

SENT VIA EMAIL (robert.chesson@state.co.us)

August 16, 2012

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RE: March 2012 Quarterly Monitoring Report and No-Further Action (NFA) Request  
Berger Tank Battery (API Number 05-123-08554)  
County Road 11 and County Road 20  
Frederick, Weld County, Colorado  
Project Number 1007004

Dear Mr. Chesson:

On behalf of Machii-Ross Petroleum Company (Machii-Ross), please see the enclosed March 2012 Quarterly Monitoring Report and NFA Request for the above-referenced site. Please read the attached report for a summary of the sampling activities performed at the site. If you have any questions or require additional information, please contact us.

Sincerely,  
PARAGON CONSULTING GROUP, INC.



Amy Weber, P.E.  
Project Engineer

ADW/DMR:adw1



David M. Rau, P.E., BCEE  
Principal Engineer

enc: March 2012 Quarterly Monitoring Report and NFA Request

cc: Ms. Jessica Reale/Misty Mountain Operating, LLC  
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County Road 11 and County Road 20  
Frederick, Weld County, Colorado  
Project Number 1007004

Machii-Ross Petroleum Company:

The purpose of this report is to summarize the results of the March 2012 quarterly sampling event performed at the subject site by Paragon Consulting Group, Inc. (Paragon). A copy of this report was also submitted to the Colorado Oil & Gas Conservation Commission (COGCC). The approximate location of the site is shown on Figures 1 and 2 which are attached to this letter. The approximate locations of the groundwater monitoring wells located at the site are shown on Figures 3 and 4 which are also attached to this report.

## 1. BACKGROUND

Previous site assessment activities and remedial activities are discussed below. The soil and groundwater analytical results in this chapter are compared to the former COGCC Allowable Concentrations (Allowable Concentrations) in effect prior to April 1, 2009. Series 900 of the COGCC Rules and Regulations were revised and issued on April 1, 2009. Table 910-1 in Series 900 describes COGCC Concentration Levels (COGCC Concentration Levels) for contaminants in soil and groundwater which are different than the Allowable Concentrations. For work performed after April 1, 2009, contaminant levels are compared to the COGCC Concentration Levels.

Seven (7) direct-push probes, SB-1 through SB-7, were completed at the site on January 9, 2007 by ENVIRON. Two (2) soil samples were analyzed from SB-1 and one (1) soil sample was analyzed from SB-2 through SB-7. The laboratory report and site diagram were included in ENVIRON's draft memorandum dated January 15, 2007. The soil samples were analyzed for benzene-toluene-ethylbenzene-xylenes (BTEX), methyl-tertiary-butyl-ether (MTBE), total petroleum hydrocarbons (TPH), total petroleum hydrocarbons - gasoline range organics (TPH-GRO), diesel fuel, fuel oil, jet fuel, kerosene, mineral spirits and motor. TPH was observed to range from not observed above the laboratory detection limit to 30,200

mg/Kg in soil samples submitted for analyses by ENVIRON. TPH-GRO ranged from not observed above the laboratory detection limit to 15,000 mg/Kg in soil samples submitted for analyses by ENVIRON. The TPH and TPH-GRO concentrations observed in the soil sample analyzed from SB-1 (at 13 feet) exceeded the Allowable Concentration for total recoverable petroleum hydrocarbons (TRPH). The soil in this area was removed during the initial abatement activities. Groundwater samples were collected by ENVIRON from probes SB-3 through SB-6 for BTEX analyses. BTEX concentrations observed in the groundwater samples collected from SB-3 and SB-5 exceeded the Allowable Concentrations. It should be noted that probe water samples are generally considered qualitative since they were not collected from completed and developed groundwater monitoring wells.

Laboratory results for split groundwater samples BTB-SB-3 and BTB-4 collected during ENVIRON site assessment activities on January 9, 2007 are summarized in Table 2 attached to this letter. BTB-SB-3 and BTB-4 were collected from ENVIRON's probes SB-3 and SB-4, respectively, on January 9, 2007. BTEX concentrations were observed at relatively low concentrations in groundwater sample BTB-4 collected from SB-4 on January 9, 2007. Relatively high BTEX concentrations were observed in the groundwater sample collected by Paragon from probe SB-3 on January 9, 2007. BTEX concentrations observed in BTB-4 collected by Paragon from SB-4 in January 2007 were not observed above the Allowable Concentrations. The BTEX concentrations observed in the groundwater sample collected by Paragon from probe SB-3 exceeded the Allowable Concentrations. It should be noted that probe water samples are generally considered qualitative since they were not collected from completed and developed groundwater monitoring wells.

During a routine site inspection on January 7, 2007, Machii-Ross Petroleum Company personnel observed crude oil (product) in the bermed area for the southern aboveground storage tank (AST). The leak from the AST was repaired on January 7, 2007. It was estimated by Machii-Ross Petroleum Company personnel that approximately 70 barrels (bbls) of oil were released. Key Energy was mobilized to the site to recover the product on January 8, 2007 using a vacuum truck. Excavation activities were also initiated on January 8, 2007. Soil abatement activities consisting of the excavation and off-site disposal of contaminated soil was performed at the site by Flint Energy Services, Inc. (Flint) between January 8, 2007 and January 16, 2007. The approximate limits of the excavation are shown on Figure 3 attached to this letter.

A subsurface drain located to the west of the tank battery was impacted and subsequently excavated. The drain was replaced and the former drain was connected to risers to be used as groundwater recovery points if necessary. In the excavation trench performed during

removal of the subsurface drain, four (4) separate slotted horizontal drain lines were installed with risers extending approximately three (3) feet above ground surface. These remedial drains were constructed with two (2) and three (3) inch diameter PVC pipe. The trenches were excavated below observed hydrocarbon impact into what appeared to be a relatively impermeable, hard and dry siltstone. During the trench excavation, oil/groundwater was removed by a vacuum truck directly from the excavation and from the risers once installed.

On January 11, 2007 following interviews with the property owners, it was discovered that the subsurface drain was connected to an unnamed creek located to the west of the site. Product was then observed on the creek and the release was reported to the National Response Center, the COGCC and the Colorado Department of Public Health and Environment on January 11, 2007. Paragon and Peterson Energy Management personnel installed booms at the outlet of the subsurface drain to the creek and at several other locations downstream. The booms were maintained and periodically replaced by Peterson Energy Management. Periodically, vacuum trucks were used to remove product from the creek and from vegetation near the creek. On January 12, 2007, the subsurface drain was flushed with approximately 500 gallons of BioSolve and the mixture was recovered from the downstream end of the pipe.

Approximately 100 cubic yards of contaminated soil were excavated from the subsurface drain area. The soil was transported by Flint to the Denver Regional Landfill in Erie, Colorado. Groundwater encountered in the bottom of the excavation during the abatement activities was removed using a vacuum truck. Approximately 10 bbls of oil were recovered during abatement activities. The excavation was backfilled with imported soil.

