2013 ANNUAL REPORT ON OPERATION, MAINTENANCE, AND MONITORING ACTIVITIES

January through December 2013
J.H. Baxter Superfund Site
Weed, California

January 30, 2014

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On behalf of the
Weed Remediation Group

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TABLE OF CONTENTS

1.0 INTRODUCTION.....5

2.0 MONITORING AND SAMPLING ACTIVITIES.....6

2.1 GROUNDWATER MONITORING.....6

2.1.1 DEPTH-TO-WATER MEASUREMENTS.....6

2.1.2 NETWORK CAPTURE ZONE ANALYSIS.....7

2.1.3 GROUNDWATER QUALITY RESULTS.....8

2.2 WATER TREATMENT PLANT.....8

2.3 TREATED WATER DISPOSAL SYSTEM.....10

2.4 RCRA-EQUIVALENT CELL.....10

3.0 OPERATIONS AND MAINTENANCE.....11

4.0 WORK PLANNED FOR 2013.....11

5.0 REFERENCES.....13

FIGURES

1-1 Site Location

2-1 Site Plan

2-2 Upper Aquifer Potentiometric Surface, April 1, 2013

2-3 Upper Aquifer Potentiometric Surface, October 1, 2013

2-4 Lower Aquifer Potentiometric Surface, April 1, 2013

2-5 Lower Aquifer Potentiometric Surface, October 1, 2013

2-6 Western Extraction Wells Capture Zone, Potentiometric Surface, April 1, 2013

2-7 Western Extraction Wells Capture Zone, Potentiometric Surface, October 1, 2013

2-8 Distribution of Target Metals and PAHs, April 2013

2-9 Distribution of Target Metals and PAHs, October 2013

TABLES

2-1 2013 Groundwater Elevations

2-2 2013 Summary of Laboratory Analytical Results, Upper Aquifer Monitoring Wells

2-3 2013 Summary of Laboratory Analytical Results, Extraction Wells Outside the Slurry Wall

2-4 2013 Summary of Laboratory Analytical Results, Extraction Wells Inside the Slurry Wall

2-5 2013 Summary of Laboratory Analytical Results, Lower Aquifer Monitoring and Extraction Wells

2-6 2013 Summary of Laboratory Analytical Results, Water Treatment Plant

3-1 2013 Operations, Maintenance and Monitoring Activities

APPENDICES

A Site Background

B Quality Assurance/Quality Control Summary

C Operation, Maintenance and Monitoring Logs

- C-1 Extraction System/Water Treatment Plant
- C-2 RCRA-Equivalent Cell
- C-3 Wearing Surfaces
- C-4 Surface Water
- C-5 Groundwater Monitoring Logs
- C-6 Slurry Wall/Gravel Drainage Trench

LIST OF ABBREVIATIONS

AC	asphalt concrete
BPT	best practicable treatment
CZP	capture zone piezometer
EPA	United States Environmental Protection Agency
ft/ft	feet per foot
LCRS	leachate collection and removal system
LDS	leak detection system
MCSP	Monitoring Confirmation and Sampling Plan
ncPAHs	non-carcinogenic polycyclic aromatic hydrocarbons
NCRWQCB	North Coast Regional Water Quality Control Board
NEW	northern extraction well
O&M	operation and maintenance
OM&M	operation, maintenance and monitoring
PAHs	polynuclear aromatic hydrocarbons
PCP	pentachlorophenol
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
Site	JH Baxter Superfund Site
TCP	tetrachlorophenol
WEW	western extraction well
WRG	Weed Remediation Group
WTP	water treatment plant

1.0 INTRODUCTION

This report provides data and interpretations regarding the performance of the remedial systems at the J.H. Baxter Superfund Site (Site) in Weed, California. Background information on the data needs and requirements associated with the remedial systems at the Site are provided in Appendix A. MWH has prepared this report on behalf of the Weed Remediation Group (WRG) consisting of J.H. Baxter & Co., International Paper, Roseburg Forest Products Co., and Beazer East, Inc. The location of the site is shown in Figure 1-1.

Operation, maintenance and monitoring (OM&M) activities at the site currently include:

- Operation of the extraction well network, Baxter water treatment plant (WTP), and treated water disposal system;
- Maintenance of the slurry wall, asphalt-concrete (AC) wearing surfaces, Resource Conservation and Recovery Act equivalent disposal cell (RCRA-equivalent cell), and storm water management system; and
- Monitoring inferred groundwater flow directions, groundwater quality, and WTP effluent discharge concentrations.

OM&M activities completed during 2013 are reported herein and included:

System	Activity
Groundwater/Slurry Wall Remediation System	• Depth-to-water measurements • Groundwater quality monitoring • Operation and maintenance (O&M)
Water Treatment Plant	• Influent and effluent monitoring • O&M
Other Systems	• Maintenance inspection of RCRA-equivalent cell • Operation of treated water disposal system • AC wearing surface inspection

2.0 MONITORING AND SAMPLING ACTIVITIES

Monitoring and sampling activities performed at the site are described in the following sections.

2.1 GROUNDWATER MONITORING

Groundwater monitoring is conducted to evaluate groundwater hydraulic containment and quality inside the slurry wall, and groundwater flow and quality outside the slurry wall. In addition, groundwater is sampled downgradient of the RCRA-equivalent cell to monitor potential changes in water quality associated with its operation.

2.1.1 Depth-to-Water Measurements

Quarterly depth-to-water measurements collected during 2013 included:

Number of Wells Monitored			
Event/Dates	**Upper Aquifer**		**Lower Aquifer**
	Inside Slurry Wall	**Outside Slurry Wall**	
January 2, 2013 (Quarterly)	0	19	4
April 1, 2013 (Semiannual)	5	27	6
July 1, 2013 (Quarterly)	0	19	4
October 1, 2013 (Semiannual)	5	26	6

Monitoring well locations are shown in Figure 2-1. Groundwater elevation data collected for the 2013 monitoring events are presented in Table 2-1.

Interpretive potentiometric surfaces were developed using water elevation data from the semiannual events on April 1 and October 1, 2013. The Upper Aquifer maps are presented in Figures 2-2 and 2-3 and the Lower Aquifer maps are presented in Figures 2-4 and 2-5. Groundwater elevations from selected wells were also measured on January 2 and July 1, 2013 as part of the quarterly monitoring events (see Table 2-1). Potentiometric surface maps were not created for these quarterly events because there were not enough water level measurements across the entire site to create a suitable map.

The estimated potentiometric surface contours for the Site are generally guided by the use of interpolation software and analytical estimates of extraction well drawdown. The results for the 2013 semiannual measurements suggest the following about the general groundwater flow direction at the Site:

- **Upper Aquifer, Inside the Slurry Wall:** Groundwater flow in the Upper Aquifer inside the slurry wall is to the north-northwest at a gradient that varies seasonally as shown in Figures 2-2 and 2-3.
- **Upper Aquifer, Outside the Slurry Wall:** The general groundwater flow direction in the Upper Aquifer is toward the northwest and varies seasonally as shown in Figures 2-2 and 2-3.
- **Lower Aquifer:** The general groundwater flow direction in the Lower Aquifer is toward the northwest and varies seasonally as shown in Figures 2-4 and 2-5.

The flow directions and gradients indicated by the April and October surveys are generally consistent with historical groundwater conditions at the Site.

2.1.2 Extraction Well Network Capture Zone Analysis

The Western Extraction Well (WEW) series is located outside of the slurry wall to the west (Figure 2-2). Water levels in the capture zone piezometers (CZPs) and other monitoring locations are collected to evaluate hydraulic capture from the extraction well network. The groundwater potentiometric surface and interpreted capture zones of the WEW wells in April and October are shown in Figures 2-6 and 2-7, respectively. Drawdown from extraction wells has been estimated in part on historical pumping test information, which suggested that the extraction wells could influence groundwater levels in wells approximately 100 feet away at comparable extraction rates to those currently being maintained (TRC, 1996).

The WEW series extraction wells appear to be maintaining groundwater capture in the area west of the slurry wall that contains Record of Decision (ROD) constituents.

Extraction from the Northern Extraction Well (NEW) series wells ceased on October 15, 2008, upon approval of the Environmental Protection Agency (EPA) and Northern California Regional Water Quality Control Board (NCRWQCB) (see Appendix A).

2.1.3 Groundwater Quality Results

Groundwater samples collected semiannually are analyzed for ROD (EPA, 1990 and 1998) constituents including arsenic, chromium, copper, zinc, and polynuclear aromatic hydrocarbons (PAHs) to monitor changes in groundwater quality. Groundwater/slurry wall remediation system performance is evaluated by analyzing water quality trends at wells outside the slurry wall and downgradient of the RCRA-equivalent cell. Numbers and general locations of wells sampled during 2013 are summarized in the accompanying table:

Event	**Upper Aquifer**				**Lower Aquifer**	
	Inside Slurry Wall		Outside Slurry Wall		Monitoring Wells	Extraction Wells
	Monitoring Wells	Extraction Wells	Monitoring Wells	Extraction Wells		
April 2013	0	1	18	5	4	1
October 2013	0	0	22	5	4	0

Semiannual groundwater samples were collected in April and October 2013, according to the requirements as summarized in Table A-4 of Appendix A. An assessment of laboratory quality assurance/quality control procedures is presented in Appendix B.

Groundwater quality results for the 2013 sampling events are summarized in Tables 2-2 through 2-5. Figures 2-8 and 2-9 show the metals and PAH results of samples collected from the required wells for the January and July sampling events, respectively. The 2013 semiannual groundwater quality results indicate the following:

- **Upper Aquifer Wells Outside the Slurry Wall (Table 2-2):** As shown in Figures 2-8 and 2-9, arsenic and zinc were the ROD constituents most frequently encountered at concentrations above ROD clean-up goals. Results were generally consistent with historical results. Three wells, MW-6A, NEW-4, and NEW-6, had arsenic detections above ROD clean-up goals in the October 2013 sampling event. In the April 2013 sampling event, copper was detected above ROD clean-up goals in MW-10, after having been detected below ROD clean-up goals consistently since 2005. Also in April 2013, MW-9A exceeded ROD clean-up goals for zinc after having been detected below ROD clean-up goals since 2006. No PAHs were detected above ROD clean-up goals.

- **Extraction Wells Outside the Slurry Wall (Table 2-3):** Consistent with historical results, zinc was detected above the ROD clean-up goals in groundwater samples from each of the WEW wells. Arsenic and copper were detected above ROD clean-up goals at all WEW wells except WEW-3. This was consistent with historical results except for WEW-7, where copper had not exceeded ROD clean-up goals between July 2003 and January 2012. There were also detections of non-carcinogenic PAHs (ncPAHs) in the groundwater samples collected at the WEW wells, however, no detections were above the ROD cleanup goal.
- **Extraction Wells Inside the Slurry Wall (Table 2-4):** Select extraction wells located within the slurry wall are sampled on a rotating annual basis so that each extraction well is sampled at least once every five years. Samples were collected from WP-8 in 2013. ROD clean-up goals are not applicable to groundwater within the slurry wall persuant to a Technical Impracticability waiver (EPA, 1998).
- **Lower Aquifer Monitoring and Extraction Wells (Table 2-5):** Sample results were consistent with historical results, including exceedances above ROD clean-up goals for ncPAHs at extraction well B1-R and for zinc at monitoring well MW-9B.

With the exception of RIW-3A, chromium has not exceeded its ROD clean-up goal since 2005. RIW-3A, in the northwest, has had intermittent exceedances of the ROD clean-up goal for chromium. Other monitoring locations near former sources outside the slurry wall have had occasional detections, but no exceedances during this timeframe. Accordingly, WRG requests permission to discontinue analyzing for chromium at the Site

2.2 WATER TREATMENT PLANT

The Baxter WTP effluent is sampled bimonthly to evaluate whether the treated water complies with discharge limits (NCRWQCB, 2003). Concentrations in effluent samples are compared to the best practicable treatment (BPT) standards set forth in revised NCRWQCB Order 93-88 (NCRWQCB, 1999 and 2003). Sampling parameters include the following:

Constituent	Sampling Frequency
Metals (arsenic, chromium, copper and zinc)	Bimonthly
PAHs	Bimonthly
Pentachlorophenol (PCP)	Bimonthly
Tetrachlorophenol (TCP)	Bimonthly

During 2013, the bimonthly effluent samples were collected in January, March, May, July, September, and November. Sample results are presented in Table 2-6. Concentrations measured in the samples were below the BPT standards.

2.3 TREATED WATER DISPOSAL SYSTEM

Soil sampling in the South Pasture for inorganic ROD constituents is conducted every five years to assess if the soil is being affected by discharge from the WTP.

Soil samples were collected on January 14, 1999 to establish baseline soil quality and to provide concentrations to which future results can be compared. As described in the Monitoring Confirmation Sampling Plan (MCSP) Groundwater/Slurry Wall (TRC, 1999a), soil samples were also collected on April 8, 2004 and July 7, 2009. The next sampling event will be performed this year.

2.4 RCRA-EQUIVALENT CELL

The monitoring program outlined in the MCSP for Surface Soils, Area B and Ditch sediments (TRC, 1999b) requires quarterly leachate sampling from the RCRA-equivalent cell for 30 years after its closure. Sampling is conducted at three established locations: the upper leachate collection and removal system (LCRS) sump, the leak detection system (LDS) sump, and the vadose zone sump. Leachate samples were not collected in 2013 because these locations were dry.

As shown in Table 2-2, 2013 compliance groundwater samples were collected quarterly from CMW-1 and CMW-2, downgradient of the RCRA-equivalent cell. Sample results were consistent with previous results with exceedances of ROD clean-up goals for arsenic in CMW-1 and zinc in CMW-2.

3.0 OPERATIONS AND MAINTENANCE

Periodic O&M activities are performed for the following systems:

- Slurry Wall/Gravel Drainage Trench
- Groundwater Extraction System
- Water Treatment Plant
- RCRA-Equivalent Cell
- Pavement Wearing Surfaces
- Surface Water Management System/Stormwater Holding Ponds
- Soils Management

A summary of the O&M activities performed during 2013 is presented in Table 3-1 and O&M logs are presented in Appendix C.

Annual inspection/rating of pavement surfaces was deferred in 2013 and will be completed in the first quarter of 2014.

4.0 WORK PLANNED FOR 2014

The following ongoing OM&M activities are planned during 2014:

Water Treatment Plant:

- One WTP influent sample will be collected and analyzed for ROD constituents.
- WTP effluent samples will be collected in January, March, May, July, September, and November.
- WTP maintenance activities will be performed as needed.

Slurry Wall/Gravel Drainage Trench

- Annual walk-through inspection of the slurry wall cap
- Annual benchmark survey is scheduled
- Groundwater levels will be measured quarterly in the gravel drainage trench
- Maintenance activities will be performed as needed

Groundwater Extraction Treatment System

- Monitoring and recording of well pumping rates will be performed weekly
- Quarterly inspections of wells, piezometers and pipelines will be performed
- Samples will be collected from extraction and monitoring wells and analyzed for ROD constituents semiannually (January and July)
- Groundwater gauging will be performed quarterly
- Soil samples will be collected and analyzed for ROD constituents from the South Pasture Area in accordance with the Groundwater/Slurry Wall MCSP

RCRA Equivalent Cell:

- Quarterly walk-through inspections
- Groundwater elevations and sampling of groundwater in CMW-1 and CMW-2
- Maintenance activities will be performed as needed

Wearing Surfaces:

- Quarterly walk-through inspections
- Annual inspection/rating of pavement surfaces
- Maintenance activities will be performed as needed

Surface Water/Holding Ponds:

- Quarterly walk-through inspections
- Monitor transfer pump operations performance
- Maintenance activities will be performed as needed

5.0 REFERENCES

Environmental Protection Agency (EPA), 1990. Record of Decision, J.H. Baxter Superfund Site, Weed, CA. September 27.

EPA, 1998. Amendment #1 to the Record of Decision, J.H. Baxter Superfund Site, Weed, CA. March 26.

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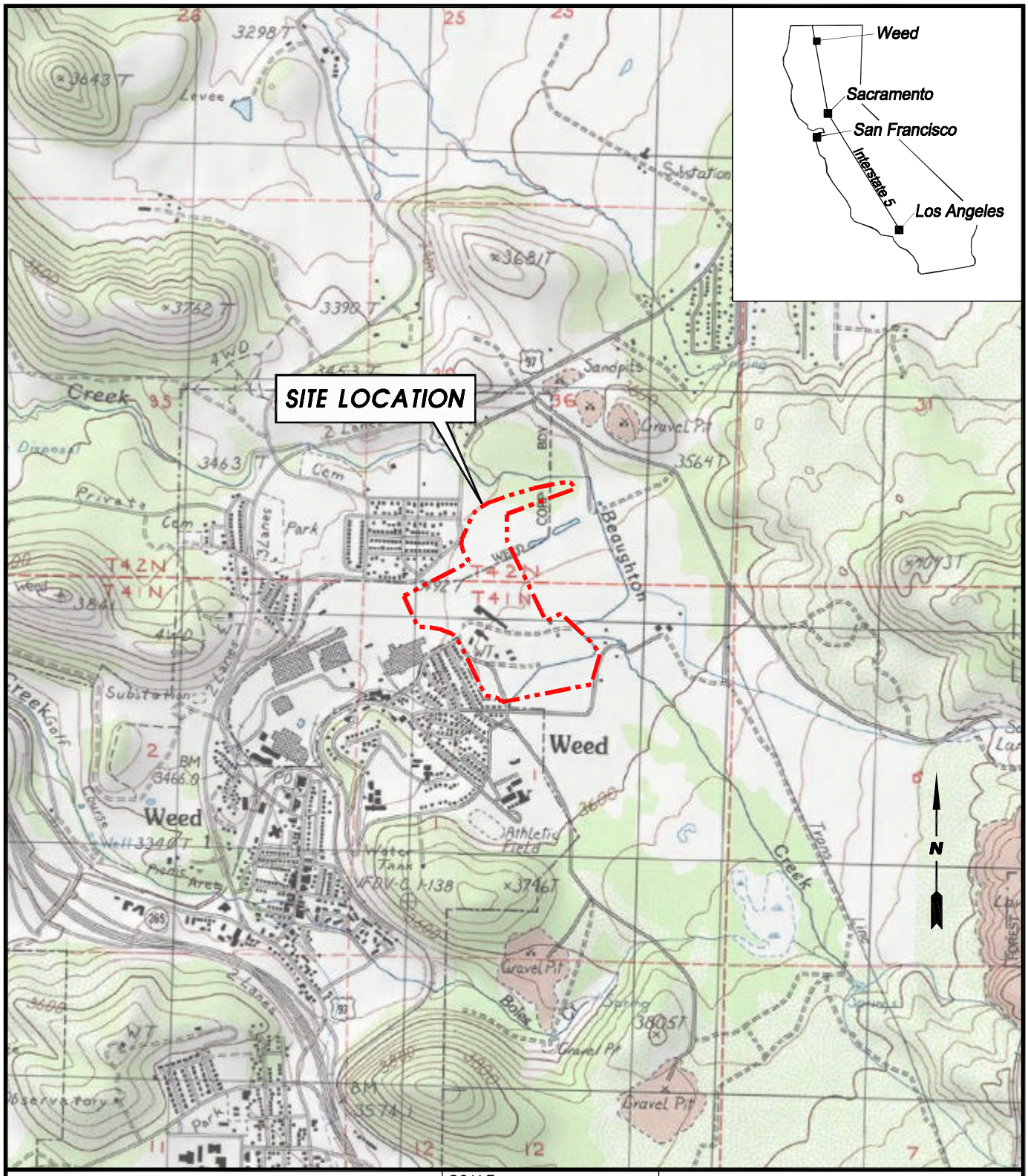
TRC, 1999a. Monitoring Confirmation Sampling Plan, Groundwater/Slurry Wall Remediation System. February.

TRC, 1999b. Monitoring Confirmation Sampling Plan, Surface Soils, Area B and Ditch Sediments. March.

TRC. 1999c. Draft Postclosure Operations and Maintenance Plan, Surface Soils, Area B and Ditch Sediments, J.H. Baxter Superfund Site. March.

FIGURES



MWH

SOURCE: U.S.G.S. 7.5' QUAD SHEET
WEED, CALIFORNIA
PHOTOREVISED 1979
HOTLUM, CALIFORNIA
PHOTOREVISED 1979

SCALE: 0 FEET 2000

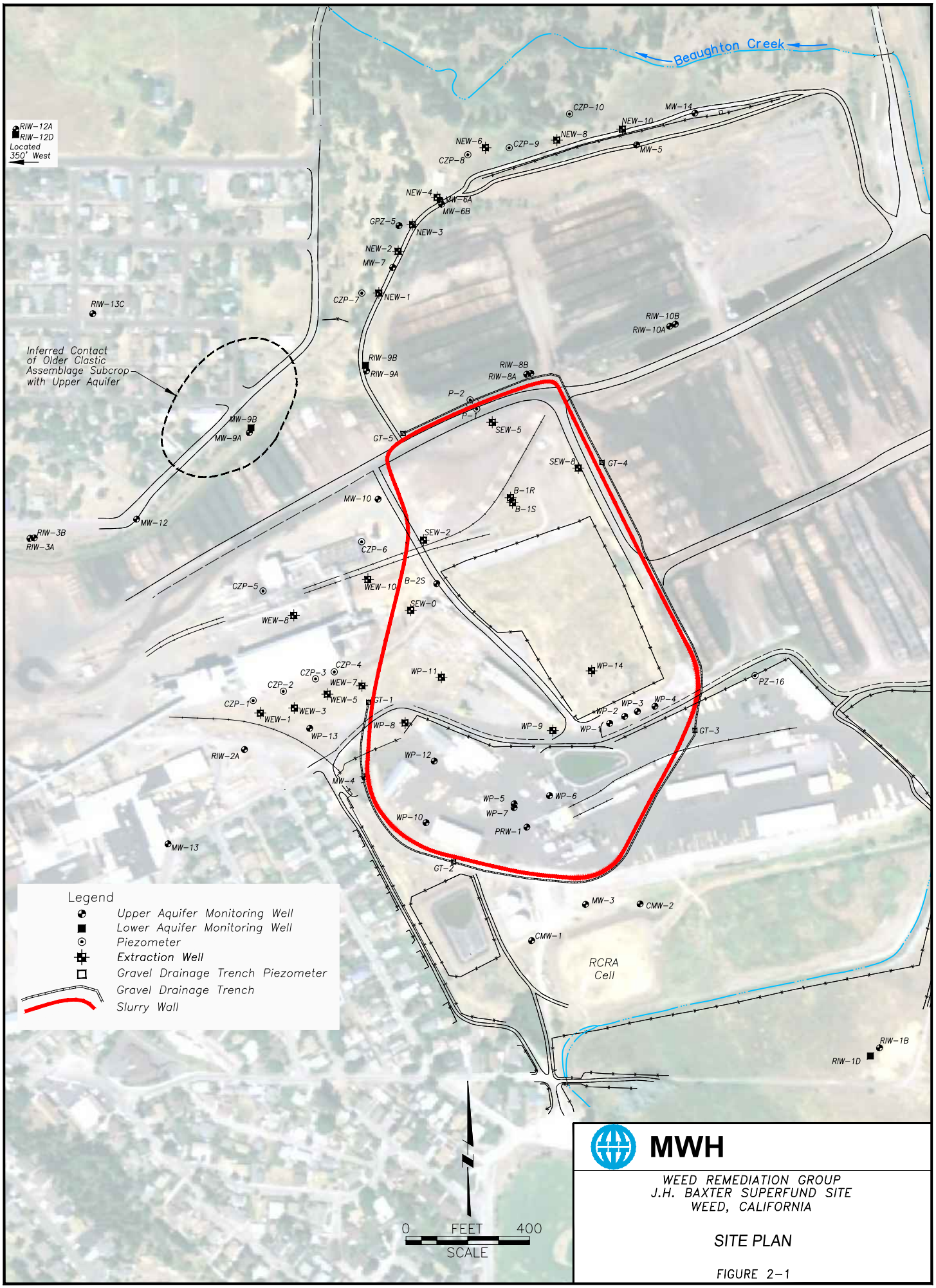
SITE LOCATION

CLIENT: WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE

DATE: 7/9/09

LOCATION: WEED, CALIFORNIA

FIGURE: 1-1



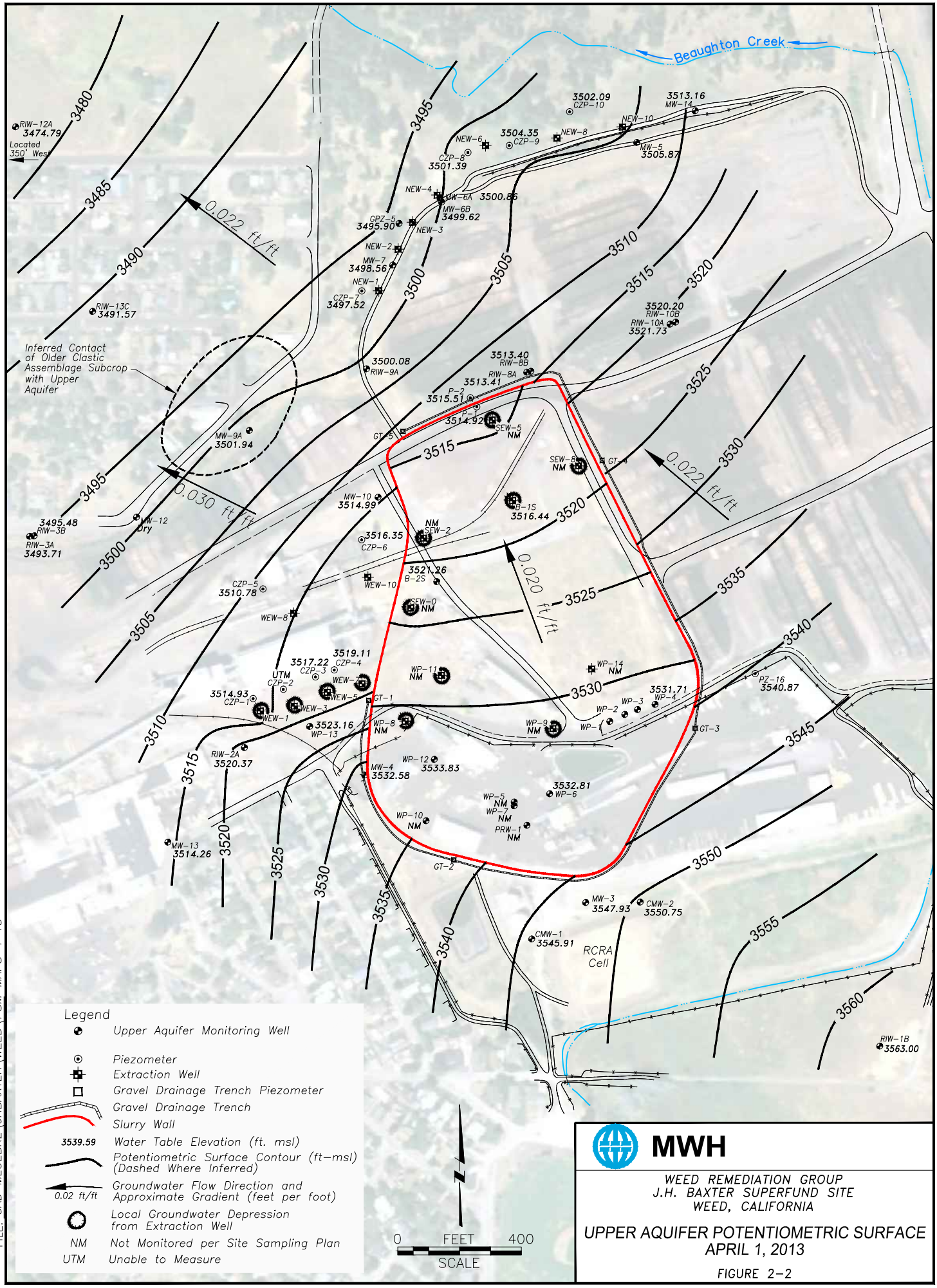
FILE: CAD MLUEBKE\JHBAXTER\WEED\SITE PLAN 7 9 09

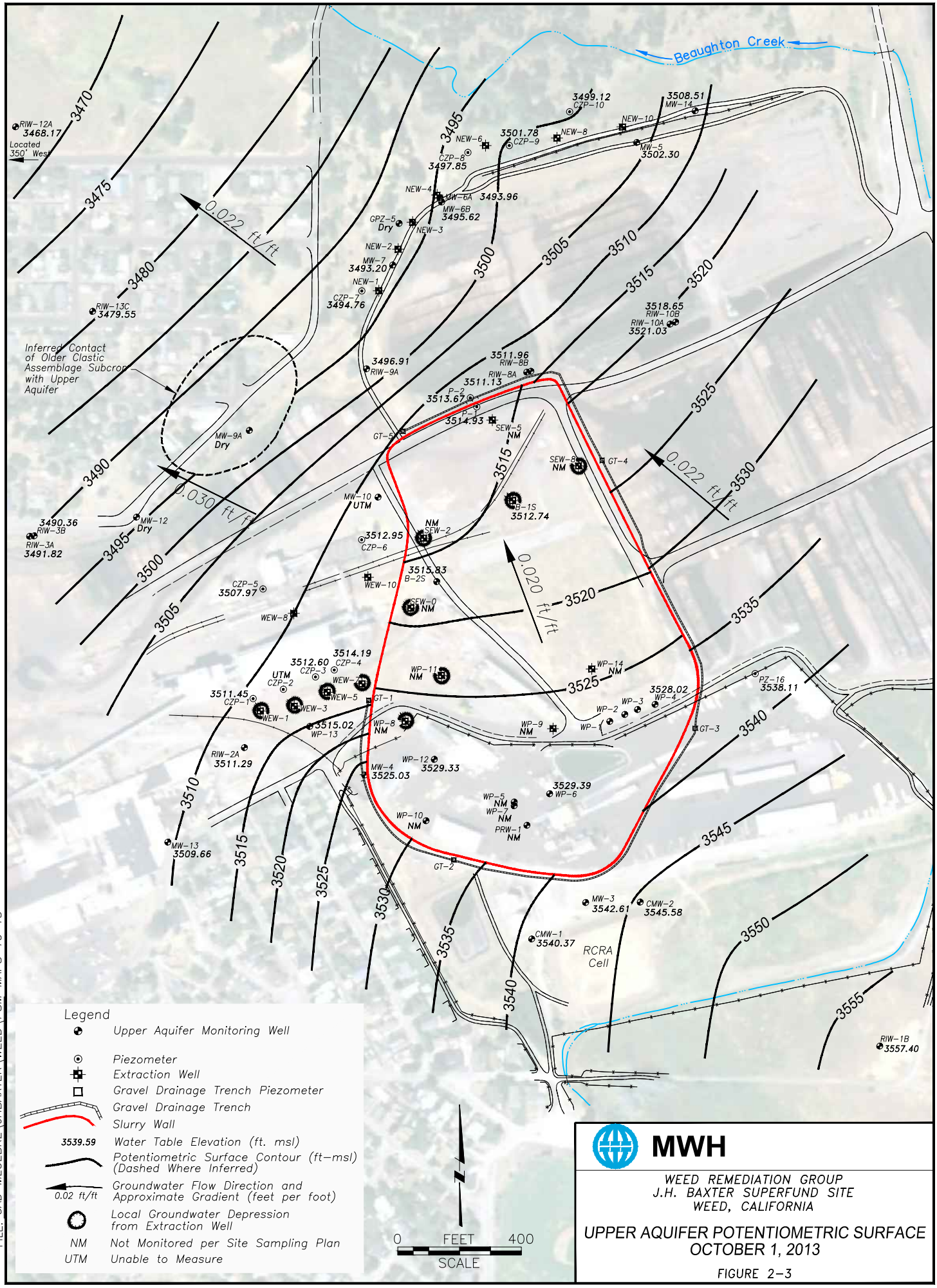
MWH

WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA

SITE PLAN

FIGURE 2-1


Beaughton Creek
RIW-12A
3474.79
Located 350' West
3480
3485
3490
3495
3500
3505
3510
3515
3520
3525
3530
3535
3540
3545
3550
3555
3560
0.022 ft/ft
0.030 ft/ft
0.020 ft/ft
3502.09
CZP-10
3513.16
MW-14
NEW-10
NEW-8
3504.35
CZP-9
NEW-6
CZP-8
3501.39
MW-5
3505.87
NEW-4
MW-6A
3500.86
MW-6B
3499.62
GPZ-5
3495.90
NEW-3
NEW-2
MW-7
3498.56
NEW-1
CZP-7
3497.52
RIW-13C
3491.57
3520.20
RIW-10B
RIW-10A
3521.73
Inferred Contact of Older Clastic Assemblage Subcrop with Upper Aquifer
3500.08
RIW-9A
3513.40
RIW-8B
RIW-8A
3513.41
P-2
3515.51
P-1
3514.92
SEW-5
NM
GT-5
GT-4
SEW-8
NM
MW-9A
3501.94
MW-10
3514.99
B-1S
3516.44
3495.48
RIW-3B
MW-12
Dry
RIW-3A
3493.71
3516.35
CZP-6
NM
SEW-2
3521.26
B-2S
WEW-10
CZP-5
3510.78
SEW-0
NM
WEW-8
3519.11
CZP-4
3517.22
CZP-3
UTM
CZP-2
WEW-
WP-11
NM
WP-14
NM
3531.71
WP-4
WP-3
WP-2
PZ-16
3540.87
3514.93
CZP-1
WEW-1
WEW-3
WEW-5
GT-1
3523.16
WP-13
WP-8
NM
WP-9
NM
WP-
GT-3
RIW-2A
3520.37
WP-12
3533.83
MW-4
3532.58
3532.81
WP-6
WP-5
NM
WP-7
NM
WP-10
NM
PRW-1
NM
MW-13
3514.26
GT-2
MW-3
3547.93
CMW-2
3550.75
CMW-1
3545.91
RCRA Cell
RIW-1B
3563.00
Legend
Upper Aquifer Monitoring Well
Piezometer
Extraction Well
Gravel Drainage Trench Piezometer
Gravel Drainage Trench
Slurry Wall
3539.59 Water Table Elevation (ft. msl)
Potentiometric Surface Contour (ft-msl) (Dashed Where Inferred)
0.02 ft/ft Groundwater Flow Direction and Approximate Gradient (feet per foot)
Local Groundwater Depression from Extraction Well
NM Not Monitored per Site Sampling Plan
UTM Unable to Measure
N
0 FEET 400
SCALE
MWH
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA
UPPER AQUIFER POTENTIOMETRIC SURFACE
APRIL 1, 2013
FIGURE 2-2
FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 4 13


