ST OUs.

200-LW-1/200-LW-2 (no change)

- Responses to Ecology's RI Report comments have been prepared for submittal to

Ecology. Submittal of Draft A of the FS and PP has been delayed to 3/31/07, per TPA Change Number M-15-06-05.

200-MW-1

- EPA approval of the Sampling and Analysis Plan was received November 8, 2006. Drilling is scheduled to start November 27, 2006.
- The direct push at E-102 trench is complete and the sample is being analyzed.

200-UR-1 (no change)

- Rev. 1 of the Sampling and Analysis Plan is in the Department of Ecology approval process.
- Non-Intrusive surveys for BC Controlled Area completed September 27, 2006.
- Geoprobe logging for the BC Controlled Area scheduled to begin in December.

200-SW-1/2

- DQO workshops began in late August to define intrusive (and any additional nonintrusive) characterization that should be performed at 200-SW-2 waste sites. DQO sessions are scheduled to continue through mid-January.
- Decision makers from DOE-RL, Ecology and EPA met on November 9, 2006 to review, comment and ensure alignment on the 200-SW-2 DQO scope, objective and assumptions.

BC Cribs and Trenches

- DQO process to address the excavation-based treatability test has been initiated.
- DQO process to address high resolution resistivity (HRR) characterization has been initiated. **Note:** R. Lobos, EPA, requested that, when updated, the partial DQO Summary Report (steps 1-5) be forwarded to Ecology.

200-UW-1

- Field work per the Time Critical Removal Action (TCRA) RAWP completed.
 - Sampling and analysis is completed for all excavated areas.
 - Results of areas just south and north of 16th Street (i.e., Phase II) show contamination >15' deep exceeds MCL.
 - A plan was developed for contamination >15' in depth and provided to RL on 10/3/06. Plan calls for a site specific DQO and SAP to support further evaluation of removal/remedial actions.
- ROD and responsiveness summaries are being updated and reviewed to reflect recent path forward. The Tri-Parties are discussing various decision-making alternatives for the 4 cribs and the 241-U-361 settling tank.
- Responsiveness summaries for TPA Change Request for reclassifying Crib 216-U-12 to a RCRA Past Practice (RPP) unit are being finalized and sent for Tri-party legal review.

- TPA Change Request to change 216-U-15 from a CPP to a RPP has been reviewed and updated. Package will be transmitted with U-12 package for final review. No public review is anticipated for this portion of the change request.
- PRGs / RAGs for 200-UW-1 need to be finalized. RAG modeling is complete which determines goals based on 1000 and 10000 year MCLs. Results were presented to DOE-RL on 11/7/06. Subsequent reviews and presentation are being planned and scheduled. **Due to contamination >15' depth at 200-W-42 excavation (and possible need for this information in the ROD), establishing acceptable goals will be given a high priority.**
- Challenges to the Area C cultural review are being made by Yakama Tribes and Washington State Department of Archaeology & Historic Preservation (DAHP).
 - Determination of Eligibility for the National Register of Historical Places from PNNL determined that the area is eligible for listing on the National Register of Historic Places.
 - DOE-RL is drafting a Finding of Effect response to concerns. If an effect is found, a Programmatic Agreement (PA) with DAHP must be completed. US Department of Fish and Wildlife has expressed interest in being a party to this agreement.
 - DOE-RL is drafting responses to Yakama Tribe comments
- Sampling and Analysis Plan (SAP) for 241-U-361 Settling Tank contents received DOE-RL and Ecology review. Updated SAP is expected to be sent to Ecology for final review week of 11/13/06.
- Provided 241-U-361 Settling Tank Waste Control Plan to Ecology for approval to support video activities. Video completion is expected in November 2006.

FACILITIES STATUS

- **221-U Facility/Canyon Disposition Initiative (CDI)**
 - Continuing development of remedial design engineering alternatives studies
 - Grout study (June 2007)
 - Cell 30 tank contents removal study (June 2007)
 - Finalizing Draft A Remedial Design/Remedial Action Work Plan
 - Continuing development of canyon waste acceptance study
- **Facility Binning**

A preliminary draft of an Agreement-in-Principle for proposed TPA revisions related to facility binning path forward is in review at DOE-RL.
- **Miscellaneous Facility D&D**

Initiated preparatory activities on 10 miscellaneous structures scheduled for demolition in FY07.