Seven (7) soil samples, T-1 through T-7, and 12 surface water samples were collected during the abatement process. The TRPH concentration observed in soil sample T-1 exceeded the Allowable Concentration. The excavation area could not be increased to the east of sample location T-1 due to the location of the ASTs. The TRPH concentrations observed in the remaining soil samples collected from the excavation were not observed above the Allowable Concentration. Six (6) Creek Samples were collected from an area of the creek located to the north of County Road 20. Three (3) Tile Drain samples were collected approximately 60 feet upgradient of where the subsurface drain flowed into the creek. Three (3) Drain Outlet samples were collected from the subsurface drain outfall into the creek. BTEX concentrations observed in the surface water samples collected near the site in January and February 2007 were not observed above the Surface Water Standards.

Based on the soil and water contamination observed during excavation activities, additional site assessment was performed at the site in February 2007. Four (4) monitoring wells, PMW-1 through PMW-4, and three (3) direct-push probes, PB-1 through PB-3, were installed at the site on February 12 and 14, 2007 to obtain information regarding potential petroleum hydrocarbon contamination. The approximate locations of the monitoring wells and direct-push probes are shown on Figure 3 attached to this letter. The TRPH concentration observed in the soil sample analyzed from PB-2 exceeded the Allowable Concentration. The TRPH concentrations in soil samples analyzed from PMW-1, PMW-2, PMW-3, PMW-4, PB-1 and PB-3 were not observed above the Allowable Concentration of 1,000 mg/Kg.

## **2. GEOHYDROLOGY**

Groundwater elevations in wells PMW-1, PMW-2, PMW-3 and PMW-4 were measured by Paragon on March 1, 2012. Groundwater elevation data for the site is summarized in Table 1 which is attached to this report. Groundwater was observed in wells PMW-1, PMW-2, PMW-3 and PMW-4 to range from approximately 5.4 to 6.7 feet below the top of casings on March 1, 2012. Free-phase product was not observed in monitoring wells PMW-1 through PMW-4 on March 1, 2012.

A piezometric surface diagram for groundwater elevations observed during the March 2012 sampling event is attached to this report as Figure 3. The piezometric surface was estimated using the Surfer<sup>®</sup> software distributed by Golden Software based on groundwater table measurements in wells PMW-1, PMW-2, PMW-3 and PMW-4. As seen from Figure 3, the general groundwater flow direction appeared to be towards the north-northwest. The hydraulic gradient observed at the site on March 1, 2012 was estimated to range from approximately 0.02 to 0.03. The groundwater flow direction and hydraulic gradient estimated for March 2012 are similar to previous observations at the site. It should be noted that local geohydrologic characteristics may change due to variations in precipitation, recharge, stratigraphy or conditions not apparent at the time of sampling.

## **3. GROUNDWATER QUALITY RESULTS**

Information collected during the March 2012 sampling event relative to groundwater quality at the site is summarized below. That information includes temperature, electrical conductance and pH measurements, dissolved oxygen (DO) measurements, and laboratory results.

### **3.1 Field Data**

Groundwater temperature, electrical conductance and pH measurements were performed on March 1, 2012 during purging of wells PMW-1 through PMW-4 prior to collecting groundwater samples for laboratory analysis. Purging of monitoring wells prior to sampling was accomplished using clean disposable bailers. Purging of the recovery wells was accomplished using a vacuum truck the week before sampling. Measurements were recorded during the removal of water from the monitoring wells. The monitoring wells were considered purged when temperature, electrical conductance, and pH measurements stabilized to within ten (10) percent for three (3) consecutive measurements and a minimum of three (3) well volumes were removed from the well or after the well was purged essentially dry. The wells were allowed to recharge prior to sampling.

DO measurements were performed in wells PMW-1, PMW-2, PMW-3 and PMW-4 on March 1, 2012. DO monitoring results are summarized in Table 2 attached to this report. As seen from Table 2, DO concentrations were observed to range from approximately 1.0 to 1.3 milligrams per liter (mg/L) during the March 2012 sampling episode. In general, an obvious correlation was not observed between BTEX concentrations observed in groundwater samples and DO measurements in March 2012.

### **3.2 Groundwater Analytical Results**

Groundwater samples were collected from monitoring wells PMW-1 through PMW-4 and trench recovery locations T-3 through T-5 on March 1, 2012 for laboratory analysis. The recovery trench sample location T-1 (riser pipe) has been destroyed and could not be sampled. In Paragon's opinion, riser pipe T-2 is close enough to T-1 to provide representative groundwater quality for the area at T-1. Also, the vacuum truck influence is expected to extend to the T-1 area when connected to T-2. Trench recovery location T-2 was not accessible on March 1, 2012. Paragon field technician returned to the site on March 21, 2012 and was able to sample T-2. Groundwater samples were transported under standard chain-of-custody procedures to Technology Laboratory, Inc. (TLI) in Fort Collins, Colorado for BTEX analysis by EPA Method 8260B. Groundwater sample results are summarized in Table 2 attached to this letter. The approximate locations of PMW-1 through PMW-4 and T-1 through T-5 are shown on Figure 4 attached to this letter. The TLI laboratory reports for wells PMW-1 through PMW-4 and T-2 through T-5 is also attached to this letter.

BTEX concentrations were not observed above the laboratory detection limit of 1.0 micrograms per liter ( $\mu\text{g/L}$ ) or were observed at relatively low concentrations in the groundwater samples collected from PMW-1 through PMW-4 and T-2, T-3, T-4 and T-5 in March 2012. In general, the BTEX concentrations observed in the groundwater samples

collected from PMW-1 through PMW-4 and T-2 through T-5 in March 2012 were similar to previous sample results.

Benzene concentrations were observed at 5.0 and 6.0 micrograms per liter ( $\mu\text{g/L}$ ) in the groundwater samples collected from T-3 and T-4, respectively, just at or slightly above the COGCC Concentration Level of 5.0  $\mu\text{g/L}$ . Toluene, ethylbenzene and xylenes concentrations in groundwater samples collected from T-3 and T-4 on March 1, 2012 were not observed above the COGCC Concentration Levels. The BTEX concentrations observed in the groundwater samples collected from PMW-1 through PMW-4, T-2 and T-5 in March 2012 were not observed above the COGCC Concentration Levels.

#### **4. VACUUM-ENHANCED RECOVERY EVENTS**

A vacuum-enhanced recovery (VER) event using a Key Energy vacuum truck was performed at the recovery trenches, T-2 through T-5, on February 15, 2012, prior to sampling since the recovery trench locations can not be purged manually. As noted above, the T-1 riser pipe is damaged and Key Energy was unable to recover from this riser pipe location. As seen from Table 3, approximately 277,242 gallons of groundwater have been recovered from recovery wells T-1 through T-5 between March 2007 and February 2012. The recovered groundwater was transported to a COGCC-approved disposal well operated by Conquest Disposal Service. The Key Energy work ticket is attached to this report.

#### **5. CONCLUSIONS AND RECOMMENDATIONS**

The following conclusions are made based on information obtained during the quarterly sampling event.

1. Groundwater was observed in wells PMW-1, PMW-2, PMW-3 and PMW-4 to range from approximately 5.4 to 6.7 feet below the top of casings on March 1, 2012. Free-phase product was not observed in monitoring wells PMW-1 through PMW-4 on March 1, 2012.
2. The general groundwater flow direction on March 1, 2012 appeared to be towards the north-northwest. The hydraulic gradient observed at the site on March 1, 2012 was estimated to range from approximately 0.02 to 0.03. The groundwater flow direction and hydraulic gradient estimated for March 1, 2012 are similar to previous observations at the site.
3. The recovery trench sample location T-1 (riser pipe) has been destroyed and could not be sampled. In Paragon's opinion, riser pipe T-2 is close enough to T-1 to provide representative groundwater quality for the area at T-1. Also, the vacuum truck

influence is expected to extend to the T-1 area when connected to T-2. We do not recommend replacing riser pipe T-1.