Beaughton Creek
RIW-12A
3468.17
Located 350' West
3470
3475
3480
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3500
3505
3510
3515
3520
3525
3530
3535
3540
3545
3550
3555
0.022 ft/ft
0.030 ft/ft
0.020 ft/ft
3479.55
RIW-13C
Inferred Contact of Older Clastic Assemblage Subcrop with Upper Aquifer
MW-9A
Dry
3490.36
RIW-3B
RIW-3A
3491.82
MW-12
Dry
3496.91
RIW-9A
3499.12
CZP-10
3508.51
MW-14
NEW-10
3501.78
CZP-9
NEW-8
NEW-6
CZP-8
3497.85
MW-5
3502.30
NEW-4
MW-6A
3493.96
MW-6B
3495.62
GPZ-5
Dry
NEW-3
NEW-2
MW-7
3493.20
NEW-1
CZP-7
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3518.65
RIW-10B
RIW-10A
3521.03
3511.96
RIW-8B
RIW-8A
3511.13
P-2
3513.67
P-1
3514.93
SEW-5
NM
GT-5
SEW-8
NM
GT-4
B-1S
3512.74
MW-10
UTM
NM
SEW-2
3512.95
CZP-6
3515.83
B-2S
WEW-10
SEW-0
NM
CZP-5
3507.97
WEW-8
3514.19
CZP-4
3512.60
CZP-3
UTM
CZP-2
WEW-
WEW-5
3511.45
CZP-1
WEW-1
WEW-3
GT-1
3515.02
WP-13
WP-8
NM
WP-11
NM
WP-14
NM
3528.02
WP-4
WP-3
WP-2
WP-
WP-9
NM
GT-3
PZ-16
3538.11
RIW-2A
3511.29
WP-12
3529.33
MW-4
3525.03
3529.39
WP-6
WP-5
NM
WP-7
NM
WP-10
NM
PRW-1
NM
MW-13
3509.66
GT-2
MW-3
3542.61
CMW-2
3545.58
CMW-1
3540.37
RCRA Cell
RIW-1B
3557.40
Legend
Upper Aquifer Monitoring Well
Piezometer
Extraction Well
Gravel Drainage Trench Piezometer
Gravel Drainage Trench
Slurry Wall
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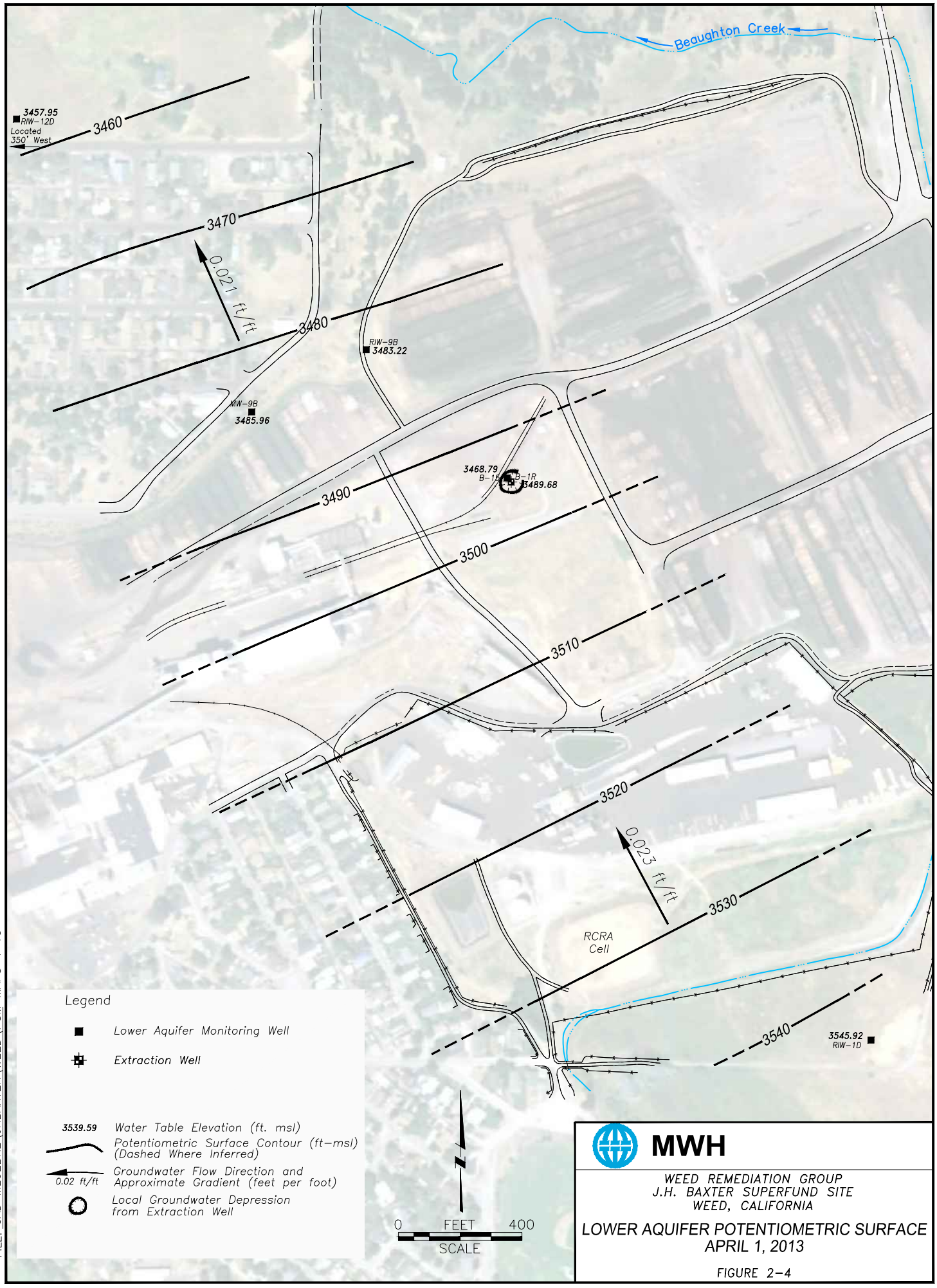
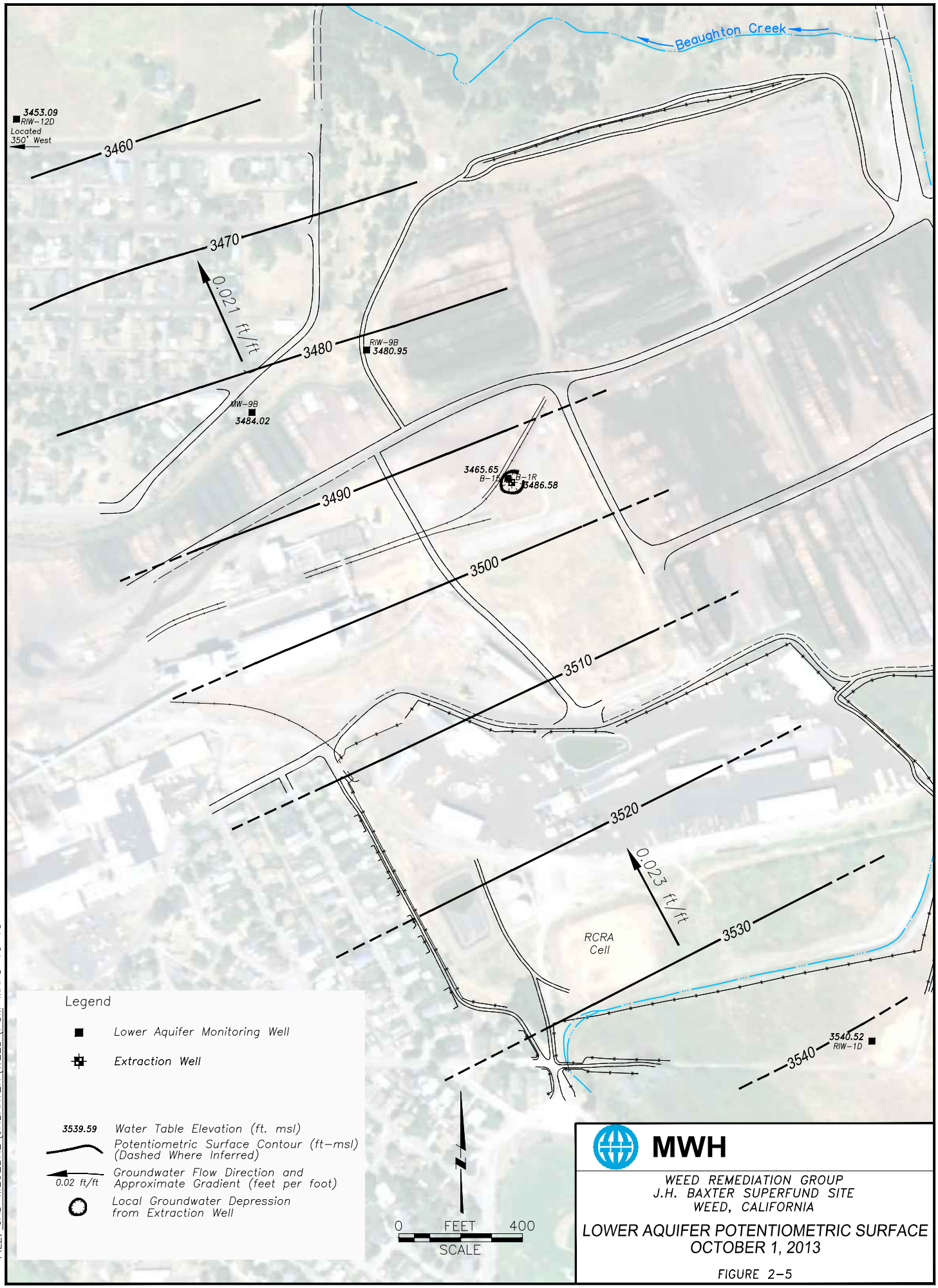
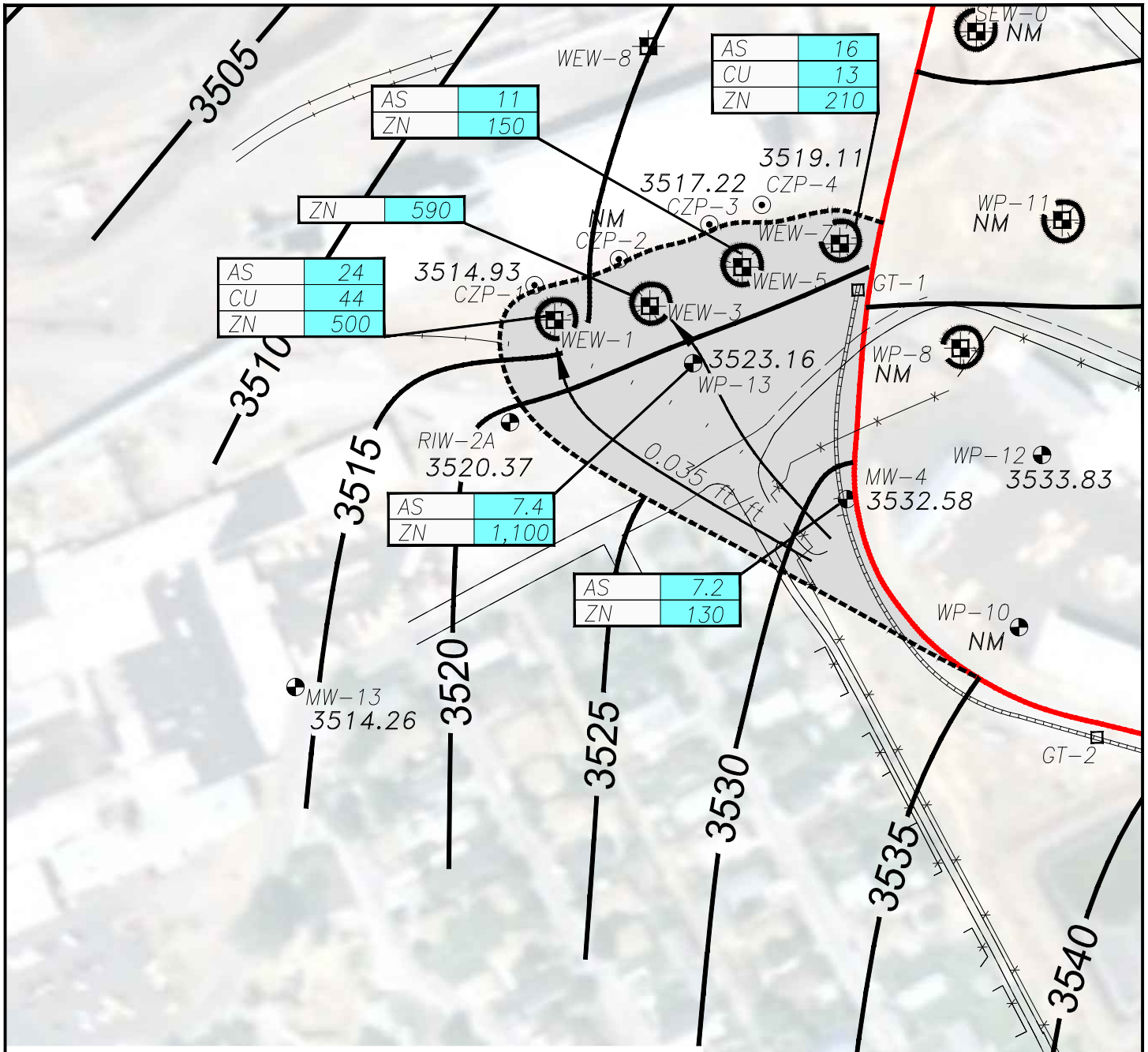
NM Not Monitored per Site Sampling Plan
UTM Unable to Measure
N
0 FEET 400
SCALE
MWH
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA
UPPER AQUIFER POTENTIOMETRIC SURFACE
OCTOBER 1, 2013
FIGURE 2-3
FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 10 13


Beaughton Creek
3457.95
RIW-12D
Located
350' West
3460
3470
0.021 ft/ft
3480
RIW-9B
3483.22
MW-9B
3485.96
3468.79
B-15
B-1R
3489.68
3490
3500
3510
3520
0.023 ft/ft
3530
RCRA
Cell
3540
3545.92
RIW-1D
Legend
Lower Aquifer Monitoring Well
Extraction Well
3539.59
Water Table Elevation (ft. msl)
Potentiometric Surface Contour (ft-msl)
(Dashed Where Inferred)
0.02 ft/ft
Groundwater Flow Direction and
Approximate Gradient (feet per foot)
Local Groundwater Depression
from Extraction Well
0
FEET
400
SCALE
MWH
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA
LOWER AQUIFER POTENTIOMETRIC SURFACE
APRIL 1, 2013
FIGURE 2-4
FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 4 13


Beaughton Creek
3453.09
RIW-12D
Located
350' West
3460
3470
0.021 ft/ft
3480
RIW-9B
3480.95
MW-9B
3484.02
3465.65
B-15
B-1R
3486.58
3490
3500
3510
3520
0.023 ft/ft
3530
RCRA
Cell
3540
3540.52
RIW-1D
Legend
Lower Aquifer Monitoring Well
Extraction Well
3539.59
Water Table Elevation (ft. msl)
Potentiometric Surface Contour (ft-msl)
(Dashed Where Inferred)
0.02 ft/ft
Groundwater Flow Direction and
Approximate Gradient (feet per foot)
Local Groundwater Depression
from Extraction Well
0
FEET
400
SCALE
MWH
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA
LOWER AQUIFER POTENTIOMETRIC SURFACE
OCTOBER 1, 2013
FIGURE 2-5
FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 10 13



Legend

- Upper Aquifer Monitoring Well
- Piezometer
- Extraction Well
- Gravel Drainage Trench Piezometer
- Gravel Drainage Trench
- Slurry Wall
- 3539.59 Water Table Elevation (ft. msl)
- Potentiometric Surface Contour (ft–msl) (Dashed Where Inferred)
- 0.02 ft/ft Groundwater Flow Direction and Approximate Gradient (feet per foot)
- Local Groundwater Depression from Extraction Well
- Estimated Capture Zone
- Exceeds ROD Cleanup Goal

0 FEET 200
SCALE

MWH

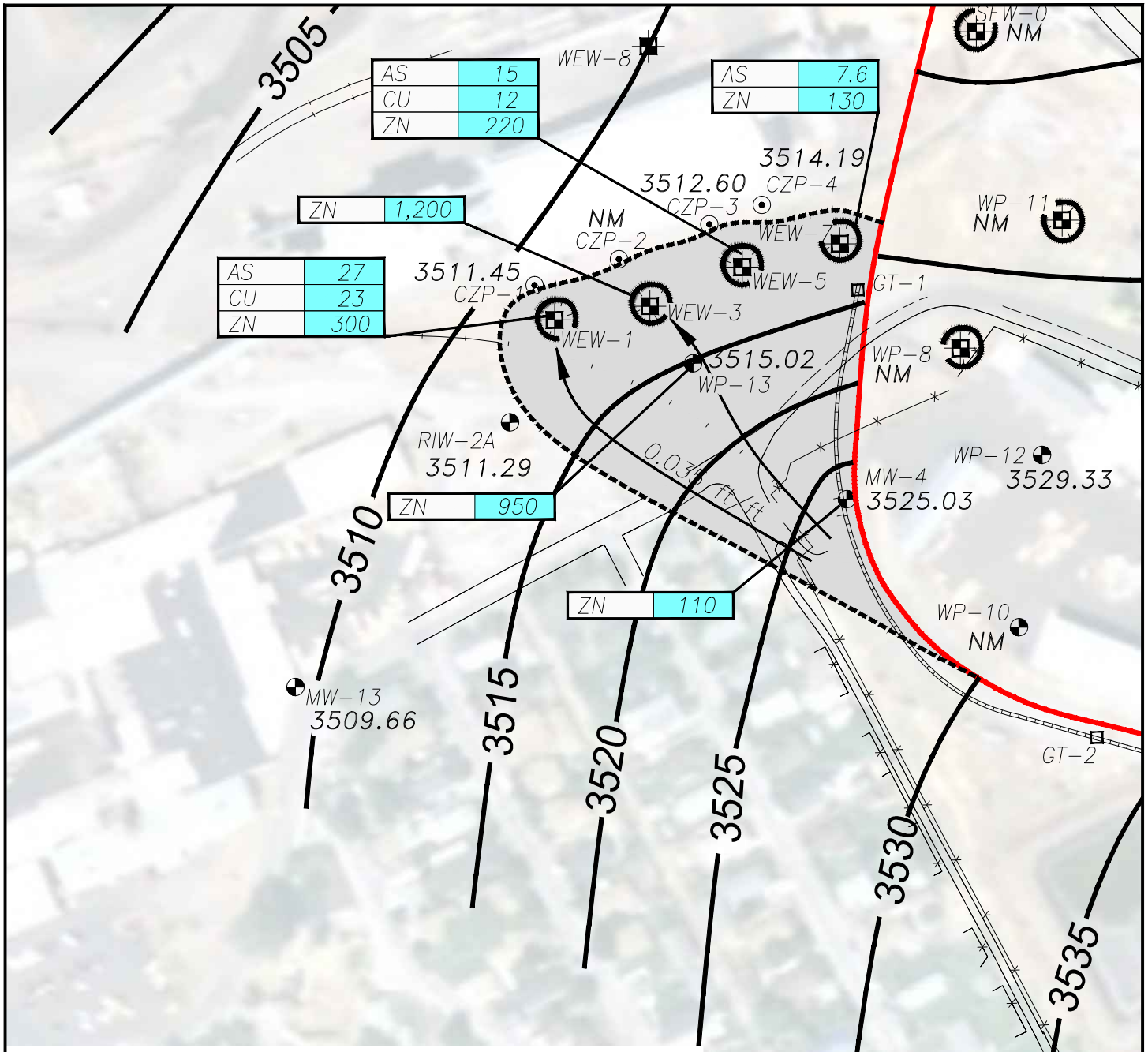
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA

WESTERN EXTRACTION WELLS CAPTURE ZONE

POTENTIOMETRIC SURFACE, APRIL 1, 2013

FIGURE 2–6

FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 4 13



Legend

- Upper Aquifer Monitoring Well
- Piezometer
- Extraction Well
- Gravel Drainage Trench Piezometer
- Gravel Drainage Trench
- Slurry Wall
- 3539.59 Water Table Elevation (ft. msl)
- Potentiometric Surface Contour (ft–msl) (Dashed Where Inferred)
- 0.02 ft/ft Groundwater Flow Direction and Approximate Gradient (feet per foot)
- Local Groundwater Depression from Extraction Well
- Estimated Capture Zone
- Exceeds ROD Cleanup Goal

0 FEET 200
SCALE

MWH

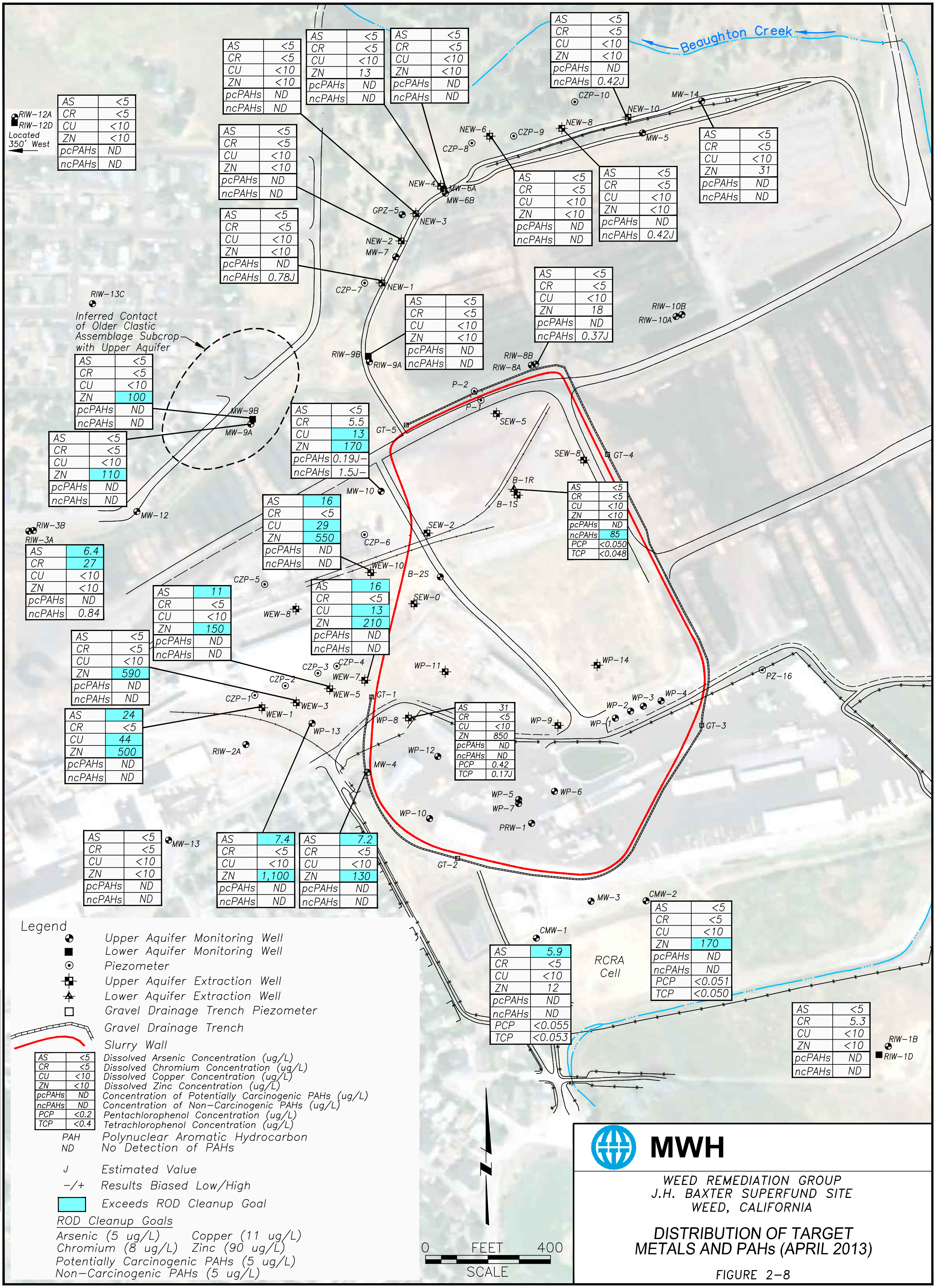
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA

WESTERN EXTRACTION WELLS CAPTURE ZONE

POTENTIOMETRIC SURFACE, OCTOBER 1, 2013

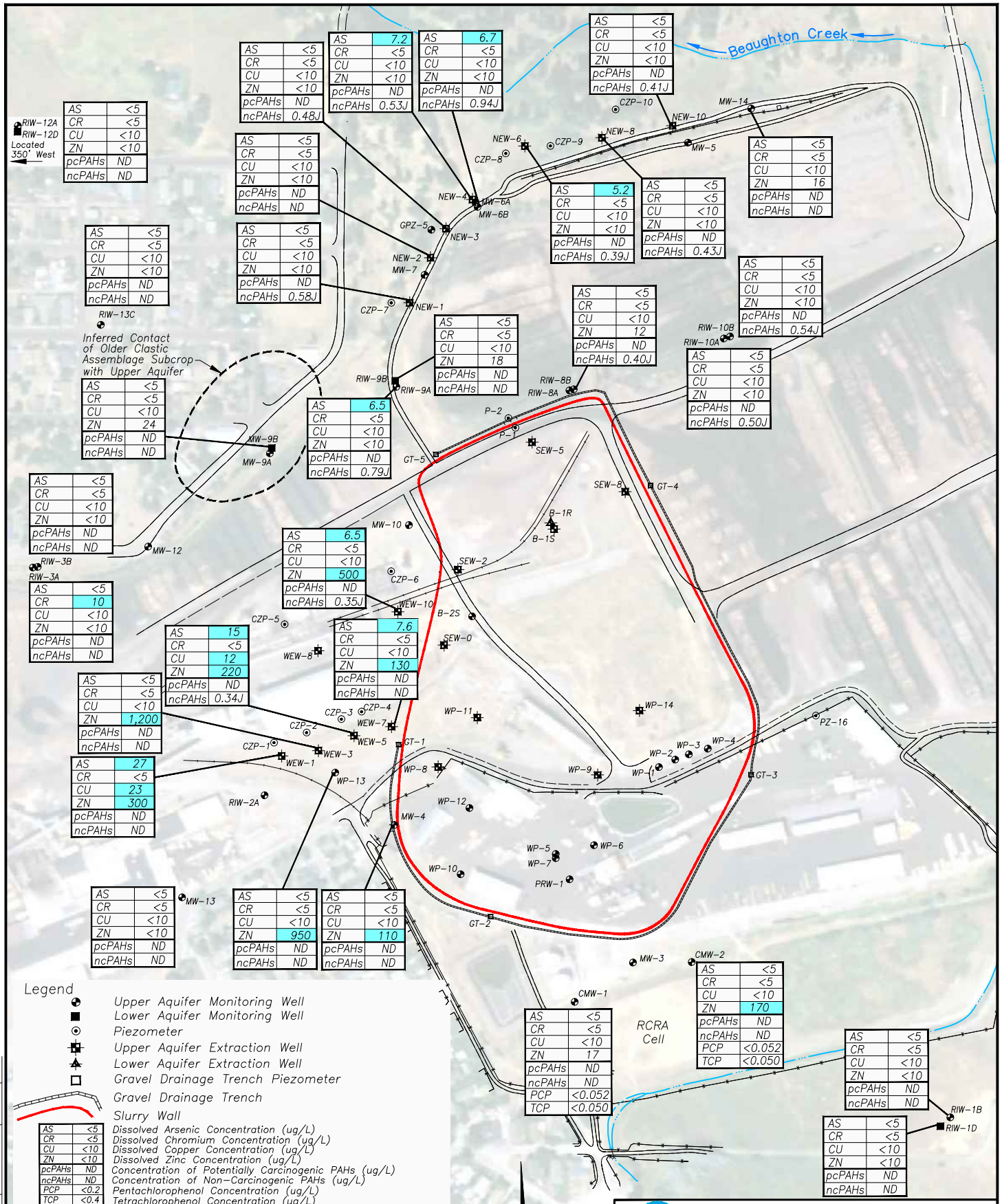
FIGURE 2–7

FILE: CAD MLUEBKE\JHBAXTER\WEED\PSM MAPS 10 13



DISTRIBUTION OF TARGET METALS AND PAHs (APRIL 2013)

FIGURE 2-8


Beaughton Creek
RIW-12A
RIW-12D
Located 350' West
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.48J
AS 7.2
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.53J
AS 6.7
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.94J
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.41J
CZP-10
MW-14
NEW-10
NEW-8
NEW-6
CZP-9
CZP-8
MW-5
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
AS 5.2
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.39J
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.43J
AS <5
CR <5
CU <10
ZN 16
pcPAHs ND
ncPAHs ND
NEW-4
MW-6A
MW-6B
GPZ-5
NEW-3
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.58J
NEW-2
MW-7
CZP-7
NEW-1
RIW-13C
Inferred Contact of Older Clastic Assemblage Subcrop with Upper Aquifer
AS <5
CR <5
CU <10
ZN 12
pcPAHs ND
ncPAHs 0.40J
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.54J
RIW-10B
RIW-10A
AS <5
CR <5
CU <10
ZN 18
pcPAHs ND
ncPAHs ND
RIW-9B
RIW-9A
RIW-8B
RIW-8A
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.50J
AS <5
CR <5
CU <10
ZN 24
pcPAHs ND
ncPAHs ND
MW-9B
MW-9A
AS 6.5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs 0.79J
P-2
P-1
GT-5
SEW-5
SEW-8
GT-4
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
MW-12
RIW-3B
RIW-3A
MW-10
B-1R
B-1S
AS 6.5
CR <5
CU <10
ZN 500
pcPAHs ND
ncPAHs 0.35J
SEW-2
CZP-6
WEW-10
B-2S
SEW-0
AS <5
CR 10
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
CZP-5
WEW-8
AS 15
CR <5
CU 12
ZN 220
pcPAHs ND
ncPAHs 0.34J
AS 7.6
CR <5
CU <10
ZN 130
pcPAHs ND
ncPAHs ND
AS <5
CR <5
CU <10
ZN 1,200
pcPAHs ND
ncPAHs ND
CZP-3
CZP-4
WEW-7
CZP-2
WEW-5
GT-1
WP-11
WP-14
PZ-16
CZP-1
WEW-1
WEW-3
WP-13
WP-8
WP-9
WP-1
WP-2
WP-3
WP-4
GT-3
AS 27
CR <5
CU 23
ZN 300
pcPAHs ND
ncPAHs ND
RIW-2A
WP-12
MW-4
WP-5
WP-6
WP-7
WP-10
PRW-1
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
MW-13
AS <5
CR <5
CU <10
ZN 950
pcPAHs ND
ncPAHs ND
AS <5
CR <5
CU <10
ZN 110
pcPAHs ND
ncPAHs ND
GT-2
MW-3
CMW-2
AS <5
CR <5
CU <10
ZN 170
pcPAHs ND
ncPAHs ND
PCP <0.052
TCP <0.050
CMW-1
AS <5
CR <5
CU <10
ZN 17
pcPAHs ND
ncPAHs ND
PCP <0.052
TCP <0.050
RCRA Cell
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
RIW-1B
RIW-1D
AS <5
CR <5
CU <10
ZN <10
pcPAHs ND
ncPAHs ND
Legend
Upper Aquifer Monitoring Well
Lower Aquifer Monitoring Well
Piezometer
Upper Aquifer Extraction Well
Lower Aquifer Extraction Well
Gravel Drainage Trench Piezometer
Gravel Drainage Trench
Slurry Wall
AS <5 Dissolved Arsenic Concentration (ug/L)
CR <5 Dissolved Chromium Concentration (ug/L)
CU <10 Dissolved Copper Concentration (ug/L)
ZN <10 Dissolved Zinc Concentration (ug/L)
pcPAHs ND Concentration of Potentially Carcinogenic PAHs (ug/L)
ncPAHs ND Concentration of Non-Carcinogenic PAHs (ug/L)
PCP <0.2 Pentachlorophenol Concentration (ug/L)
TCP <0.4 Tetrachlorophenol Concentration (ug/L)
PAH Polynuclear Aromatic Hydrocarbon
ND No Detection of PAHs
J Estimated Value
Exceeds ROD Cleanup Goal
ROD Cleanup Goals
Arsenic (5 ug/L) Copper (11 ug/L)
Chromium (8 ug/L) Zinc (90 ug/L)
Potentially Carcinogenic PAHs (5 ug/L)
Non-Carcinogenic PAHs (5 ug/L)
0 FEET 400
SCALE
MWH
WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE
WEED, CALIFORNIA
DISTRIBUTION OF TARGET METALS AND PAHs (OCTOBER 2013)
FIGURE 2-9
FILE: CAD MLUEBKE\JHBAXTER\WEED\METALS PAHS 10 13

TABLES

TABLE 2-1
2013 GROUNDWATER ELEVATIONS
(Feet above Mean Sea Level)

Well Identification	First Quarter January 2, 2013	Second Quarter April 1, 2013	Third Quarter July 1, 2013	Fourth Quarter October 1, 2013	Well Type	Location
GT-1	3533.40	3532.37	Dry	Dry	Gravel Trench Well	Gravel Trench
GT-2	Dry	Dry	Dry	Dry	Gravel Trench Well	Gravel Trench
GT-3	3542.14	Dry	Dry	Dry	Gravel Trench Well	Gravel Trench
GT-4	3529.26	3528.62	3528.80	Dry	Gravel Trench Well	Gravel Trench
GT-5	3522.10	3521.33	3519.98	3519.64	Gravel Trench Well	Gravel Trench
B-1S	NM	3516.44	NM	3512.74	Upper Aquifer MW	Inside Slurry Wall
B-2S	NM	3521.26	NM	3515.83	Upper Aquifer MW	Inside Slurry Wall
WP-4	NM	3531.71	NM	3528.02	Upper Aquifer MW	Inside Slurry Wall
WP-6	NM	3532.81	NM	3529.39	Upper Aquifer MW	Inside Slurry Wall
WP-12	NM	3533.83	NM	3529.33	Upper Aquifer MW	Inside Slurry Wall
CMW-1*	3546.70	3545.91	3543.01	3540.37	Upper Aquifer MW	Outside Slurry Wall
CMW-2*	3551.64	3550.75	3547.54	3545.58	Upper Aquifer MW	Outside Slurry Wall
GPZ-5	NM	3495.90	NM	Dry	Upper Aquifer MW	Outside Slurry Wall
MW-3	NM	3547.93	NM	3542.61	Upper Aquifer MW	Outside Slurry Wall
MW-4	3535.34	3532.58	3527.81	3525.03	Upper Aquifer MW	Outside Slurry Wall
MW-5	NM	3505.87	NM	3502.30	Upper Aquifer MW	Outside Slurry Wall
MW-6A	3500.06	3500.86	3498.53	3493.96	Upper Aquifer MW	Outside Slurry Wall
MW-6B	NM	3499.62	NM	3495.62	Upper Aquifer MW	Outside Slurry Wall
MW-7	NM	3498.56	NM	3493.20	Upper Aquifer MW	Outside Slurry Wall
MW-9A	3502.48	3501.94	Dry	Dry	Upper Aquifer MW	Outside Slurry Wall
MW-10	UTM	3514.99	UTM	UTM	Upper Aquifer MW	Outside Slurry Wall
MW-12	3495.59	Dry	Dry	Dry	Upper Aquifer MW	Outside Slurry Wall
MW-13	3516.46	3514.26	3511.66	3509.66	Upper Aquifer MW	Outside Slurry Wall
MW-14	3513.61	3513.16	3511.60	3508.51	Upper Aquifer MW	Outside Slurry Wall
RIW-1B	3566.08	3563.00	3559.49	3557.40	Upper Aquifer MW	Outside Slurry Wall
RIW-2A	NM	3520.37	NM	3511.29	Upper Aquifer MW	Outside Slurry Wall
RIW-3A	3498.87	3493.71	3493.00	3491.82	Upper Aquifer MW	Outside Slurry Wall
RIW-3B	3498.36	3495.48	3492.07	3490.36	Upper Aquifer MW	Outside Slurry Wall
RIW-8A	NM	3513.41	NM	3511.13	Upper Aquifer MW	Outside Slurry Wall
RIW-8B	3515.40	3513.40	3513.34	3511.96	Upper Aquifer MW	Outside Slurry Wall
RIW-9A	3507.79	3500.08	3499.80	3496.91	Upper Aquifer MW	Outside Slurry Wall
RIW-10A	3521.68	3521.73	3521.32	3521.03	Upper Aquifer MW	Outside Slurry Wall

TABLE 2-1
2013 GROUNDWATER ELEVATIONS
(Feet above Mean Sea Level)

Well Identification	First Quarter January 2, 2013	Second Quarter April 1, 2013	Third Quarter July 1, 2013	Fourth Quarter October 1, 2013	Well Type	Location
RIW-10B	3520.70	3520.20	3520.23	3518.65	Upper Aquifer MW	Outside Slurry Wall
RIW-12A	3476.99	3474.79	3471.40	3468.17	Upper Aquifer MW	Outside Slurry Wall
RIW-13C	3491.58	3491.57	3485.76	3479.55	Upper Aquifer MW	Outside Slurry Wall
WP-13	3525.71	3523.16	3518.09	3515.02	Upper Aquifer MW	Outside Slurry Wall
P-1	NM	3514.92	NM	3514.93	Piezometer	Inside Slurry Wall
P-2	NM	3515.51	NM	3513.67	Piezometer	Outside Slurry Wall
PZ-16	NM	3540.87	NM	3538.11	Piezometer	Outside Slurry Wall
CZP-1	NM	3514.93	NM	3511.45	Piezometer	Outside Slurry Wall
CZP-10	NM	3502.09	NM	3499.12	Piezometer	Outside Slurry Wall
CZP-2	NM	UTM	NM	UTM	Piezometer	Outside Slurry Wall
CZP-3	NM	3517.22	NM	3512.60	Piezometer	Outside Slurry Wall
CZP-4	NM	3519.11	NM	3514.19	Piezometer	Outside Slurry Wall
CZP-5	NM	3510.78	NM	3507.97	Piezometer	Outside Slurry Wall
CZP-6	NM	3516.35	NM	3512.95	Piezometer	Outside Slurry Wall
CZP-7	NM	3497.52	NM	3494.76	Piezometer	Outside Slurry Wall
CZP-8	NM	3501.39	NM	3497.85	Piezometer	Outside Slurry Wall
CZP-9	NM	3504.35	NM	3501.78	Piezometer	Outside Slurry Wall
B-1R	NM	3489.68	NM	3486.58	Lower Aquifer MW	Inside Slurry Wall
B-15	NM	3468.79	NM	3465.65	Lower Aquifer MW	Inside Slurry Wall
MW-9B	3486.87	3485.96	3487.32	3484.02	Lower Aquifer MW	Outside Slurry Wall
RIW-1D	3546.49	3545.92	3543.61	3540.52	Lower Aquifer MW	Outside Slurry Wall
RIW-9B	3482.05	3483.22	3484.52	3480.95	Lower Aquifer MW	Outside Slurry Wall
RIW-12D	3457.72	3457.95	3455.18	3453.09	Lower Aquifer MW	Outside Slurry Wall

Notes:

GWMW = Groundwater Monitoring Well

NM = Not Monitored per Site Sampling Plan

UTM = Unable to Measure

SW = Slurry Wall

* = CMW-1 and CMW-2 measurements taken on 1/2, 4/14, 7/1 and 10/8/13

TABLE 2-2
2013 SUMMARY OF LABORATORY ANALYTICAL RESULTS
UPPER AQUIFER MONITORING WELLS
J.H. Baxter Superfund Site
Weed, California

Well ID	Sample Date	Arsenic (µg/L)	Chromium (µg/L)	Copper (µg/L)	Zinc (µg/L)	PCP (µg/L)	TCP (µg/L)	Total pc PAHs (µg/L)	Total nc PAHs (µg/L)
ROD Clean Up Goals		5	8	11	90	2.2	NE	5	5
Minimum Reporting Level		5	5	10	10	2.2	NE	NA	NA
CMW-1	1/15/2013	**6.1**	< 5.0	11	21	0.59	< 0.050	ND	ND
CMW-1	4/14/2013	**5.9**	< 5.0	< 10	12	< 0.055	< 0.053	ND	ND
CMW-1	7/1/2013	**6.0**	< 5.0	< 10	13	< 0.050	< 0.048	ND	0.49 J
CMW-1	10/8/2013	< 5.0	< 5.0	< 10	17	< 0.052	< 0.050	ND	ND
CMW-2	1/15/2013	< 5.0	< 5.0	< 10	55	< 0.050	< 0.049	ND	ND
CMW-2	4/14/2013	< 5.0	< 5.0	< 10	**170**	< 0.051	< 0.050	ND	ND
CMW-2	7/1/2013	< 5.0	< 5.0	< 10	**150 J+**	< 0.050	< 0.048	ND	ND
CMW-2	10/8/2013	< 5.0	< 5.0	< 10	**170**	< 0.052	< 0.050	ND	ND
MW-4	4/1/2013	**7.2**	< 5.0	< 10	**130**	NA	NA	ND	ND
MW-4	10/1/2013	< 5.0	< 5.0	< 10	**110**	NA	NA	ND	ND
MW-6A	4/1/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
MW-6A	10/7/2013	**6.7**	< 5.0	< 10	< 10	NA	NA	ND	0.94 J
MW-9A	4/1/2013	< 5.0	< 5.0	< 10	**110**	NA	NA	ND	ND
MW-10	4/2/2013	< 5.0	5.5	**13**	**170**	NA	NA	0.19 J-	1.5 J-
MW-13	4/2/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
MW-13	10/1/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
MW-14	4/2/2013	< 5.0	< 5.0	< 10	31	NA	NA	ND	ND
MW-14	10/6/2013	< 5.0	< 5.0	< 10	16	NA	NA	ND	ND
RIW-1B	10/1/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-3A	4/3/2013	**6.4**	**27**	< 10	< 10	NA	NA	ND	0.84
RIW-3A	10/2/2013	< 5.0	**10**	< 10	< 10	NA	NA	ND	ND
RIW-3B	10/1/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-8B	4/8/2013	< 5.0	< 5.0	< 10	18	NA	NA	ND	0.37 J
RIW-8B	10/7/2013	< 5.0	< 5.0	< 10	12	NA	NA	ND	0.40 J
RIW-9A	10/1/2013	**6.5**	< 5.0	< 10	< 10	NA	NA	ND	0.79 J
RIW-10A	10/7/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.5 J