**PLANNED PATH FORWARD FOR 200-CS-1 OU FEASIBILITY STUDY
COMMENT RESOLUTION**

November 16, 2006

From the August 31, 2006 RL to Ecology letter:

**PLAN FOR REVISION OF FEASIBILITY STUDY FOR THE 200-CS-1 CHEMICAL SEWER
GROUP OPERABLE UNIT, DOE/RL-2005-63, DRAFT A AND PROPOSED PLAN FOR THE
200-CS-1 CHEMICAL SEWER OPERABLE UNIT, DOE/RL-2005-64, DRAFT A**

A number of the comments requesting additional information or clarification require further discussion to ensure that the intent of the comment is clear. RL proposes a series of issue/comment resolution workshops starting in September 2006 to discuss and clarify comments, resolve comments where possible, and identify actions needed to resolve remaining areas of disagreement. Clarification of RCRA/CERCLA integration issues for the 200-CS-1 Operable Unit must be coordinated with the resolution of the overall issue currently being worked as part of the M-015 milestone negotiations.

Within 45 days of completion of the issue/comment resolution workshops, RL will provide a detailed response to the feasibility study comments to Ecology for review. Following Ecology's feedback on the comment response, actions required by the agreed-upon resolutions will be completed and the feasibility study and proposed plan will be revised. Depending on the outcome of the comment resolution process, RL anticipates that substantial action may be required to revise the risk assessment contained in the feasibility study and to make the resultant changes to the remainder of the document. Accordingly, submission of the Draft B Feasibility Study and Proposed Plan is expected by September 28, 2007. This target date assumes that comment/issue resolution is completed and Ecology feedback is received by December 29, 2006, and may be adjusted, if necessary, to accommodate accelerations or delays in issue resolution.

UPDATE ON COMMENT RESOLUTION EFFORTS

The planned path forward based on comment resolution efforts to date is as follows:

November 15, 2006 - Complete comment clarification meetings

Note: RL Appreciates Ecology participation and progress represented in the clarification meetings.

November 29, 2006 - Complete updating comment table to identify comments in the following categories:

- Comments that need no further discussion and will be incorporated into Draft B
- Comments needing further discussion towards a mutually acceptable resolution
- Comments that represent issues that are currently defined as 'Key Decision Parameters as outlined in the Risk Framework'.

November 30, 2006 - Share updated comment table with Ecology

Attachment 15, Figure 2

November 30, 2006 - Schedule meetings(s) with Ecology to address ' Comments needing further discussion leading to a mutually acceptable resolution'

January 5, 2007 - Complete comment resolution meetings.

January 10, 2007 - Meet to discuss path forward/impact to CS-1 FS Draft B related to 'Key Decision Parameters as outlined in the Risk Framework'.

January 19, 2007 - Submit Comment Table to Ecology, including proposed actions needed to resolve remaining areas of disagreement.

February 2, 2006 - Receive feedback from Ecology on the comment resolution table.

At this time the deliverable of the 200-CS-1 Feasibility Study and Proposed Plan, Draft Bs, remain on schedule to be submitted to Ecology by the target date of September 28, 2007.

**Issue Resolution Meeting
Agreements and Issues List
November 16, 2006
200 Area Unit Managers' Meeting**

- **None Identified**

**200 Area Unit Managers' Meeting
OPEN ACTION ITEMS & TRACKING**

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
78	Present IS-1 DQO briefing to HAB. RL to request time slot on HAB River & Plateau Committee for this briefing.	DOE-Leary	All	8/23/06	9/21/06	4/15/07		November date could not be met. Due date pushed 4 months per K. Leary.
80	Send report and/or meeting minutes from Remedial Action Decision Making panel (Tom Fogwell)	FH-Byrnes	ECY/EPA Price/Goswami/Cameron	10/18/06	11/16/06	12/21/06		
81	Email 200-PO-1 DQO schedule	FH-Cummins	ECY-Price/Vanni/Jackson	10/18/06	11/1/06		11/1/06	Complete - DQO schedule sent to Ecology on 11/1/06
82	Evaluate critical path UP-1. Verify completion date and milestone status. Must have 2 years of monitoring prior to RI report. Ecology requested one more level of detail on the schedule.	FH-Byrnes	ECY-Price	10/18/06	12/21/06			Continued to next UMM meeting.
83	Schedule high-level 200-SW-1/2 DQO meeting- alignment of objectives between agencies.	DOE-Charboneau	ECY - Price	10/18/06	11/16/06		11/6/06	Completed - meeting was scheduled.
84	Send both original and rerun ECO DOH Sr-90 data packages to John Price, Ecology.	FH-Bauer	ECY - Price	11/16/06	12/21/06			
85	Schedule a 200-1-IS-1 alignment meeting with Cheryl Whalen, Matt McCormick, Craig Cameron, Delmar Noyes, Roger Quintero, John Price. John Price will provide the agenda.	DOE-McCormick	ECY - Price	11/16/06	12/21/06			