4. In general, BTEX concentrations observed in the groundwater samples collected from PMW-1 through PMW-4 and T-3 through T-5 in March 2012 were similar to previous sample results.
5. Benzene concentrations were observed at 5.0 and 6.0 µg/L in the groundwater samples collected from T-3 and T-4, respectively, just at or slightly above the COGCC Concentration Level of 5.0 µg/L. Toluene, ethylbenzene and xylenes concentrations in groundwater samples collected from T-3 and T-4 on March 1, 2012 were not observed above the COGCC Concentration Levels. The BTEX concentrations observed in the groundwater samples collected from PMW-1 through PMW-4, T-2 and T-5 in March 2012 were not observed above the COGCC Concentration Levels.
6. The extent of groundwater impacts at the site appears to be limited and bracketed.
7. Approximately 277,242 gallons of groundwater have been recovered from recovery wells T-1 through T-5 between March 2007 and February 2012. The recovered groundwater was transported to a COGCC-approved disposal well operated by Conquest Disposal Service.

The following recommendations are made based on information obtained during the quarterly sampling event.

1. Significant remedial actions have been performed at the site including soil excavation activities and removal of approximately 277,242 gallons groundwater at the recovery trench locations. As a result, BTEX concentrations observed in groundwater samples collected from T-1 through T-5 have decreased significantly since initial sampling in 2007. Groundwater samples collected from PMW-1 through PMW-4 between 2007 and March 2012 have not been observed above the COGCC Concentration Levels. Since groundwater sample results from the recovery trench locations have been observed below or close to the COGCC Concentration Levels over the previous four (4) sample events, we request No-Further Action (NFA) status be granted to Machii-Ross Petroleum Company for this release.

## **6. GENERAL COMMENTS**

The analyses and opinions expressed in this report are based on data obtained from the indicated locations along with other information described in the report. The report does not




reflect any variations in subsurface geohydrology or contaminant distribution which may occur between sample locations and or across the site. Actual subsurface conditions may vary and may not become evident without further exploration. Due to the dynamic nature of groundwater flow and contaminant migration, subsurface conditions will vary with time.

This report was prepared for the exclusive use of Machii-Ross Petroleum Company for specific application to the subject property and has been prepared in accordance with generally accepted geo-environmental engineering practices. No warranties, either express or implied, are intended or made. In the event that changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be valid unless these changes are reviewed and the opinions of this report are modified and verified in writing by Paragon.

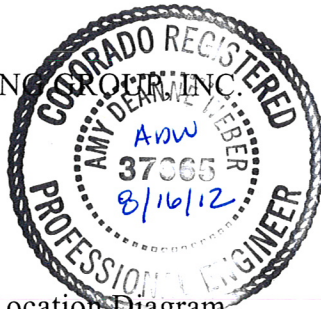
If you have questions or require additional information regarding this site, please do not hesitate to contact us.

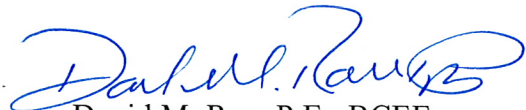
Sincerely,

PARAGON CONSULTING

  
Amy D. Weber, P.E.  
Colorado No. 37665

ADW/DMR:adw1



  
David M. Rau, P.E., BCEE  
Principal Engineer

enc: Figure 1 - General Location Diagram  
Figure 2 - Vicinity Map  
Figure 3 - Piezometric Surface Diagram  
Figure 4 - Groundwater Sample Results Diagram  
Table 1 - Summary of Groundwater Elevation Data  
Table 2 - Summary of Water Quality Results  
Table 3 - Groundwater Recovery  
Laboratory Report  
Key Energy Work Ticket

cc: Mr. Neil Rehkop/SBC Global (via email)  
Mr. Robert Chesson/COGCC (via email)  
Ms. Jessica Reale/Misty Mountain Operating, LLC  
Jennifer Biever, Esq./Hogan Lovells US LLP (via email)