TABLE 2-2
2013 SUMMARY OF LABORATORY ANALYTICAL RESULTS
UPPER AQUIFER MONITORING WELLS
J.H. Baxter Superfund Site
Weed, California

Well ID	Sample Date	Arsenic (µg/L)	Chromium (µg/L)	Copper (µg/L)	Zinc (µg/L)	PCP (µg/L)	TCP (µg/L)	Total pc PAHs (µg/L)	Total nc PAHs (µg/L)
ROD Clean Up Goals		5	8	11	90	2.2	NE	5	5
Minimum Reporting Level		5	5	10	10	2.2	NE	NA	NA
RIW-10B	10/7/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.54 J
RIW-13C	10/8/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
WP-13	4/1/2013	**7.4**	< 5.0	< 10	**1100**	NA	NA	ND	ND
WP-13	10/1/2013	< 5.0	< 5.0	< 10	**950**	NA	NA	ND	ND
NEW-1	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.78 J
NEW-1	10/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.58 J
NEW-2	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
NEW-2	10/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
NEW-3	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
NEW-3	10/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.48 J
NEW-4	4/9/2013	< 5.0	< 5.0	< 10	13	NA	NA	ND	ND
NEW-4	10/9/2013	**7.2**	< 5.0	< 10	< 10	NA	NA	ND	0.53 J
NEW-6	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
NEW-6	10/9/2013	**5.2**	< 5.0	< 10	< 10	NA	NA	ND	0.39 J
NEW-8	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.42 J
NEW-8	10/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.43 J
NEW-10	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.42 J
NEW-10	10/13/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	0.41 J
Quality Control Sample									
RIW-22 (duplicate of RIW-8B)	4/8/2013	< 5.0	< 5.0	< 10	20	NA	NA	ND	**1.0 J**

Notes:
NA = not applicable, not required
ND = not detected
NE = not established
Bold = Results above ROD Clean-up goals
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
-/+ Result biased low/high
See Appendix B for explanation of validated results

ROD = Record of Decision
PcPAH = potentially carcinogenic polycyclic aromatic hydrocarbons
NcPAH = non carcinogenic polycyclic aromatic hydrocarbons
* MW-12 and RIW-12A were dry during 2013

PCP = pentachlorophenol
TCP = tetrachlorophenol
µg/L = micrograms per liter

TABLE 2-3
2013 SUMMARY OF LABORATORY ANALYTICAL RESULTS
UPPER AQUIFER EXTRACTION WELLS OUTSIDE THE SLURRY WALL
J.H. Baxter Superfund Site
Weed, California

Well ID	Sample Date	Arsenic (µg/L)	Chromium (µg/L)	Copper (µg/L)	Zinc (µg/L)	Total pc PAHs (µg/L)	Total nc PAHs (µg/L)
ROD Clean Up Goals		5	8	11	90	5	5
Minimum Reporting Level		5	5	10	10	NA	NA
WEW-1	4/10/2013	**24**	< 5.0	**44**	**500**	ND	ND
WEW-1	10/13/2013	**27**	< 5.0	**23**	**300**	ND	ND
WEW-3	4/10/2013	< 5.0	< 5.0	< 10	**590**	ND	ND
WEW-3	10/13/2013	< 5.0	< 5.0	< 10	**1200**	ND	ND
WEW-5	4/10/2013	**11**	< 5.0	< 10	**150**	ND	ND
WEW-5	10/13/2013	**15**	< 5.0	**12**	**220**	ND	0.34 J
WEW-7	4/10/2013	**16**	< 5.0	**13**	**210**	ND	ND
WEW-7	10/14/2013	**7.6**	< 5.0	< 10	**130**	ND	ND
WEW-10	4/10/2013	**16**	< 5.0	**29**	**550**	ND	ND
WEW-10	10/14/2013	**6.5**	< 5.0	< 10	**500**	ND	0.35 J

NA = not applicable
ND = not detected
NE = not established
Bold = Results above ROD Clean-up goals
ROD = Record of Decision
PcPAH = potentially carcinogenic polycyclic aromatic hydrocarbons
NcPAH = non carcinogenic polycyclic aromatic hydrocarbons
PCP = pentachlorophenol
TCP = tetrachlorophenol
µg/L = micrograms per liter
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
-/+ Result biased low/high
See Appendix B for explanation of validated results

TABLE 2-4
2013 SUMMARY OF LABORATORY ANALYTICAL RESULTS
UPPER AQUIFER EXTRACTION WELLS INSIDE THE SLURRY WALL
J.H. Baxter Superfund Site
Weed, California

Well ID	Sample Date	Arsenic (µg/L)	Chromium (µg/L)	Copper (µg/L)	Zinc (µg/L)	PCP (µg/L)	TCP (µg/L)	Total Pc PAHs (µg/L)	Total nc PAHs (µg/L)
WP-8	4/3/2013	31	< 5.0	< 10	850	0.42	0.17 J	ND	ND

ND = not detected
µg/L = micrograms per liter
PCP = pentachlorophenol
PcPAH = potentially carcinogenic polycyclic aromatic hydrocarbons
NcPAH = non carcinogenic polycyclic aromatic hydrocarbons
TCP = tetrachlorophenol
J = The result is estimated concentration that is less than the MRL but greater or equal to the MDL
Note: A Technical Impracticability waiver has been applied to groundwater within the slurry wall containment system, thus the ROD clean-up goals are not applicable.
See Appendix B for explanation of validated results

TABLE 2-5
2013 SUMMARY OF LABORATORY ANALYTICAL RESULTS
LOWER AQUIFER MONITORING AND EXTRACTION WELLS

J.H. Baxter Superfund Site
Weed, California

Well ID	Sample Date	Arsenic (µg/L)	Chromium (µg/L)	Copper (µg/L)	Zinc (µg/L)	PCP (µg/L)	TCP (µg/L)	Total pc PAHs (µg/L)	Total nc PAHs (µg/L)
ROD Clean Up Goals		5	8	11	90	2.2	NE	5	5
Minimum Reporting Level		5	5	10	10	2.2	NE	NA	NA
MW-9B	4/2/2013	< 5.0	< 5.0	< 10	**100**	NA	NA	ND	ND
MW-9B	10/7/2013	< 5.0	< 5.0	< 10	24	NA	NA	ND	ND
B-1R	4/8/2013	< 5.0	< 5.0	< 10	< 10	< 0.050	< 0.048	ND	**85**
RIW-1D	4/3/2013	< 5.0	5.3	< 10	< 10	NA	NA	ND	ND
RIW-1D	10/2/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-12D	4/3/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-12D	10/6/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-9B	4/9/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	ND
RIW-9B	10/7/2013	< 5.0	< 5.0	< 10	18	NA	NA	ND	ND
Quality Control Sample									
RIW-22 (duplicate of RIW-12D)	10/6/2013	< 5.0	< 5.0	< 10	< 10	NA	NA	ND	**21**

NA = not applicable, not required
ND = not detected
ROD = Record of Decision
PcPAH = potentially carcinogenic polycyclic aromatic hydrocarbons
NcPAH = non-carcinogenic polycyclic aromatic hydrocarbons
µg/L = micrograms per liter
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
See Appendix B for explanation of validated results

TABLE 2-6
SUMMARY OF LABORATORY ANALYTICAL RESULTS
WATER TREATMENT PLANT
January through December, 2013

J.H. Baxter Superfund Site
Weed, California

Date Sampled	Arsenic (µg/L)		Chromium (µg/L)		Copper (µg/L)		Zinc (µg/L)		Pentachloro-phenol (µg/L)		Tetrachloro-phenol (µg/L)		Potentially carcinogenic PAHs (µg/L)		Noncarcinogenic PAHs (µg/L)	
	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent	Influent	Effluent
Minimum Reporting Level	NA	<1-<5	NA	<1-<5	NA	<1-<5	NA	<1-<10	NA	<0.3	NA	<0.4	NA	<0.2-1	NA	<0.2-1
January 3, 2013	4.1 J	< 1.0	< 1.0	< 1.0	6.7	< 1.0	66	3.6 J	0.46	< 0.050	0.22 J	< 0.049	ND	ND	7.1 J	ND
March 7, 2013	--	< 1.0	--	< 1.0	--	< 1.0	--	4.9 J	--	< 0.050	--	< 0.049	--	ND	--	ND
May 1, 2013	--	< 1.0	--	< 1.0	--	< 1.0	--	4.3 J	--	< 0.29	--	< 0.048	--	ND	--	ND
July 1, 2013	--	< 1.0	--	< 1.0	--	< 1.0	--	< 2.0	--	< 0.050	--	< 0.048	--	ND	--	ND
September 3, 2013	--	< 1.0	--	< 1.0	--	< 1.0	--	6.3	--	< 0.050	--	< 0.29	--	ND	--	ND
November 4, 2013	--	< 1.0	--	< 1.0	--	< 1.0	--	< 2.0	--	< 0.050	--	< 0.048	--	ND	--	0.40 J

Bold = Results above Best Practicable Treatment (BPT) Standards

-- = not applicable

ND = not detected

PAHs = polynuclear aromatic hydrocarbons

µg/L = micrograms per liter

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

See Appendix B for explanation of validated results

TABLE 3-1
2012 OPERATION, MAINTENANCE AND MONITORING ACTIVITIES
JH Baxter Superfund Site - Weed, California

System/Requirements	Activity	Findings and Observations	References
Slurry Wall/Gravel Drainage Trench			
Complete annual walk-through inspection of slurry wall cap (Visual note of erosion damage, undue wear, settlement, cracking)	Annual inspection 10/30/13	See Appendix C-6	TRC, February 1999, Draft Operations and Maintenance Plan; Groundwater Slurry Wall Remediation System (Section 3.0)
Perform annual benchmark survey	Annual survey completed 10/29/13	See Appendix C-6	
Measure groundwater level in gravel drainage trench quarterly	Groundwater levels: 1/2, 4/1, 7/1 & 10/1/13		
Perform maintenance activities as needed	No maintenance activities performed		
Groundwater Extraction System			
Record extraction well pumping rates and monitor operation weekly	Ongoing	Extraction logs provided in Appendix C-1	TRC, February 1999, Draft Operations and Maintenance Plan; Groundwater Slurry Wall Remediation System (Section 4.0)
Inspect well, piezometer, and pipeline conditions quarterly	No Activity		
Sample and test water in extraction wells semiannually	Samples collected April and October 2013		
Perform maintenance activities as needed	None needed		TRC, February 1999, Draft Operations and Maintenance Plan; Groundwater Slurry Wall Remediation System
Install new extraction wells as needed	No new extraction wells installed		
Water Treatment Plant			
Instrument calibration	Calibration: Ongoing	Water Treatment Plant operation logs provided in Appendix C-1	TRC, February 1999, Draft Operations and Maintenance Plan; Groundwater Slurry Wall Remediation System (Section 4.0)
Perform equipment maintenance activities as needed	Maintenance: Ongoing		
Sample and test water treatment plant influent annually	WTP influent: 1/3/13		TRC, February 1999, Draft Monitoring Confirmation Sampling Plan; Groundwater Slurry Wall Remediation System
Sample and test water treatment plant effluent semimonthly	WTP effluent: 1/3, 3/7, 5/1, 7/1, 9/3 & 11/4/13	See Table 2-6	
Record discharge volumes	Volume record: Ongoing	See Appendix C-1 for logs	
RCRA-Equivalent Cell			
Complete quarterly walk-through inspection of RCRA cell (Visual note of erosion damage, vegetation condition, settlement)	Walk-through inspection: 1/3, 4/14, 7/2 & 10/8/13	See Appendix C-2 for Quarterly O&M Log No unusual conditions observed	TRC, March 1999 - Draft Postclosure Operations and Maintenance Plan, Surface Soils, Area B, and Ditch Sediments (Sections 2.2 and 2.3)
Monitor LCRS pump operation quarterly	LCRS inspection: 1/3, 4/14, 7/2 & 10/8/13	LCRS ports dry	
Sample liquid in vadose zone and LCRS port if present	Liquid samples: n/a	All zones dry	
Monitor groundwater elevations in CMW-1 and CMW-2 quarterly	Groundwater levels: 1/2, 4/14, 7/1 & 10/8/13	See Section 2.0 for groundwater elevation results	
Sample and test groundwater in CMW-1 and CMW-2 quarterly	Groundwater sampled: 1/2, 4/14, 7/1 & 10/8/13	See Section 2.0 for groundwater quality results	
Perform annual benchmark survey	Benchmark survey completed in 10/29/13	See Appendix C-2	
Perform maintenance activities as needed	No erosion observed		
Wearing Surfaces			
Complete quarterly walk-through inspection of wearing surfaces (Visual note of potholes, loose gravel, distressed surface)	Quarterly inspections: 1/3, 4/4, 7/2 & 10/4/12	See Appendix C-3 for inspection log	TRC, March 1999 - Draft Postclosure Operations and Maintenance Plan, Surface Soils, Area B, and Ditch Sediments (Sections 3.2 and 3.3)
Annual inspection/rating of pavement surface	Deferred in 2013, will be completed in 1st quarter 2014		
Core sample testing every 5 years	Due 2017		
Non-destructive/destructive testing every 10 years	Due 2022		
Perform maintenance activities as needed	See annual report		
Surface Water Management/Stormwater Holding Ponds			
Complete quarterly walk-through inspection of stormwater ponds (Visual note sediment buildup, erosion, flow blockage, liner condition)	Walk-through inspections 1/3, 4/5, 7/2 & 10/4/13	See Appendix C-4 for inspection log	TRC, March 1999 - Draft Postclosure Operations and Maintenance Plan, Surface Soils, Area B, and Ditch Sediments (Sections 4.2 and 4.3)
Monitor transfer pump operation performance	Walk-through inspections 1/3, 4/5, 7/2 & 10/4/13	Transfer pumps in good condition	
Check for liquid in secondary containment zone	Walk-through inspections 1/3, 4/5, 7/2 & 10/4/13	No leakage observed into secondary zone	
Perform maintenance activities as needed	Ongoing maintenance as needed	Replaced damaged float control at #3 SW pond, Cleaned out SW pond #3 sediment	
Soils Management			
Follow notification and characterization procedures for soil excavation	No Activity	No soil excavated this quarter	TRC, March 1999 - Draft Postclosure Operations and Maintenance Plan, Surface Soils, Area B, and Ditch Sediments (Section 5.3)
Sample and test treated effluent disposal area soils every 5 years	No Activity	Next sampling scheduled for July 2014	

APPENDICES

APPENDIX A
SITE BACKGROUND

APPENDIX A

SITE BACKGROUND

A.1 REGULATORY BACKGROUND

Remedial activities related to groundwater and surface water at the JH Baxter Superfund Site (Site) are conducted under two orders. The U.S. Environmental Protection Agency (EPA) Unilateral Administrative Order (UAO), Docket No. 99-03, issued on December 23, 1998 (EPA, 1998) outlines requirements for remedial action at the Site and became effective on January 22, 1999. The Regional Water Quality Control Board, North Coast Region (NCRWQCB) issued a draft Monitoring and Reporting Program No. 93-88 which was revised October 19, 1999 and issued November 2, 1999. The revised program updated the requirements of the NCRWQCB to reflect new groundwater monitoring requirements in agreement with the UAO (NCRWQCB, 1999). The Monitoring and Reporting Program was revised again on September 7, 2000 (NCRWQCB, 2000).

On August 12, 2003, the WRG submitted a request to modify the Monitoring and Confirmation Sampling Plan (MWH, 2003a). On November 17, 2003 the NCRWQCB issued the revised Monitoring and Reporting Program, which was approved by EPA in January 2004 (NCRWQCB, 2003; EPA, 2004).

A.2 HYDROGEOLOGY

Two aquifers are separated by an aquitard in the upper 70 feet of soil at the site. The first aquifer is referred to as the Upper Aquifer and the second is the Lower Aquifer. Depth to water ranges from approximately 5 to 25 feet below ground surface (bgs) in the Upper Aquifer and from approximately 30 to 40 feet bgs in the Lower Aquifer. The aquitard consists of the Older Clastic Assemblage (OCA) unit. Depth to groundwater in the Lower Aquifer is typically 5 to 17 feet below the water level in the Upper Aquifer.

A.3 SELECTED REMEDY

The remedial systems implemented at the site include:

- Groundwater/Slurry Wall Remediation System
- Resource Conservation and Recovery Act (RCRA)-Equivalent Disposal Cell
- Area B Bioventing System

Each system is described in the following sections.

A.3.1 Groundwater/Slurry Wall Remediation System

Construction of the groundwater/slurry wall remediation system was initiated in April 1999 and the slurry wall was completed in July 1999. A groundwater extraction and monitoring well network was installed and tested in August 1999. Groundwater extraction from the network was initiated on December 10, 1999. The goal of the remediation system is to contain groundwater within the slurry wall that has been impacted by creosote dense non-aqueous phase liquids (DNAPL) and to allow restoration of the groundwater quality outside the slurry wall. The slurry wall contains Upper Aquifer groundwater and is keyed into the OCA; hence, it does not penetrate into the Lower Aquifer. As described in the Monitoring Confirmation Sampling Plan (MCSP) (TRC, 1999a), the groundwater/slurry wall remediation system includes:

- A slurry wall encompassing the subsurface soils containing DNAPLs;
- A gravel drainage trench located along the outside perimeter of the slurry wall to prevent groundwater mounding upgradient of the slurry wall;
- Groundwater extraction from wells inside the slurry wall to lower groundwater levels and induce a neutral or inward hydraulic gradient across the wall;
- Groundwater extraction from wells located outside the slurry wall to remove groundwater impacted by dissolved polynuclear aromatic hydrocarbons (PAHs) and metals;
- Modifications to the Baxter water treatment plant (WTP) to allow treatment of increased flow of impacted water from groundwater extraction and surface water runoff; and
- A treated water disposal system in the South Pasture.

Data quality objectives (DQOs) for the Groundwater/Slurry Wall Remediation System were established in the MCSP and identified four remedial components to be monitored. Table A-1 summarizes the DQOs. The four remedial components monitored are:

- Hydraulic Containment Inside the Slurry Wall
- Groundwater Quality and Flow Outside the Slurry Wall
- Treatment Plant Effluent
- Treated Water Disposal System

The methods used to monitor these remedial components are described in the following sections.

A.3.1.1 Hydraulic Containment and Groundwater Flow

Hydraulic containment inside the slurry wall and groundwater flow outside the slurry wall are evaluated by measuring depth to groundwater in monitoring wells. The water level measurement schedule is given in Table A-2. The decision rules associated with these evaluations are:

- The water level outside the slurry wall must be higher than the water level inside the slurry wall at corresponding pairs of monitoring points, and
- Water levels downgradient and cross-gradient from extraction wells must demonstrate a pattern of hydraulic containment or capture of affected groundwater.

Water levels were measured according to the procedures described in the revised Site-Wide Quality Assurance Project Plan (QAPP) (TRC, 2000). Water levels in the wells are obtained by lowering a conductivity-based water level indicator to the water surface, measuring the depth to water, and calculating the elevation in feet above mean sea level (msl) by subtracting the distance to the water surface from the top of casing (TOC) reference elevation. Measurements are made to the nearest 0.01-foot.

Groundwater elevation data for six well pairs are compared to evaluate the hydraulic control provided by the slurry wall and to evaluate if a neutral or inward gradient is being maintained

across the slurry wall. The current (and historic) comparison data are provided on Table A-3. Figure A-1 provides graphs of the head difference across the six well pairs.

A.3.1.2 Groundwater Quality

Groundwater quality outside the slurry wall is evaluated by measuring concentrations of Record of Decision (ROD [EPA, 1998]) constituents in the Upper Aquifer. The decision rule associated with this evaluation is:

- The groundwater quality must show an overall improvement, as demonstrated by decreasing concentration trends.

In accordance with the EPA UAO, wells outside the slurry wall are sampled to monitor changes in groundwater quality for ROD constituents. Areas both upgradient and downgradient of the slurry wall are monitored. The sampling schedule was modified in September 2000, eliminating pentachlorophenol (PCP), tetrachlorophenol (TCP), and benzene from the list of chemical analytes for monitoring wells and reducing the sampling frequency of ten monitoring wells to annual sampling (NCRWQCB, 2000). In addition, wells CMW-1 and CMW-2 were added to the monitoring program in January 2001 as compliance wells for the RCRA-equivalent disposal cell.

The sampling schedule was again modified in January 2004, eliminating certain wells from the groundwater sampling schedule and reducing the frequency of sampling extraction wells within the slurry wall. The revised sampling schedule is included in Table A-4.

Groundwater samples are analyzed for the following ROD constituents:

- Metals, including arsenic, chromium, copper, and zinc
- Potentially carcinogenic PAHs (pcPAHs)
- Non-carcinogenic PAHs (ncPAHs)

The results for the total PAHs analysis have been divided into potentially carcinogenic and non-carcinogenic groups. Table A-5 lists the individual PAH constituents that are either

potentially carcinogenic or non-carcinogenic. If pcPAHs are detected in a groundwater sample, a benzo(a)pyrene (BaP) toxicity equivalent concentration (TEC) calculation is performed following the procedure outlined in Appendix J of the Draft Final (100%) Remedial Design Report, Groundwater/Slurry Wall Remediation System (TRC, 1996). Additionally, though dibenzo(a,h)anthracene is not included as pcPAH constituent, it has been calculated into the TEC with a Toxicity Equivalency Factor of 0.34. If ncPAHs are detected for a sample, constituents are summed at the detection value if detected and one-half the reported detection limit for nondetects.

In addition to metals and PAHs, the groundwater samples from the extraction wells and CMW wells are analyzed for PCP and TCP. Sample collection, handling, and analysis procedures are described in the revised QAPP.

At the request of the WRG and subsequent approval by EPA, RWQCB and DTSC, extraction was ceased from the Northern Extraction Wells (NEWs) on October 15, 2008. A copy of the email authorization is provided as Attachment A-1 to this appendix.

A.3.1.3 Water Treatment Plant

Water treatment plant performance is evaluated through monthly monitoring of WTP effluent (TRC 1999b). The decision rule associated with this evaluation is:

- The average concentration of ROD constituents in the treated effluent must be less than the discharge criteria.

Surface water runoff and extracted groundwater are conveyed to and treated by the Baxter WTP. The revised MCSP approved in January 2004 Baxter WTP reduces the effluent sampling requirement from monthly to semimonthly verify that treated water achieves the discharge limits (MWH, 2003a). Effluent samples are used as compliance samples for the discharge of treated water. Influent samples are to be collected annually. Water quality collection handling and analytical procedures are outlined in the revised QAPP.

A.3.1.4 Treated Water Disposal System

Treated water disposal system compliance is evaluated through soil sampling in the South Pasture for inorganic ROD constituents (TRC, 1999c). The decision rule associated with this evaluation is:

- The average concentration of ROD constituents must be within the range of surface soils background concentrations.

Background soil sampling took place on October 14, 1999 to establish baseline values that will be used as the background concentrations to which future events will be compared. The soil was again sampled in April 2004 and July 2009, as described in the MCSP. In general, current results from the July 2009 sampling event were similar to the results from the past sampling events. The next event is scheduled for July 2014.

A.3.2 RCRA-Equivalent Cell

A RCRA-equivalent cell was constructed during 2000 and 2001 to contain soil impacted with ROD constituents. Soil from excavation units located both inside and outside the slurry wall containment area was placed in the RCRA-equivalent cell during 2001. The final cap was placed in September 2001.

Containment in the RCRA-equivalent cell is evaluated through water quality monitoring of downgradient wells CMW-1 and CMW-2. The baseline water quality of these wells was evaluated in January 2001.

A.3.3 Area B Bioventing System

The ROD Amendment allows for *in-situ* bioventing as the treatment technology for Area B. The ROD Amendment establishes the following treatment standards for Area B:

Constituent of Concern (COC)	Treatment Standard for Area B (mg/kg)
Pentachlorophenol	7.4
Potentially Carcinogenic Polynuclear Aromatic Hydrocarbons (pc-PAHs)	3.4
Non-Carcinogenic Polynuclear Aromatic Hydrocarbons (nc-PAHs)	3.4
Dioxins	0.001
Furans	0.001

Area B soils were contaminated with PAHs and were believed to have been excavated from a zone within the slurry wall impacted with DNAPL. The fill was moved to the current location when Roseburg began preparations for a new building construction, sometime between 1983 and 1985 (EPA, 1998b). The total volume of fill material at Area B was estimated at approximately 60,000 cubic yards (TRC, 1999d).

Initial start-up of the Area B bioventing system was performed in March 1999 (TRC, 1999d). The bioventing system was implemented as a full-scale test for a period of five years. The performance objectives described in the bioventing system design report (TRC, 1998b) for the three to five year test period are as follows:

1. Increase the average oxygen concentration in soil gas to greater than 15 percent
2. Attain average respiration rates greater than one percent per day
3. Reduce the average PAH concentrations by 25 percent after three years

The first performance criteria was monitored through quarterly sampling of vapor probes within Area B, while the third criteria was evaluated through year three with soil sampling for PAH constituents in October 2002. Results of the October 2002 soil sampling event were submitted to EPA on December 8, 2003 (MWH, 2003b).

The EPA completed their review of the Three Year Quality Assurance Sampling and concluded that the bioventing of Area B soils was complete (EPA, 2005). Therefore, the bioventing system was removed in July 2005. After bioventing system was removed, two feet of clean cover soil was placed over the Area B soils. A site visit was conducted on December 9, 2005 by Sara Monteith of CH2MHill (EPA's contractor) to view the completed fill activities. A letter report was issued to EPA on March 14, 2006 describing the work completed by Roseburg Forest Products on behalf of the WRG in removing the existing cover and replacing it with two feet of clean fill over the top (MWH, 2006). On August 16, 2010, EPA notified the WRG that ROD cleanup standards ditch sediments have been attained and no further sampling and analysis are required (EPA, 2010).

A.4 ROUTINE OPERATION AND MAINTENANCE ACTIVITIES

Construction activities for the remedial systems were completed in 2001. Therefore, current activities at the site are primarily related to operation and maintenance (O&M) activities. The O&M requirements are presented in several of the references listed below and are summarized in the main body of this report.

A.5 REFERENCES

EPA, 1998a. Amendment #1 to the Record of Decision for the J.H. Baxter Superfund Site, Weed, California. March 26, 1998.

EPA, 1998b. Amended ROD, U.S. EPA. March 27, 1998.

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EPA, 2004. E-mail approval of Request for Modification to the Monitoring/Confirmation Sampling Plan, Ground Water/Slurry Wall Remediation System (MCSP). January 5.

EPA, 2005. EPA letter regarding Area B Soils completion. June 23.

EPA, 2010. Email correspondence from Travis Cain, EPA to Richard Andrachek, WRG Project Coordinator.

Montgomery Watson, 2001. Annual Report on Groundwater/Slurry Wall Remediation System Effectiveness – January through June 2000, J.H. Baxter Superfund Site, Weed, California. January 30, 2001.

MWH, 2003a. Request for Modification to the Monitoring/Confirmation Sampling Plan, Ground Water/Slurry Wall Remediation System (MCSP). August 12.

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MWH, 2006. Letter Report on Area B Soils Fill Project, JH Baxter Suerfund Site, Weed, CA. March 14.

NCRWQCB, 1999. California Regional Water Quality Control Board, North Coast Region Draft Monitoring and Reporting Program No. 93-88 revised October 19, 1999.

NCRWQCB, 2000. California Regional Water Quality Control Board, North Coast Region Draft Monitoring and Reporting Program No. 93-88 revised September 7, 2000.

NCRWQCB, 2003. California Regional Water Quality Control Board, North Coast Region Draft Monitoring and Reporting Program No. 93-88, revised November 17, 2003.

TRC, 1996. Draft Final (100%) Remedial Design Report, Groundwater/Slurry Wall Remediation System

TRC, 1998a. Draft Final (100%) Remedial Design Report, Surface Soils, Area B, and Ditch Sediments

TRC, 1998b. Technical Memorandum (100%) Remedial Design Proposed Bioventing System, Area B Soils

TRC, 1998c. Draft Monitoring Confirmation Sampling Plan, Surface Soils, Area B, and Ditch Sediments

TRC, 1999a. Monitoring/Confirmation Sampling Plan (MCSP), Groundwater/Slurry Wall Remediation System

TRC, 1999b. Draft Operations and Maintenance Plan, Groundwater/Slurry Wall Remediation System

TRC. 1999c. Draft Postclosure Operations and Maintenance Plan – Surface Soils, Area B and Ditch Sediments, J.H. Baxter Superfund Site. March 1999.

TRC, 1999d. Technical Memorandum – Results of Initial Monitoring of Area B Bioventing System, J.H. Baxter Superfund Site. November 29, 1999.

TRC. 2000. Revised Site-Wide Quality Assurance Project Plan (QAPP).

ATTACHMENT A-1

Richard G Andrachek/User/Americas/Montgomery Watson

10/15/2008 09:00 AM

To Cain.Travis@epamail.epa.gov

cc gbaxter@jhbaxter.com, ellenp@rfpco.com, "Phil Slowiak" <philip.slowiak@ipaper.com>, tischukm@hansonle.com, Jacqueline Zipp, "Gale Jensen" <galej@premoteam.com>

bcc

Subject Re: Fw: JH Baxter Superfund Site, Weed, CA

Thanks Travis.

Cain.Travis@epamail.epa.gov

Cain.Travis@epamail.epa.gov

10/15/2008 08:58 AM

To Richard G Andrachek <Richard.Andrachek@mwhglobal.com>

cc

Subject Fw: JH Baxter Superfund Site, Weed, CA

Richard,

EPA, DTSC, and NCRWQCB concur with your proposal to cease groundwater extraction from the northern extraction wells at the JH Baxter Superfund Site.

----- Forwarded by Travis Cain/R9/USEPA/US on 10/15/2008 08:53 AM -----

"Edward Cargile" <ECargile@dtsc.ca.gov>

10/14/2008 04:44 PM

To Travis Cain/R9/USEPA/US@EPA

cc

Subject Re: Fw: JH Baxter Superfund Site, Weed, CA

Travis: DTSC concurs with the proposal to cease groundwater extraction from the northern extraction wells at the JH Baxter site.

>>> <Cain.Travis@epamail.epa.gov> 10/14/2008 1:18 PM >>>

Ed, do you concur also?

----- Forwarded by Travis Cain/R9/USEPA/US on 10/14/2008 01:17 PM -----

"Cody Walker"
<CWalker@waterboards.ca.gov>

10/14/2008 01:03 PM

To
Travis Cain/R9/USEPA/US@EPA

cc

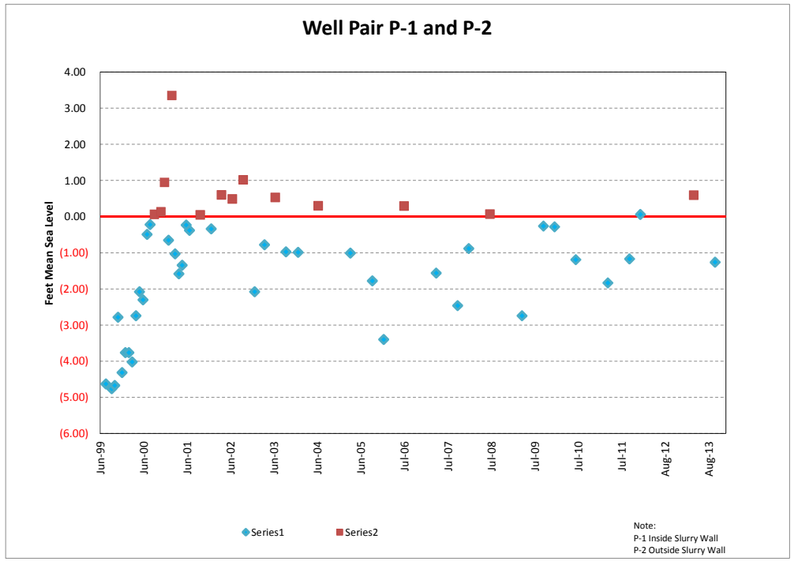
Subject
JH Baxter Superfund Site, Weed, CA

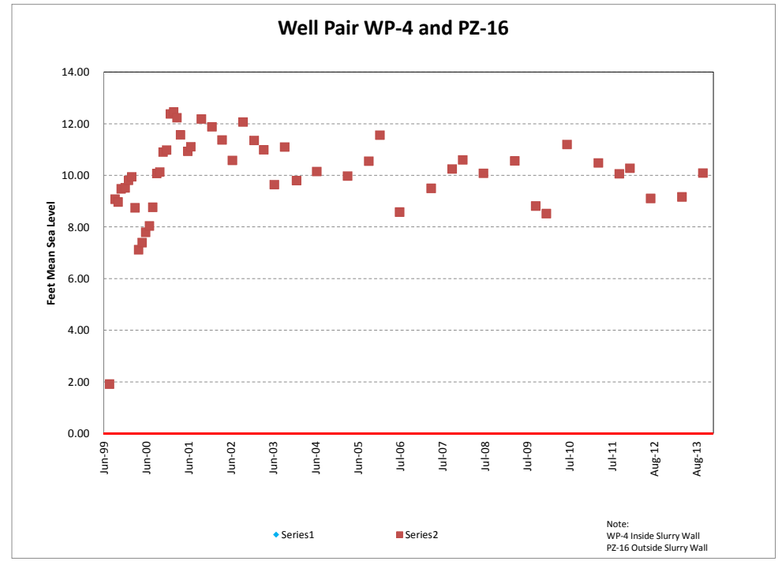
Dear Mr. Cain:
This email provides confirmation of our telephone conversations over the past week regarding the September 29, 2008, letter requesting to cease groundwater extraction from the northern extraction wells at the JH Baxter site. Regional Water Board staff concur with this request.