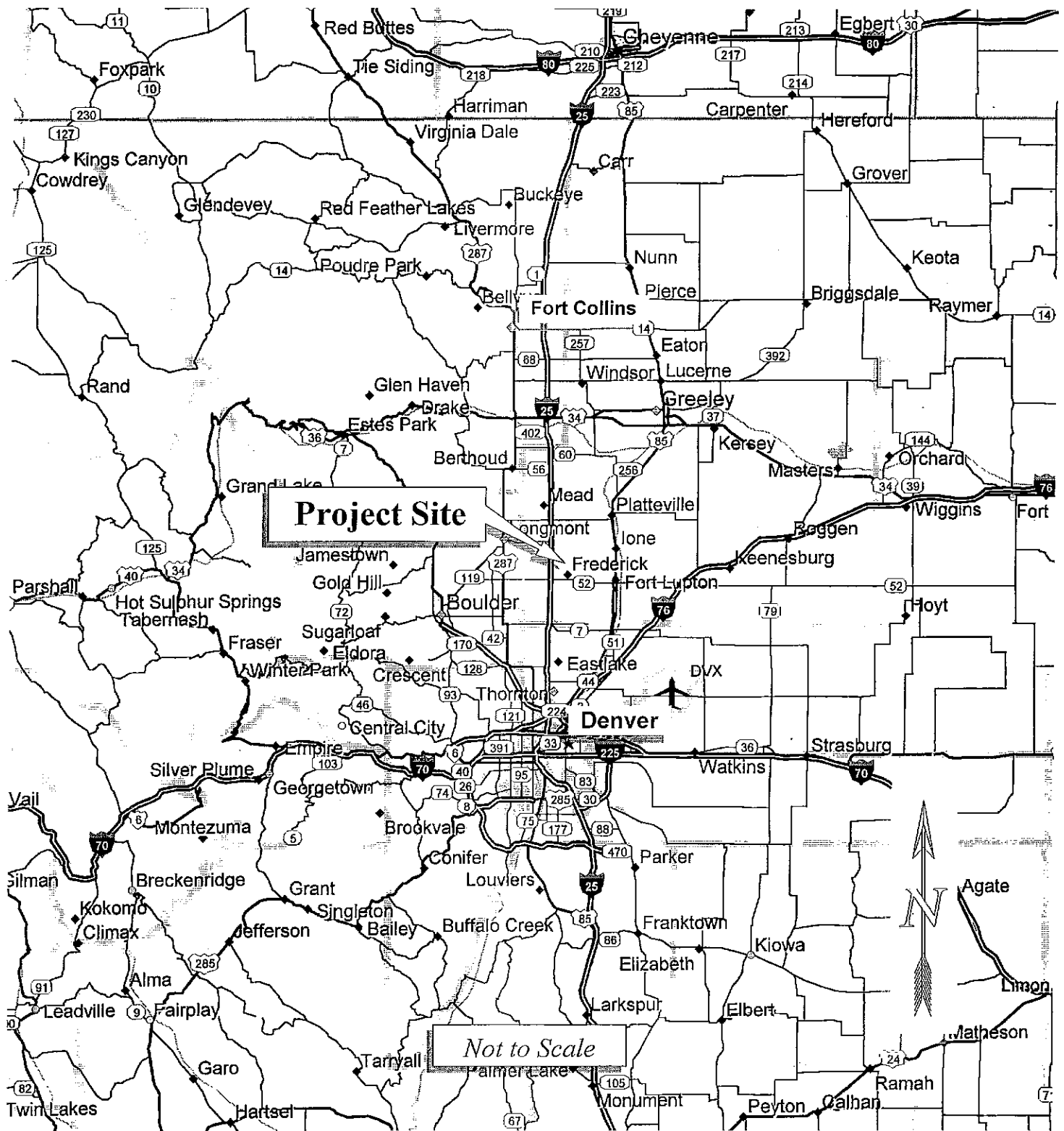


Figure 1 General Location Map  
Machii-Ross Petroleum  
Weld County Road 11, Weld County, Colorado  
Project No. 1007001-1007004 March 2007 Drawn by PJH(04fig1)

PARAGON

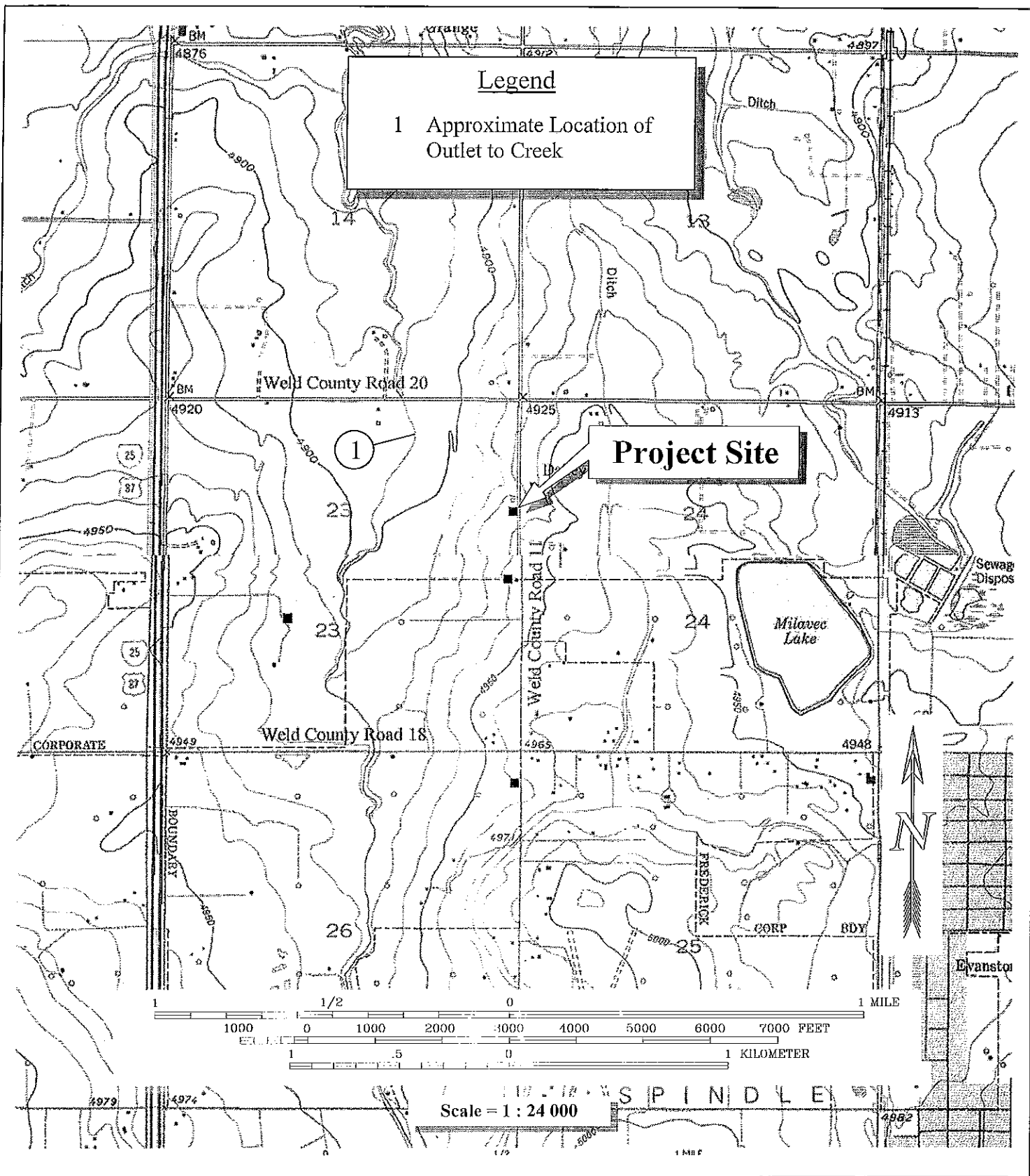
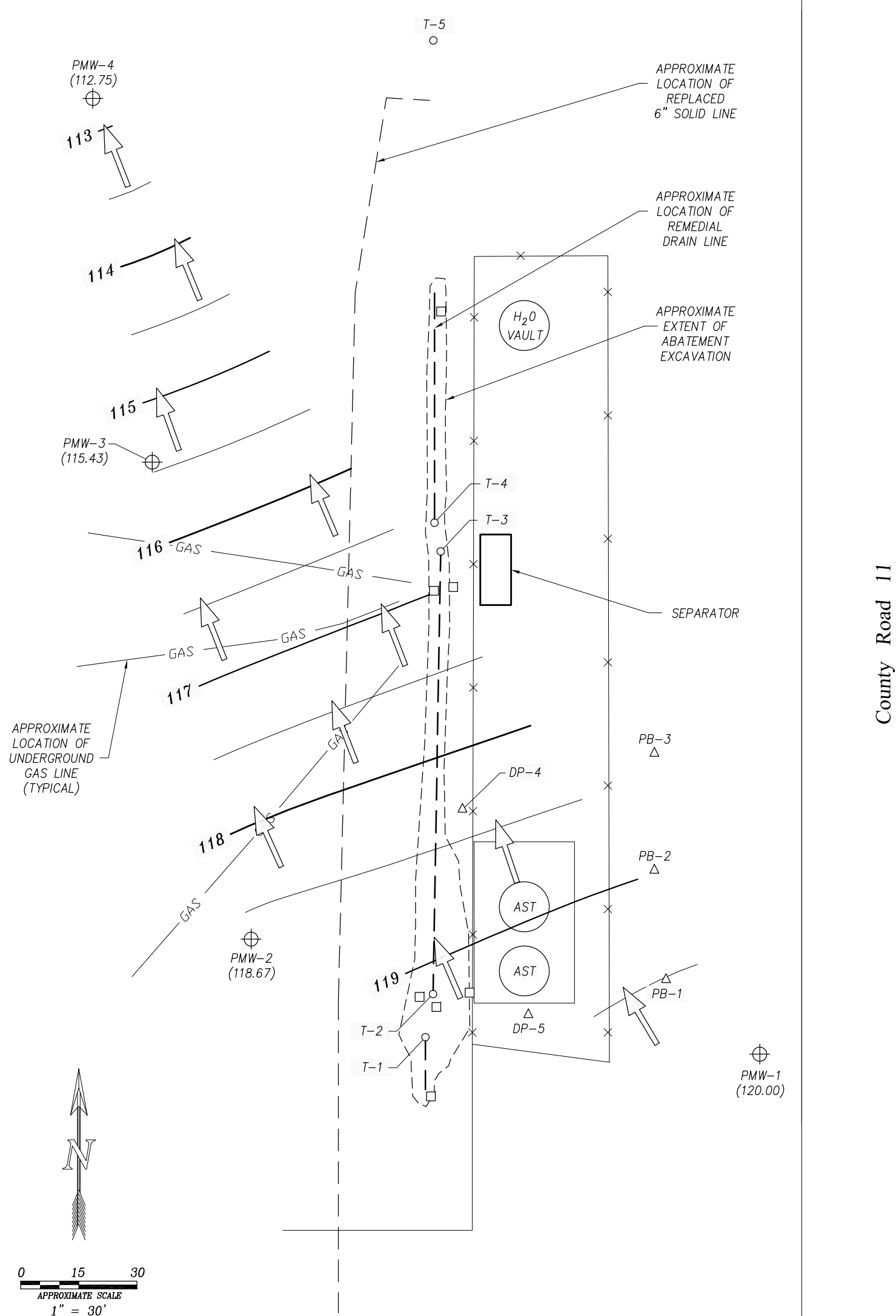