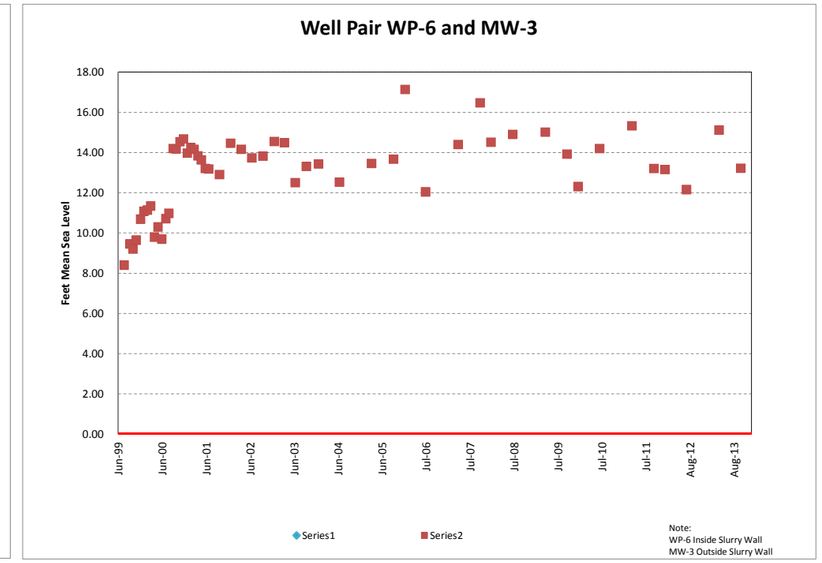
Sincerely,

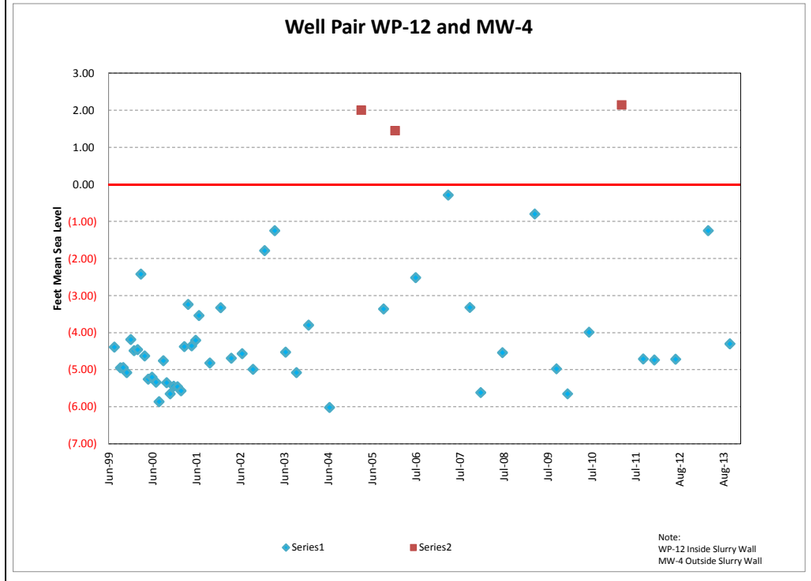
Cody Walker
Engineering Geologist
North Coast Regional Water Quality Control Board
(707) 576-2642

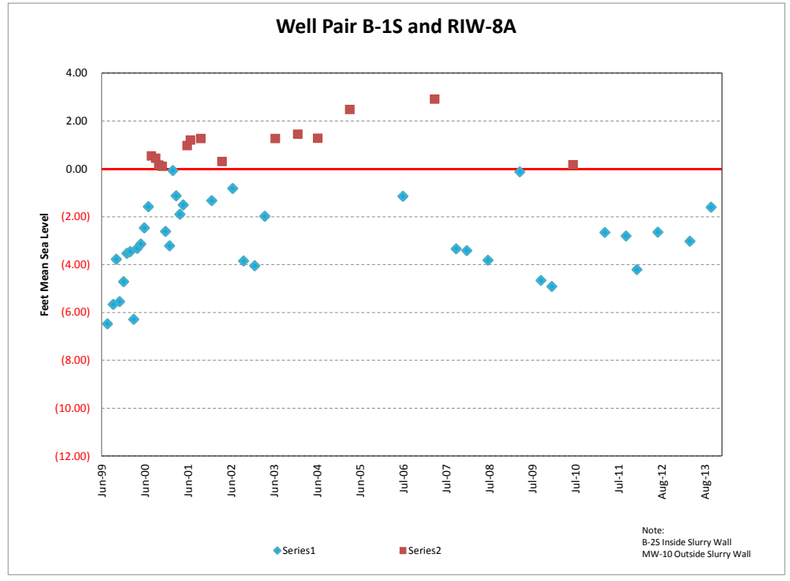
FIGURE

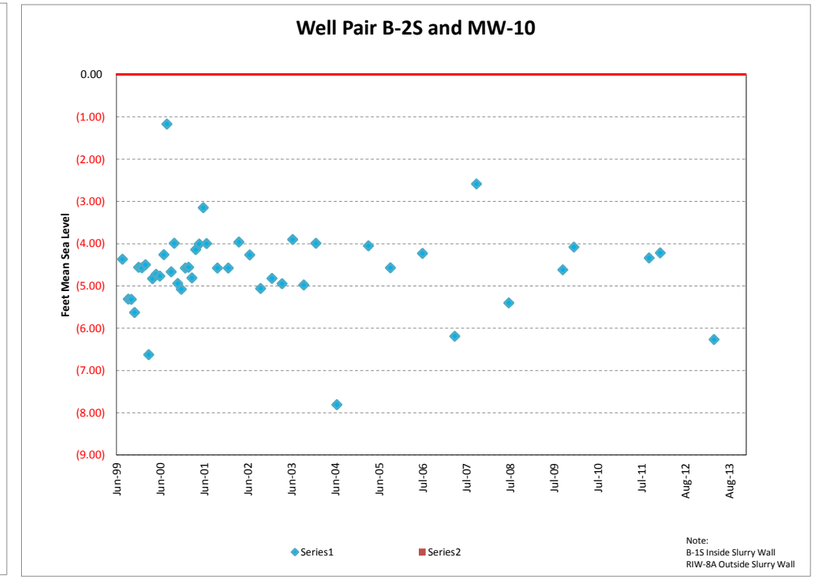












MWH

WEED REMEDIATION GROUP
J.H. BAXTER SUPERFUND SITE

HEAD DIFFERENCE ACROSS WELL PAIRS
FIGURE A-1

TABLES

TABLE A-1
DQO PROCESS FOR THE GROUNDWATER/SLURRY WALL REMEDIATION SYSTEM
J.H. Baxter Superfund Site
Weed, CA

DQO Step	REMEDIAL COMPONENT TO BE MONITORED			
	Hydraulic Containment Inside Slurry Wall	**Ground Water Quality and Flow Outside Slurry Wall**	**Treatment Plant Effluent**	**Treated Water Disposal System**
Statement of the problem.	▪ Hydraulic containment is necessary to eliminate flow of ROD constituents away from source areas.	▪ The objective of the remedy is to restore the aquifer by preventing further migration and removing affected groundwater.	▪ The treatment plant must achieve the ROD and RWQCB discharge limits to demonstrate compliance with the ROD standards.	▪ Discharge of the treated water may have the potential to impact surface soils.
Identify the decisions the data will be used to resolve.	▪ Is there an inward or neutral gradient across the slurry wall?	▪ Is the groundwater quality improving? ▪ Is the extraction system capturing water affected by ROD constituents?	▪ Does the treatment plant effluent meet the ROD and RWQCB criteria for discharge of treated water?	▪ Do the soils show evidence of accumulation of residual ROD constituents?
State the variables to be measured.	▪ Upper aquifer water levels inside and outside the slurry wall.	▪ Concentrations of ROD constituents in the upper aquifer. ▪ Water levels in the monitoring wells.	▪ ROD constituent concentrations in the treatment plant effluent.	▪ Concentrations of inorganic ROD constituents in surface soils.
Define boundaries of the study area including spatial and temporal limits.	▪ Area within slurry wall and above OCA. ▪ Maintenance of gradient necessary as long as groundwater within the area contains elevated concentrations of ROD constituents, or until fate and transport evaluations indicate gradient is not sufficient containment.	▪ The area boundaries are the limits of affected groundwater outside the slurry wall containment area, which will change over time as the aquifer is restored. Currently, this is the area upgradient of the extraction well systems. ▪ The point of compliance is the aquifer outside the slurry wall containment area. Temporary quality must be monitored and flow must be captured until ROD constituent concentrations are consistently below cleanup standards.	▪ Area is point of discharge (also point of compliance.) ▪ Temporary effluent must be tested as long as water is being treated and discharged to land.	▪ The South Pasture area. ▪ Monitoring must continue as long as the disposal system is in use.
Decision rules.	▪ The water level outside the slurry wall must be greater than the water level inside the slurry wall at corresponding pairs of monitoring points.	▪ The groundwater quality must show an overall improvement, as demonstrated by decreasing concentration trends. Concentrations may increase over the short term, or stay the same, but the overall trend must be downward concentration toward background levels. ▪ Water levels downgradient and cross gradient from extraction wells must demonstrate a pattern of hydraulic containment or capture of affected groundwater.	▪ The annual average concentration of ROD constituents in the treated effluent must be less than discharge criteria.	▪ The average concentration of ROD constituents must be within range of surface soils background concentrations (i.e., ROD standards for ditch sediments.)

TABLE A-1
DQO PROCESS FOR THE GROUNDWATER/SLURRY WALL REMEDIATION SYSTEM
J.H. Baxter Superfund Site
Weed, CA

DQO Step	REMEDIAL COMPONENT TO BE MONITORED			
	Hydraulic Containment Inside Slurry Wall	**Ground Water Quality and Flow Outside Slurry Wall**	**Treatment Plant Effluent**	**Treated Water Disposal System**
Uncertainty constraints for the decision process.	▪ All monitoring point pairs (one inside and one outside) must show an inward gradient that is distinguishable considering the potential errors of the measurement of water elevation (i.e., >.05 inches difference between inside and outside water levels at all well pairs.) ▪ Uncertainty is difficult to quantify, but above criteria is likely >95 percent confidence with 80 percent power.	▪ No uncertainty constraints proposed for improvements in water quality. Because of the low, near background concentrations, uncertainty constraints on water quality trends would not be met until sufficient data had been collected to distinguish seasonal and other background variations and short-term changes in hydrology due to installation of slurry wall. As database develops, confidence in trends will improve. ▪ Long term (i.e., >5 years) of power and confidence trends is expected to be on the order of 80 percent and 90 percent, respectively.	▪ Annual average, as defined by the 95 percent upper confidence limit of the mean must be less than discharge criteria. ▪ No single measurement in a year can exceed five times the discharge criteria.	▪ The number of samples and their representativness of the true mean define the confidence and power of the decision. ▪ Sufficient samples will be collected to show with 90 percent confidence and 80 percent power that the criteria are met.
Optimize design with constraints of the project goals.	▪ See Chapter 3.0 MCSP	▪ See Chapter 4.0 MCSP	▪ See Chapter 5.0 MCSP	▪ See Chapter 5.0 MCSP

DQO = Data Quality Objective
MCSP = Monitoring/Confirmation Sampling Plan Groundwater/Slurry Wall Remediation System (TRC, 1999a)
OCA = Older Clastic Assemblage
ROD = Record of Decision
RWQCB = Regional Water Quality Control Borad

TABLE A-2
GROUNDWATER ELEVATION MONITORING SCHEDULE

J.H. Baxter Superfund Site
Weed, California

Containment Well Pairs (Inside/Outside Slurry Wall)	Groundwater Levels Outside Slurry Wall		Capture Zone Monitoring
	Upper Aquifer	Lower Aquifer	
SEMI ANNUAL	**QUARTERLY**	**QUARTERLY**	**SEMI ANNUAL**
P-1/P-2	MW-4	MW-9B	CZP-1 to CZP-10
WP-4/PZ-16	MW-6A	RIW-1D	MW-4
WP-6/MW-3	MW-9A	RIW-9B	MW-5
B-2S/MW-10	MW-10	RIW-12D	MW-6A
B-1S/RIW-8A	MW-12		MW-6B
	MW-13		MW-7
	MW-14		MW-10
	WP-13		RIW-2A
	RIW-1B		RIW-9A
	RIW-3A		RIW-9B
	RIW-3B		GZP-5
	RIW-8B		
	RIW-9A		
	RIW-10A		
	RIW-10B		
	RIW-12A		
	RIW-12D		
	RIW-13C		
	GT-1 to GT-5		
	NEW-8		
	CHW-1		
	CHW-2		

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
P-1/P-2	7/21/1999	3517.64	3513.01	(4.63)
	9/9/1999	3517.65	3512.89	(4.76)
	10/4/1999	3517.50	3512.83	(4.67)
	11/1/1999	3516.62	3513.84	(2.78)
	12/6/1999	3517.68	3513.37	(4.31)
	1/3/2000	3517.07	3513.31	(3.76)
	2/1/2000	3517.11	3513.35	(3.76)
	3/1/2000	3518.60	3514.58	(4.02)
	4/1/2000	3517.68	3514.94	(2.74)
	5/1/2000	3517.91	3515.83	(2.08)
	6/1/2000	3517.14	3514.84	(2.30)
	7/5/2000	3515.94	3515.45	(0.49)
	8/1/2000	3515.29	3515.07	(0.22)
	9/6/2000	3514.86	3514.80	0.06
	10/2/2000	NM	NM	NA
	11/1/2000	3515.14	3515.27	0.13
	12/1/2000	3515.77	3514.82	0.95
	1/3/2001	3514.99	3514.34	(0.65)
	2/1/2001	3513.54	3516.89	3.35
	3/1/2001	3516.25	3515.22	(1.03)
	4/2/2001	3517.45	3515.87	(1.58)
	5/1/2001	3517.37	3516.03	(1.34)
	6/4/2001	3516.13	3515.90	(0.23)
	7/2/2001	3515.70	3515.32	(0.38)
	10/1/2001	3514.74	3514.79	0.05
	1/2/2002	3516.47	3516.13	(0.34)
	4/1/2002	3514.94	3515.54	0.60
	7/1/2002	3514.80	3515.29	0.49
	10/1/2002	3514.32	3515.34	1.02
	1/6/2003	3519.17	3517.09	(2.08)
	4/1/2003	3518.09	3517.31	(0.78)
	7/1/2003	3516.74	3517.27	0.53
	10/1/2003	3515.67	3514.70	(0.97)
	1/12/2004	3517.53	3516.54	(0.99)
	7/1/2004	3515.75	3516.05	0.30
	4/1/2005	3517.17	3516.16	(1.01)
	10/4/2005	3515.77	3513.99	(1.78)
	1/9/2006	3518.54	3515.14	(3.40)
	7/1/2006	3516.07	3516.36	0.29
	4/1/2007	3517.14	3515.58	(1.56)
	10/1/2007	3517.14	3514.68	(2.46)
	1/2/2008	3515.42	3514.54	(0.88)
	7/1/2008	3515.11	3515.18	0.07
	4/1/2009	3517.74	3515.00	(2.74)
	10/1/2009	3514.54	3514.28	(0.26)
	1/2/2010	3515.22	3514.94	(0.28)
	7/2/2010	3517.54	3516.35	(1.19)
	4/1/2011	3518.99	3517.16	(1.83)
	10/2/2011	3515.02	3513.85	(1.17)
	1/3/2012	3515.14	3515.20	0.06
	7/1/2012	NM	3514.82	NM
	4/1/2013	3514.92	3515.51	0.59
	10/1/2013	3514.93	3513.67	(1.26)

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
B-1S/RIW-8A	1/4/1999	3520.67	3511.34	(9.33)
	4/1/1999	3521.60	3511.71	(9.89)
	7/21/1999	3520.53	3514.05	(6.48)
	9/9/1999	3518.76	3513.09	(5.67)
	10/4/1999	3518.80	3515.02	(3.78)
	11/1/1999	3520.81	3515.26	(5.55)
	12/6/1999	3519.44	3514.72	(4.72)
	1/3/2000	3518.45	3514.91	(3.54)
	2/1/2000	3518.50	3515.04	(3.46)
	3/1/2000	3520.93	3514.64	(6.29)
	4/1/2000	3518.72	3515.40	(3.32)
	5/1/2000	3518.99	3515.84	(3.15)
	6/1/2000	3518.02	3515.55	(2.47)
	7/5/2000	3516.77	3515.19	(1.58)
	8/1/2000	3514.26	3514.80	0.54
	9/6/2000	3513.85	3514.29	0.44
	10/2/2000	3513.89	3514.05	0.16
	11/1/2000	3514.35	3514.45	0.10
	12/1/2000	3517.36	3514.74	(2.62)
	1/3/2001	3517.54	3514.32	(3.22)
	2/1/2001	3514.94	3514.87	(0.07)
	3/1/2001	3516.11	3514.98	(1.13)
	4/2/2001	3517.16	3515.26	(1.90)
	5/1/2001	3516.89	3515.38	(1.51)
	6/4/2001	3514.01	3514.98	0.97
	7/2/2001	3513.64	3514.84	1.20
	10/1/2001	3512.95	3514.21	1.26
	1/2/2002	3516.15	3514.82	(1.33)
	4/1/2002	3514.75	3515.05	0.30
	7/1/2002	3514.75	3513.93	(0.82)
	10/1/2002	3517.38	3513.53	(3.85)
	1/6/2003	3520.85	3516.80	(4.05)
	4/1/2003	3519.38	3517.40	(1.98)
	7/1/2003	3515.45	3516.72	1.27
	10/1/2003	NM	3514.45	NA
	1/12/2004	3513.79	3515.23	1.44
	7/1/2004	3513.96	3515.24	1.28
	4/1/2005	3512.17	3514.65	2.48
	10/4/2005	NM	3514.38	NA
	1/9/2006	NM	3516.55	NA
	7/1/2006	3515.36	3514.21	(1.15)
	4/1/2007	3511.30	3514.21	2.91
	10/1/2007	3515.27	3511.92	(3.35)
	1/2/2008	3516.35	3512.93	(3.42)
	7/1/2008	3515.36	3511.54	(3.82)
	4/1/2009	3515.46	3515.33	(0.13)
	10/1/2009	3515.37	3510.70	(4.67)
	1/2/2010	3515.87	3510.95	(4.92)
	7/2/2010	3515.88	3516.05	0.17
	4/1/2011	3516.95	3514.29	(2.66)
	10/2/2011	3514.00	3511.19	(2.81)
	1/3/2012	3515.36	3511.15	(4.21)
	7/1/2012	3516.30	3513.65	(2.65)
	4/1/2013	3516.44	3513.41	(3.03)
	10/1/2013	3512.74	3511.13	(1.61)

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
B-2S/MW-10	1/4/1999	3520.68	3515.21	(5.47)
	4/1/1999	3521.41	3516.98	(4.43)
	7/21/1999	3519.03	3514.66	(4.37)
	9/9/1999	3518.92	3513.61	(5.31)
	10/4/1999	3518.62	3513.30	(5.32)
	11/1/1999	3520.33	3514.70	(5.63)
	12/6/1999	3520.37	3515.81	(4.56)
	1/3/2000	3518.12	3513.55	(4.57)
	2/1/2000	3518.18	3513.68	(4.50)
	3/1/2000	3522.14	3515.51	(6.63)
	4/1/2000	3519.88	3515.05	(4.83)
	5/1/2000	3519.83	3515.10	(4.73)
	6/1/2000	3518.98	3514.21	(4.77)
	7/5/2000	3517.77	3513.51	(4.26)
	8/1/2000	3516.56	3515.39	(1.17)
	9/6/2000	3516.47	3511.80	(4.67)
	10/2/2000	3515.57	3511.58	(3.99)
	11/1/2000	3516.83	3511.89	(4.94)
	12/1/2000	3516.53	3511.45	(5.08)
	1/3/2001	3516.08	3511.50	(4.58)
	2/1/2001	3516.94	3512.38	(4.56)
	3/1/2001	3518.52	3513.71	(4.81)
	4/2/2001	3519.18	3515.04	(4.14)
	5/1/2001	3519.45	3515.44	(4.01)
	6/4/2001	3516.76	3513.61	(3.15)
	7/2/2001	3516.53	3512.53	(4.00)
	10/1/2001	3515.68	3511.10	(4.58)
	1/2/2002	3519.12	3514.54	(4.58)
	4/1/2002	3517.60	3513.64	(3.96)
	7/1/2002	3517.18	3512.91	(4.27)
	10/1/2002	3516.60	3511.54	(5.06)
	1/6/2003	3521.41	3516.59	(4.82)
	4/1/2003	3521.24	3516.29	(4.95)
	7/1/2003	3519.01	3515.11	(3.90)
	10/1/2003	3517.88	3512.90	(4.98)
	1/12/2004	3519.38	3515.39	(3.99)
	7/7/2004	3518.02	3510.21	(7.81)
	4/1/2005	3518.89	3514.84	(4.05)
	10/4/2005	3517.38	3512.81	(4.57)
	1/9/2006	3521.75	Buried	NA
	7/1/2006	3518.52	3514.29	(4.23)
	4/1/2007	3521.03	3514.84	(6.19)
	10/1/2007	3515.40	3512.81	(2.59)
	1/2/2008	3517.06	Covered	NA
	7/1/2008	3516.93	3511.53	(5.40)
	4/1/2009	3518.84	NM	NA
	10/1/2009	3515.70	3511.08	(4.62)
	1/2/2010	3515.84	3511.76	(4.08)
	7/2/2010	3517.92	Covered	NA
	4/1/2011	3520.71	Covered	NA
	10/2/2011	3516.35	3512.01	(4.34)
	1/3/2012	3516.19	3511.97	(4.22)
	7/1/2012	3517.58	NM	NA
	4/1/2013	3521.26	3514.99	(6.27)
	10/1/2013	3515.83	UTM	NA

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
WP-12/MW-4	7/21/1999	3531.61	3527.22	(4.39)
	9/9/1999	3530.31	3525.36	(4.95)
	10/4/1999	3529.93	3524.99	(4.94)
	11/1/1999	3529.61	3524.53	(5.08)
	12/6/1999	3530.53	3526.34	(4.19)
	1/3/2000	3531.16	3526.67	(4.49)
	2/1/2000	3531.33	3526.87	(4.46)
	3/1/2000	3536.61	3534.19	(2.42)
	4/1/2000	3536.98	3532.35	(4.63)
	5/1/2000	3536.69	3531.43	(5.26)
	6/1/2000	3534.29	3529.09	(5.20)
	7/5/2000	3533.51	3528.17	(5.34)
	8/1/2000	3532.41	3526.55	(5.86)
	9/6/2000	3531.41	3526.65	(4.76)
	10/2/2000	3530.85	3525.50	(5.35)
	11/1/2000	3530.31	3524.66	(5.65)
	12/1/2000	3529.75	3524.30	(5.45)
	1/3/2001	3529.61	3524.15	(5.46)
	2/1/2001	3529.86	3524.29	(5.57)
	3/1/2001	3530.26	3525.88	(4.38)
	4/2/2001	3532.15	3528.91	(3.24)
	5/1/2001	3533.14	3528.78	(4.36)
	6/4/2001	3532.11	3527.90	(4.21)
	7/2/2001	3531.44	3527.90	(3.54)
	10/1/2001	3529.95	3525.13	(4.82)
	1/2/2002	3532.01	3528.68	(3.33)
	4/1/2002	3532.91	3528.22	(4.69)
	7/1/2002	3531.67	3527.10	(4.57)
	10/1/2002	3530.20	3525.21	(4.99)
	1/6/2003	3534.43	3532.64	(1.79)
	4/1/2003	3534.37	3533.12	(1.25)
	7/1/2003	3534.74	3530.21	(4.53)
	10/1/2003	3531.94	3526.86	(5.08)
	1/12/2004	3534.16	3530.36	(3.80)
	7/7/2004	3534.88	3528.86	(6.02)
	4/1/2005	3533.60	3535.60	2.00
	10/4/2005	3529.56	3526.20	(3.36)
	1/9/2006	3533.39	3534.84	1.45
	7/1/2006	3534.14	3531.62	(2.52)
	4/1/2007	3531.78	3531.49	(0.29)
	10/1/2007	3527.76	3524.44	(3.32)
	1/2/2008	3530.51	3524.89	(5.62)
	7/1/2008	3531.84	3527.30	(4.54)
	4/1/2009	3532.17	3531.37	(0.80)
	10/1/2009	3529.93	3524.95	(4.98)
	1/2/2010	3530.45	3524.80	(5.65)
	7/2/2010	3533.46	3529.47	(3.99)
	4/1/2011	3533.62	3535.76	2.14
	10/2/2011	3529.51	3524.80	(4.71)
	1/3/2012	3529.38	3524.64	(4.74)
	7/1/2012	3532.31	3527.59	(4.72)
	4/1/2013	3533.83	3532.58	(1.25)
	10/1/2013	3529.33	3525.03	(4.30)

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
WP-6/MW-3	7/21/1999	3536.45	3544.85	8.40
	9/9/1999	3534.66	3544.12	9.46
	10/4/1999	3534.07	3543.27	9.20
	11/1/1999	3533.98	3543.62	9.64
	12/6/1999	3534.91	3545.59	10.68
	1/3/2000	3534.27	3545.34	11.07
	2/1/2000	3534.41	3545.55	11.14
	3/1/2000	3538.26	3549.60	11.34
	4/1/2000	3537.96	3547.75	9.79
	5/1/2000	3537.43	3547.72	10.29
	6/1/2000	3537.07	3546.76	9.69
	7/5/2000	3535.46	3546.17	10.71
	8/1/2000	3534.53	3545.50	10.97
	9/6/2000	3530.77	3544.97	14.20
	10/2/2000	3530.43	3544.61	14.18
	11/1/2000	3529.92	3544.46	14.54
	12/1/2000	3529.98	3544.66	14.68
	1/3/2001	3530.91	3544.88	13.97
	2/1/2001	3530.91	3545.16	14.25
	3/1/2001	3531.80	3545.96	14.16
	4/2/2001	3532.90	3546.74	13.84
	5/1/2001	3533.27	3546.91	13.64
	6/4/2001	3532.90	3546.11	13.21
	7/2/2001	3532.44	3545.62	13.18
	10/1/2001	3531.24	3544.15	12.91
	1/2/2002	3532.55	3547.01	14.46
	4/1/2002	3533.06	3547.22	14.16
	7/1/2002	3532.46	3546.20	13.74
	10/1/2002	3531.11	3544.93	13.82
	1/6/2003	3533.48	3548.03	14.55
	4/1/2003	3533.51	3548.00	14.49
	7/1/2003	3534.71	3547.22	12.51
	10/1/2003	3532.36	3545.67	13.31
	1/12/2004	3535.17	3548.60	13.43
	7/7/2004	3534.29	3546.82	12.53
	4/1/2005	3534.68	3548.14	13.46
	10/4/2005	3532.15	3545.82	13.67
	1/9/2006	3532.41	3549.55	17.14
	7/1/2006	3534.00	3546.04	12.04
	4/1/2007	3532.98	3547.38	14.40
	10/1/2007	3528.72	3545.19	16.47
	1/2/2008	3530.51	3545.02	14.51
	7/1/2008	3529.37	3544.28	14.91
	4/1/2009	3532.93	3547.95	15.02
	10/1/2009	3529.04	3542.97	13.93
	1/2/2010	3531.16	3543.47	12.31
	7/2/2010	3533.62	3547.82	14.20
	4/1/2011	3533.77	3549.10	15.33
	10/2/2011	3529.56	3542.77	13.21
	1/3/2012	3529.41	3542.57	13.16
	7/1/2012	3533.13	3545.28	12.15
	4/1/2013	3532.81	3547.93	15.12
	10/1/2013	3529.39	3542.61	13.22

TABLE A-3
HYDRAULIC CONTAINMENT MONITORING WELL PAIRS

J.H. Baxter Superfund Site
Weed, California

Well Pair (Inside/Outside)	Date	Groundwater Elevation Inside Slurry Wall (ft msl)	Groundwater Elevation Outside Slurry Wall (ft msl)	Hydraulic Head Difference
WP-4/PZ-16	7/21/1999	3537.68	3539.59	1.91
	9/9/1999	3530.53	3539.60	9.07
	10/4/1999	3530.13	3539.09	8.96
	11/1/1999	3530.42	3539.89	9.47
	12/6/1999	3531.00	3540.51	9.51
	1/3/2000	3530.58	3540.39	9.81
	2/1/2000	3530.78	3540.72	9.94
	3/1/2000	3533.37	3542.11	8.74
	4/1/2000	3533.48	3540.60	7.12
	5/1/2000	3533.05	3540.44	7.39
	6/1/2000	3532.27	3540.06	7.79
	7/5/2000	3531.55	3539.59	8.04
	8/1/2000	3530.84	3539.60	8.76
	9/6/2000	3530.18	3540.25	10.07
	10/2/2000	3530.00	3540.13	10.13
	11/1/2000	3529.63	3540.53	10.90
	12/1/2000	3529.36	3540.34	10.98
	1/3/2001	3529.15	3541.53	12.38
	2/1/2001	3529.15	3541.61	12.46
	3/1/2001	3530.26	3542.49	12.23
	4/2/2001	3531.19	3542.76	11.57
	5/1/2001	3531.27	NM	N/A
	6/4/2001	3530.76	3541.69	10.93
	7/2/2001	3530.47	3541.58	11.11
	10/1/2001	3529.29	3541.47	12.18
	1/2/2002	3530.95	3542.83	11.88
	4/1/2002	3531.03	3542.40	11.37
	7/1/2002	3531.13	3541.71	10.58
	10/1/2002	3529.31	3541.38	12.07
	1/6/2003	3532.28	3543.63	11.35
	4/1/2003	3532.36	3543.35	10.99
	7/1/2003	3532.54	3542.18	9.64
	10/1/2003	3530.38	3541.48	11.10
	1/12/2004	3533.48	3543.28	9.80
	7/7/2004	3531.90	3542.05	10.15
	4/1/2005	3533.11	3543.08	9.97
	10/4/2005	3530.60	3541.15	10.55
	1/9/2006	3531.93	3543.49	11.56
	7/1/2006	3532.59	3541.16	8.57
	4/1/2007	3531.28	3540.77	9.49
	10/1/2007	3527.40	3537.65	10.25
	1/2/2008	3528.33	3538.93	10.60
	7/1/2008	3529.37	3539.45	10.08
	4/1/2009	3530.79	3541.35	10.56
	10/1/2009	3529.04	3537.85	8.81
	1/2/2010	3529.96	3538.47	8.51
	7/2/2010	3529.96	3541.15	11.19
	4/1/2011	3532.52	3543.00	10.48
	10/2/2011	3528.19	3538.25	10.06
	1/3/2012	3527.90	3538.18	10.28
	7/1/2012	3531.08	3540.18	9.10
	4/1/2013	3531.71	3540.87	9.16
	10/1/2013	3528.02	3538.11	10.09

Note: Negative numbers (in parentheses) indicates outward flow gradient
ft msl - feet above mean sea level

NA = Not applicable
NM = Not monitored
UTM = Unable to measure

TABLE A-4
WATER AND SOIL QUALITY MONITORING SCHEDULE

J. H Baxter Superfund Site
Weed, California

Groundwater Quality Outside Slurry Wall				Groundwater Quality Extraction Wells		BAXTER WTP EFFLUENT	ROSEBURG WTP EFFLUENT[3]	TREATED EFFLUENT DISPOSAL AREA (SOIL SAMPLES)
SEMI ANNUAL		ANNUAL	QUARTERLY	SEMI ANNUAL	5 YEARS[1]	BI MONTHLY	BI MONTHLY	5 YEARS
Upper Aquifer	Lower Aquifer	Upper Aquifer		OUTSIDE Slurry Wall	INSIDE Slurry Wall			
MW-4 MW-6A MW-9A MW-10 MW-12 MW-13 MW-14 NEW-8 RIW-3A RIW-8B WP-13	MW-9B RIW-1D RIW-9B RIW-12D	RIW-1B RIW-3B RIW-9A RIW-10A RIW-10B RIW-12A RIW-13C	CMW-1 CMW-2	NEW-1 NEW-2 NEW-3 NEW-4 NEW-6 NEW-10 WEW-1 WEW-3 WEW-5 WEW-7 WEW-8 WEW-10	SEW-0 SEW-2 SEW-5 SEW-8 WP-2 WP-8 WP-9 WP-11 WP-14 B-1R[2]	Discharge Points	Discharge Points	As Determined
Dissolved As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS			Dissolved As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS, PCP, TCP	Dissolved As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS	Dissolved As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS, PCP, TCP	Total As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS, PCP, TCP	Total As, Cr, Cu, Zn, Total pc-PAHs, ncPAHS, PCP, TCP	As, Cr, Cu, Zn

(1) Two wells sampled annually on a rotating schedule, all wells sampled with a five year period.

(2) Although M&R Program 93-88 states to sample well once every five years, voluntarily sampling semi annualy as well is below slurry wall

(3) Sample monthly when treatment plant is operating.

WTP = Water Treatment Plan
pcPAH = Potentially carcinogenic polynuclear aromatic hydrocarbon
ncPAH = Non-carcinogenic polynuclear aromatic hydrocarbon

TABLE A-5
LIST OF POTENTIALLY CARCINOGENIC AND NON-CARCINOGENIC PAHS

J.H. Baxter Superfund Site
Weed, CA

Potentially Carcinogenic PAHs	Non-carcinogenic PAHs
Chrysene	Acenaphthene
Benzo(a)anthracene	Acenaphthylene
Benzo(a)pyrene	Anthracene
Benzo(b)fluoranthene	Benzo(g,h,i)perylene
Benzo(k)fluoranthene	Dibenzofuran
Indeno(1,2,3-cd)pyrene	Fluoranthene
	Fluorene
	2-Methylnaphthalene
	Napthalene
	Phenanthrene
	Pyrene

PAH = polynuclear aromatic hydrocarbon

MWH

APPENDIX B
QUALITY ASSURANCE/QUALITY CONTROL SUMMARY

APPENDIX B

QUALITY ASSURANCE/QUALITY CONTROL SUMMARY REPORT

B.1 SUMMARY OF DATA COLLECTED

This data quality assurance/quality control (QA/QC) summary report has been prepared for water samples collected during the 2013 monitoring events at the J.H. Baxter Superfund Site. Samples were analyzed by TestAmerica Laboratories, Inc., located in Arvada, Colorado and Pleasanton, California. A summary of the samples analyzed is presented below. Field and QC samples were analyzed by one or more of the following methods:

- Polynuclear aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (USEPA) Method SW8310, analyzed at the Colorado location
- Pentachlorophenol (PCP) and 2,3,5,6-tetrachlorophenol (TCP), by USEPA Method SW8270C with selective ion monitoring (SIM), analyzed at the California location
- Dibenzofuran by USEPA Method SW8270C SIM, analyzed at the California location, and
- Metals (arsenic [As], chromium [Cr], copper [Cu], and zinc [Zn]) by USEPA Method 200.8, analyzed at the Colorado location.

Sample Type	Number of Samples	Chemical Analysis
Semiannual Sampling Events	63	Metals
	63	PAHs
	3	Chlorinated phenols
Groundwater Treatment Plant	7	Metals
	7	PAHs
	7	Chlorinated phenols
RCRA Cell	8	Metals
	8	PAHs
	8	Chlorinated phenols

B.2 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

All data met the data quality objectives (DQOs) for this program and are considered acceptable as qualified for their intended use. The analytical data were reviewed for the following criteria:

- Sample condition and holding times
- Method reporting limits (RLs)
- Laboratory method blanks
- Laboratory control samples
- Laboratory control sample duplicates
- Matrix spike samples
- Matrix spike duplicate samples
- Surrogate recoveries (for organic analyses)
- Second column confirmation (for PAHs)
- Field QC samples

B.2.1 SAMPLE CONDITION, HOLDING TIMES, AND METHOD REPORTING LIMITS

This section summarizes the quality control criteria for sample receipt condition, holding time compliance and method reporting limits.

Sample Condition: All samples were received by the laboratory in good condition and within the acceptable temperature range of 4 ± 2 degrees Celsius (°C) with the following exceptions:

- Six coolers were received at the laboratory with temperatures ranging from 0.2°C to 1.9°C. The target compounds were unlikely to be affected by the low temperatures, so no data were qualified.
- The laboratory received one cooler on April 10, 2013 at 7.1°C due to a Fed Ex delivery delay. The cooler contained samples from wells WEW-1 and WEW-3 for metals and semivolatile analyses. The laboratory contacted MWH and was instructed to proceed with the scheduled requests. Due to the semivolatile nature of the requested analyses and the low probability that analytes of interest were lost; no data were not qualified. However, data will be reviewed against historical results to monitor the presence of any significant shifts.

Holding Times: All sample analyses were performed within the method-specific holding times.

Elevated Reporting Limits: RLs for one sample was raised due to target analyte concentrations, as described below:

- Elevated RLs were reported for PAHs in one Semiannual Monitoring sample, B-1R, collected April 2013. Due to PAHs present above the instrument's linear calibration curve, B1-R had to be analyzed at 5x dilution.

B.2.2 LABORATORY QC SAMPLES

Laboratory analytical batch quality control samples included method blanks, laboratory control samples (LCS), laboratory control sample duplicates (LCSD), matrix spikes (MS), and matrix spike duplicates (MSD). Surrogate standards were evaluated for organic analytical methods.

Laboratory Method Blank Exceptions. There were no results reported at concentrations greater than the method detection limits for the any of the method blanks with the following exceptions:

- One method blank associated with the PCP analysis in the Groundwater Treatment Plant effluent sample collected in May 2013 contained 0.230 µg/L of PCP. PCP was detected in the sample at a concentration that was less than the reporting limit and less than the method blank. The sample was qualified as not detected at the reporting limit (U) with no bias.

- One method blank associated with the TCP analysis in the Groundwater Treatment Plant effluent sample collected in April 2013 contained 0.107 µg/L of TCP. TCP was detected in the sample at a concentration that was less than the reporting limit and less than five times the method blank. The sample was qualified as not detected at the reporting limit (U) with no bias.

- One method blank associated with the zinc analysis in the Groundwater Treatment Plant effluent sample collected in November 2013 contained 3.83 µg/L of zinc. Zinc was not detected in the sample, so no data were qualified.

LCS/LCSD Criteria Exceptions. All LCS/LCSD criteria were within the laboratory-established control limits with the following exception:

- The LCS/LCSD RPD associated with the PAH, benzo(a)pyrene, was above the control limit while the individual recoveries were acceptable. This analytical batch included the Groundwater Treatment Plant effluent sample from March 2013. Benzo(a)pyrene was not detected in this sample, so no data were qualified.

MS/MSD Criteria Exceptions: All MS and MSD criteria were within the laboratory-established control limits with the following exceptions:

- The MS/MSD percent recoveries associated with the copper analysis of one Semiannual Monitoring sample collected in April 2013, CMW-2, exceeded the upper control limit. Copper was not detected in the sample, so no data were qualified.

- The MS/MSD percent recoveries associated with the chromium analysis of one Semiannual Monitoring sample collected in April 2013, WEW-1, exceeded the upper control limit. Chromium was not detected in the sample, so no data were qualified.

- The MS/MSD percent recoveries associated with the metals analysis of one Semiannual Monitoring sample collected in July 2013, CMW-2, was greater than the upper control limit for zinc. Zinc was detected in the sample and qualified as estimated (J) with a high bias.

- The MS/MSD percent recoveries and RPD associated with the metals analysis of two Semiannual Monitoring samples collected in April 2013, WEW-1 and WEW-3, were not meaningful for zinc. The concentration of zinc in the parent sample was greater than four-times the concentration used for the matrix spike. Therefore the criteria were not evaluated for these samples.

- The MS/MSD percent recoveries and RPD associated with the metals analysis of one Semiannual Monitoring sample collected April 2013, CMW-2, were not meaningful for zinc. The concentration of zinc in the parent sample was greater than four-times the concentration used for the matrix spike. Therefore the criteria were not evaluated for this sample.

In many instances insufficient sample volume was provided for an MWH sample to be selected as the analytical batch's MS/MSD sample. In those situations, accuracy and precision were controlled through with the LCS/LSCD pair.

Laboratory Surrogate Criteria Exceptions: All surrogate recoveries were within laboratory-established control limits with the following exceptions:

- Two samples analyzed for PAHs had surrogate recoveries that were less than the lower control limit. Detected compounds were qualified as estimated (J) and non-detected compounds were qualified as estimated non-detects (UJ) at the MDL, with a low bias.

- Eleven samples analyzed for dibenzofuran had surrogate recoveries that were less than the lower control limit. Dibenzofuran was not detected in the samples, so results were qualified as estimated non-detects (UJ) at the MDL, with a low bias.

Confirmation Criteria Exceptions: All second column confirmation comparisons were within laboratory-established control limits with the following exception:

- Twelve samples analyzed for PAHs had 15 analytes with RPDs between the primary and confirmation columns that exceeded 40 percent for one or more compounds. The lower of the two values was reported and was qualified as estimated (J) with no determined bias.

B.2.3 FIELD QUALITY CONTROL SAMPLES

Field QC samples included field duplicates, equipment rinsate blanks, trip blanks, and field blanks. Trip blank, equipment blank, and field blank samples associated with the quarterly sampling event did not have any constituent contamination at or above the MDL.

Field duplicates: Two field duplicate pairs, identified as RIW-8/RIW-22 and RIW-12D/RIW-22, were collected for the April and October Semiannual Monitoring events. All RPDs calculated between field duplicate and primary sample results were within acceptable control limits with the following exception:

- The field duplicate pair RIW-12D/RIW-22 had mixed results for 2-methylnaphthalene; one result was less than the reporting limit while the other was 21 µg/L. In this case an RPD was not calculated since both results were not above the reporting limit; no data were qualified.

B.3 SUMMARY OF DATA RELIABILITY

An evaluation of the precision, accuracy, representativeness, comparability, and completeness of the data generated from the samples collected during the 2013 monitoring events at the J.H. Baxter Superfund Site was performed for the required methods. The results requiring qualification have been summarized in Table B-1. As a result of this evaluation, all data are of known and acceptable quality as qualified, in relation to the laboratory-established control limits and the DQOs of this project.