Figure 2 Vicinity Map  
 Machii-Ross Petroleum – Berger Tank Battery  
 Weld County Road 11 and Weld County Road 20, Weld County, Colorado  
 Project No. 1007004 June 2007 Drawn by PJH(04fig2a)

PARAGON



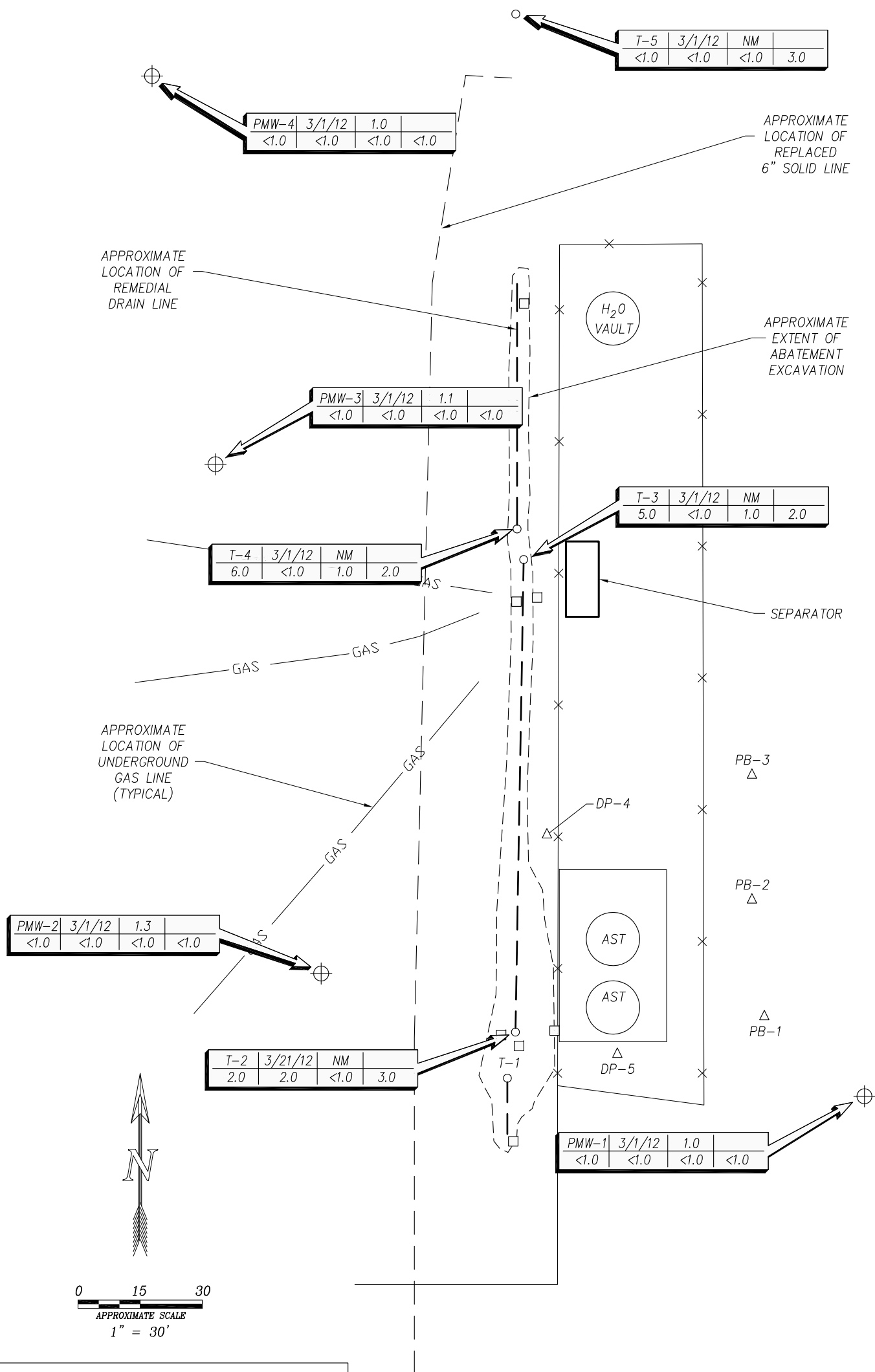
**Legend**

- APPROXIMATE LOCATION OF REMEDIAL DRAIN LINE RISER
- △ APPROXIMATE LOCATION OF SOIL BORING
- ⊕ APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE LOCATION OF SOIL SAMPLE
- ← ESTIMATED DIRECTION OF GROUNDWATER FLOW
- 118 — ESTIMATED GROUNDWATER ELEVATION IN FEET ABOVE A COMMON DATUM

NOTE: GROUNDWATER CONTOURS WERE ESTIMATED USING THE "SURFER" PROGRAM FROM GOLDEN SOFTWARE BASED ON DATA COLLECTED FROM WELLS PMW-1, PMW-2, PMW-3, AND PMW-4 ON MARCH 1, 2012. ACTUAL CONDITIONS MAY VARY.

**Figure 3 Piezometric Surface Diagram  
Berger Tank Battery  
Machii-Ross Petroleum Company  
Weld County Road 11 & 20  
Weld County, Colorado**

Project Mngr: ADW	<b>PARAGON</b> Consulting Group Environmental Engineering and Geohydrology 6901 Broadway Denver, Colorado 80221	Project No: 1007004
Designed by:		Scale: As Shown
Drawn by: JDH		File No: 04mar12
Checked by: ADW		Date: Apr 2012
Approved by: DMR		Sheet No:



### Legend

- APPROXIMATE LOCATION OF REMEDIAL DRAIN LINE RISER
- △ APPROXIMATE LOCATION OF SOIL BORING
- ⊕ APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE LOCATION OF SOIL SAMPLE

WHERE:

SAMPLE NAME	SAMPLE DATE	DO	X
B	T	E	X

B = BENZENE CONCENTRATION IN µg/L.  
T = TOLUENE CONCENTRATION IN µg/L.  
E = ETHYLBENZENE CONCENTRATION IN µg/L.  
X = TOTAL XYLENES CONCENTRATION IN µg/L.  
DO = DISSOLVED OXYGEN CONCENTRATION IN mg/L.  
NM = NOT MEASURED.