TABLE B-1

SUMMARY OF QUALIFIED DATA
2013 SAMPLING EVENTS
J.H. BAXTER SUPERFUND SITE

Sample Identification	Sample Collection Date	Laboratory Identification	Matrix	Method	Parameter	Result	Units	Flag	Reason Code
CMW-1	4/1/2013	280-43957-1	Water	EPA 8310	Naphthalene	0.22	µg/L	J	28a
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Acenaphthene	<0.047	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Acenaphthylene	<0.047	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Anthracene	<0.066	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Benzo(a)anthracene	<0.034	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Benzo(a)pyrene	<0.57	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Benzo(b)fluoranthene	<0.57	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Benzo(g,h,i)perylene	<0.022	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Benzo(k)fluoranthene	<0.025	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Chrysene	<0.030	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Dibenzo(a,h)anthracene	<0.059	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Fluorene	<0.11	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Fluoranthene	<0.088	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Indeno(1,2,3-cd)pyrene	<0.051	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	2-Methylnaphthalene	<0.079	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Naphthalene	<0.060	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Phenanthrene	<0.10	µg/L	UJ-	13b
CMW-2	4/2/2013	280-41072-1	Water	EPA 8310	Pyrene	<0.046	µg/L	UJ-	13b
CMW-2	4/2/2013	280-43957-1	Water	EPA 200.8	Zinc	150	µg/L	J+	08b
EFFLUENT	4/2/2013	280-41781-1	Water	EPA 8270C SIM	Pentachlorophenol	0.29	µg/L	U	07a
EFFLUENT	4/8/2013	280-46212-1	Water	EPA 8270C SIM	2,3,4,6-Tetrachlorophenol	0.29	µg/L	U	07a
MW-10	4/8/2013	280-40699-1	Water	EPA 8270C SIM	Dibenzofuran	<0.060	µg/L	UJ-	13b
MW-10	4/10/2013	280-40699-1	Water	EPA 8310	Acenaphthene	<0.043	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Acenaphthylene	<0.044	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Anthracene	0.65	µg/L	J-	13b, 28a
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Benzo(a)anthracene	<0.032	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Benzo(a)pyrene	0.17	µg/L	J-	13b, 28a
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Benzo(b)fluoranthene	<0.053	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Benzo(g,h,i)perylene	<0.020	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Benzo(k)fluoranthene	<0.023	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Chrysene	<0.028	µg/L	UJ-	13b

TABLE B-1

SUMMARY OF QUALIFIED DATA
2013 SAMPLING EVENTS
J.H. BAXTER SUPERFUND SITE

Sample Identification	Sample Collection Date	Laboratory Identification	Matrix	Method	Parameter	Result	Units	Flag	Reason Code
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Dibenzo(a,h)anthracene	<0.055	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Fluorene	0.62	µg/L	J-	13b, 28a
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Fluoranthene	<0.082	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Indeno(1,2,3-cd)pyrene	<0.047	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	2-Methylnaphthalene	<0.074	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Naphthalene	<0.056	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Phenanthrene	<0.095	µg/L	UJ-	13b
MW-10	4/14/2013	280-40699-1	Water	EPA 8310	Pyrene	<0.043	µg/L	UJ-	13b
MW-6A	4/14/2013	280-47659-1	Water	EPA 8310	Fluorene	0.37	µg/L	J	28a
MW-9A	5/1/2013	280-40641-1	Water	EPA 8270C SIM	Dibenzofuran	<0.057	µg/L	UJ-	13b
NEW-10	7/1/2013	280-47916-1	Water	EPA 8310	Acenaphthylene	0.13	µg/L	J	28a
NEW-2	7/1/2013	280-47803-1	Water	EPA 8270C SIM	Dibenzofuran	<0.062	µg/L	UJ-	13b
NEW-3	9/3/2013	280-40927-1	Water	EPA 8270C SIM	Dibenzofuran	<0.058	µg/L	UJ-	13b
NEW-3	10/7/2013	280-47803-1	Water	EPA 8270C SIM	Dibenzofuran	<0.057	µg/L	UJ-	13b
NEW-3	10/7/2013	280-47803-1	Water	EPA 8310	Naphthalene	0.12	µg/L	J	28a
NEW-4	10/7/2013	280-47803-1	Water	EPA 8270C SIM	Dibenzofuran	<0.061	µg/L	UJ-	13b
NEW-4	10/9/2013	280-47803-1	Water	EPA 8310	Acenaphthene	0.23	µg/L	J	28a
NEW-6	10/9/2013	280-47803-1	Water	EPA 8270C SIM	Dibenzofuran	<0.063	µg/L	UJ-	13b
NEW-6	10/9/2013	280-47803-1	Water	EPA 8310	Acenaphthene	0.10	µg/L	J	28a
NEW-8	10/9/2013	280-47803-1	Water	EPA 8310	Acenaphthylene	0.15	µg/L	J	28a
RIW-10B	10/9/2013	280-47659-1	Water	EPA 8270C SIM	Dibenzofuran	<0.058	µg/L	UJ-	13b
RIW-22	10/9/2013	280-40879-1	Water	EPA 8310	Naphthalene	0.36	µg/L	J	28a
RIW-8B	10/9/2013	280-40879-1	Water	EPA 8310	Naphthalene	0.084	µg/L	J	28a
RIW-8B	10/9/2013	280-47659-1	Water	EPA 8310	Acenaphthene	0.13	µg/L	J	28a
WEW-1	10/13/2013	280-40956-1	Water	EPA 8270C SIM	Dibenzofuran	<0.057	µg/L	UJ-	13b
WEW-1	10/13/2013	280-47916-1	Water	EPA 8270C SIM	Dibenzofuran	<0.059	µg/L	UJ-	13b
WEW-10	10/13/2013	280-47968-1	Water	EPA 8310	Naphthalene	0.074	µg/L	J	28a
WEW-3	10/13/2013	280-47916-1	Water	EPA 8270C SIM	Dibenzofuran	<0.067	µg/L	UJ-	13b
WEW-5	10/14/2013	280-47916-1	Water	EPA 8310	Phenanthrene	0.092	µg/L	J	28a

TABLE B-1

SUMMARY OF QUALIFIED DATA
2013 SAMPLING EVENTS
J.H. BAXTER SUPERFUND SITE

Sample Identification	Sample Collection Date	Laboratory Identification	Matrix	Method	Parameter	Result	Units	Flag	Reason Code

Notes:
µg/L - micrograms per liter
EPA - Environmental Protection Agency
SIM - selected ion monitoring
J - result is estimated
UJ - analyte is not detected above the method reporting limit
U - analyte is not detected above the reporting limit
+/- - indicate positive or negative bias

Reason Codes:
07a - Target analyte is detected in a laboratory method blank sample
08b - Matrix Spike or Matrix Spike Duplicate recovery was above the upper control limit
13b - The percent recovery for one or more surrogate compound is less than the lower control limit
28a - Second column confirmation relative percent difference is greater than the control limit

APPENDIX C
OPERATION, MAINTENANCE AND MONITORING LOGS

MWH

APPENDIX C-1
EXTRACTION SYSTEM/WATER TREATMENT PLANT

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

JANUARY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	52970	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 3a,b B-1r,s 001s FDs	36.78	
2	52937	"	36.76	
3	52809	"	36.67	1
4	52708	"	36.60	
5	52385	"	36.38	
6	51872	"	36.02	
7	50071	"	34.77	
8	47009	"	32.65	2
9	49872	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	34.63	3
10	49881	"	34.64	
11	49887	"	34.64	
12	49941	"	34.68	
13	49947	"	34.69	
14	49960	"	34.69	
15	49987	"	34.71	
16	50022	"	34.74	
17	50049	"	34.76	
18	50080	"	34.78	
19	50152	"	34.83	
20	50187	"	34.85	
21	50217	"	34.87	
22	50250	"	34.90	
23	50287	"	34.92	
24	50322	"	34.95	
25	60330	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 3a,b B-1r,s 001s FDs	41.90	4
26	63344	"	43.99	
27	63296	"	43.96	
28	63349	"	43.99	
29	63271	"	43.94	
30	63213	"	43.90	
31	63159	"	43.86	

1653764 **Total gallons**

1115786 **Total gallons inside slurry wall**

404684 **Total gallons outside slurry wall**

133294 **Total gallons surface water**

notes

1 Annual Influent sampling.
2 Tank-3a,b emptied.
3 Increased FD flow rate.
4 Started Tank-3a,b into system.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

JANUARY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	52993	Spray Field	36.80	
2	52959	"	36.78	
3	52836	"	36.69	1
4	52739	"	36.62	
5	52391	"	36.38	
6	51880	"	36.03	
7	50089	"	34.78	
8	47114	"	32.72	2
9	49891	"	34.65	3
10	49898	"	34.65	
11	49923	"	34.67	
12	49933	"	34.68	
13	49953	"	34.69	
14	49978	"	34.71	
15	50009	"	34.73	
16	50043	"	34.75	
17	50076	"	34.78	
18	50113	"	34.80	
19	50149	"	34.83	
20	50194	"	34.86	
21	50229	"	34.88	
22	50276	"	34.91	
23	50304	"	34.93	
24	50346	"	34.96	
25	60362	"	41.92	4
26	63335	"	43.98	
27	63300	"	43.96	
28	63357	"	44.00	
29	63283	"	43.95	
30	63229	"	43.91	
31	63179	"	43.87	

1654361 **Total gallons**

notes

1 Bi-monthly Effluent sampling.
2 Tank-3a,b emptied.
3 Increased FD flow rate.
4 Started Tank-3a,b into system.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

JANUARY 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			52993		
2			52959		
3			52836		
4			52739		
5			52391		
6			51880		
7			50089		
8			47114		
9			49891		
10			49898		
11			49923		
12			49933		
13			49953		
14			49978		
15			50009		
16			50043		
17			50076		
18			50113		
19			50149		
20			50194		
21			50229		
22			50276		
23			50304		
24			50346		
25			60362		
26			63335		
27			63300		
28			63357		
29			63283		
30			63229		
31			63179		
	0	0	1654361	0	Totals

Total Effluent Gallons : 1654361

notes

DATE 2/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JANUARY 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3607	6073	18	1242						
2	3607	6073	18	1242						
3	3607	6073	18	1242						
4	3607	6073	18	1242						
5	3609	6075	21	1244						1
6	3609	6075	21	1244						
7	3609	6075	21	1244						
8	3609	6075	21	1244						
9	3609	6075	21	1244						
10	3609	6075	21	1244						
11	3609	6075	21	1244						
12	3612	6077	24	1247						1
13	3612	6077	24	1247						
14	3612	6077	24	1247						
15	3612	6077	24	1247						
16	3612	6077	24	1247						
17	3612	6077	24	1247						
18	3612	6077	24	1247						
19	3615	6080	26	1249						1
20	3615	6080	26	1249						
21	3615	6080	26	1249						
22	3615	6080	26	1249						
23	3615	6080	26	1249						
24	3615	6080	26	1249						
25	3615	6080	26	1249						
26	3617	6082	27	1252						1
27	3617	6082	27	1252						
28	3617	6082	27	1252						
29	3617	6082	27	1252						
30	3617	6082	27	1252						
31	3617	6082	27	1252						

Total gallons

111982	188408	731	38660	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JANUARY 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1077	1969	4150	3399				
2			1077	1969	4150	3399				
3			1077	1969	4150	3399				
4			1077	1969	4150	3399				
5			1080	1972	4152	3401				1
6			1080	1972	4152	3401				
7			1080	1972	4152	3401				
8			1080	1972	4152	3401				
9			1080	1972	4152	3401				
10			1080	1972	4152	3401				
11			1080	1972	4152	3401				
12			1082	1975	4154	3404				1
13			1082	1975	4154	3404				
14			1082	1975	4154	3404				
15			1082	1975	4154	3404				
16			1082	1975	4154	3404				
17			1082	1975	4154	3404				
18			1082	1975	4154	3404				
19			1085	1977	4157	3406				1
20			1085	1977	4157	3406				
21			1085	1977	4157	3406				
22			1085	1977	4157	3406				
23			1085	1977	4157	3406				
24			1085	1977	4157	3406				
25			1085	1977	4157	3406				
26			1087	1979	4159	3409				1
27			1087	1979	4159	3409				
28			1087	1979	4159	3409				
29			1087	1979	4159	3409				
30			1087	1979	4159	3409				
31			1087	1979	4159	3409				

Total gallons

0	0	33559	61218	128795	105527	0	0	0

notes

1 Meter readings taken weekly.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JANUARY 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2734	10	2161		7565	1449	1690	2435	13391	
2	2734	10	2161		7431	1449	1690	2435	13492	
3	2734	10	2161		7211	1449	1690	2435	13584	
4	2734	10	2161		7006	1449	1690	2435	13688	
5	2737	9	2163		6552	1455	1695	2435	13785	1
6	2737	9	2163		5932	1455	1695	2435	13892	
7	2737	9	2163		4020	1455	1695	2435	14003	
8	2737	9	2163		853	1455	1695	2435	14108	2
9	2737	9	2163			1455	1695	2435	17824	3
10	2737	9	2163			1455	1695	2435	17833	
11	2737	9	2163			1455	1695	2435	17839	
12	2740	11	2165			1461	1702	2440	17847	1
13	2740	11	2165			1461	1702	2440	17853	
14	2740	11	2165			1461	1702	2440	17866	
15	2740	11	2165			1461	1702	2440	17893	
16	2740	11	2165			1461	1702	2440	17928	
17	2740	11	2165			1461	1702	2440	17955	
18	2740	11	2165			1461	1702	2440	17986	
19	2742	12	2167			1466	1707	2440	18023	1
20	2742	12	2167			1466	1707	2440	18058	
21	2742	12	2167			1466	1707	2440	18088	
22	2742	12	2167			1466	1707	2440	18121	
23	2742	12	2167			1466	1707	2440	18158	
24	2742	12	2167			1466	1707	2440	18193	
25	2742	12	2167		9977	1466	1707	2440	18224	4
26	2745	13	2169		12934	1470	1710	2440	18251	1
27	2745	13	2169		12852	1470	1710	2440	18285	
28	2745	13	2169		12879	1470	1710	2440	18311	
29	2745	13	2169		12777	1470	1710	2440	18335	
30	2745	13	2169		12691	1470	1710	2440	18363	
31	2745	13	2169		12614	1470	1710	2440	18386	

Total gallons

84939	342	67123	0	133294	45290	52748	75585	525563

notes

1 Meter readings taken weekly (FD seep taken daily)
2 Tank-3a,b emptied.
3 Increased FD flow rate.
4 Started Tank-3a,b into system.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

JANUARY 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

JANUARY 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

JANUARY 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
JANUARY 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1					
2	8am	2.4	0.8		
3	8am	3.6	0.6		1
4	8am	3.1	0.5		
5	8am	3.3	0.6		
6					
7					
8	8am	3.9	0.5		2
9	8am	3.5	0.7		3
10	8am	3.7	0.5		
11	8am	3.6	0.6		
12	8am	3.3	0.6		
13					
14					
15	8am	3.6	0.7		
16	8am	3.6	0.6		
17	8am	3.3	0.5		
18	8am	3.5	0.5		
19	8am	3.4	0.7		
20					
21					
22	8am	3.2	0.4		
23	8am	3.3	0.6		
24	8am	3.3	0.5		
25	8am	3.5	0.6	Tank-3a,b 6.1 ppb	4
26	8am	3.7	0.4		
27					
28					
29	8am	3.9	0.7		
30	8am	3.9	0.5		
31	8am	3.8	0.6		

notes

1 Annual Influent & Bi-monthly Eff. Sampling.
2 Tank-3a,b emptied.
3 Increased FD flow rate.
4 Started Tank-3a,b into system.

DATE 2/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

JANUARY 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2	**12**	**9am**	**E.Q.Tank**				
3				**3663**	**9am**		1
4							
5							
6							
7							
8							
9	**12**	**9am**	**E.Q.Tank**				2
10				**4542**	**9am**		1
11							
12							
13							
14							
15							
16	**12**	**9am**	**E.Q.Tank**				
17				**5348**	**9am**		1
18							
19							
20							
21							
22							
23	**12**	**9am**	**E.Q.Tank**				
24				**5641**	**9am**		1
25							3
26							
27							
28							
29							
30	**12**	**9am**	**E.Q.Tank**				
31					**9am**		1,4

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)
2 Increased FD flow rate.
3 Started Tank-3a,b into system.
4 Plates in incubation.

DATE **2/1/13** **SIGNED** **Gale Jensen**

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

JANUARY 3, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic	4.1	ND
Chromium	ND	ND
Copper	6.7	ND
Zinc	66	3.6
Tetrachlorophenol	0.46	ND
Pentachlorophenol	0.22	ND
Naphthalene	ND	ND
Acenaphthylene	4.4	ND
2-Methylnaphthene-Dibenzofuran	ND	ND
Acenaphthylene	0.53	ND
Fluorene	ND	ND
Phenanthrene	ND	ND
Anthracene	ND	ND
Fluoranthene	1.2	ND
Pyrene	0.81	ND
Benz(a)anthracene	ND	ND
Chrysene	ND	ND
Benzo(b)fluoranthene	ND	ND
Benzo(k)fluoranthene	ND	ND
Benzo(a)pyrene	ND	ND
Dibenz(a,h)anthracene	ND	ND
Benzo(g,h,I)perylene	ND	ND
Indeno(1,2,3-cd)pyrene	ND	ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11
   Tank-3a,b B-1r,s 001 seep FD seep

DATE 2/1/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

FEBRUARY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	63123	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 Tank-3a,b B-1r,s 001s FDs	43.84	
2	63105	"	43.82	
3	61852	"	42.95	1
4	50671	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	35.19	
5	50699	"	35.21	
6	50724	"	35.23	
7	50746	"	35.24	
8	50768	"	35.26	
9	50824	"	35.29	
10	50845	"	35.31	
11	50864	"	35.32	
12	50886	"	35.34	
13	50903	"	35.35	
14	50923	"	35.36	
15	50941	"	35.38	
16	50983	"	35.40	
17	51000	"	35.42	
18	51015	"	35.43	
19	51034	"	35.44	
20	51048	"	35.45	
21	51060	"	35.46	
22	51075	"	35.47	
23	51115	"	35.50	
24	51127	"	35.50	
25	51136	"	35.51	
26	51148	"	35.52	
27	51156	"	35.53	
28	51166	"	35.53	
29	0		0.00	
30	0		0.00	
31	0		0.00	

1461937 **Total gallons**

1059005 **Total gallons inside slurry wall**

366696 **Total gallons outside slurry wall**

36236 **Total gallons surface water**

notes

1 Tank-3a,b emptied.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

FEBRUARY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	63151	Spray Field	43.85	
2	63099	"	43.82	
3	61857	"	42.96	1
4	50680	"	35.19	
5	50712	"	35.22	
6	50741	"	35.24	
7	50768	"	35.26	
8	50795	"	35.27	
9	50819	"	35.29	
10	50851	"	35.31	
11	50871	"	35.33	
12	50897	"	35.35	
13	50918	"	35.36	
14	50942	"	35.38	
15	50968	"	35.39	
16	50981	"	35.40	
17	51004	"	35.42	
18	51022	"	35.43	
19	51046	"	35.45	
20	51061	"	35.46	
21	51077	"	35.47	
22	51102	"	35.49	
23	51111	"	35.49	
24	51131	"	35.51	
25	51141	"	35.51	
26	51155	"	35.52	
27	51170	"	35.53	
28	51184	"	35.54	
29			0.00	
30			0.00	
31			0.00	

1462254 **Total gallons**

notes

1 Tank-3a,b emptied.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

FEBRUARY 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			63151		
2			63099		
3			61857		
4			50680		
5			50712		
6			50741		
7			50768		
8			50795		
9			50819		
10			50851		
11			50871		
12			50897		
13			50918		
14			50942		
15			50968		
16			50981		
17			51004		
18			51022		
19			51046		
20			51061		
21			51077		
22			51102		
23			51111		
24			51131		
25			51141		
26			51155		
27			51170		
28			51184		
29					
30					
31					
	0	0	1462254	0	Totals

Total Effluent Gallons : 1462254

notes

DATE 3/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

FEBRUARY 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3617	6082	27	1252						
2	3618	6085	30	1254						1
3	3618	6085	30	1254						
4	3618	6085	30	1254						
5	3618	6085	30	1254						
6	3618	6085	30	1254						
7	3618	6085	30	1254						
8	3618	6085	30	1254						
9	3620	6087	32	1257						1
10	3620	6087	32	1257						
11	3620	6087	32	1257						
12	3620	6087	32	1257						
13	3620	6087	32	1257						
14	3620	6087	32	1257						
15	3620	6087	32	1257						
16	3622	6089	33	1259						1
17	3622	6089	33	1259						
18	3622	6089	33	1259						
19	3622	6089	33	1259						
20	3622	6089	33	1259						
21	3622	6089	33	1259						
22	3622	6089	33	1259						
23	3624	6091	34	1261						1
24	3624	6091	34	1261						
25	3624	6091	34	1261						
26	3624	6091	34	1261						
27	3624	6091	34	1261						
28	3624	6091	34	1261						
29										
30										
31										

Total gallons

101381	170455	896	35208	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

FEBRUARY 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1087	1979	4159	3409				
2			1090	1981	4161	3411				1
3			1090	1981	4161	3411				
4			1090	1981	4161	3411				
5			1090	1981	4161	3411				
6			1090	1981	4161	3411				
7			1090	1981	4161	3411				
8			1090	1981	4161	3411				
9			1093	1983	4163	3413				1
10			1093	1983	4163	3413				
11			1093	1983	4163	3413				
12			1093	1983	4163	3413				
13			1093	1983	4163	3413				
14			1093	1983	4163	3413				
15			1093	1983	4163	3413				
16			1095	1985	4165	3416				1
17			1095	1985	4165	3416				
18			1095	1985	4165	3416				
19			1095	1985	4165	3416				
20			1095	1985	4165	3416				
21			1095	1985	4165	3416				
22			1095	1985	4165	3416				
23			1097	1988	4167	3418				1
24			1097	1988	4167	3418				
25			1097	1988	4167	3418				
26			1097	1988	4167	3418				
27			1097	1988	4167	3418				
28			1097	1988	4167	3418				
29										
30										
31										

Total gallons

NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2
0	0	30615	55550	116584	95597	0	0	0

notes

1 Meter readings taken weekly.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

FEBRUARY 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2745	13	2169		12553	1470	1710	2440	18411	
2	2747	13	2172		12481	1474	1715	2440	18433	1
3	2747	13	2172		11202	1474	1715	2440	18459	2
4	2747	13	2172			1474	1715	2440	18480	
5	2747	13	2172			1474	1715	2440	18508	
6	2747	13	2172			1474	1715	2440	18533	
7	2747	13	2172			1474	1715	2440	18555	
8	2747	13	2172			1474	1715	2440	18577	
9	2749	14	2173			1478	1718	2440	18604	1
10	2749	14	2173			1478	1718	2440	18625	
11	2749	14	2173			1478	1718	2440	18644	
12	2749	14	2173			1478	1718	2440	18666	
13	2749	14	2173			1478	1718	2440	18683	
14	2749	14	2173			1478	1718	2440	18703	
15	2749	14	2173			1478	1718	2440	18721	
16	2751	14	2175			1481	1721	2440	18737	1
17	2751	14	2175			1481	1721	2440	18754	
18	2751	14	2175			1481	1721	2440	18769	
19	2751	14	2175			1481	1721	2440	18788	
20	2751	14	2175			1481	1721	2440	18802	
21	2751	14	2175			1481	1721	2440	18814	
22	2751	14	2175			1481	1721	2440	18829	
23	2753	13	2176			1484	1724	2445	18840	1
24	2753	13	2176			1484	1724	2445	18852	
25	2753	13	2176			1484	1724	2445	18861	
26	2753	13	2176			1484	1724	2445	18873	
27	2753	13	2176			1484	1724	2445	18881	
28	2753	13	2176			1484	1724	2445	18891	
29										
30										
31										

Total gallons

76992	378	60865	0	36236	41405	48132	68350	523293

notes

1 Meter readings taken weekly (FD seep taken daily)

2 Tank-3a,b emptied.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

FEBRUARY 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

FEBRUARY 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29						
30						
31						
Totals	**53760**	**0**	**0**	**0**	**0**	

Total gallons to filter press **53760**

Total cubic yards recovered **8**

notes

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

FEBRUARY 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29													
30													
31													

notes

1 Readings are daily averages.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
FEBRUARY 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	3.8	0.5		
2	8am	3.8	0.7		
3					1
4					
5	8am	3.3	0.5		
6	8am	3.2	0.5		
7	8am	3.0	0.7		
8	8am	3.1	0.6		
9	8am	3.1	0.6		
10					
11					
12	8am	2.9	0.4		
13	8am	3.0	0.5		
14	8am	3.0	0.6		
15	8am	2.9	0.5		
16	8am	2.9	0.7		
17					
18					
19	8am	3.0	0.5		
20	8am	2.9	0.4		
21	8am	2.9	0.6		
22	8am	2.8	0.4		
23	8am	2.9	0.5		
24					
25					
26	8am	2.8	0.6		
27	8am	2.8	0.4		
28	8am	2.9	0.5		
29					
30					
31					

notes

1 Tank-3a,b emptied.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

FEBRUARY 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3							2
4							
5							
6	**12**	**9am**	**E.Q.Tank**				
7				**6520**	**9am**		1
8							
9							
10							
11							
12							
13	**12**	**9am**	**E.Q.Tank**				
14				**6300**	**9am**		1
15							
16							
17							
18							
19							
20	**12**	**9am**	**E.Q.Tank**				
21				**6374**	**9am**		
22							
23							
24							
25							
26							
27	**12**	**9am**	**E.Q.Tank**				
28					**9am**		1,3
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)
2 Tank-3a,b emptied.
3 Plates in incubation.

DATE 3/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

MARCH 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51172	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	35.54	
2	51196	"	35.55	
3	51204	"	35.56	
4	51206	"	35.56	
5	51218	"	35.57	
6	58959	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 3a,b B-1r,s 001s FDs	40.94	1
7	61675	"	42.83	2
8	62288	"	43.26	
9	62392	"	43.33	
10	62422	"	43.35	
11	62380	"	43.32	
12	56223	sew-0,5,8 wew-1,3,5,7 wp-8,9,11 3a,b B-1r,s 001s FDs	39.04	3
13	60569	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 3a,b B-1r,s 001s FDs	42.06	4
14	62325	"	43.28	
15	62344	"	43.29	
16	62349	"	43.30	
17	62362	"	43.31	
18	62349	"	43.30	
19	62308	"	43.27	
20	62283	"	43.25	
21	62234	"	43.22	
22	62164	"	43.17	
23	61542	"	42.74	
24	51430	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	35.72	5
25	51426	"	35.71	
26	51419	"	35.71	
27	51423	"	35.71	
28	51414	"	35.70	
29	51412	"	35.70	
30	51438	"	35.72	
31	51433	"	35.72	

1776559 **Total gallons**

1177049 **Total gallons inside slurry wall**

407114 **Total gallons outside slurry wall**

192396 **Total gallons surface water**

notes

1 Started Tank-3a,b into system.
2 Increased 3a,b flow rate.
3 SEW-2 well vault damaged…hit by Roseburg frount-end loader….under repair.
4 SEW-2 back on line 3pm.
5 Tank-3a,b emptied.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

MARCH 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51193	Spray Field	35.55	
2	51189	"	35.55	
3	51211	"	35.56	
4	51211	"	35.56	1
5	51226	"	35.57	
6	58972	"	40.95	2
7	61694	"	42.84	3,4
8	62315	"	43.27	
9	62381	"	43.32	
10	62427	"	43.35	
11	62391	"	43.33	
12	56234	"	39.05	5
13	60585	"	42.07	6
14	62346	"	43.30	
15	62365	"	43.31	
16	62351	"	43.30	
17	62367	"	43.31	
18	62354	"	43.30	
19	62318	"	43.28	
20	62296	"	43.26	
21	62253	"	43.23	
22	62184	"	43.18	
23	61548	"	42.74	
24	51433	"	35.72	7
25	51423	"	35.71	
26	51425	"	35.71	
27	51432	"	35.72	
28	51427	"	35.71	
29	51429	"	35.71	
30	51427	"	35.71	
31	51427	"	35.71	

1776834 **Total gallons**

notes

1 Bi-monthly Effluent sampling.
2 Started Tank-3a,b into system.
3 Increased 3a,b flow rate.
4 Re-sampled Effluent…(3-4-13 samples received out of temp. range)
5 SEW-2 well vault damaged…under repair.
6 SEW-2 on line 3pm.
7 Tank-3a,b emptied.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

MARCH 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			51193		
2			51189		
3			51211		
4			51211		
5			51226		
6			58972		
7			61694		
8			62315		
9			62381		
10			62427		
11			62391		
12			56234		
13			60585		
14			62346		
15			62365		
16			62351		
17			62367		
18			62354		
19			62318		
20			62296		
21			62253		
22			62184		
23			61548		
24			51433		
25			51423		
26			51425		
27			51432		
28			51427		
29			51429		
30			51427		
31			51427		
	0	0	1776834	0	Totals

Total Effluent Gallons : 1776834

notes

DATE 4/2/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MARCH 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3624	6091	34	1261						
2	3626	6092	35	1263						1
3	3626	6092	35	1263						
4	3626	6092	35	1263						
5	3626	6092	35	1263						
6	3626	6092	35	1263						
7	3626	6092	35	1263						
8	3626	6092	35	1263						
9	3629	6094	37	1266						1
10	3629	6094	37	1266						
11	3629	6094	37	1266						
12	3629	0	37	1266						2
13	3629	4320	37	1266						3
14	3629	6094	37	1266						
15	3629	6094	37	1266						
16	3631	6097	39	1269						1
17	3631	6097	39	1269						
18	3631	6097	39	1269						
19	3631	6097	39	1269						
20	3631	6097	39	1269						
21	3631	6097	39	1269						
22	3631	6097	39	1269						
23	3632	6099	39	1270						1
24	3632	6099	39	1270						
25	3632	6099	39	1270						
26	3632	6099	39	1270						
27	3632	6099	39	1270						
28	3632	6099	39	1270						
29	3632	6099	39	1270						
30	3633	6101	40	1272						1
31	3633	6101	40	1272						

Total gallons

112516	181099	1164	39281	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-2 well vault hit by Roseburg front-end loader 7:30am…..pump off…vault under repair.

3 SEW-2 back on line 3pm.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MARCH 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1097	1988	4167	3418				
2			1099	1990	4168	3420				1
3			1099	1990	4168	3420				
4			1099	1990	4168	3420				
5			1099	1990	4168	3420				
6			1099	1990	4168	3420				
7			1099	1990	4168	3420				
8			1099	1990	4168	3420				
9			1102	1992	4171	3422				1
10			1102	1992	4171	3422				
11			1102	1992	4171	3422				
12			1102	1992	4171	3422				
13			1102	1992	4171	3422				
14			1102	1992	4171	3422				
15			1102	1992	4171	3422				
16			1104	1994	4172	3424				1
17			1104	1994	4172	3424				
18			1104	1994	4172	3424				
19			1104	1994	4172	3424				
20			1104	1994	4172	3424				
21			1104	1994	4172	3424				
22			1104	1994	4172	3424				
23			1106	1995	4174	3426				1
24			1106	1995	4174	3426				
25			1106	1995	4174	3426				
26			1106	1995	4174	3426				
27			1106	1995	4174	3426				
28			1106	1995	4174	3426				
29			1106	1995	4174	3426				
30			1108	1996	4176	3428				1
31			1108	1996	4176	3428				

Total gallons

0	0	34190	61777	129314	106118	0	0	0

notes

1 Meter readings taken weekly.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MARCH 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2753	13	2176			1484	1724	2445	18897	
2	2755	12	2177			1487	1726	2445	18901	1
3	2755	12	2177			1487	1726	2445	18909	
4	2755	12	2177			1487	1726	2445	18911	
5	2755	12	2177			1487	1726	2445	18923	
6	2755	12	2177		7725	1487	1726	2445	18939	2
7	2755	12	2177		10426	1487	1726	2445	18954	3
8	2755	12	2177		11022	1487	1726	2445	18971	
9	2758	13	2179		11072	1491	1730	2445	18991	1
10	2758	13	2179		11084	1491	1730	2445	19009	
11	2758	13	2179		11027	1491	1730	2445	19024	
12	2758	13	2179		10951	1491	1730	2445	19037	
13	2758	13	2179		10966	1491	1730	2445	19048	
14	2758	13	2179		10941	1491	1730	2445	19055	
15	2758	13	2179		10955	1491	1730	2445	19060	
16	2759	12	2180		10937	1494	1733	2440	19064	1
17	2759	12	2180		10942	1494	1733	2440	19072	
18	2759	12	2180		10925	1494	1733	2440	19076	
19	2759	12	2180		10891	1494	1733	2440	19069	
20	2759	12	2180		10862	1494	1733	2440	19073	
21	2759	12	2180		10817	1494	1733	2440	19069	
22	2759	12	2180		10752	1494	1733	2440	19064	
23	2761	12	2181		10101	1497	1735	2440	19074	1
24	2761	12	2181			1497	1735	2440	19063	4
25	2761	12	2181			1497	1735	2440	19059	
26	2761	12	2181			1497	1735	2440	19052	
27	2761	12	2181			1497	1735	2440	19056	
28	2761	12	2181			1497	1735	2440	19047	
29	2761	12	2181			1497	1735	2440	19045	
30	2762	11	2181			1499	1738	2440	19053	1
31	2762	11	2181			1499	1738	2440	19048	

Total gallons

85508	378	67557	0	192396	46265	53668	75715	589613

notes

1 Meter readings taken weekly (FD seep taken daily)
2 Started Tank-3a,b into system.
3 Increased 3a,b flow rate.
4 Tank-3a,b emptied.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

MARCH 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	on	sl.cloudy	none	slight	none	
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

MARCH 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

MARCH 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
MARCH 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	2.9	0.4		
2	8am	2.8	0.6		
3					
4	8am	2.9	0.4		1
5	8am	2.8	0.5		
6	8am	2.8	0.6	Tank-3a,b 5.7 ppb	2
7	8am	3.0	0.5		3,4
8	8am	3.2	0.7		
9	8am	3.4	0.7		
10					
11					
12	8am	3.2	0.5		
13	8am	3.3	0.6		
14	8am	3.4	0.5		
15	8am	3.3	0.5		
16	8am	3.3	0.6		
17					
18					
19	8am	3.3	0.4		
20	8am	3.2	0.4		
21	8am	3.3	0.6		
22	8am	3.3	0.5		
23	8am	3.2	0.6		
24					5
25					
26	8am	3.1	0.5		
27	8am	3.0	0.4		
28	8am	2.7	0.5		
29	8am	2.5	0.7		
30	8am	2.4	0.6		
31					

notes

1 Bi-monthly Effluent sampling.
2 Started Tank-3a,b into system 8am.
3 Increased 3a,b flow rate.
4 Re-sampled effluent H2O….3-4-13 samples received out of temp. range.
5 Tank-3a,b emptied.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

MARCH 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3							
4							
5							
6	**12**	**9am**	**E.Q.Tank**				2
7				**4908**	**9am**		1
8							
9							
10							
11							
12							
13	**12**	**9am**	**E.Q.Tank**				
14				**4322**	**9am**		1
15							
16							
17							
18							
19							
20	**12**	**9am**	**E.Q.Tank**				
21				**3956**	**9am**		1
22							
23							
24							3
25							
26							
27	**12**	**9am**	**E.Q.Tank**				
28				**4615**	**9am**		1
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)
2 Started Tank-3a,b into system.
3 Tank-3a,b emptied.

DATE 4/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

MARCH 7, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic		ND
Chromium		ND
Copper		ND
Zinc		4.9
Tetrachlorophenol		ND
Pentachlorophenol		ND
Naphthalene		ND
Acenaphthylene		ND
2-Methylnaphthene-Dibenzofuran		ND
Acenaphthylene		ND
Fluorene		ND
Phenanthrene		ND
Anthracene		ND
Fluoranthene		ND
Pyrene		ND
Benz(a)anthracene		ND
Chrysene		ND
Benzo(b)fluoranthene		ND
Benzo(k)fluoranthene		ND
Benzo(a)pyrene		ND
Dibenz(a,h)anthracene		ND
Benzo(g,h,I)perylene		ND
Indeno(1,2,3-cd)pyrene		ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11
   Tank-3a,b B-1r,s 001 seep FD seep
3. Influent sampling due Jan. 2014.

DATE 4/2/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

APRIL 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51420	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	35.71	
2	51414	"	35.70	
3	51421	"	35.71	
4	51432	"	35.72	
5	51447	"	35.73	
6	51495	"	35.76	
7	51514	"	35.77	
8	51541	"	35.79	
9	51558	"	35.80	
10	51562	"	35.81	
11	51571	"	35.81	
12	51566	"	35.81	
13	51583	"	35.82	
14	51575	"	35.82	
15	51564	"	35.81	
16	51557	"	35.80	
17	51544	"	35.79	
18	51535	"	35.79	
19	51518	"	35.78	
20	51506	"	35.77	
21	51486	"	35.75	
22	51461	"	35.74	
23	51430	"	35.72	
24	51403	"	35.70	
25	51370	"	35.67	
26	51335	"	35.65	
27	51309	"	35.63	
28	51272	"	35.61	
29	51239	"	35.58	
30	51178	"	35.54	
31	0		0.00	

1543806 **Total gallons**

1149027 **Total gallons inside slurry wall**

394779 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

APRIL 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51430	Spray Field	35.72	
2	51421	"	35.71	
3	51434	"	35.72	
4	51450	"	35.73	
5	51471	"	35.74	
6	51489	"	35.76	
7	51520	"	35.78	
8	51550	"	35.80	
9	51564	"	35.81	
10	51574	"	35.82	
11	51584	"	35.82	
12	51582	"	35.82	
13	51577	"	35.82	
14	51579	"	35.82	
15	51559	"	35.80	
16	51564	"	35.81	
17	51550	"	35.80	
18	51543	"	35.79	
19	51529	"	35.78	
20	51499	"	35.76	
21	51483	"	35.75	
22	51455	"	35.73	
23	51437	"	35.72	
24	51411	"	35.70	
25	51384	"	35.68	
26	51344	"	35.66	
27	51297	"	35.62	
28	51277	"	35.61	
29	51229	"	35.58	
30	51185	"	35.55	
31			0.00	

1543971 **Total gallons**

notes

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

APRIL 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			51430		
2			51421		
3			51434		
4			51450		
5			51471		
6			51489		
7			51520		
8			51550		
9			51564		
10			51574		
11			51584		
12			51582		
13			51577		
14			51579		
15			51559		
16			51564		
17			51550		
18			51543		
19			51529		
20			51499		
21			51483		
22			51455		
23			51437		
24			51411		
25			51384		
26			51344		
27			51297		
28			51277		
29			51229		
30			51185		
31					
	0	0	1543971	0	Totals

Total Effluent Gallons : 1543971

notes

DATE 5/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

APRIL 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3633	6101	40	1272						
2	3633	6101	40	1272						
3	3633	6101	40	1272						
4	3633	6101	40	1272						
5	3633	6101	40	1272						
6	3635	6103	41	1274						1
7	3635	6103	41	1274						
8	3635	6103	41	1274						
9	3635	6103	41	1274						
10	3635	6103	41	1274						
11	3635	6103	41	1274						
12	3635	6103	41	1274						
13	3636	6105	41	1275						1
14	3636	6105	41	1275						
15	3636	6105	41	1275						
16	3636	6105	41	1275						
17	3636	6105	41	1275						
18	3636	6105	41	1275						
19	3636	6105	41	1275						
20	3636	6106	41	1276						1
21	3636	6106	41	1276						
22	3636	6106	41	1276						
23	3636	6106	41	1276						
24	3636	6106	41	1276						
25	3636	6106	41	1276						
26	3636	6106	41	1276						
27	3635	6106	40	1277						1
28	3635	6106	40	1277						
29	3635	6106	40	1277						
30	3635	6106	40	1277						
31										

Total gallons

SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6
109054	183127	1221	38243	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

APRIL 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1108	1996	4176	3428				
2			1108	1996	4176	3428				
3			1108	1996	4176	3428				
4			1108	1996	4176	3428				
5			1108	1996	4176	3428				
6			1110	1998	4178	3429				1
7			1110	1998	4178	3429				
8			1110	1998	4178	3429				
9			1110	1998	4178	3429				
10			1110	1998	4178	3429				
11			1110	1998	4178	3429				
12			1110	1998	4178	3429				
13			1112	1999	4179	3431				1
14			1112	1999	4179	3431				
15			1112	1999	4179	3431				
16			1112	1999	4179	3431				
17			1112	1999	4179	3431				
18			1112	1999	4179	3431				
19			1112	1999	4179	3431				
20			1113	1999	4180	3433				1
21			1113	1999	4180	3433				
22			1113	1999	4180	3433				
23			1113	1999	4180	3433				
24			1113	1999	4180	3433				
25			1113	1999	4180	3433				
26			1113	1999	4180	3433				
27			1114	1999	4181	3434				1
28			1114	1999	4181	3434				
29			1114	1999	4181	3434				
30			1114	1999	4181	3434				
31										

Total gallons

0	0	33341	59948	125363	102927	0	0	0

notes

1 Meter readings taken weekly.

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

APRIL 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2762	11	2181			1499	1738	2440	19035	
2	2762	11	2181			1499	1738	2440	19029	
3	2762	11	2181			1499	1738	2440	19036	
4	2762	11	2181			1499	1738	2440	19047	
5	2762	11	2181			1499	1738	2440	19062	
6	2764	12	2183			1503	1741	2440	19084	1
7	2764	12	2183			1503	1741	2440	19103	
8	2764	12	2183			1503	1741	2440	19130	
9	2764	12	2183			1503	1741	2440	19147	
10	2764	12	2183			1503	1741	2440	19151	
11	2764	12	2183			1503	1741	2440	19160	
12	2764	12	2183			1503	1741	2440	19155	
13	2765	11	2184			1505	1743	2440	19157	1
14	2765	11	2184			1505	1743	2440	19149	
15	2765	11	2184			1505	1743	2440	19138	
16	2765	11	2184			1505	1743	2440	19131	
17	2765	11	2184			1505	1743	2440	19118	
18	2765	11	2184			1505	1743	2440	19109	
19	2765	11	2184			1505	1743	2440	19092	
20	2767	10	2185			1507	1745	2440	19068	1
21	2767	10	2185			1507	1745	2440	19048	
22	2767	10	2185			1507	1745	2440	19023	
23	2767	10	2185			1507	1745	2440	18992	
24	2767	10	2185			1507	1745	2440	18965	
25	2767	10	2185			1507	1745	2440	18932	
26	2767	10	2185			1507	1745	2440	18897	
27	2768	8	2185			1509	1747	2440	18866	1
28	2768	8	2185			1509	1747	2440	18829	
29	2768	8	2185			1509	1747	2440	18796	
30	2768	8	2185			1509	1747	2440	18735	
31										

Total gallons

82954	318	65509	0	0	45136	52281	73200	571184

notes

1 Meter readings taken weekly (FD seep taken daily)

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

APRIL 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

APRIL 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					1
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31						
Totals	**57600**	**0**	**0**	**0**	**0**	

Total gallons to filter press **57600**

Total cubic yards recovered **8**

notes

1 Pulled sample of precip. for Bi-annual profile.

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

APRIL 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31													

notes

1 Readings are daily averages.

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
APRIL 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1					
2	8am	2.4	0.4		
3	8am	2.3	0.4		
4	8am	2.3	0.5		
5	8am	2.1	0.6		
6	8am	2.3	0.5		
7					
8					
9	8am	2.2	0.4		
10	8am	2.0	0.5		
11	8am	2.1	0.4		
12	8am	2.1	0.4		
13	8am	2.0	0.6		
14					
15					
16	8am	2.1	0.7		
17	8am	2.0	0.7		
18	8am	2.1	0.5		
19	8am	1.9	0.6		
20	8am	2.0	0.5		
21					
22					
23	8am	2.0	0.4		
24	8am	1.9	0.5		
25	8am	1.9	0.4		
26	8am	2.0	0.5		
27	8am	2.0	0.4		
28					
29					
30	8am	1.9	0.4		
31					

notes

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

APRIL 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3	**12**	**9am**	**E.Q.Tank**				
4				**5275**	**9am**		1
5							
6							
7							
8							
9							
10	**12**	**9am**	**E.Q.Tank**				
11				**5495**	**9am**		1
12							
13							
14							
15							
16							
17	**12**	**9am**	**E.Q.Tank**				
18				**6154**	**9am**		1
19							
20							
21							
22							
23							
24	**12**	**9am**	**E.Q.Tank**	**5421**	**9am**		1
25							
26							
27							
28							
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE 5/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

MAY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51143	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	35.52	
2	51099	"	35.49	
3	51061	"	35.46	
4	51007	"	35.42	
5	50960	"	35.39	
6	50917	"	35.36	
7	50885	"	35.34	
8	50856	"	35.32	
9	50833	"	35.30	
10	50807	"	35.28	
11	50778	"	35.26	
12	50741	"	35.24	
13	50697	"	35.21	
14	50658	"	35.18	
15	50611	"	35.15	
16	50566	"	35.12	
17	50516	"	35.08	
18	50447	"	35.03	
19	50395	"	35.00	
20	50348	"	34.96	
21	50293	"	34.93	
22	50240	"	34.89	
23	50183	"	34.85	
24	50128	"	34.81	
25	50045	"	34.75	
26	49993	"	34.72	
27	49932	"	34.68	
28	49874	"	34.63	
29	49811	"	34.59	
30	49751	"	34.55	
31	49685	"	34.50	

1565260 **Total gallons**

1157423 **Total gallons inside slurry wall**

407837 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

MAY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	51137	Spray Field	35.51	1
2	51108	"	35.49	
3	51070	"	35.47	
4	50999	"	35.42	
5	50967	"	35.39	
6	50909	"	35.35	
7	50877	"	35.33	
8	50867	"	35.32	
9	50845	"	35.31	
10	50798	"	35.28	
11	50784	"	35.27	
12	50733	"	35.23	
13	50705	"	35.21	
14	50641	"	35.17	
15	50623	"	35.15	
16	50557	"	35.11	
17	50498	"	35.07	
18	50451	"	35.04	
19	50389	"	34.99	
20	50337	"	34.96	
21	50280	"	34.92	
22	50229	"	34.88	
23	50165	"	34.84	
24	50107	"	34.80	
25	50051	"	34.76	
26	49987	"	34.71	
27	49925	"	34.67	
28	49863	"	34.63	
29	49799	"	34.58	
30	49733	"	34.54	
31	49661	"	34.49	

1565095 **Total gallons**

notes

1 Bi-monthly Effluent sampling.

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

MAY 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			51137		
2			51108		
3			51070		
4			50999		
5			50967		
6			50909		
7			50877		
8			50867		
9			50845		
10			50798		
11			50784		
12			50733		
13			50705		
14			50641		
15			50623		
16			50557		
17			50498		
18			50451		
19			50389		
20			50337		
21			50280		
22			50229		
23			50165		
24			50107		
25			50051		
26			49987		
27			49925		
28			49863		
29			49799		
30			49733		
31			49661		
	0	0	1565095	0	Totals

Total Effluent Gallons : 1565095

notes

DATE 6/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MAY 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3635	6106	40	1277						
2	3635	6106	40	1277						
3	3635	6106	40	1277						
4	3635	6105	39	1276						1
5	3635	6105	39	1276						
6	3635	6105	39	1276						
7	3635	6105	39	1276						
8	3635	6105	39	1276						
9	3635	6105	39	1276						
10	3635	6105	39	1276						
11	3635	6106	39	1277						1
12	3635	6106	39	1277						
13	3635	6106	39	1277						
14	3635	6106	39	1277						
15	3635	6106	39	1277						
16	3635	6106	39	1277						
17	3635	6106	39	1277						
18	3634	6104	37	1276						1
19	3634	6104	37	1276						
20	3634	6104	37	1276						
21	3634	6104	37	1276						
22	3634	6104	37	1276						
23	3634	6104	37	1276						
24	3634	6104	37	1276						
25	3632	6102	35	1274						1
26	3632	6102	35	1274						
27	3632	6102	35	1274						
28	3632	6102	35	1274						
29	3632	6102	35	1274						
30	3632	6102	35	1274						
31	3632	6102	35	1274						

Total gallons

112657	189237	1170	39552	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MAY 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1114	1999	4181	3434				
2			1114	1999	4181	3434				
3			1114	1999	4181	3434				
4			1114	1998	4181	3433				1
5			1114	1998	4181	3433				
6			1114	1998	4181	3433				
7			1114	1998	4181	3433				
8			1114	1998	4181	3433				
9			1114	1998	4181	3433				
10			1114	1998	4181	3433				
11			1113	1998	4180	3433				1
12			1113	1998	4180	3433				
13			1113	1998	4180	3433				
14			1113	1998	4180	3433				
15			1113	1998	4180	3433				
16			1113	1998	4180	3433				
17			1113	1998	4180	3433				
18			1111	1996	4179	3432				1
19			1111	1996	4179	3432				
20			1111	1996	4179	3432				
21			1111	1996	4179	3432				
22			1111	1996	4179	3432				
23			1111	1996	4179	3432				
24			1111	1996	4179	3432				
25			1109	1995	4177	3430				1
26			1109	1995	4177	3430				
27			1109	1995	4177	3430				
28			1109	1995	4177	3430				
29			1109	1995	4177	3430				
30			1109	1995	4177	3430				
31			1109	1995	4177	3430				

Total gallons

0	0	34471	61906	129562	106398	0	0	0

notes

1 Meter readings taken weekly.

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

MAY 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2768	8	2185			1509	1747	2440	18700	
2	2768	8	2185			1509	1747	2440	18656	
3	2768	8	2185			1509	1747	2440	18618	
4	2768	7	2184			1508	1747	2435	18577	1
5	2768	7	2184			1508	1747	2435	18530	
6	2768	7	2184			1508	1747	2435	18487	
7	2768	7	2184			1508	1747	2435	18455	
8	2768	7	2184			1508	1747	2435	18426	
9	2768	7	2184			1508	1747	2435	18403	
10	2768	7	2184			1508	1747	2435	18377	
11	2767	7	2183			1509	1749	2435	18347	1
12	2767	7	2183			1509	1749	2435	18310	
13	2767	7	2183			1509	1749	2435	18266	
14	2767	7	2183			1509	1749	2435	18227	
15	2767	7	2183			1509	1749	2435	18180	
16	2767	7	2183			1509	1749	2435	18135	
17	2767	7	2183			1509	1749	2435	18085	
18	2765	5	2181			1508	1747	2435	18037	1
19	2765	5	2181			1508	1747	2435	17985	
20	2765	5	2181			1508	1747	2435	17938	
21	2765	5	2181			1508	1747	2435	17883	
22	2765	5	2181			1508	1747	2435	17830	
23	2765	5	2181			1508	1747	2435	17773	
24	2765	5	2181			1508	1747	2435	17718	
25	2764	4	2179			1506	1744	2435	17659	1
26	2764	4	2179			1506	1744	2435	17607	
27	2764	4	2179			1506	1744	2435	17546	
28	2764	4	2179			1506	1744	2435	17488	
29	2764	4	2179			1506	1744	2435	17425	
30	2764	4	2179			1506	1744	2435	17365	
31	2764	4	2179			1506	1744	2435	17299	

Total gallons

85752	185	67644	0	0	46744	54150	75500	560332

notes

1 Meter readings taken weekly (FD seep taken daily)

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

MAY 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

MAY 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

MAY 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS

(ppb)

MAY 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	2.0	0.4		1
2	8am	1.9	0.6		
3	8am	1.9	0.5		
4	8am	2.0	0.6		
5					
6					
7	8am	1.9	0.4		
8	8am	2.0	0.4		
9	8am	1.9	0.6		
10	8am	2.1	0.5		
11	8am	2.0	0.4		
12					
13					
14	8am	1.9	0.3		
15	8am	2.0	0.5		
16	8am	1.9	0.4		
17	8am	1.9	0.7		
18	8am	2.0	0.4		
19					
20					
21	8am	2.1	0.6		
22	8am	2.1	0.5		
23	8am	2.0	0.5		
24	8am	1.9	0.4		
25	8am	2.0	0.4		
26					
27					
28	8am	1.9	0.3		
29	8am	1.9	0.4		
30	8am	2.1	0.3		
31	8am	2.0	0.4		

notes

1 Bi-monthly Effluent sampling.

DATE 6/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

MAY 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1	**12**	**9am**	**E.Q.Tank**				
2				**5788**	**9am**		1
3							
4							
5							
6							
7							
8	**12**	**9am**	**E.Q.Tank**				
9				**6813**	**9am**		1
10							
11							
12							
13							
14							
15	**12**	**9am**	**E.Q.Tank**				
16				**7326**	**9am**		1
17							
18							
19							
20							
21							
22	**12**	**9am**	**E.Q.Tank**				
23				**6227**	**9am**		1
24							
25							
26							
27							
28							
29	**12**	**9am**	**E.Q.Tank**				
30				**6447**	**9am**		1
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE **6/1/13** **SIGNED** **Gale Jensen**

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

MAY 1, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic		ND
Chromium		ND
Copper		ND
Zinc		4.3
Tetrachlorophenol		ND
Pentachlorophenol		0.2
Naphthalene		ND
Acenaphthylene		ND
2-Methylnaphthene-Dibenzofuran		ND
Acenaphthylene		ND
Fluorene		ND
Phenanthrene		ND
Anthracene		ND
Fluoranthene		ND
Pyrene		ND
Benz(a)anthracene		ND
Chrysene		ND
Benzo(b)fluoranthene		ND
Benzo(k)fluoranthene		ND
Benzo(a)pyrene		ND
Dibenz(a,h)anthracene		ND
Benzo(g,h,I)perylene		ND
Indeno(1,2,3-cd)pyrene		ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11
   B-1r,s 001 seep FD seep
3. Influent sampling due January 2014.

DATE 6/1/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

JUNE 2013

day	GALLONS	LOCATIONS	GPM	notes
1	49599	sew-0,2,5,8 wew-1,3,5,7 wp-8,9,11 B-1r,s 001s FDs	34.44	
2	49531	"	34.40	
3	49460	"	34.35	
4	49391	"	34.30	
5	49324	"	34.25	
6	49251	"	34.20	
7	49186	"	34.16	
8	49090	"	34.09	
9	49020	"	34.04	
10	48944	"	33.99	
11	48873	"	33.94	
12	48804	"	33.89	
13	48727	"	33.84	
14	48655	"	33.79	
15	48560	"	33.72	
16	48485	"	33.67	
17	48415	"	33.62	
18	48338	"	33.57	
19	48264	"	33.52	
20	48186	"	33.46	
21	48104	"	33.41	
22	47990	"	33.33	
23	47909	"	33.27	
24	47826	"	33.21	
25	47747	"	33.16	
26	47671	"	33.10	
27	47599	"	33.05	
28	47524	"	33.00	
29	47425	sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	32.93	1
30	47352	"	32.88	
31	0		0.00	

1455250 **Total gallons**

1061541 **Total gallons inside slurry wall**

393709 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 WP-9 well casing dry.

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

JUNE 2013

day	GALLONS	LOCATIONS	GPM	notes
1	49604	Spray Field	34.45	
2	49526	"	34.39	
3	49451	"	34.34	
4	49380	"	34.29	
5	49311	"	34.24	
6	49232	"	34.19	
7	49162	"	34.14	
8	49101	"	34.10	
9	49014	"	34.04	
10	48935	"	33.98	
11	48860	"	33.93	
12	48787	"	33.88	
13	48706	"	33.82	
14	48627	"	33.77	
15	48564	"	33.73	
16	48478	"	33.67	
17	48409	"	33.62	
18	48327	"	33.56	
19	48251	"	33.51	
20	48169	"	33.45	
21	48078	"	33.39	
22	47995	"	33.33	
23	47902	"	33.27	
24	47818	"	33.21	
25	47734	"	33.15	
26	47654	"	33.09	
27	47573	"	33.04	
28	47497	"	32.98	
29	47429	"	32.94	
30	47348	"	32.88	
31			0.00	

1454922 **Total gallons**

notes

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

JUNE 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			49604		
2			49526		
3			49451		
4			49380		
5			49311		
6			49232		
7			49162		
8			49101		
9			49014		
10			48935		
11			48860		
12			48787		
13			48706		
14			48627		
15			48564		
16			48478		
17			48409		
18			48327		
19			48251		
20			48169		
21			48078		
22			47995		
23			47902		
24			47818		
25			47734		
26			47654		
27			47573		
28			47497		
29			47429		
30			47348		
31					
	0	0	1454922	0	Totals

Total Effluent Gallons : 1454922

notes

DATE 7/2/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JUNE 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3630	6101	34	1272						1
2	3630	6101	34	1272						
3	3630	6101	34	1272						
4	3630	6101	34	1272						
5	3630	6101	34	1272						
6	3630	6101	34	1272						
7	3630	6101	34	1272						
8	3628	6099	32	1269						1
9	3628	6099	32	1269						
10	3628	6099	32	1269						
11	3628	6099	32	1269						
12	3628	6099	32	1269						
13	3628	6099	32	1269						
14	3628	6099	32	1269						
15	3626	6096	30	1267						1
16	3626	6096	30	1267						
17	3626	6096	30	1267						
18	3626	6096	30	1267						
19	3626	6096	30	1267						
20	3626	6096	30	1267						
21	3626	6096	30	1267						
22	3624	6093	28	1265						1
23	3624	6093	28	1265						
24	3624	6093	28	1265						
25	3624	6093	28	1265						
26	3624	6093	28	1265						
27	3624	6093	28	1265						
28	3624	6093	28	1265						
29	3622	6090	26	1264						1
30	3622	6090	26	1264						
31										

Total gallons

108800	182903	920	38039	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JUNE 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1107	1993	4175	3428				1
2			1107	1993	4175	3428				
3			1107	1993	4175	3428				
4			1107	1993	4175	3428				
5			1107	1993	4175	3428				
6			1107	1993	4175	3428				
7			1107	1993	4175	3428				
8			1105	1991	4174	3426				1
9			1105	1991	4174	3426				
10			1105	1991	4174	3426				
11			1105	1991	4174	3426				
12			1105	1991	4174	3426				
13			1105	1991	4174	3426				
14			1105	1991	4174	3426				
15			1103	1989	4172	3424				1
16			1103	1989	4172	3424				
17			1103	1989	4172	3424				
18			1103	1989	4172	3424				
19			1103	1989	4172	3424				
20			1103	1989	4172	3424				
21			1103	1989	4172	3424				
22			1101	1987	4170	3421				1
23			1101	1987	4170	3421				
24			1101	1987	4170	3421				
25			1101	1987	4170	3421				
26			1101	1987	4170	3421				
27			1101	1987	4170	3421				
28			1101	1987	4170	3421				
29			1099	1985	4168	3419				1
30			1099	1985	4168	3419				
31										

Total gallons

0	0	33110	59690	125173	102731	0	0	0

notes

1 Meter readings taken weekly.

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JUNE 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2763	3	2177			1503	1741	2435	17237	1
2	2763	3	2177			1503	1741	2435	17169	
3	2763	3	2177			1503	1741	2435	17098	
4	2763	3	2177			1503	1741	2435	17029	
5	2763	3	2177			1503	1741	2435	16962	
6	2763	3	2177			1503	1741	2435	16889	
7	2763	3	2177			1503	1741	2435	16824	
8	2761	2	2175			1500	1738	2435	16755	1
9	2761	2	2175			1500	1738	2435	16685	
10	2761	2	2175			1500	1738	2435	16609	
11	2761	2	2175			1500	1738	2435	16538	
12	2761	2	2175			1500	1738	2435	16469	
13	2761	2	2175			1500	1738	2435	16392	
14	2761	2	2175			1500	1738	2435	16320	
15	2760	2	2173			1496	1735	2435	16252	1
16	2760	2	2173			1496	1735	2435	16177	
17	2760	2	2173			1496	1735	2435	16107	
18	2760	2	2173			1496	1735	2435	16030	
19	2760	2	2173			1496	1735	2435	15956	
20	2760	2	2173			1496	1735	2435	15878	
21	2760	2	2173			1496	1735	2435	15796	
22	2758	1	2171			1492	1730	2430	15719	1
23	2758	1	2171			1492	1730	2430	15638	
24	2758	1	2171			1492	1730	2430	15555	
25	2758	1	2171			1492	1730	2430	15476	
26	2758	1	2171			1492	1730	2430	15400	
27	2758	1	2171			1492	1730	2430	15328	
28	2758	1	2171			1492	1730	2430	15253	
29	2757	0	2169			1488	1726	2430	15182	1,2
30	2757		2169			1488	1726	2430	15109	
31										

Total gallons

82808	56	65210	0	0	44913	52060	73005	485832

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry.

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

JUNE 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	on	clear	slight	none	none	
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

JUNE 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31						
Totals	**57600**	**0**	**0**	**0**	**0**	

Total gallons to filter press **57600**

Total cubic yards recovered **8**

notes

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

JUNE 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31													

notes

1 Readings are daily averages.

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS

(ppb)

JUNE 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	1.9	0.3		
2					
3					
4	8am	2.0	0.6		
5	8am	1.9	0.3		
6	8am	1.9	0.5		
7	8am	2.0	0.4		
8	8am	2.0	0.3		
9					
10					
11	8am	1.9	0.6		
12	8am	1.8	0.4		
13	8am	2.1	0.3		
14	8am	1.9	0.5		
15	8am	1.8	0.6		
16					
17					
18	8am	2.1	0.3		
19	8am	1.9	0.5		
20	8am	1.9	0.4		
21	8am	2.0	0.5		
22	8am	1.9	0.5		
23					
24					
25	8am	1.9	0.7		
26	8am	2.0	0.5		
27	8am	1.8	0.6		
28	8am	1.8	0.5		
29	8am	1.9	0.4		
30					
31					

notes

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

JUNE 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3							
4							
5	**12**	**9am**	**E.Q.Tank**				
6				**6960**	**9am**		1
7							
8							
9							
10							
11							
12	**12**	**9am**	**E.Q.Tank**				
13				**7033**	**9am**		1
14							
15							
16							
17							
18							
19	**12**	**9am**	**E.Q.Tank**				
20				**5934**	**9am**		1
21							
22							
23							
24							
25							
26	**12**	**9am**	**E.Q.Tank**				
27				**6300**	**9am**		1
28							
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE 7/2/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

JULY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	47276	sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	32.83	1
2	47207	"	32.78	
3	47142	"	32.74	
4	47076	"	32.69	
5	47013	"	32.65	
6	46918	"	32.58	
7	46857	"	32.54	
8	46795	"	32.50	
9	46731	"	32.45	
10	46661	"	32.40	
11	46600	"	32.36	
12	46535	"	32.32	
13	46439	"	32.25	
14	46375	"	32.20	
15	46308	"	32.16	
16	46249	"	32.12	
17	46186	"	32.07	
18	46129	"	32.03	
19	46074	"	32.00	
20	45982	"	31.93	
21	45926	"	31.89	
22	45867	"	31.85	
23	45812	"	31.81	
24	45757	"	31.78	
25	45706	"	31.74	
26	45649	"	31.70	
27	45566	"	31.64	
28	45513	"	31.61	
29	45463	"	31.57	
30	45417	"	31.54	
31	45368	"	31.51	

1434597 **Total gallons**

1029022 **Total gallons inside slurry wall**

405575 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 WP-9 well casing dry. (6-29-13)

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

JULY 2013

day	GALLONS	LOCATIONS	GPM	notes
1	47270	Spray Field	32.83	1
2	47196	"	32.78	
3	47128	"	32.73	
4	47057	"	32.68	
5	46987	"	32.63	
6	46924	"	32.59	
7	46853	"	32.54	
8	46788	"	32.49	
9	46718	"	32.44	
10	46644	"	32.39	
11	46579	"	32.35	
12	46510	"	32.30	
13	46440	"	32.25	
14	46333	"	32.18	
15	46297	"	32.15	
16	46236	"	32.11	
17	46172	"	32.06	
18	46107	"	32.02	
19	46045	"	31.98	
20	45987	"	31.94	
21	45922	"	31.89	
22	45858	"	31.85	
23	45798	"	31.80	
24	45741	"	31.76	
25	45684	"	31.73	
26	45622	"	31.68	
27	45559	"	31.64	
28	45504	"	31.60	
29	45454	"	31.57	
30	45404	"	31.53	
31	45352	"	31.49	

1434169 **Total gallons**

notes

1 Bi-monthly Effluent sampling.

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

JULY 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			47270		
2			47196		
3			47128		
4			47057		
5			46987		
6			46924		
7			46853		
8			46788		
9			46718		
10			46644		
11			46579		
12			46510		
13			46440		
14			46333		
15			46297		
16			46236		
17			46172		
18			46107		
19			46045		
20			45987		
21			45922		
22			45858		
23			45798		
24			45741		
25			45684		
26			45622		
27			45559		
28			45504		
29			45454		
30			45404		
31			45352		
	0	0	1434169	0	Totals

Total Effluent Gallons : 1434169

notes

DATE 8/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JULY 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3622	6090	26	1264						
2	3622	6090	26	1264						
3	3622	6090	26	1264						
4	3622	6090	26	1264						
5	3622	6090	26	1264						
6	3620	6088	24	1262						1
7	3620	6088	24	1262						
8	3620	6088	24	1262						
9	3620	6088	24	1262						
10	3620	6088	24	1262						
11	3620	6088	24	1262						
12	3620	6088	24	1262						
13	3618	6085	22	1260						1
14	3618	6085	22	1260						
15	3618	6085	22	1260						
16	3618	6085	22	1260						
17	3618	6085	22	1260						
18	3618	6085	22	1260						
19	3618	6085	22	1260						
20	3616	6082	20	1258						1
21	3616	6082	20	1258						
22	3616	6082	20	1258						
23	3616	6082	20	1258						
24	3616	6082	20	1258						
25	3616	6082	20	1258						
26	3616	6082	20	1258						
27	3613	6079	18	1256						1
28	3613	6079	18	1256						
29	3613	6079	18	1256						
30	3613	6079	18	1256						
31	3613	6079	18	1256						

Total gallons

112153	188630	682	39060	0	0	0	0	0

notes

1 Meter readings taken weekly.

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JULY 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1099	1985	4168	3419				
2			1099	1985	4168	3419				
3			1099	1985	4168	3419				
4			1099	1985	4168	3419				
5			1099	1985	4168	3419				
6			1097	1983	4165	3417				1
7			1097	1983	4165	3417				
8			1097	1983	4165	3417				
9			1097	1983	4165	3417				
10			1097	1983	4165	3417				
11			1097	1983	4165	3417				
12			1097	1983	4165	3417				
13			1095	1981	4163	3415				1
14			1095	1981	4163	3415				
15			1095	1981	4163	3415				
16			1095	1981	4163	3415				
17			1095	1981	4163	3415				
18			1095	1981	4163	3415				
19			1095	1981	4163	3415				
20			1093	1978	4160	3413				1
21			1093	1978	4160	3413				
22			1093	1978	4160	3413				
23			1093	1978	4160	3413				
24			1093	1978	4160	3413				
25			1093	1978	4160	3413				
26			1093	1978	4160	3413				
27			1090	1976	4158	3410				1
28			1090	1976	4158	3410				
29			1090	1976	4158	3410				
30			1090	1976	4158	3410				
31			1090	1976	4158	3410				
Total gallons	0	0	33940	61399	129046	105860	0	0	0	

notes

1 Meter readings taken weekly.

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

JULY 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2757	0	2169			1488	1726	2430	15033	2
2	2757		2169			1488	1726	2430	14964	
3	2757		2169			1488	1726	2430	14899	
4	2757		2169			1488	1726	2430	14833	
5	2757		2169			1488	1726	2430	14770	
6	2755		2167			1484	1723	2430	14703	1
7	2755		2167			1484	1723	2430	14642	
8	2755		2167			1484	1723	2430	14580	
9	2755		2167			1484	1723	2430	14516	
10	2755		2167			1484	1723	2430	14446	
11	2755		2167			1484	1723	2430	14385	
12	2755		2167			1484	1723	2430	14320	
13	2753		2165			1480	1720	2430	14252	1
14	2753		2165			1480	1720	2430	14188	
15	2753		2165			1480	1720	2430	14121	
16	2753		2165			1480	1720	2430	14062	
17	2753		2165			1480	1720	2430	13999	
18	2753		2165			1480	1720	2430	13942	
19	2753		2165			1480	1720	2430	13887	
20	2751		2162			1476	1717	2430	13826	1
21	2751		2162			1476	1717	2430	13770	
22	2751		2162			1476	1717	2430	13711	
23	2751		2162			1476	1717	2430	13656	
24	2751		2162			1476	1717	2430	13601	
25	2751		2162			1476	1717	2430	13550	
26	2751		2162			1476	1717	2430	13493	
27	2749		2160			1470	1712	2430	13445	1
28	2749		2160			1470	1712	2430	13392	
29	2749		2160			1470	1712	2430	13342	
30	2749		2160			1470	1712	2430	13296	
31	2749		2160			1470	1712	2430	13247	

Total gallons

85343	0	67103	0	0	45870	53310	75330	436871

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry. (6-29-13)

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

JULY 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					1
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 WP-9 well casing dry. (6-29-13)

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

JULY 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

JULY 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
JULY 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	1.8	0.3		1
2	8am	1.9	0.3		
3	8am	1.8	0.5		
4					2
5	8am	2.0	0.4		
6	8am	1.8	0.6		
7					
8					
9	8am	1.9	0.6		
10	8am	1.8	0.4		
11	8am	1.8	0.5		
12	8am	2.0	0.3		
13	8am	1.9	0.4		
14					
15					
16	8am	1.8	0.4		
17	8am	1.9	0.5		
18	8am	2.1	0.4		
19	8am	2.0	0.5		
20	8am	1.9	0.3		
21					
22					
23	8am	1.8	0.3		
24	8am	1.9	0.3		
25	8am	2.0	0.5		
26	8am	2.0	0.4		
27	8am	1.9	0.5		
28					
29					
30	8am	2.0	0.3		
31	8am	2.1	0.3		

notes

1 Bi-monthly Effluent sampling.

2 Holiday.

DATE 8/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

JULY 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3	**12**	**9am**	**E.Q.Tank**				
4				**5788**	**9am**		1
5							
6							
7							
8							
9							
10	**12**	**9am**	**E.Q.Tank**				
11				**5348**	**9am**		1
12							
13							
14							
15							
16							
17	**12**	**9am**	**E.Q.Tank**				
18				**5201**	**9am**		1
19							
20							
21							
22							
23							
24	**12**	**9am**	**E.Q.Tank**				
25				**6886**	**9am**		1
26							
27							
28							
29							
30							
31	**12**	**9am**	**E.Q.Tank**				

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE **8/1/13** **SIGNED** **Gale Jensen**

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

JULY 1, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic		ND
Chromium		ND
Copper		ND
Zinc		ND
Tetrachlorophenol		ND
Pentachlorophenol		ND
Naphthalene		ND
Acenaphthylene		ND
2-Methylnaphthene-Dibenzofuran		ND
Acenaphthylene		ND
Fluorene		ND
Phenanthrene		ND
Anthracene		ND
Fluoranthene		ND
Pyrene		ND
Benz(a)anthracene		ND
Chrysene		ND
Benzo(b)fluoranthene		ND
Benzo(k)fluoranthene		ND
Benzo(a)pyrene		ND
Dibenz(a,h)anthracene		ND
Benzo(g,h,I)perylene		ND
Indeno(1,2,3-cd)pyrene		ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,5,8 wew-1,3,5,7 wp-8,11
   B-1r,s 001 seep Fr. Dr. seep
3. Influent sampling due Jan. 2014.

DATE 8/1/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

AUGUST 2013

day	GALLONS	LOCATIONS	GPM	notes
1	45324	sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	31.48	1
2	45278	"	31.44	
3	45196	"	31.39	
4	45151	"	31.35	
5	45111	"	31.33	
6	45065	"	31.30	
7	45026	"	31.27	
8	44984	"	31.24	
9	44947	"	31.21	
10	44875	"	31.16	
11	44834	"	31.13	
12	44796	"	31.11	
13	30533	sew-2,5,8 wp-8,11 B-1r,s 001s FDs	21.20	2
14	41186	sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	28.60	3
15	44683	"	31.03	
16	44648	"	31.01	
17	44571	"	30.95	
18	44534	"	30.93	
19	44499	"	30.90	
20	44459	"	30.87	
21	44423	"	30.85	
22	44384	"	30.82	
23	44343	"	30.79	
24	44261	"	30.74	
25	44216	"	30.71	
26	44167	"	30.67	
27	44121	"	30.64	
28	44070	"	30.60	
29	44022	"	30.57	
30	43968	"	30.53	
31	43876	"	30.47	

1365551 **Total gallons**

974655 **Total gallons inside slurry wall**

390896 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 WP-9 well casing dry. (6-29-13)

2 Roseburg fire line leak repair…SEW-0 and WEW wells off 8am.

3 SEW-0 and WEW wells on line 2pm. (18 hr run)

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

AUGUST 2013

day	GALLONS	LOCATIONS	GPM	notes
1	45304	Spray Field	31.46	
2	45246	"	31.42	
3	45191	"	31.38	
4	45147	"	31.35	
5	45103	"	31.32	
6	45049	"	31.28	
7	45007	"	31.25	
8	44957	"	31.22	
9	44916	"	31.19	
10	44879	"	31.17	
11	44829	"	31.13	
12	44783	"	31.10	
13	30521	"	21.20	
14	41169	"	28.59	
15	44664	"	31.02	
16	44617	"	30.98	
17	44569	"	30.95	
18	44527	"	30.92	
19	44486	"	30.89	
20	44443	"	30.86	
21	44405	"	30.84	
22	44358	"	30.80	
23	44312	"	30.77	
24	44258	"	30.73	
25	44209	"	30.70	
26	44154	"	30.66	
27	44101	"	30.63	
28	44047	"	30.59	
29	43994	"	30.55	
30	43933	"	30.51	
31	43873	"	30.47	

1365051 **Total gallons**

notes

1 Roseburg fire line leak repair…WEW wells off.

2 SEW-0 and WEW wells on line 2pm.

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

AUGUST 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			45304		
2			45246		
3			45191		
4			45147		
5			45103		
6			45049		
7			45007		
8			44957		
9			44916		
10			44879		
11			44829		
12			44783		
13			30521		
14			41169		
15			44664		
16			44617		
17			44569		
18			44527		
19			44486		
20			44443		
21			44405		
22			44358		
23			44312		
24			44258		
25			44209		
26			44154		
27			44101		
28			44047		
29			43994		
30			43933		
31			43873		
	0	0	1365051	0	Totals

Total Effluent Gallons : 1365051

notes

DATE 9/3/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

AUGUST 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3613	6079	18	1256						
2	3613	6079	18	1256						
3	3611	6077	16	1253						1
4	3611	6077	16	1253						
5	3611	6077	16	1253						
6	3611	6077	16	1253						
7	3611	6077	16	1253						
8	3611	6077	16	1253						
9	3611	6077	16	1253						
10	3609	6074	14	1251						1
11	3609	6074	14	1251						
12	3609	6074	14	1251						
13	0	6074	14	1251						2
14	2710	6074	14	1251						3
15	3609	6074	14	1251						
16	3609	6074	14	1251						
17	3606	6071	11	1249						1
18	3606	6071	11	1249						
19	3606	6071	11	1249						
20	3606	6071	11	1249						
21	3606	6071	11	1249						
22	3606	6071	11	1249						
23	3606	6071	11	1249						
24	3603	6068	8	1247						1
25	3603	6068	8	1247						
26	3603	6068	8	1247						
27	3603	6068	8	1247						
28	3603	6068	8	1247						
29	3603	6068	8	1247						
30	3603	6068	8	1247						
31	3600	6065	6	1244						1

Total gallons

107321	188253	385	38756	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-0 off for Roseburg fire line leak repair.