Figure 4 Groundwater Quality Results Diagram  
Berger Tank Battery  
Machii-Ross Petroleum Company  
Weld County Road 11 & 20  
Weld County, Colorado

Project Mngr:  
ADW

Designed by:

Drawn by:  
JDH

Checked by:  
ADW

Approved by:  
DMR

**PARAGON**  
Consulting Group

Environmental Engineering  
and Geohydrology  
6901 Broadway  
Denver, Colorado 80221

Project No:  
1007004

Scale:  
As Shown

File No:  
04w0312

Date:  
Apr 2012

Sheet No:

**TABLE 1**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
 (Page 1 of 2)

**PROJECT NAME:** Machii Ross/Berger Battery  
**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado  
**PROJECT NUMBER:** 1007004

Well Name	PMW-1	PMW-2	PMW-3	PMW-4
Casing Elevation (feet)	125.44	124.82	121.50	119.41
<u>Date Measured: March 1, 2007</u>				
Depth to Water (feet)	11.38	3.96	7.02	10.42
Groundwater Elevation (feet)	114.06	120.86	114.48	108.99
<u>Date Measured: April 9, 2007</u>				
Depth to Water (feet)	3.99	7.60	6.71	9.61
Groundwater Elevation (feet)	121.45	117.22	114.79	109.80
<u>Date Measured: June 13, 2007</u>				
Depth to Water (feet)	4.11	4.70	7.20	10.61
Groundwater Elevation (feet)	121.33	120.12	114.30	108.80
<u>Date Measured: September 28, 2007</u>				
Depth to Water (feet)	3.85	8.25	8.00	11.18
Groundwater Elevation (feet)	121.59	116.57	113.50	108.23
<u>Date Measured: January 28, 2008</u>				
Depth to Water (feet)	4.90	7.96	NM	9.79
Groundwater Elevation (feet)	120.54	116.86	NM	109.62
<u>Date Measured: April 30, 2008</u>				
Depth to Water (feet)	4.68	7.60	6.80	9.52
Groundwater Elevation (feet)	120.76	117.22	114.70	109.89
<u>Date Measured: July 21, 2008</u>				
Depth to Water (feet)	4.15	8.49	7.54	10.89
Groundwater Elevation (feet)	121.29	116.33	113.96	108.52
<u>Date Measured: October 6, 2008</u>				
Depth to Water (feet)	3.82	8.26	7.08	9.58
Groundwater Elevation (feet)	121.62	116.56	114.42	109.83
<u>Date Measured: May 12, 2009</u>				
Depth to Water (feet)	3.95	7.45	6.39	8.03
Groundwater Elevation (feet)	121.49	117.37	115.11	111.38
<u>Date Measured: August 6, 2009</u>				
Depth to Water (feet)	3.11	8.13	6.94	8.78
Groundwater Elevation (feet)	122.33	116.69	114.56	110.63
<u>Date Measured: November 3, 2009</u>				
Depth to Water (feet)	3.92	7.60	6.88	8.53
Groundwater Elevation (feet)	121.52	117.22	114.62	110.88
<u>Date Measured: February 5, 2010</u>				
Depth to Water (feet)	6.39	7.43	6.70	7.69
Groundwater Elevation (feet)	119.05	117.39	114.80	111.72
<u>Date Measured: June 22, 2010</u>				
Depth to Water (feet)	3.23	5.59	5.37	7.00
Groundwater Elevation (feet)	122.21	119.23	116.13	112.41

Notes:

1. Approximate well locations are shown on Figure 3.
2. NM = Not Measured.

**TABLE 1**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
 (Page 2 of 2)

**PROJECT NAME:** Machii Ross/Berger Battery  
**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado  
**PROJECT NUMBER:** 1007004

Well Name	PMW-1	PMW-2	PMW-3	PMW-4
Casing Elevation (feet)	125.44	124.82	121.50	119.41

Date Measured: August 12, 2011

Depth to Water (feet)	4.26	7.25	6.30	7.52
Groundwater Elevation (feet)	121.18	117.57	115.20	111.89

Date Measured: December 29, 2011

Depth to Water (feet)	NM	7.07	6.45	7.00
Groundwater Elevation (feet)	NM	117.75	115.05	112.41

Date Measured: March 1, 2012

Depth to Water (feet)	5.44	6.15	6.07	6.66
Groundwater Elevation (feet)	120.00	118.67	115.43	112.75

Notes:

1. Approximate well locations are shown on Figure 3.
2. NM = Not Measured.

**TABLE 2**  
**SUMMARY OF WATER QUALITY RESULTS**  
 (Page 1 of 4)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

Sample Point Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Dissolved Oxygen (mg/L)
PMW-1 <sup>10</sup>	03/01/07	<0.5	<0.5	<0.5	<0.5	2.6
PMW-1	04/09/07	NS	NS	NS	NS	1.1
PMW-1	06/13/07	<0.5	<0.5	<0.5	<0.5	0.7
PMW-1	09/28/07	<0.5	<0.5	<0.5	<0.5	0.1
PMW-1	01/28/08	<0.5	<0.5	<0.5	<0.5	0.8
PMW-1	04/30/08	<0.5	<0.5	<0.5	<0.5	NM
PMW-1	07/21/08	<0.5	<0.5	<0.5	<0.5	0.9
PMW-1	10/06/08	<1.	<1.	<1.	<1.	1.0
PMW-1	05/12/09	<1.	<1.	<1.	<1.	0.8
PMW-1	08/06/09	<1.	<1.	<1.	<1.	0.9
PMW-1	11/03/09	<1.	<1.	<1.	<1.	1.3
PMW-1	02/05/10	<1.	<1.	<1.	<1.	0.9
PMW-1	06/22/10	<1.	<1.	<1.	<1.	0.9
PMW-1	08/12/11	<1.	<1.	<1.	<1.	1.2
PMW-1	12/29/11	NS	NS	NS	NS	NM
PMW-1	03/01/12	<1.	<1.	<1.	<1.	1.0
PMW-2	03/01/07	NS	NS	NS	NS	1.2
PMW-2	04/09/07	<0.5	<0.5	<0.5	<0.5	1.1
PMW-2	06/13/07	<0.5	<0.5	<0.5	<0.5	0.9
PMW-2	09/28/07	<0.5	<0.5	<0.5	<0.5	0.3
PMW-2	01/28/08	<0.5	<0.5	<0.5	<0.5	0.7
PMW-2	04/30/08	<0.5	<0.5	<0.5	<0.5	NM
PMW-2	07/21/08	<0.5	<0.5	<0.5	<0.5	1.0
PMW-2	10/06/08	<1.	<1.	<1.	<1.	1.1
PMW-2	05/12/09	<1.	<1.	<1.	<1.	1.1
PMW-2	08/06/09	<1.	<1.	<1.	<1.	1.3
PMW-2	11/03/09	<1.	<1.	<1.	<1.	1.0
PMW-2	02/05/10	<1.	<1.	<1.	<1.	1.2
PMW-2	06/22/10	<1.	<1.	<1.	<1.	1.3
PMW-2	08/12/11	<1.	<1.	<1.	<1.	1.3
PMW-2	12/29/11	<1.	<1.	<1.	<1.	1.0
PMW-2	03/01/12	<1.	<1.	<1.	<1.	1.3
Concentration Levels		5.0	560.	700.	1,400.	NR

Notes:

1. Approximate sample locations are shown on Figure 4.
2. µg/L = micrograms per liter.
3. mg/L = milligrams per liter.
4. Concentration Levels for groundwater are described in Table 910-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations established April 1, 2009.
5. **Bold** concentrations indicate an exceedance of the Concentration Levels.
6. NR = Not Regulated.
7. NM = Not Measured.
8. NS = Not Sampled.
9. Groundwater samples BTB-SB-3 and BTB-4 were split samples collected from ENVIRON's probes SB-3 and SB-4, respectively, by Paragon personnel.
10. PMW-1 was inadvertently labeled as PMW-4 during the groundwater sampling performed in March 2007.



**TABLE 2**  
**SUMMARY OF WATER QUALITY RESULTS**  
(Page 2 of 4)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

Sample Point Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Dissolved Oxygen (mg/L)
PMW-3	03/01/07	NS	NS	NS	NS	1.4
PMW-3	04/09/07	<0.5	<0.5	<0.5	<0.5	1.0
PMW-3	06/13/07	<0.5	<0.5	<0.5	<0.5	1.0
PMW-3	09/28/07	<0.5	<0.5	<0.5	<0.5	0.4
PMW-3	01/28/08	<0.5	<0.5	<0.5	<0.5	0.8
PMW-3	04/30/08	<0.5	<0.5	<0.5	<0.5	NM
PMW-3	07/21/08	<0.5	<0.5	<0.5	<0.5	1.1
PMW-3	10/06/08	<1.	<1.	<1.	<1.	1.2
PMW-3	05/12/09	<1.	<1.	<1.	<1.	1.0
PMW-3	08/06/09	<1.	<1.	<1.	<1.	1.1
PMW-3	11/03/09	<1.	<1.	<1.	<1.	1.0
PMW-3	02/05/10	<1.	<1.	<1.	<1.	1.3
PMW-3	06/22/10	<1.	<1.	<1.	<1.	NM
PMW-3	08/12/11	<1.	<1.	<1.	<1.	1.0
PMW-3	12/29/11	<1.	<1.	<1.	<1.	1.1
PMW-3	03/01/12	<1.	<1.	<1.	<1.	1.1
PMW-4	03/01/07	NS	NS	NS	NS	1.8
PMW-4	04/09/07	<0.5	<0.5	<0.5	<0.5	1.0
PMW-4	06/13/07	<0.5	<0.5	<0.5	<0.5	1.0
PMW-4	09/28/07	<0.5	<0.5	<0.5	<0.5	2.2
PMW-4	01/28/08	<0.5	<0.5	<0.5	<0.5	0.9
PMW-4	04/30/08	<0.5	<0.5	<0.5	<0.5	NM
PMW-4	07/21/08	<0.5	<0.5	<0.5	<0.5	1.3
PMW-4	10/06/08	<1.	<1.	<1.	<1.	1.0
PMW-4	05/12/09	<1.	<1.	<1.	<1.	1.1
PMW-4	08/06/09	<1.	<1.	<1.	<1.	1.0
PMW-4	11/03/09	<1.	<1.	<1.	<1.	1.2
PMW-4	02/05/10	<1.	<1.	<1.	<1.	1.3
PMW-4	06/22/10	<1.	<1.	<1.	<1.	NM
PMW-4	08/12/11	<1.	<1.	<1.	<1.	1.0
PMW-4	12/29/11	<1.	<1.	<1.	<1.	1.1
PMW-4	03/01/12	<1.	<1.	<1.	<1.	1.0
BTB-SB-3	01/09/07	<b>20,047.</b>	<b>97,441.</b>	<b>10,824.</b>	<b>142,796.</b>	NM
BTB-4	01/09/07	3.5	65.	6.0	98.	NM
Concentration Levels		5.0	560.	700.	1,400.	NR

Notes:

1. Approximate sample locations are shown on Figure 4.
2. µg/L = micrograms per liter.
3. mg/L = milligrams per liter.
4. Concentration Levels for groundwater are described in Table 910-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations established April 1, 2009.
5. **Bold** concentrations indicate an exceedance of the Concentration Levels.
6. NR = Not Regulated.
7. NM = Not Measured.
8. NS = Not Sampled.
9. Groundwater samples BTB-SB-3 and BTB-4 were split samples collected from ENVIRON's probes SB-3 and SB-4, respectively, by Paragon personnel.

**TABLE 2**  
**SUMMARY OF WATER QUALITY RESULTS**  
 (Page 3 of 4)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

Sample Point Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Dissolved Oxygen (mg/L)
T-1	06/25/07	<b>517.</b>	<b>1,877.</b>	11.	<b>4,397.</b>	NM
T-1	09/28/07	NS	NS	NS	NS	NM
T-1	01/28/08	NS	NS	NS	NS	NM
T-1	04/30/08	NS	NS	NS	NS	NM
T-1	07/21/08	<b>134.</b>	129.	124.	<b>1,550.</b>	NM
T-1	10/06/08	NS	NS	NS	NS	NM
T-1	05/12/09	NS	NS	NS	NS	NM
T-1	08/06/09	NS	NS	NS	NS	NM
T-1	11/03/09	1.	<1.	3.	13.	NM
T-1	02/05/10	NS	NS	NS	NS	NM
T-1	06/22/10	<1.	<1.	<1.	<1.	NM
T-1	08/12/11	NS	NS	NS	NS	NM
T-1	12/29/11	NS	NS	NS	NS	NM
T-1	03/01/12	NS	NS	NS	NS	NM
T-2	06/25/07	<b>868.</b>	<b>775.</b>	12.	<b>6,330.</b>	NM
T-2	09/28/07	NS	NS	NS	NS	NM
T-2	01/28/08	<b>300.</b>	49.	<0.5	<b>1,415.</b>	NM
T-2	04/30/08	NS	NS	NS	NS	NM
T-2	07/21/08	<b>289.</b>	55.	150.	<b>1,961.</b>	NM
T-2	10/06/08	NS	NS	NS	NS	NM
T-2	05/12/09	<b>94.</b>	65.	32.	663.	NM
T-2	08/06/09	NS	NS	NS	NS	NM
T-2	11/03/09	2.	<1.	4.	2.	NM
T-2	02/05/10	NS	NS	NS	NS	NM
T-2	06/22/10	<b>12.</b>	<1.	8.	54.	NM
T-2	08/12/11	<1.	<1.	<1.	<1.	NM
T-2	12/29/11	2.	<1.	<1.	2.	NM
T-2	03/01/12	NS	NS	NS	NS	NM
T-2	03/21/12	2.	2.	<1.	3.	NM
T-3	06/25/07	<b>394.</b>	24.	<0.5	<b>3,449.</b>	NM
T-3	09/28/07	NS	NS	NS	NS	NM
T-3	01/28/08	<b>214.</b>	8.1	<0.5	627.	NM
T-3	04/30/08	NS	NS	NS	NS	NM
T-3	07/21/08	<b>199.</b>	3.5	48.	246.	NM
T-3	10/06/08	NS	NS	NS	NS	NM
T-3	05/12/09	<1.	<1.	<1.	<1.	NM
T-3	08/06/09	NS	NS	NS	NS	NM
T-3	11/03/09	<b>7.</b>	<1.	4.	2.	NM
T-3	02/05/10	NS	NS	NS	NS	NM
T-3	06/22/10	<b>8.</b>	<1.	2.	7.	NM
T-3	08/12/11	<1.	<1.	<1.	<1.	NM
T-3	12/29/11	2.	<1.	<1.	2.	NM
T-3	03/01/12	<b>5.</b>	<1.	1.	2.	NM
Concentration Levels		5.0	560.	700.	1,400.	NR