3 SEW-0 on line 2pm.

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

AUGUST 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1090	1976	4158	3410				
2			1090	1976	4158	3410				
3			1087	1974	4156	3408				1
4			1087	1974	4156	3408				
5			1087	1974	4156	3408				
6			1087	1974	4156	3408				
7			1087	1974	4156	3408				
8			1087	1974	4156	3408				
9			1087	1974	4156	3408				
10			1085	1972	4153	3406				1
11			1085	1972	4153	3406				
12			1085	1972	4153	3406				
13			0	0	0	0				2
14			818	1482	3119	2560				3
15			1085	1972	4153	3406				
16			1085	1972	4153	3406				
17			1083	1970	4150	3404				1
18			1083	1970	4150	3404				
19			1083	1970	4150	3404				
20			1083	1970	4150	3404				
21			1083	1970	4150	3404				
22			1083	1970	4150	3404				
23			1083	1970	4150	3404				
24			1080	1968	4147	3402				1
25			1080	1968	4147	3402				
26			1080	1968	4147	3402				
27			1080	1968	4147	3402				
28			1080	1968	4147	3402				
29			1080	1968	4147	3402				
30			1080	1968	4147	3402				
31			1078	1965	4143	3400				1

Total gallons

0	0	32251	58643	123514	101308	0	0	0

notes

1 Meter readings taken weekly.

2 WEW wells off for Roseburg fire line leak repair.

3 WEWs on line 2pm,,,,,18hr run.

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

AUGUST 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2749	0	2160			1470	1712	2430	13203	2
2	2749		2160			1470	1712	2430	13157	
3	2746		2158			1464	1707	2425	13114	1
4	2746		2158			1464	1707	2425	13069	
5	2746		2158			1464	1707	2425	13029	
6	2746		2158			1464	1707	2425	12983	
7	2746		2158			1464	1707	2425	12944	
8	2746		2158			1464	1707	2425	12902	
9	2746		2158			1464	1707	2425	12865	
10	2744		2156			1460	1701	2425	12825	1
11	2744		2156			1460	1701	2425	12784	
12	2744		2156			1460	1701	2425	12746	
13	2744		2156			1460	1701	2425	12708	
14	2744		2156			1460	1701	2425	12672	
15	2744		2156			1460	1701	2425	12633	
16	2744		2156			1460	1701	2425	12598	
17	2741		2154			1455	1695	2425	12557	1
18	2741		2154			1455	1695	2425	12520	
19	2741		2154			1455	1695	2425	12485	
20	2741		2154			1455	1695	2425	12445	
21	2741		2154			1455	1695	2425	12409	
22	2741		2154			1455	1695	2425	12370	
23	2741		2154			1455	1695	2425	12329	
24	2738		2151			1449	1689	2425	12286	1
25	2738		2151			1449	1689	2425	12241	
26	2738		2151			1449	1689	2425	12192	
27	2738		2151			1449	1689	2425	12146	
28	2738		2151			1449	1689	2425	12095	
29	2738		2151			1449	1689	2425	12047	
30	2738		2151			1449	1689	2425	11993	
31	2736		2149			1444	1683	2420	11943	1

Total gallons

85017	0	66802	0	0	45180	52651	75180	390290

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry. (6-29-13)

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

AUGUST 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					1
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 WP-9 well casing dry. (6-29-13)

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

AUGUST 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

AUGUST 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS

(ppb)

AUGUST 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	1.9	0.4		
2	8am	2.0	0.3		
3	8am	2.0	0.5		
4					
5					
6	8am	1.9	0.4		
7	8am	1.8	0.6		
8	8am	1.9	0.4		
9	8am	2.0	0.3		
10	8am	1.9	0.5		
11					
12					
13	8am	1.9	0.3		
14	8am	1.8	0.3		
15	8am	2.0	0.5		
16	8am	1.9	0.3		
17	8am	1.9	0.4		
18					
19					
20	8am	2.0	0.6		
21	8am	1.8	0.4		
22	8am	1.9	0.3		
23	8am	1.8	0.4		
24	8am	1.9	0.5		
25					
26					
27	8am	1.8	0.3		
28	8am	1.8	0.5		
29	8am	1.9	0.5		
30	8am	1.9	0.4		
31	8am	1.8	0.4		

notes

DATE 9/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

AUGUST 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1				**6740**	**9am**		1
2							
3							
4							
5							
6							
7	**12**	**9am**	**E.Q.Tank**				
8				**5714**	**9am**		1
9							
10							
11							
12							
13							
14	**12**	**9am**	**E.Q.Tank**				
15				**5495**	**9am**		1
16							
17							
18							
19							
20							
21	**12**	**9am**	**E.Q.Tank**				
22				**4762**	**9am**		1
23							
24							
25							
26							
27							
28	**12**	**9am**	**E.Q.Tank**				
29				**5495**	**9am**		1
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE **9/3/13** **SIGNED** **Gale Jensen**

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

SEPTEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	43823	sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	30.43	1
2	43773	"	30.40	
3	43721	"	30.36	
4	43666	"	30.32	
5	43617	"	30.29	
6	43563	"	30.25	
7	43470	"	30.19	
8	43419	"	30.15	
9	43365	"	30.11	
10	43306	"	30.07	
11	43250	"	30.03	
12	43192	"	29.99	
13	43131	"	29.95	
14	43037	"	29.89	
15	42978	"	29.85	
16	42925	"	29.81	
17	42868	"	29.77	
18	42805	"	29.73	
19	42750	"	29.69	
20	42692	"	29.65	
21	42609	sew-0,2,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	29.59	2
22	42564	"	29.56	
23	42514	"	29.52	
24	42468	"	29.49	
25	42425	"	29.46	
26	42378	"	29.43	
27	42337	"	29.40	
28	42264	"	29.35	
29	42225	"	29.32	
30	42190	"	29.30	
31	0		0.00	

1289325 **Total gallons**

899702 **Total gallons inside slurry wall**

389623 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 WP-9 well casing dry. (6-29-13)

2 SEW-5 well casing dry.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

SEPTEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	43815	Spray Field	30.43	
2	43762	"	30.39	
3	43708	"	30.35	1
4	43648	"	30.31	
5	43594	"	30.27	
6	43532	"	30.23	
7	43474	"	30.19	
8	43412	"	30.15	
9	43357	"	30.11	
10	43292	"	30.06	
11	43232	"	30.02	
12	43170	"	29.98	
13	43100	"	29.93	
14	43041	"	29.89	
15	42975	"	29.84	
16	42918	"	29.80	
17	42855	"	29.76	
18	42788	"	29.71	
19	42725	"	29.67	
20	42663	"	29.63	
21	42613	"	29.59	
22	42558	"	29.55	
23	42506	"	29.52	
24	42457	"	29.48	
25	42408	"	29.45	
26	42351	"	29.41	
27	42308	"	29.38	
28	42267	"	29.35	
29	42219	"	29.32	
30	42181	"	29.29	
31			0.00	

1288929 **Total gallons**

notes

1 Bi-monthly Effluent sampling.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

SEPTEMBER 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			43815		
2			43762		
3			43708		
4			43648		
5			43594		
6			43532		
7			43474		
8			43412		
9			43357		
10			43292		
11			43232		
12			43170		
13			43100		
14			43041		
15			42975		
16			42918		
17			42855		
18			42788		
19			42725		
20			42663		
21			42613		
22			42558		
23			42506		
24			42457		
25			42408		
26			42351		
27			42308		
28			42267		
29			42219		
30			42181		
31					
	0	0	1288929	0	Totals

Total Effluent Gallons : 1288929

notes

DATE 10/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

SEPTEMBER 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3600	6065	6	1244						
2	3600	6065	6	1244						
3	3600	6065	6	1244						
4	3600	6065	6	1244						
5	3600	6065	6	1244						
6	3600	6065	6	1244						
7	3597	6062	3	1242						1
8	3597	6062	3	1242						
9	3597	6062	3	1242						
10	3597	6062	3	1242						
11	3597	6062	3	1242						
12	3597	6062	3	1242						
13	3597	6062	3	1242						
14	3594	6058	1	1239						1
15	3594	6058	1	1239						
16	3594	6058	1	1239						
17	3594	6058	1	1239						
18	3594	6058	1	1239						
19	3594	6058	1	1239						
20	3594	6058	1	1239						
21	3591	6055	0	1237						1,2
22	3591	6055		1237						
23	3591	6055		1237						
24	3591	6055		1237						
25	3591	6055		1237						
26	3591	6055		1237						
27	3591	6055		1237						
28	3588	6053		1235						1
29	3588	6053		1235						
30	3588	6053		1235						
31										

Total gallons

107838	181774	64	37195	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-5 well casing dry.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

SEPTEMBER 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1078	1965	4143	3400				
2			1078	1965	4143	3400				
3			1078	1965	4143	3400				
4			1078	1965	4143	3400				
5			1078	1965	4143	3400				
6			1078	1965	4143	3400				
7			1076	1962	4141	3397				1
8			1076	1962	4141	3397				
9			1076	1962	4141	3397				
10			1076	1962	4141	3397				
11			1076	1962	4141	3397				
12			1076	1962	4141	3397				
13			1076	1962	4141	3397				
14			1074	1959	4138	3394				1
15			1074	1959	4138	3394				
16			1074	1959	4138	3394				
17			1074	1959	4138	3394				
18			1074	1959	4138	3394				
19			1074	1959	4138	3394				
20			1074	1959	4138	3394				
21			1071	1957	4135	3392				1
22			1071	1957	4135	3392				
23			1071	1957	4135	3392				
24			1071	1957	4135	3392				
25			1071	1957	4135	3392				
26			1071	1957	4135	3392				
27			1071	1957	4135	3392				
28			1068	1955	4132	3390				1
29			1068	1955	4132	3390				
30			1068	1955	4132	3390				
31										

Total gallons

0	0	32219	58801	124152	101851	0	0	0

notes

1 Meter readings taken weekly.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

SEPTEMBER 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2736	0	2149			1444	1683	2420	11890	2
2	2736		2149			1444	1683	2420	11840	
3	2736		2149			1444	1683	2420	11788	
4	2736		2149			1444	1683	2420	11733	
5	2736		2149			1444	1683	2420	11684	
6	2736		2149			1444	1683	2420	11630	
7	2733		2147			1439	1678	2420	11573	1
8	2733		2147			1439	1678	2420	11522	
9	2733		2147			1439	1678	2420	11468	
10	2733		2147			1439	1678	2420	11409	
11	2733		2147			1439	1678	2420	11353	
12	2733		2147			1439	1678	2420	11295	
13	2733		2147			1439	1678	2420	11234	
14	2731		2145			1433	1673	2420	11178	1
15	2731		2145			1433	1673	2420	11119	
16	2731		2145			1433	1673	2420	11066	
17	2731		2145			1433	1673	2420	11009	
18	2731		2145			1433	1673	2420	10946	
19	2731		2145			1433	1673	2420	10891	
20	2731		2145			1433	1673	2420	10833	
21	2729		2142			1429	1667	2420	10784	1
22	2729		2142			1429	1667	2420	10739	
23	2729		2142			1429	1667	2420	10689	
24	2729		2142			1429	1667	2420	10643	
25	2729		2142			1429	1667	2420	10600	
26	2729		2142			1429	1667	2420	10553	
27	2729		2142			1429	1667	2420	10512	
28	2727		2140			1425	1663	2420	10468	1
29	2727		2140			1425	1663	2420	10429	
30	2727		2140			1425	1663	2420	10394	
31										

Total gallons

81948	0	64352	0	0	43046	50213	72600	333272

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry. (6-29-13)

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

SEPTEMBER 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	on	clear	none	none	none	
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					1
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 WP-9 well casing dry. (6-29-13)

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

SEPTEMBER 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1080					1
15	1080					
16	1080					
17	1080					
18	1080					
19	1080					
20	1080					
21	1080					
22	1080					
23	1080					
24	1080					
25	1080					
26	1080					
27	1080					
28	1080					
29	1080					
30	1080					
31						
Totals	**43320**	**0**	**0**	**0**	**0**	

Total gallons to filter press **43320**

Total cubic yards recovered **6**

notes

1 Reduced precip removal rate.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

SEPTEMBER 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31													

notes

1 Readings are daily averages.

DATE 10-1-13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
SEPTEMBER 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1					
2					
3	8am	1.8	0.3		1
4	8am	1.9	0.6		
5	8am	1.9	0.4		
6	8am	1.8	0.5		
7	8am	1.8	0.4		
8					
9					
10	8am	1.9	0.3		
11	8am	2.0	0.4		
12	8am	1.8	0.5		
13	8am	1.9	0.4		
14	8am	1.8	0.4		
15					
16					
17	8am	2.1	0.3		
18	8am	1.9	0.5		
19	8am	2.0	0.6		
20	8am	1.8	0.3		
21	8am	1.9	0.5		
22					
23					
24	8am	1.9	0.4		
25	8am	2.0	0.3		
26	8am	1.8	0.5		
27	8am	1.8	0.4		
28	8am	1.9	0.3		
29					
30					
31					

notes

1 Bi-monthly Effluent sampling.

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

SEPTEMBER 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3							
4	**12**	**9am**	**E.Q.Tank**				
5				**5055**	**9am**		1
6							
7							
8							
9							
10							
11	**12**	**9am**	**E.Q.Tank**				
12				**5421**	**9am**		1
13							
14							
15							
16							
17							
18	**12**	**9am**	**E.Q.Tank**				
19				**4835**	**9am**		1
20							
21							
22							
23							
24							
25	**12**	**9am**	**E.Q.Tank**				
26				**5128**	**9am**		1
27							
28							
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE 10/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

SEPTEMBER 3, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic		ND
Chromium		ND
Copper		ND
Zinc		6.3
Tetrachlorophenol		0.079
Pentachlorophenol		ND
Naphthalene		ND
Acenaphthylene		ND
2-Methylnaphthene-Dibenzofuran		ND
Acenaphthylene		ND
Fluorene		ND
Phenanthrene		ND
Anthracene		ND
Fluoranthene		ND
Pyrene		ND
Benz(a)anthracene		ND
Chrysene		ND
Benzo(b)fluoranthene		ND
Benzo(k)fluoranthene		ND
Benzo(a)pyrene		ND
Dibenz(a,h)anthracene		ND
Benzo(g,h,I)perylene		ND
Indeno(1,2,3-cd)pyrene		ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,5,8 wew-1,3,5,7 wp-8,11 B-1r,s 001 seep FD seep.
3. Influent sampling due Jan. 2014.

DATE 10/1/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

OCTOBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	42158	sew-0,2,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	29.28	1.2
2	42129	"	29.26	
3	42095	"	29.23	
4	42056	"	29.21	
5	41999	"	29.17	
6	41971	"	29.15	
7	41942	"	29.13	
8	41916	"	29.11	
9	41886	"	29.09	
10	41862	"	29.07	
11	41835	"	29.05	
12	41789	"	29.02	
13	41766	"	29.00	
14	41739	"	28.99	
15	41720	"	28.97	
16	41697	"	28.96	
17	41679	"	28.94	
18	41653	"	28.93	
19	41613	"	28.90	
20	41596	"	28.89	
21	41577	"	28.87	
22	41558	"	28.86	
23	41543	"	28.85	
24	41531	"	28.84	
25	41517	"	28.83	
26	41483	"	28.81	
27	41470	"	28.80	
28	41457	"	28.79	
29	41448	"	28.78	
30	41434	"	28.77	
31	41426	"	28.77	

1293545 **Total gallons**

892166 **Total gallons inside slurry wall**

401379 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 WP-9 well casing dry. (6-29-13)

2 SEW-5 well casing dry. (9-21-13)

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

OCTOBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	42145	Spray Field	29.27	
2	42114	"	29.25	
3	42078	"	29.22	
4	42032	"	29.19	
5	42004	"	29.17	
6	41965	"	29.14	
7	41936	"	29.12	
8	41907	"	29.10	
9	41873	"	29.08	
10	41843	"	29.06	
11	41810	"	29.03	
12	41793	"	29.02	
13	41761	"	29.00	
14	41734	"	28.98	
15	41711	"	28.97	
16	41684	"	28.95	
17	41662	"	28.93	
18	41634	"	28.91	
19	41620	"	28.90	
20	41597	"	28.89	
21	41573	"	28.87	
22	41549	"	28.85	
23	41532	"	28.84	
24	41517	"	28.83	
25	41498	"	28.82	
26	41488	"	28.81	
27	41466	"	28.80	
28	41450	"	28.78	
29	41439	"	28.78	
30	41423	"	28.77	
31	41413	"	28.76	

1293251 **Total gallons**

notes

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

OCTOBER 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			42145		
2			42114		
3			42078		
4			42032		
5			42004		
6			41965		
7			41936		
8			41907		
9			41873		
10			41843		
11			41810		
12			41793		
13			41761		
14			41734		
15			41711		
16			41684		
17			41662		
18			41634		
19			41620		
20			41597		
21			41573		
22			41549		
23			41532		
24			41517		
25			41498		
26			41488		
27			41466		
28			41450		
29			41439		
30			41423		
31			41413		
	0	0	1293251	0	Totals

Total Effluent Gallons : 1293251

notes

DATE 11/1/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

OCTOBER 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3588	6053	0	1235						2
2	3588	6053		1235						
3	3588	6053		1235						
4	3588	6053		1235						
5	3586	6051		1233						1
6	3586	6051		1233						
7	3586	6051		1233						
8	3586	6051		1233						
9	3586	6051		1233						
10	3586	6051		1233						
11	3586	6051		1233						
12	3584	6050		1231						1
13	3584	6050		1231						
14	3584	6050		1231						
15	3584	6050		1231						
16	3584	6050		1231						
17	3584	6050		1231						
18	3584	6050		1231						
19	3582	6048		1230						1
20	3582	6048		1230						
21	3582	6048		1230						
22	3582	6048		1230						
23	3582	6048		1230						
24	3582	6048		1230						
25	3582	6048		1230						
26	3580	6045		1228						1
27	3580	6045		1228						
28	3580	6045		1228						
29	3580	6045		1228						
30	3580	6045		1228						
31	3580	6045		1228						

Total gallons

111096	187525	0	38166	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-5 well casing dry. (9-21-13)

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

OCTOBER 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1068	1955	4132	3390				
2			1068	1955	4132	3390				
3			1068	1955	4132	3390				
4			1068	1955	4132	3390				
5			1066	1952	4130	3388				1
6			1066	1952	4130	3388				
7			1066	1952	4130	3388				
8			1066	1952	4130	3388				
9			1066	1952	4130	3388				
10			1066	1952	4130	3388				
11			1066	1952	4130	3388				
12			1064	1950	4128	3386				1
13			1064	1950	4128	3386				
14			1064	1950	4128	3386				
15			1064	1950	4128	3386				
16			1064	1950	4128	3386				
17			1064	1950	4128	3386				
18			1064	1950	4128	3386				
19			1062	1949	4126	3384				1
20			1062	1949	4126	3384				
21			1062	1949	4126	3384				
22			1062	1949	4126	3384				
23			1062	1949	4126	3384				
24			1062	1949	4126	3384				
25			1062	1949	4126	3384				
26			1061	1947	4124	3382				1
27			1061	1947	4124	3382				
28			1061	1947	4124	3382				
29			1061	1947	4124	3382				
30			1061	1947	4124	3382				
31			1061	1947	4124	3382				

Total gallons

0	0	32982	60459	127960	104958	0	0	0

notes

1 Meter readings taken weekly.

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

OCTOBER 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2727	0	2140			1425	1663	2420	10362	2
2	2727		2140			1425	1663	2420	10333	
3	2727		2140			1425	1663	2420	10299	
4	2727		2140			1425	1663	2420	10260	
5	2725		2138			1422	1659	2420	10229	1
6	2725		2138			1422	1659	2420	10201	
7	2725		2138			1422	1659	2420	10172	
8	2725		2138			1422	1659	2420	10146	
9	2725		2138			1422	1659	2420	10116	
10	2725		2138			1422	1659	2420	10092	
11	2725		2138			1422	1659	2420	10065	
12	2723		2136			1418	1656	2420	10043	1
13	2723		2136			1418	1656	2420	10020	
14	2723		2136			1418	1656	2420	9993	
15	2723		2136			1418	1656	2420	9974	
16	2723		2136			1418	1656	2420	9951	
17	2723		2136			1418	1656	2420	9933	
18	2723		2136			1418	1656	2420	9907	
19	2722		2134			1416	1653	2420	9887	1
20	2722		2134			1416	1653	2420	9870	
21	2722		2134			1416	1653	2420	9851	
22	2722		2134			1416	1653	2420	9832	
23	2722		2134			1416	1653	2420	9817	
24	2722		2134			1416	1653	2420	9805	
25	2722		2134			1416	1653	2420	9791	
26	2720		2133			1413	1650	2420	9780	1
27	2720		2133			1413	1650	2420	9767	
28	2720		2133			1413	1650	2420	9754	
29	2720		2133			1413	1650	2420	9745	
30	2720		2133			1413	1650	2420	9731	
31	2720		2133			1413	1650	2420	9723	

Total gallons

84418	0	66214	0	0	43970	51328	75020	309449

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry. (6-29-13)

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

OCTOBER 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	off					1
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					2
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 SEW-5 well casing dry. (9-21-13)

2 WEW-9 well casing dry. (6-29-13)

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

OCTOBER 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1080					
2	1080					
3	1080					
4	1080					
5	1080					
6	1080					
7	1080					
8	1080					
9	1080					
10	1080					
11	1080					
12	1080					
13	1080					
14	1080					
15	1080					
16	1080					
17	1080					
18	1080					
19	1080					
20	1080					
21	1080					
22	1080					
23	1080					
24	1080					
25	1080					
26	1080					
27	1080					
28	1080					
29	1080					
30	1080					
31	1080					
Totals	**33480**	**0**	**0**	**0**	**0**	

Total gallons to filter press **33480**

Total cubic yards recovered **5.0**

notes

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

OCTOBER 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 11-1-13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS

(ppb)

OCTOBER 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	2.0	0.5		
2	8am	1.9	0.3		
3	8am	2.0	0.4		
4	8am	1.8	0.5		
5	8am	1.9	0.3		
6					
7					
8	8am	1.9	0.3		
9	8am	1.8	0.5		
10	8am	1.8	0.3		
11	8am	2.0	0.4		
12	8am	1.9	0.5		
13					
14					
15	8am	1.8	0.4		
16	8am	1.8	0.3		
17	8am	1.9	0.5		
18	8am	1.8	0.6		
19	8am	1.9	0.3		
20					
21					
22	8am	2.0	0.5		
23	8am	2.0	0.4		
24	8am	1.9	0.5		
25	8am	2.0	0.4		
26	8am	1.9	0.5		
27					
28					
29	8am	1.8	0.5		
30	8am	1.9	0.3		
31	8am	1.8	0.4		

notes

DATE 11/1/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

OCTOBER 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2	**12**	**9am**	**E.Q.Tank**				
3				**4762**	**9am**		1
4							
5							
6							
7							
8							
9	**12**	**9am**	**E.Q.Tank**				
10				**5788**	**9am**		1
11							
12							
13							
14							
15							
16	**12**	**9am**	**E.Q.Tank**				
17				**5201**	**9am**		1
18							
19							
20							
21							
22							
23	**12**	**9am**	**E.Q.Tank**				
24				**5128**	**9am**		1
25							
26							
27							
28							
29							
30							
31	**12**	**9am**	**E.Q.Tank**				

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE **11/1/13** **SIGNED** **Gale Jensen**

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

NOVEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	41416	sew-0,2,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	28.76	1
2	41390	"	28.74	
3	41379	"	28.74	
4	41373	"	28.73	
5	41369	"	28.73	
6	41362	"	28.72	
7	41364	"	28.73	
8	41361	"	28.72	
9	41360	"	28.72	
10	41363	"	28.72	
11	41355	"	28.72	
12	49728	sew-0,2,8 wew-1,3,5,7 wp-8,11 3a,b B-1r,s 001s FDs	34.53	2
13	58862	"	40.88	3
14	58850	"	40.87	
15	58826	"	40.85	
16	58805	"	40.84	
17	58793	"	40.83	
18	58786	"	40.82	
19	47197	"	32.78	4
20	41417	sew-0,2,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	28.76	
21	41428	"	28.77	
22	41441	"	28.78	
23	41455	"	28.79	
24	41459	"	28.79	
25	41474	"	28.80	
26	41481	"	28.81	
27	41492	"	28.81	
28	41508	"	28.83	
29	41517	"	28.83	
30	41544	"	28.85	
31	0		0.00	

1361155 **Total gallons**

854507 **Total gallons inside slurry wall**

387844 **Total gallons outside slurry wall**

118804 **Total gallons surface water**

notes

1 WP-9 and SEW-5 well casings dry.
2 Started Tank-3a,b into system.
3 Increased 3a,b flow rate.
4 Tank-3a,b emptied.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

NOVEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	41400	Spray Field	28.75	
2	41395	"	28.75	
3	41386	"	28.74	
4	41369	"	28.73	1
5	41364	"	28.73	
6	41359	"	28.72	
7	41367	"	28.73	
8	41355	"	28.72	
9	41349	"	28.71	
10	41368	"	28.73	
11	41357	"	28.72	
12	49719	"	34.53	2
13	58868	"	40.88	
14	58843	"	40.86	
15	58830	"	40.85	
16	58799	"	40.83	
17	58801	"	40.83	
18	58794	"	40.83	
19	47204	"	32.78	3
20	41423	"	28.77	
21	41432	"	28.77	
22	41435	"	28.77	
23	41460	"	28.79	
24	41453	"	28.79	
25	41483	"	28.81	
26	41495	"	28.82	
27	41487	"	28.81	
28	41514	"	28.83	
29	41525	"	28.84	
30	41539	"	28.85	
31			0.00	

1361173 **Total gallons**

notes

1 Bi-monthly Effluent sampling.
2 Started Tank-3a,b into system.
3 Tank-3a,b emptied.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

NOVEMBER 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			41400		
2			41395		
3			41386		
4			41369		
5			41364		
6			41359		
7			41367		
8			41355		
9			41349		
10			41368		
11			41357		
12			49719		
13			58868		
14			58843		
15			58830		
16			58799		
17			58801		
18			58794		
19			47204		
20			41423		
21			41432		
22			41435		
23			41460		
24			41453		
25			41483		
26			41495		
27			41487		
28			41514		
29			41525		
30			41539		
31					
	0	0	1361173	0	Totals

Total Effluent Gallons : 1361173

notes

DATE 12/3/13

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

NOVEMBER 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3580	6045	0	1228						2
2	3579	6043		1227						1
3	3579	6043		1227						
4	3579	6043		1227						
5	3579	6043		1227						
6	3579	6043		1227						
7	3579	6043		1227						
8	3579	6043		1227						
9	3578	6042		1227						1
10	3578	6042		1227						
11	3578	6042		1227						
12	3578	6042		1227						
13	3578	6042		1227						
14	3578	6042		1227						
15	3578	6042		1227						
16	3578	6043		1226						1
17	3578	6043		1226						
18	3578	6043		1226						
19	3578	6043		1226						
20	3578	6043		1226						
21	3578	6043		1226						
22	3578	6043		1226						
23	3577	6044		1226						1
24	3577	6044		1226						
25	3577	6044		1226						
26	3577	6044		1226						
27	3577	6044		1226						
28	3577	6044		1226						
29	3577	6044		1226						
30	3578	6045		1227						1
31										

Total gallons

107342	181294	0	36797	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-5 well casing dry. (9-21-13)

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

NOVEMBER 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1061	1947	4124	3382				
2			1059	1946	4122	3380				1
3			1059	1946	4122	3380				
4			1059	1946	4122	3380				
5			1059	1946	4122	3380				
6			1059	1946	4122	3380				
7			1059	1946	4122	3380				
8			1059	1946	4122	3380				
9			1059	1945	4123	3379				1
10			1059	1945	4123	3379				
11			1059	1945	4123	3379				
12			1059	1945	4123	3379				
13			1059	1945	4123	3379				
14			1059	1945	4123	3379				
15			1059	1945	4123	3379				
16			1059	1946	4123	3380				1
17			1059	1946	4123	3380				
18			1059	1946	4123	3380				
19			1059	1946	4123	3380				
20			1059	1946	4123	3380				
21			1059	1946	4123	3380				
22			1059	1946	4123	3380				
23			1060	1946	4124	3380				1
24			1060	1946	4124	3380				
25			1060	1946	4124	3380				
26			1060	1946	4124	3380				
27			1060	1946	4124	3380				
28			1060	1946	4124	3380				
29			1060	1946	4124	3380				
30			1061	1947	4124	3381				1
31										

Total gallons

0	0	31781	58375	123692	101396	0	0	0

notes

1 Meter readings taken weekly.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

NOVEMBER 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2720	0	2133			1413	1650	2420	9713	2
2	2719		2131			1411	1648	2420	9705	1
3	2719		2131			1411	1648	2420	9694	
4	2719		2131			1411	1648	2420	9688	
5	2719		2131			1411	1648	2420	9684	
6	2719		2131			1411	1648	2420	9677	
7	2719		2131			1411	1648	2420	9679	
8	2719		2131			1411	1648	2420	9676	
9	2717		2130			1410	1649	2420	9681	1
10	2717		2130			1410	1649	2420	9684	
11	2717		2130			1410	1649	2420	9676	
12	2717		2130		8364	1410	1649	2420	9685	3
13	2717		2130		17504	1410	1649	2420	9679	4
14	2717		2130		17486	1410	1649	2420	9685	
15	2717		2130		17451	1410	1649	2420	9696	
16	2716		2131		17429	1411	1651	2420	9692	1
17	2716		2131		17404	1411	1651	2420	9705	
18	2716		2131		17382	1411	1651	2420	9720	
19	2716		2131		5784	1411	1651	2420	9729	5
20	2716		2131			1411	1651	2420	9733	
21	2716		2131			1411	1651	2420	9744	
22	2716		2131			1411	1651	2420	9757	
23	2717		2131			1412	1653	2420	9765	1
24	2717		2131			1412	1653	2420	9769	
25	2717		2131			1412	1653	2420	9784	
26	2717		2131			1412	1653	2420	9791	
27	2717		2131			1412	1653	2420	9802	
28	2717		2131			1412	1653	2420	9818	
29	2717		2131			1412	1653	2420	9827	
30	2718		2132			1414	1656	2420	9841	1
31										

Total gallons

81521	0	63926	0	118804	42335	49513	72600	291779

notes

1 Meter readings taken weekly (FD seep taken daily)
2 WP-9 well casing dry. (6-29-13)
3 Started Tank-3a,b into system.
4 Increased 3a,b flow rate.
5 Tank-3a,b emptied.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

NOVEMBER 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	off					1
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					2
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	on	clear	none	none	none	
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 SEW-5 well casing dry. (9-21-13)

2 WP-9 well casing dry. (6-29-13)

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

NOVEMBER 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1080					
2	1080					
3	1080					
4	1080					
5	1080					
6	1080					
7	1080					
8	1080					
9	1080					
10	1080					
11	1080					
12	1080					
13	1080					
14	1920					1
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31						
Totals	**46680**	**0**	**0**	**0**	**0**	

Total gallons to filter press **46680**

Total cubic yards recovered **7**

notes

1 Increased precip. recovery rate.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

NOVEMBER 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31													

notes

1 Readings are daily averages.

DATE 12-3-13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
NOVEMBER 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1	8am	1.8	0.3		
2	8am	1.9	0.3		
3					
4	8am	2.0	0.3		1
5	8am	1.8	0.6		
6	8am	1.9	0.4		
7	8am	1.8	0.4		
8	8am	1.9	0.3		
9	8am	1.9	0.4		
10					
11					
12	8am	1.8	0.5	Tank-3a,b 7.4 ppb	2
13	8am	2.0	0.3		3
14	8am	2.9	0.3		
15	8am	3.3	0.5		
16	8am	3.4	0.4		
17					
18					
19	8am	3.4	0.6		4
20	8am	2.9	0.5		
21	8am	2.5	0.5		
22	8am	2.1	0.6		
23	8am	1.9	0.4		
24					
25					
26	8am	2.0	0.5		
27	8am	1.9	0.5		
28					5
29					5
30	8am	1.8	0.4		
31					

notes

1 Bi-monthly Effluent sampling.
2 Started Tank-3a,b into system.
3 Increased 3a,b flow rate.
4 Tank-3a,b emptied.
5 Holiday.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

NOVEMBER 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1				**4835**	**9am**		1
2							
3							
4							
5							
6	**12**	**9am**	**E.Q.Tank**				
7				**4908**	**9am**		1
8							
9							
10							
11							
12							2
13	**12**	**9am**	**E.Q.Tank**				
14				**4029**	**9am**		1
15							
16							
17							
18							
19							3
20	**12**	**9am**	**E.Q.Tank**				
21				**4689**	**9am**		1
22							
23							
24							
25							
26							
27	**12**	**9am**	**E.Q.Tank**	**5055**	**9am**		1
28							
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)
2 Started Tank-3a,b into system.
3 Tank-3a,b emptied.

DATE 12/3/13 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BI-MONTHLY SAMPLING RESULTS

NOVEMBER 4, 2013

ANALYTE	INFLUENT (ppb)	EFFLUENT
Arsenic		ND
Chromium		ND
Copper		ND
Zinc		ND
Tetrachlorophenol		ND
Pentachlorophenol		ND
Naphthalene		ND
Acenaphthene		ND
2-Methylnaphthene-Dibenzofuran		ND
Acenaphthylene		0.13
Fluorene		ND
Phenanthrene		ND
Anthracene		ND
Fluoranthene		ND
Pyrene		ND
Benz(a)anthracene		ND
Chrysene		ND
Benzo(b)fluoranthene		ND
Benzo(k)fluoranthene		ND
Benzo(a)pyrene		ND
Dibenz(a,h)anthracene		ND
Benzo(g,h,I)perylene		ND
Indeno(1,2,3-cd)pyrene		ND

COMMENTS

1. Samples analyzed by Test America Lab.
2. Water in system from: sew-0,2,8 wew-1,3,5,7 wp-8,11
   B-1r,s 001 seep FD seep
3. Influent sampling due Jan. 2014

DATE 12/3/13 SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
INFLUENT FLOW TOTALIZATION

DECEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	41557	sew-0,2,8 wew-1,3,5,7 wp-8,11 B-1r,s 001s FDs	28.86	1
2	41574	"	28.87	
3	41586	"	28.88	
4	41600	"	28.89	
5	41611	"	28.90	
6	41627	"	28.91	
7	41651	"	28.92	
8	41668	"	28.94	
9	41680	"	28.94	
10	41694	"	28.95	
11	41705	"	28.96	
12	41720	"	28.97	
13	41737	"	28.98	
14	41754	"	29.00	
15	41773	"	29.01	
16	41787	"	29.02	
17	41805	"	29.03	
18	41823	"	29.04	
19	41846	"	29.06	
20	41863	"	29.07	
21	41896	"	29.09	
22	41917	"	29.11	
23	41935	"	29.12	
24	41954	"	29.13	
25	41971	"	29.15	
26	41986	"	29.16	
27	41997	"	29.16	
28	42005	"	29.17	
29	42018	"	29.18	
30	42025	"	29.18	
31	42032	"	29.19	

1295797 **Total gallons**

894784 **Total gallons inside slurry wall**

401013 **Total gallons outside slurry wall**

0 **Total gallons surface water**

notes

1 sew-5 and wp-9 well casings dry.

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT FLOW TOTALIZATION

DECEMBER 2013

day	GALLONS	LOCATIONS	GPM	notes
1	41563	Spray Field	28.86	
2	41583	"	28.88	
3	41593	"	28.88	
4	41607	"	28.89	
5	41599	"	28.89	
6	41635	"	28.91	
7	41645	"	28.92	
8	41666	"	28.93	
9	41691	"	28.95	
10	41701	"	28.96	
11	41711	"	28.97	
12	41716	"	28.97	
13	41744	"	28.99	
14	41747	"	28.99	
15	41780	"	29.01	
16	41798	"	29.03	
17	41801	"	29.03	
18	41829	"	29.05	
19	41854	"	29.07	
20	41874	"	29.08	
21	41889	"	29.09	
22	41920	"	29.11	
23	41929	"	29.12	
24	41960	"	29.14	
25	41968	"	29.14	
26	41980	"	29.15	
27	42003	"	29.17	
28	41999	"	29.17	
29	42009	"	29.17	
30	42031	"	29.19	
31	42029	"	29.19	

1295854 **Total gallons**

notes

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
EFFLUENT LOCATION TOTALIZATION

DECEMBER 2013

day	DUST CONTROLS	ROSEBURG SPRINKLERS	SPRAY FIELD	OTHER	notes
1			41563		
2			41583		
3			41593		
4			41607		
5			41599		
6			41635		
7			41645		
8			41666		
9			41691		
10			41701		
11			41711		
12			41716		
13			41744		
14			41747		
15			41780		
16			41798		
17			41801		
18			41829		
19			41854		
20			41874		
21			41889		
22			41920		
23			41929		
24			41960		
25			41968		
26			41980		
27			42003		
28			41999		
29			42009		
30			42031		
31			42029		
	0	0	1295854	0	Totals

Total Effluent Gallons : 1295854

notes

DATE 1/2/14

SIGNED Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

DECEMBER 2013

day	SEW-0	SEW-2	SEW-5	SEW-8	NEW-1	NEW-2	NEW-3	NEW-4	NEW-6	notes
1	3578	6045	0	1227						2
2	3578	6045		1227						
3	3578	6045		1227						
4	3578	6045		1227						
5	3578	6045		1227						
6	3578	6045		1227						
7	3577	6046		1228						1
8	3577	6046		1228						
9	3577	6046		1228						
10	3577	6046		1228						
11	3577	6046		1228						
12	3577	6046		1228						
13	3577	6046		1228						
14	3578	6046		1227						1
15	3578	6046		1227						
16	3578	6046		1227						
17	3578	6046		1227						
18	3578	6046		1227						
19	3578	6046		1227						
20	3578	6046		1227						
21	3579	6047		1227						1
22	3579	6047		1227						
23	3579	6047		1227						
24	3579	6047		1227						
25	3579	6047		1227						
26	3579	6047		1227						
27	3579	6047		1227						
28	3579	6046		1227						1
29	3579	6046		1227						
30	3579	6046		1227						
31	3579	6046		1227						

Total gallons

110922	187427	0	38044	0	0	0	0	0

notes

1 Meter readings taken weekly.

2 SEW-5 well casing dry. (9-21-13)

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

DECEMBER 2013

day	NEW-8	NEW-10	WEW-1	WEW-3	WEW-5	WEW-7	WEW-8	WEW-10	WP-2	notes
1			1061	1947	4124	3381				
2			1061	1947	4124	3381				
3			1061	1947	4124	3381				
4			1061	1947	4124	3381				
5			1061	1947	4124	3381				
6			1061	1947	4124	3381				
7			1062	1947	4125	3380				1
8			1062	1947	4125	3380				
9			1062	1947	4125	3380				
10			1062	1947	4125	3380				
11			1062	1947	4125	3380				
12			1062	1947	4125	3380				
13			1062	1947	4125	3380				
14			1062	1947	4126	3381				1
15			1062	1947	4126	3381				
16			1062	1947	4126	3381				
17			1062	1947	4126	3381				
18			1062	1947	4126	3381				
19			1062	1947	4126	3381				
20			1062	1947	4126	3381				
21			1063	1948	4126	3382				1
22			1063	1948	4126	3382				
23			1063	1948	4126	3382				
24			1063	1948	4126	3382				
25			1063	1948	4126	3382				
26			1063	1948	4126	3382				
27			1063	1948	4126	3382				
28			1062	1949	4126	3381				1
29			1062	1949	4126	3381				
30			1062	1949	4126	3381				
31			1062	1949	4126	3381				

Total gallons

0	0	32923	60372	127887	104811	0	0	0

notes

1 Meter readings taken weekly.

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY WELL ASSESSMENT

DECEMBER 2013

day	WP-8	WP-9	WP-11	WP-14	3 A&B	B-1s	B-1r	001 seep	FD seep	notes
1	2718	0	2132			1414	1656	2420	9854	2
2	2718		2132			1414	1656	2420	9871	
3	2718		2132			1414	1656	2420	9883	
4	2718		2132			1414	1656	2420	9897	
5	2718		2132			1414	1656	2420	9908	
6	2718		2132			1414	1656	2420	9924	
7	2719		2133			1416	1659	2420	9939	1
8	2719		2133			1416	1659	2420	9956	
9	2719		2133			1416	1659	2420	9968	
10	2719		2133			1416	1659	2420	9982	
11	2719		2133			1416	1659	2420	9993	
12	2719		2133			1416	1659	2420	10008	
13	2719		2133			1416	1659	2420	10025	
14	2719		2133			1417	1661	2420	10037	1
15	2719		2133			1417	1661	2420	10056	
16	2719		2133			1417	1661	2420	10070	
17	2719		2133			1417	1661	2420	10088	
18	2719		2133			1417	1661	2420	10106	
19	2719		2133			1417	1661	2420	10129	
20	2719		2133			1417	1661	2420	10146	
21	2720		2134			1420	1664	2420	10166	1
22	2720		2134			1420	1664	2420	10187	
23	2720		2134			1420	1664	2420	10205	
24	2720		2134			1420	1664	2420	10224	
25	2720		2134			1420	1664	2420	10241	
26	2720		2134			1420	1664	2420	10256	
27	2720		2134			1420	1664	2420	10267	
28	2721		2134			1421	1664	2420	10275	1
29	2721		2134			1421	1664	2420	10288	
30	2721		2134			1421	1664	2420	10295	
31	2721		2134			1421	1664	2420	10302	

Total gallons

84298	0	66128	0	0	43939	51480	75020	312546

notes

1 Meter readings taken weekly (FD seep taken daily)

2 WP-9 well casing dry. (6-29-13)

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
VISUAL OBSERVATIONS OF WATER

DECEMBER 15, 2013

WELL	STATUS	COLOR	ODOR	TURBIDITY	SHEEN	notes
SEW-0	on	clear	none	none	none	
SEW-2	on	clear	none	none	none	
SEW-5	off					1
SEW-8	on	clear	none	none	none	
NEW-1	off					
NEW-2	off					
NEW-3	off					
NEW-4	off					
NEW-6	off					
NEW-8	off					
NEW-10	off					
WEW-1	on	clear	none	none	none	
WEW-3	on	clear	none	none	none	
WEW-5	on	clear	none	none	none	
WEW-7	on	clear	none	none	none	
WEW-8	off					
WEW-10	off					
WP-2	off					
WP-8	on	clear	none	none	none	
WP-9	off					2
WP-11	on	clear	none	none	none	
WP-14	off					
TANK-3A,B	off					
B-1r	on	clear	none	none	none	
B-1s	on	clear	none	none	none	
001-SEEP	on	clear	none	none	none	
FD SEEP	on	sl.cloudy	none	slight	none	

notes

1 SEW-5 well casing dry. (9-21-13)

2 WP-9 well casing dry. (6-29-13)

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
METALS PRECIPITATION RECOVERY

DECEMBER 2013

day	CPU	CELL 1	CELL 2	CELL 3	OTHER	notes
1	1920					
2	1920					
3	1920					
4	1920					
5	1920					
6	1920					
7	1920					
8	1920					
9	1920					
10	1920					
11	1920					
12	1920					
13	1920					
14	1920					
15	1920					
16	1920					
17	1920					
18	1920					
19	1920					
20	1920					
21	1920					
22	1920					
23	1920					
24	1920					
25	1920					
26	1920					
27	1920					
28	1920					
29	1920					
30	1920					
31	1920					
Totals	**59520**	**0**	**0**	**0**	**0**	

Total gallons to filter press **59520**

Total cubic yards recovered **9**

notes

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
SYSTEM pH LEVELS

DECEMBER 2013

		BIO TANKS		MIX TANK		CPU		SANDFLTS		CARBO			
day	pH IN	in	out	in	out	in	out	in	out	in	out	pH OUT	notes
1	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	1
2	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
3	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
4	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
5	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
6	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
7	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
8	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
9	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
10	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
11	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
12	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
13	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
14	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
15	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
16	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
17	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
18	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
19	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
20	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
21	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
22	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
23	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
24	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
25	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
26	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
27	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
28	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
29	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
30	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	
31	6.7	6.7	7.8	7.8	10.5	10.5	7	7	7	7	7	7	

notes

1 Readings are daily averages.

DATE 1-2-14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
DAILY ARSENIC ANALYSIS
(ppb)
DECEMBER 2013

day	TIME	INFLUENT	EFFLUENT	OTHER	notes
1					
2					
3	8am	2.0	0.5		
4	8am	1.9	0.4		
5	8am	2.0	0.3		
6	8am	2.0	0.5		
7	8am	1.9	0.4		
8					
9					
10	8am	1.8	0.3		
11	8am	2.0	0.5		
12	8am	2.0	0.4		
13	8am	1.9	0.5		
14	8am	1.9	0.4		
15					
16					
17	8am	1.8	0.3		
18	8am	2.0	0.4		
19	8am	2.0	0.3		
20	8am	1.8	0.5		
21	8am	1.9	0.5		
22					
23					
24					1
25					1
26	8am	1.9	0.6		
27	8am	2.0	0.4		
28	8am	2.0	0.5		
29					
30					
31					1

notes

1 Holiday.

DATE 1/2/14 **SIGNED** Gale Jensen

WEED GROUNDWATER TREATMENT PLANT
BACTERIA ADDITIONS & COUNTS

DECEMBER 2013

	CULTURE ADDITIONS			CULTURE COUNTS (cfu / ml)			
day	litres	time	location	PAH culture	time	PCP culture	notes
1							
2							
3							
4	**12**	**9am**	**E.Q.Tank**				
5				**4835**	**9am**		1
6							
7							
8							
9							
10							
11	**12**	**9am**	**E.Q.Tank**				
12				**4322**	**9am**		1
13							
14							
15							
16							
17							
18	**12**	**9am**	**E.Q.Tank**				
19				**4908**	**9am**		1
20							
21							
22							
23							
24							
25	**12**	**9am**	**E.Q.Tank**				
26				**4615**	**9am**		1
27							
28							
29							
30							
31							

notes

1 Sample for counts pulled from E.Q. tank. (PCP counts & additions discontinued)

DATE 1/2/14 **SIGNED** Gale Jensen

APPENDIX C-2
RCRA-EQUIVALENT CELL

WEED SUPERFUND SITE
RCRA-EQUIVALENT DISPOSAL CELL
QUARTERLY O&M LOG

JANUARY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General fall weather. (heavy rainfall Nov-Dec)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General fall conditions. (heavy rainfall Nov-Dec)

Observations of unusual conditions :

No unusual conditions observed.

Visual Inspections :

Liquid in vadose zone VZ :	**H2O level**	dry	**Feet**	**If H2O present,**
Liquid in secondary LDS zone :	**H2O level**	dry	**Feet**	**collect sample**
Liquid in primary LCRS :	**H2O level**	dry	**Feet**	

Erosion conditions of cover & berm :

No erosion observed.

Vegetation conditions :

Vegetation increasing in spring & summer.

Subdrain & Cover drain conditions :

Subdrain :	Good	**Outflow :**	No	**GPM :**	0
Cover Drain :	Good	**Outflow :**	No *	**GPM :**	0

* outflow observed during heavy rainfall events only.

Elevation of ground water : (meas. from top of inner casing)

CMW-1 :	4.33 ft.	**CMW-2 :**	4.47 ft.	**Sample :**	**CMW-1 & 2**
Sampled	CMW-1 & 2	Jan.2013			

Evidence of burrowing animals :

Evidence of burrowing animals observed at south side (July-11)…removal on going.

Survey Monuments : **(see Annual Settlement Survey Monument Log)**

Date of last elevation bench mark survey (annual) : 10/25/12

Elevation of monuments if surveyed : SM-RC / W = 3590.86 SM-RC / E = 3590.65

Recommended Maintenance actions & activities :

(i.e. regrade slopes, cleanout ditch sediment, irrigate cover veg. reseed cover, repair/replace liner sections or coverdrain, etc.)

Inspection Date : **1/3/13** **Signature :** **Gale Jensen**

WEED SUPERFUND SITE
RCRA-EQUIVALENT DISPOSAL CELL
QUARTERLY O&M LOG

APRIL 2013

Special Events since last inspection (e.g. storms, earthquake) :

General winter weather. (very cold ,little rain)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General winter conditions. (very cold, little rain)

Observations of unusual conditions :

No unusual conditions observed.

Visual Inspections :

Liquid in vadose zone VZ :	**H2O level:**	dry	**Feet**	**If H2O present,**
Liquid in secondary LDS zone :	**H2O level:**	dry	**Feet**	**collect sample**
Liquid in primary LCRS :	**H2O level:**	dry	**Feet**	

Erosion conditions of cover & berm :

No erosion observed.

Vegetation conditions :

Vegetation increasing in spring & summer.

Subdrain & Cover drain conditions :

Subdrain :	Good	**Outflow :**	No	**GPM :**	0
Cover Drain :	Good	**Outflow :**	No *	**GPM :**	0

* outflow observed during heavy rainfall events only.

Elevation of ground water : (meas. from top of inner casing)

CMW-1 :	5.12 ft.	**CMW-2 :**	5.36 ft.	**Sample : CMW-1 & 2**
Sampled CMW-1 & 2 4-14-13				

Evidence of burrowing animals :

Evidence of burrowing animals observed at south side (July-11)...removal on going.

Survey Monuments : **(see Annual Settlement Survey Monument Log)**

Date of last elevation bench mark survey (annual) : 10/25/12

Elevation of monuments if surveyed : SM-RC / W = 3590.86 SM-RC / E = 3590.65

Recommended Maintenance actions & activities :

(i.e. regrade slopes, cleanout ditch sediment, irrigate cover veg. reseed cover, repair/replace liner sections or coverdrain, etc.)

Inspection Date : 4/15/13 **Signature :** *Gale Jensen*

WEED SUPERFUND SITE
RCRA-EQUIVALENT DISPOSAL CELL
QUARTERLY O&M LOG

JULY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General spring weather.

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General spring conditions.

Observations of unusual conditions :

No unusual conditions observed.

Visual Inspections :

Liquid in vadose zone VZ :	**H2O level**	dry	**Feet**	**If H2O present,**
Liquid in secondary LDS zone :	**H2O level**	dry	**Feet**	**collect sample**
Liquid in primary LCRS :	**H2O level**	dry	**Feet**	

Erosion conditions of cover & berm :

No erosion observed.

Vegetation conditions :

Vegetation increasing in spring & summer.

Subdrain & Cover drain conditions :

Subdrain :	Good	**Outflow :**	No	**GPM :**	0
Cover Drain :	Good	**Outflow :**	No *	**GPM :**	0

* outflow observed during heavy rainfall events only.

Elevation of ground water : (meas. from top of inner casing)

CMW-1 :	8.02 ft.	**CMW-2 :**	8.57 ft.	**Sample :**	**CMW-1 & 2**
Sampled	CMW-1 & 2	7-1-13			

Evidence of burrowing animals :

Evidence of burrowing animals observed at south side (July-11)…removal on going.

Survey Monuments : **(see Annual Settlement Survey Monument Log)**

Date of last elevation bench mark survey (annual) : 10/25/12

Elevation of monuments if surveyed : SM-RC / W = 3590.86 SM-RC / E = 3590.65

Recommended Maintenance actions & activities :

(i.e. regrade slopes, cleanout ditch sediment, irrigate cover veg. reseed cover, repair/replace liner sections or coverdrain, etc.)

Inspection Date : **7/2/13** **Signature :** **Gale Jensen**

WEED SUPERFUND SITE
RCRA-EQUIVALENT DISPOSAL CELL
QUARTERLY O&M LOG

OCTOBER 2013

Special Events since last inspection (e.g. storms, earthquake) :

General summer weather.

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General summer conditions.

Observations of unusual conditions :

No unusual conditions observed.

Visual Inspections :

Liquid in vadose zone VZ :	**H2O level:**	dry	**Feet**	**If H2O present,**
Liquid in secondary LDS zone :	**H2O level:**	dry	**Feet**	**collect sample**
Liquid in primary LCRS :	**H2O level:**	dry	**Feet**	

Erosion conditions of cover & berm :

No erosion observed.

Vegetation conditions :

Vegetation increasing in spring & summer.

Subdrain & Cover drain conditions :

Subdrain :	Good	**Outflow :**	No	**GPM :**	0
Cover Drain :	Good	**Outflow :**	No *	**GPM :**	0

* outflow observed during heavy rainfall events only.

Elevation of ground water : (meas. from top of inner casing)

CMW-1 :	10.66 ft.	**CMW-2 :**	10.53 ft.	**Sample :**	**CMW-1 & 2**
Sampled	CMW-1 & 2	10-8-13			

Evidence of burrowing animals :

Evidence of burrowing animals observed at south side (July-11)...removal on going.

Survey Monuments : **(see Annual Settlement Survey Monument Log)**

Date of last elevation bench mark survey (annual) : 10/25/12

Elevation of monuments if surveyed : SM-RC / W = 3590.86 SM-RC / E = 3590.65

Recommended Maintenance actions & activities :

(i.e. regrade slopes, cleanout ditch sediment, irrigate cover veg. reseed cover, repair/replace liner sections or coverdrain, etc.)

Scheduled Annual survey this month.

Inspection Date : 10/8/13 **Signature :** *Gale Jensen*

APPENDIX C-3
WEARING SURFACES

WEED SUPERFUND SITE
WEARING SURFACES
QUARTERLY O&M LOG

JANUARY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General fall weather (heavey rainfall Nov-Dec)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General fall conditions (heavey rainfall Nov-Dec)

Observations of unusual conditions :

none

Observations of distress conditions :

Location	Observation
	See Annual Inspection completed by Chec Engineering.
	(completed 5-21-12)

Visual rating evaluations : **(see annual inspection form)** **Last annual rating date : 5-21-12**

Location	Observation
All AC areas	Annual inspection completed: 5-21-12.
	By: Chec Engineering Redding, CA

Non-Destructive / Destructive Testing needed :

Completed in July 2012.

Collect core samples of AC for testing & engineer review if applicable (every 5 years) :

Completed by Chec Engineering. (July 2012)

Perform non-destructive testing (every 10 years) :

Completed by Chec Engineering. (July 2012)

Observations of special problems, if any :

See 2012 Chec Engineering annual report.

Recommended Maintenance actions & activities :

(i.e. Dewater saturated gravel areas, fill potholes/cracks, recompact soft or loose gravel, cut-out & patch AC, surface treatment, etc.)

Non-destructive testing completed in July 2012.

Inspection Date : **1/3/12** **Signature :** **Gale Jensen**

WEED SUPERFUND SITE
WEARING SURFACES
QUARTERLY O&M LOG

APRIL 2013

Special Events since last inspection (e.g. storms, earthquake) :

General winter weather (very cold, little rainfall)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General winter conditions (very cold, little rainfall)

Observations of unusual conditions :

none

Observations of distress conditions :

Location	Observation
	See Annual Inspection completed by Chec Engineering.
	(completed 5-21-12)

Visual rating evaluations : (see annual inspection form) **Last annual rating date : 5-21-12**

Location	Observation
All AC areas	Annual inspection completed: 5-21-12.
	By: Chec Engineering Redding, CA

Non-Destructive / Destructive Testing needed :

Completed in July 2012.

Collect core samples of AC for testing & engineer review if applicable (every 5 years) :

Completed by Chec Engineering. (July 2012)

Perform non-destructive testing (every 10 years) :

Completed by Chec Engineering. (July 2012)

Observations of special problems, if any :

See 2012 Chec Engineering annual report.

Recommended Maintenance actions & activities :

(i.e. Dewater saturated gravel areas, fill potholes/cracks, recompact soft or loose gravel, cut-out & patch AC, surface treatment, etc.)

Non-destructive testing completed in July 2012.

Inspection Date : 4/4/12 **Signature :** *Gale Jensen*

WEED SUPERFUND SITE
WEARING SURFACES
QUARTERLY O&M LOG

JULY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General spring weather

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General spring conditions

Observations of unusual conditions :

none

Observations of distress conditions :

Location	Observation
	See Annual Inspection completed by Chec Engineering.
	(completed 5-21-12)

Visual rating evaluations : **(see annual inspection form)** **Last annual rating date : 5-21-12**

Location	Observation
All AC areas	Annual inspection completed: 5-21-12.
	By: Chec Engineering Redding, CA

Non-Destructive / Destructive Testing needed :

Completed in July 2012.

Collect core samples of AC for testing & engineer review if applicable (every 5 years) :

Completed by Chec Engineering. (July 2012)

Perform non-destructive testing (every 10 years) :

Completed by Chec Engineering. (July 2012)

Observations of special problems, if any :

See 2012 Chec Engineering annual report.

Recommended Maintenance actions & activities :

(i.e. Dewater saturated gravel areas, fill potholes/cracks, recompact soft or loose gravel, cut-out & patch AC, surface treatment, etc.)

Inspection Date : 7/2/13 **Signature :** Gale Jensen

WEED SUPERFUND SITE
WEARING SURFACES
QUARTERLY O&M LOG

OCTOBER 2013

Special Events since last inspection (e.g. storms, earthquake) :

General summer weather

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General summer conditions

Observations of unusual conditions :

none

Observations of distress conditions :

Location	Observation
	See Annual Inspection completed by Chec Engineering.
	(completed 5-21-12)

Visual rating evaluations : (see annual inspection form) **Last annual rating date : 5-21-12**

Location	Observation
All AC areas	Annual inspection completed: 5-21-12.
	By: Chec Engineering Redding, CA

Non-Destructive / Destructive Testing needed :

Completed in July 2012.

Collect core samples of AC for testing & engineer review if applicable (every 5 years) :

Completed by Chec Engineering. (July 2012)

Perform non-destructive testing (every 10 years) :

Completed by Chec Engineering. (July 2012)

Observations of special problems, if any :

See 2012 Chec Engineering annual report.

Recommended Maintenance actions & activities :

(i.e. Dewater saturated gravel areas, fill potholes/cracks, recompact soft or loose gravel, cut-out & patch AC, surface treatment, etc.)

Scheduled annual inspection with Chec Engineering this month.

Inspection Date : 10/4/13 **Signature :** *Gale Jensen*

APPENDIX C-4
SURFACE WATER MANAGEMENT

MWH

WEED SUPERFUND SITE
SURFACE WATER MANAGEMENT SYSTEM
QUARTERLY O&M LOG

JANUARY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General fall weather (heavy rainfall Nov-Dec)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General fall conditions (heavy rainfall Nov-Dec)

Observations of unusual conditions :

Surface water discharge on 12-2-12…runoff overtook pumping capacitys…all location points sampled.

South Pasture Channel & drainage ditch distress observations :

Good conditions…no distress observed…vegetation increasing in south pasture ditch area.

Grated drop inlet distress observations :

Good conditions…no distress observed.

Locations of excessive sediment buildup :

none

Blockage of flow in storm drain pipes :

All drainage pipes clear.

Emergency Generator Condition:

Good…Serviced Sept. 2012

Locations of erosion at stormwater ponds :

No erosion observed.

Distress evidence at Pond # 1,2,3 liners :

No distress evidence observed.

Pond # 1 Leak Detection system :

Pumpage since last inspectior	0	**gallons**	**H2O level**	dry	

Transfer pump conditions :

pond # 2 :	Good
pond # 3 :	Good

Storage Tank Levels :

Tank-3A :	4.5 ft.	**Date :**	1/3/13
Tank-3B :	4.5 ft.	**Date :**	1/3/13

Evidence of leakage into secondary zone of double containment transfer pipes :

No leakage observed.

Recommended Maintenance actions & activities :

Inspection Date : 1/3/13

Signature : Gale Jensen

WEED SUPERFUND SITE
SURFACE WATER MANAGEMENT SYSTEM
QUARTERLY O&M LOG

APRIL 2013

Special Events since last inspection (e.g. storms, earthquake) :

General winter weather (very cold, little rain)

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General winter conditions (very cold ,little rain)

Observations of unusual conditions :

South Pasture Channel & drainage ditch distress observations :

Good conditions...no distress observed...vegetation increasing in south pasture ditch area.

Grated drop inlet distress observations :

Good conditions...no distress observed.

Locations of excessive sediment buildup :

none

Blockage of flow in storm drain pipes :

All drainage pipes clear.

Emergency Generator Condition:

Good...Serviced Sept. 2012

Locations of erosion at stormwater ponds :

No erosion observed.

Distress evidence at Pond # 1,2,3 liners :

No distress evidence observed.

Pond # 1 Leak Detection system :

Pumpage since last inspection	0	gallons	H2O level:	dry

Transfer pump conditions :

pond # 2 :	Good
pond # 3 :	Good

Storage Tank Levels :

Tank-3A :	2.5 ft.	Date :	4/5/13
Tank-3B :	2.5 ft.	Date :	4/5/13

Evidence of leakage into secondary zone of double containment transfer pipes :

No leakage observed.

Recommended Maintenance actions & activities :

Replaced damaged float control at # 3 stormwater pond...broken off from excessive ice bulid-up. (Jan-13)

Inspection Date : 4/5/13

Signature : *Gale Jensen*

WEED SUPERFUND SITE
SURFACE WATER MANAGEMENT SYSTEM
QUARTERLY O&M LOG

JULY 2013

Special Events since last inspection (e.g. storms, earthquake) :

General spring weather

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General spring conditions

Observations of unusual conditions :

South Pasture Channel & drainage ditch distress observations :

Good conditions…no distress observed…vegetation increasing in south pasture ditch area.

Grated drop inlet distress observations :

Good conditions…no distress observed.

Locations of excessive sediment buildup :

none

Blockage of flow in storm drain pipes :

All drainage pipes clear.

Emergency Generator Condition:

Good…Serviced Sept. 2012

Locations of erosion at stormwater ponds :

No erosion observed.

Distress evidence at Pond # 1,2,3 liners :

No distress evidence observed.

Pond # 1 Leak Detection system :

Pumpage since last inspectior	0	**gallons**	**H2O level**	dry	

Transfer pump conditions :

pond # 2 :	Good
pond # 3 :	Good

Storage Tank Levels :

Tank-3A :	2.5 ft.	**Date :**	7/2/13
Tank-3B :	2.5 ft.	**Date :**	7/2/13

Evidence of leakage into secondary zone of double containment transfer pipes :

No leakage observed.

Recommended Maintenance actions & activities :

Inspection Date : 7/2/13

Signature : Gale Jensen

WEED SUPERFUND SITE
SURFACE WATER MANAGEMENT SYSTEM
QUARTERLY O&M LOG

OCTOBER 2013

Special Events since last inspection (e.g. storms, earthquake) :

General summer weather

Weather Conditions since last inspection (e.g. rain, snow, ice) :

General summer conditions

Observations of unusual conditions :

South Pasture Channel & drainage ditch distress observations :

Good conditions...no distress observed...vegetation increasing in south pasture ditch area.

Grated drop inlet distress observations :

Good conditions...no distress observed.

Locations of excessive sediment buildup :

none

Blockage of flow in storm drain pipes :

All drainage pipes clear.

Emergency Generator Condition:

Good...Serviced Aug. 2013

Locations of erosion at stormwater ponds :

No erosion observed.

Distress evidence at Pond # 1,2,3 liners :

No distress evidence observed.

Pond # 1 Leak Detection system :

Pumpage since last inspection	0	gallons	H2O level:	dry

Transfer pump conditions :

pond # 2 :	Good
pond # 3 :	Good

Storage Tank Levels :

Tank-3A :	2.75 ft.	Date :	10/4/13
Tank-3B :	2.75 ft.	Date :	10/4/13

Evidence of leakage into secondary zone of double containment transfer pipes :

No leakage observed.

Recommended Maintenance actions & activities :

Cleaned out Stormwater Pond #3 sediment (1-20yd bin filled) September 2013

Inspection Date : 10/4/13

Signature : *Gale Jensen*

APPENDIX C-5
GROUNDWATER WATER MONITORING LOGS

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JANUARY 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
RIW-1B	9.25	37.08	1/2/13	
RIW-1D	27.94	83.42	"	
RIW-3A	12.34	25.33	"	
RIW-3B	12.27	35.45	"	
RIW-8B	23.07	48.79	"	
RIW-9A	9.45	24.77	"	
RIW-9B	33.52	48.81	"	
RIW-10A	14.49	20.06	"	
RIW-10B	15.30	28.00	"	
RIW-12A	16.22	25.27	"	
RIW-12D	35.35	82.62	"	
RIW-13C	7.20	40.08	"	
MW-4	5.51	26.52	"	
MW-6A	9.21	17.20	"	
MW-9A	16.50	21.85	"	
MW-9B	32.10	40.83	"	
MW-10			"	1
MW-12	17.74	19.84	"	
MW-13	9.10	21.57	"	
MW-14	2.92	10.45	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JANUARY 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
WP-13	7.44	35.29	1/2/13	
GT-1	3.80	12.11	"	
GT-2	dry	8.55	"	
GT-3	5.35	6.55	"	
GT-4	8.53	10.45	"	
GT-5	1.75	7.11	"	
NEW-8	8.04	34.32	"	

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

RIW-2A			1/2/13	2
RIW-8A				
MW-3				
MW-5				
MW-6B				
MW-7				
CPZ-1				
CPZ-2				
CPZ-3				
CPZ-4				
CPZ-5				

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JANUARY 2013

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

WELL	LEVEL	DEPTH	DATE	NOTES
CPZ-6			1/2/13	2
CPZ-7				
CPZ-8				
CPZ-9				
CPZ-10				
WP-4				
WP-6				
B-1S				
B-2S				
P-1				
P-2				
PZ-16				
GPZ-5				
B-1R				
WP-12				
B-15				

NOTES

1 Well covered by wood chip pile.

2 Bi-Annual monitoring scheduled for April and October for 2013.

DATE 1/2/13

SIGNED Gale Jensen

WEED SUPERFUND SITE
WATER LEVEL MONITORING

APRIL 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
RIW-1B	12.33	37.08	4/1/13	
RIW-1D	28.51	83.42	"	
RIW-3A	17.50	25.33	"	
RIW-3B	15.15	35.45	"	
RIW-8B	25.07	48.79	"	
RIW-9A	17.61	24.77	"	
RIW-9B	32.35	48.81	"	
RIW-10A	14.44	20.06	"	
RIW-10B	15.80	28.00	"	
RIW-12A	18.42	25.27	"	
RIW-12D	35.12	82.62	"	
RIW-13C	7.21	40.08	"	
MW-4	8.27	26.52	"	
MW-6A	8.41	17.20	"	
MW-9A	17.04	21.85	"	
MW-9B	33.01	40.83	"	
MW-10	5.97	24.80	"	
MW-12	dry	19.84	"	
MW-13	11.30	21.57	"	
MW-14	3.37	10.45	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

APRIL 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
WP-13	9.99	35.29	4/1/13	
GT-1	4.83	12.11	"	
GT-2	dry	8.55	"	
GT-3	dry	6.55	"	
GT-4	9.17	10.45	"	
GT-5	2.52	7.11	"	
NEW-8	6.47	34.32	"	

BI-ANNUAL MONITORING
(APRIL / OCTOBER)

RIW-2A	9.56	26.68	4/1/13	
RIW-8A	24.04	28.72	"	
MW-3	5.39	23.60	"	
MW-5	23.56	36.90	"	
MW-6B	9.77	26.09	"	
MW-7	10.83	22.79	"	
CPZ-1	7.56	24.94	"	
CPZ-2			"	1
CPZ-3	4.95	23.24	"	
CPZ-4	3.02	25.15	"	
CPZ-5	11.40	27.48	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

APRIL 2013

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

WELL	LEVEL	DEPTH	DATE	NOTES
CPZ-6	5.97	28.25	4/1/13	
CPZ-7	7.59	23.15	"	
CPZ-8	4.55	24.44	"	
CPZ-9	2.35	20.62	"	
CPZ-10	6.24	24.46	"	
WP-4	16.02	31.57	"	
WP-6	15.25	37.51	"	
B-1S	10.96		"	2
B-2S	2.02	26.30	"	
P-1	16.12	38.16	"	
P-2	14.88	39.20	"	
PZ-16	7.33	18.65	"	
GPZ-5	10.4	22.60	"	
B-1R	37.45		"	2
WP-12	9.88	41.96	"	
B-15	28.13	64.80	"	
				3

NOTES

1 Lost well...graded off...June 04
2 Pumping well...pump on at time of meas. (no well depth taken)
3 Bi-Annual monitoring scheduled for April and October for 2013.

DATE 4-1-13

SIGNED Hale Jensen

WEED SUPERFUND SITE
NAPL MONITORING

APRIL 2013

WELL	H2O LEVEL	DEPTH	NAPL	DNAPL
WP-1	15.8	30.73	0"	1.75"
WP-2	16.22	31.3	0"	1"
WP-3	15.5	30.82	0"	.50"
WP-4	16.02	31.57	0"	.75"
WP-5	12.04	37.11	0"	.75"
WP-7	dry	15.03		
WP-10	10.02	42.11	0"	0"
WP-14	7.24	25.94		
PRW-1	15.20	42.13	0"	0"

NOTES

1 No floating NAPLs were observed in any wells.
2 All DNAPLs were checked with a weighted cotton string.

Date 4/2/13 Signed *Gale Jensen*

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JULY 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
RIW-1B	15.84	37.08	7/1/13	
RIW-1D	30.82	83.42	"	
RIW-3A	18.21	25.33	"	
RIW-3B	18.56	35.45	"	
RIW-8B	25.13	48.79	"	
RIW-9A	17.44	24.77	"	
RIW-9B	31.05	48.81	"	
RIW-10A	14.85	20.06	"	
RIW-10B	15.77	28.00	"	
RIW-12A	21.81	25.27	"	
RIW-12D	37.89	82.62	"	
RIW-13C	13.02	40.08	"	
MW-4	13.04	26.52	"	
MW-6A	10.74	17.20	"	
MW-9A	dry	21.85	"	
MW-9B	31.65	40.83	"	
MW-10			"	1
MW-12	dry	19.84	"	
MW-13	13.90	21.57	"	
MW-14	4.93	10.45	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JULY 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
WP-13	15.06	35.29	7/1/13	
GT-1	dry	12.11	"	
GT-2	dry	8.55	"	
GT-3	dry	6.55	"	
GT-4	8.99	10.45	"	
GT-5	3.87	7.11	"	
NEW-8	8.28	34.32	"	

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

RIW-2A			7/1/13	2
RIW-8A				
MW-3				
MW-5				
MW-6B				
MW-7				
CPZ-1				
CPZ-2				
CPZ-3				
CPZ-4				
CPZ-5				

WEED SUPERFUND SITE
WATER LEVEL MONITORING

JULY 2013

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

WELL	LEVEL	DEPTH	DATE	NOTES
CPZ-6			7/1/13	2
CPZ-7				
CPZ-8				
CPZ-9				
CPZ-10				
WP-4				
WP-6				
B-1S				
B-2S				
P-1				
P-2				
PZ-16				
GPZ-5				
B-1R				
WP-12				
B-15				

NOTES

1 Well covered by wood chip pile.
2 Bi-Annual monitoring scheduled for April and October for 2013.

DATE 7/1/13 SIGNED Gale Jensen

WEED SUPERFUND SITE
WATER LEVEL MONITORING

OCTOBER 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
RIW-1B	17.93	37.08	10/1/13	
RIW-1D	33.91	83.42	"	
RIW-3A	19.39	25.33	"	
RIW-3B	20.27	35.45	"	
RIW-8B	26.51	48.79	"	
RIW-9A	20.33	24.77	"	
RIW-9B	34.62	48.81	"	
RIW-10A	15.14	20.06	"	
RIW-10B	17.35	28.00	"	
RIW-12A	25.04	25.27	"	
RIW-12D	39.98	82.62	"	
RIW-13C	19.23	40.08	"	
MW-4	15.82	26.52	"	
MW-6A	15.31	17.20	"	
MW-9A	dry	21.85	"	
MW-9B	34.95	40.83	"	
MW-10			"	1
MW-12	dry	19.84	"	
MW-13	15.90	21.57	"	
MW-14	8.02	10.45	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

OCTOBER 2013

QUARTERLY MONITORING

WELL	LEVEL	DEPTH	DATE	NOTES
WP-13	18.13	35.29	10/1/13	
GT-1	dry	12.11	"	
GT-2	dry	8.55	"	
GT-3	dry	6.55	"	
GT-4	dry	10.45	"	
GT-5	4.21	7.11	"	
NEW-8	11.66	34.32	"	

BI-ANNUAL MONITORING
(APRIL / OCTOBER)

RIW-2A	18.64	26.68	10/1/13	
RIW-8A	26.32	28.72	"	
MW-3	10.71	23.60	"	
MW-5	27.13	36.90	"	
MW-6B	13.77	26.09	"	
MW-7	16.19	22.79	"	
CPZ-1	11.04	24.94	"	
CPZ-2			"	2
CPZ-3	9.57	23.24	"	
CPZ-4	7.94	25.15	"	
CPZ-5	14.21	27.48	"	

WEED SUPERFUND SITE
WATER LEVEL MONITORING

OCTOBER 2013

BI-ANNUAL MONITORING

(APRIL / OCTOBER)

WELL	LEVEL	DEPTH	DATE	NOTES
CPZ-6	9.37	28.25	10/1/13	
CPZ-7	10.35	23.15	"	
CPZ-8	8.09	24.44	"	
CPZ-9	4.92	20.62	"	
CPZ-10	9.21	24.46	"	
WP-4	19.71	31.57	"	
WP-6	18.67	37.51	"	
B-1S	14.66		"	3
B-2S	7.45	26.30	"	
P-1	16.11	38.16	"	
P-2	16.72	39.20	"	
PZ-16	10.09	18.65	"	
GPZ-5	dry	22.60	"	
B-1R	40.55		"	3
WP-12	14.38	41.96	"	
B-15	31.27	64.80	"	
				4

NOTES

1 Well covered by wood chip pile.
2 Lost well...graded off...June 04
3 Pumping well...pump on at time of meas. (no well depth taken)
4 Bi-Annual monitoring scheduled for April and October for 2013.

DATE 10/1/13 SIGNED *Gale Jensen*

WEED SUPERFUND SITE
NAPL MONITORING

OCTOBER 2013

WELL	H2O LEVEL	DEPTH	NAPL	DNAPL
WP-1	20.01	30.73	0"	1.25"
WP-2	20.09	31.3	0"	1.0"
WP-3	19.44	30.82	0"	.50"
WP-4	19.98	31.57	0"	.75"
WP-5	13.32	37.11	0"	.75"
WP-7	dry	15.03		
WP-10	14.99	42.11	0"	0"
WP-14	dry	25.94		
PRW-1	16.53	42.13	0"	0"

NOTES

1 No floating NAPLs were observed in any wells.
2 All DNAPLs were checked with a weighted cotton string.

Date 10/4/13 Signed *Gale Jensen*

APPENDIX C-6
SLURRY WALL/GRAVEL DRAINAGE TRENCH

WEED SUPERFUND SITE
SLURRY WALL & GRAVEL DRAINAGE TRENCH
ANNUAL O&M LOG

OCTOBER 2013

Walk through inspection of cap :

All areas of cap look good…the sloped area just south of Roseburg fuel storage pad showed signs of slideout over slurry wall in early 2000. No change has been observed on slide area to date.

Observations of settlement :

Pavement settled under Roseburg fuel (wood chips) storage pile just north of chip conveyer tower footing inside slurry wall (2000)... measurements from surveys show little change.

Notes: 1 Unable to survey area due to wood chip pile in 2013
2 Disk missing at SM-9 location. (Measurment. relative to 2009)

Groundwater levels in trench :

GT-1	dry	**GT-3**	dry	**GT-5**	4.21
GT-2	dry	**GT-4**	dry	**Date of measurements :**	10/1/13

Elevation of brass disks : (annual)

See attached Settlement Survey Log **Date of last survey :** 10/29/13

Maintenance Activities & Actions Completed :

1. Suspected buried drain line seepage caused slideout, continuing to observe for any change. (no change observed since first noticed in early 2000)

2. Pavement settling first noticed in 2000, at which time a baseline survey was performed by Foresite Surveying; no major changes observed since base line survey.

3. Unable to survey Roseburg wood chip area in 2013…covered by wood chip pile.

4. Disk missing at SM-9 location. (measurement relative to 2009)

Inspection Date : **10/30/13** **Signature :** **Gale Jensen**

WEED SUPERFUND SITE
ANNUAL SETTLEMENT SURVEY
MONUMENT LOG
SLURRY WALL INTERIOR & RCRA CELL

(Attach to : Slurry Wall & Gravel Drainage Trench Log)

			Survey Date : 10-13-11		Survey Date : 10-25-12		Survey Date : 10-29-13	
Monument Number	Location	Reference Elevation 8/27/1999	Elevation	Change	Elevation	Change	Elevation	Change
SM-R	Reference (outside slurry wall on east side of Baxter yard)	3548.71	3548.71	0	3548.71	0	3548.71	0
SM-1	West side (Roseburg tower foundation) * Buried under wood chip pile	3523.04	*		*		*	
SM-2		3522.97	*		*		*	
SM-3		3522.93	*		*		*	
SM-4	South side (Baxter building foundation)	3549.60	3549.62	0.01	3549.61	0.01	3549.62	0.01
SM-5		3549.60	3549.61	0	3549.6	0.01	3549.62	0.02
SM-8		3549.62	3549.63	0.01	3549.62	0.01	3549.64	0.02
SM-6	South side (Baxter drip pad North)	3548.27	3548.26	0.02	3548.26	0	3548.28	0.02
SM-10		3547.98	3547.98	0	3547.98	0	3547.98	0
SM-7	South side (Baxter drip pad South)	3548.43	3548.44	0.00	3548.43	0.01	3548.44	0.01
SM-9	* disk missing	3548.19	3548.2	relative to 2009 0	3548.2	0	3548.21	0.01

Monument Number	Location	Reference Elevation (10-17-01)	Elevation	Change	Elevation	Change	Elevation	Change
SM-RC/W	RCRA Cell (Top Deck) N764, 799.47 E1,897,927.27	3590.79	3590.91	0.06	3590.86	0.05	3590.88	0.02
SM-RC/E	RCRA Cell (Top Deck) N784, 816.47 E1,897,972.98	3590.61	3590.7	0.06	3590.65	0.05	3590.61	0.04