Notes:

1. Approximate sample locations are shown on Figure 4.
2. µg/L = micrograms per liter.
3. mg/L = milligrams per liter.
4. Concentration Levels for groundwater are described in Table 910-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations established April 1, 2009.
5. **Bold** concentrations indicate an exceedance of the Concentration Levels.
6. NR = Not Regulated.
7. NM = Not Measured.
8. NS = Not Sampled.

**TABLE 2**  
**SUMMARY OF WATER QUALITY RESULTS**

(Page 4 of 4)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

Sample Point Name	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Dissolved Oxygen (mg/L)
T-4	06/25/07	<b>240.</b>	2.2	<0.5	<b>1,270.</b>	NM
T-4	09/28/07	NS	NS	NS	NS	NM
T-4	01/28/08	<b>44.</b>	0.7	<0.5	28.	NM
T-4	04/30/08	NS	NS	NS	NS	NM
T-4	07/21/08	<b>172.</b>	6.6	17.	66.	NM
T-4	10/06/08	NS	NS	NS	NS	NM
T-4	05/12/09	<1.	<1.	<1.	<1.	NM
T-4	08/06/09	NS	NS	NS	NS	NM
T-4	11/03/09	<b>5.</b>	<1.	<1.	<1.	NM
T-4	02/05/10	NS	NS	NS	NS	NM
T-4	06/22/10	<1.	<1.	<1.	<1.	NM
T-4	08/12/11	<1.	<1.	<1.	<1.	NM
T-4	12/29/11	2.	<1.	<1.	1.	NM
T-4	03/01/12	<b>6.</b>	<1.	1.	2.	NM
T-5	06/25/07	<b>1,451.</b>	<b>692.</b>	426.	<b>6,938.</b>	NM
T-5	09/28/07	NS	NS	NS	NS	NM
T-5	01/28/08	<b>168.</b>	<0.5	132.	<b>1,547.</b>	NM
T-5	04/30/08	NS	NS	NS	NS	NM
T-5	07/21/08	<b>177.</b>	7.5	226.	1,216.	NM
T-5	10/06/08	NS	NS	NS	NS	NM
T-5	05/12/09	<b>11.</b>	<1.	40.	165.	NM
T-5	08/06/09	NS	NS	NS	NS	NM
T-5	11/03/09	<1.	<1.	2.	10.	NM
T-5	02/05/10	NS	NS	NS	NS	NM
T-5	06/22/10	<1.	<1.	2.	6.	NM
T-5	08/12/11	<1.	<1.	<1.	1.	NM
T-5	12/29/11	<1.	<1.	<1.	2.	NM
T-5	03/01/12	<1.	<1.	<1.	3.	NM
Concentration Levels		5.0	560.	700.	1,400.	NR

Notes:

1. Approximate sample locations are shown on Figure 4.
2. µg/L = micrograms per liter.
3. mg/L = milligrams per liter.
4. Concentration Levels for groundwater are described in Table 910-1 of Series 900 of the Colorado Oil & Gas Conservation Commission Rules and Regulations established April 1, 2009.
5. **Bold** concentrations indicate an exceedance of the Concentration Levels.
6. NR = Not Regulated.
7. NM = Not Measured.
8. NS = Not Sampled.

**TABLE 3**  
**GROUNDWATER RECOVERY**

(Page 1 of 3)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

DATE	WELL NAME	AMOUNT RECOVERED (gal)	RECOVERY METHOD
3/23/2007	T-1 through T-5	1,050	vacuum extraction truck
5/29/2007	T-1 through T-5	2,310	vacuum extraction truck
5/31/2007	T-1 through T-5	2,100	vacuum extraction truck
6/4/2007	T-1 through T-5	2,310	vacuum extraction truck
7/3/2007	T-1 through T-5	2,730	vacuum extraction truck
7/5/2007	T-1 through T-5	2,310	vacuum extraction truck
7/9/2007	T-1 through T-5	2,310	vacuum extraction truck
7/16/2007	T-1 through T-5	2,520	vacuum extraction truck
7/23/2007	T-1 through T-5	2,184	vacuum extraction truck
7/30/2007	T-1 through T-5	2,730	vacuum extraction truck
8/20/2007	T-1 through T-5	2,520	vacuum extraction truck
8/27/2007	T-1 through T-5	1,890	vacuum extraction truck
9/4/2007	T-1 through T-5	2,730	vacuum extraction truck
9/18/2007	T-1 through T-5	1,680	vacuum extraction truck
10/8/2007	T-1 through T-5	2,100	vacuum extraction truck
10/15/2007	T-1 through T-5	1,680	vacuum extraction truck
10/22/2007	T-1 through T-5	2,730	vacuum extraction truck
10/29/2007	T-1 through T-5	2,184	vacuum extraction truck
11/5/2007	T-1 through T-5	2,730	vacuum extraction truck
11/14/2007	T-1 through T-5	2,730	vacuum extraction truck
11/19/2007	T-1 through T-5	2,730	vacuum extraction truck
12/3/2007	T-1 through T-5	1,470	vacuum extraction truck
12/10/2007	T-1 through T-5	1,722	vacuum extraction truck
12/17/2007	T-1 through T-5	1,638	vacuum extraction truck
12/26/2007	T-1 through T-5	2,940	vacuum extraction truck
1/2/2008	T-1 through T-5	2,520	vacuum extraction truck
1/7/2008	T-1 through T-5	1,974	vacuum extraction truck
1/14/2008	T-1 through T-5	2,520	vacuum extraction truck
1/21/2008	T-1 through T-5	2,646	vacuum extraction truck
1/29/2008	T-1 through T-5	1,764	vacuum extraction truck
2/4/2008	T-1 through T-5	2,730	vacuum extraction truck
2/11/2008	T-1 through T-5	2,520	vacuum extraction truck
2/18/2008	T-1 through T-5	2,520	vacuum extraction truck
3/3/2008	T-1 through T-5	2,730	vacuum extraction truck
3/10/2008	T-1 through T-5	2,940	vacuum extraction truck
3/17/2008	T-1 through T-5	2,730	vacuum extraction truck
3/24/2008	T-1 through T-5	2,730	vacuum extraction truck
3/31/2008	T-1 through T-5	2940	vacuum extraction truck
4/8/2008	T-1 through T-5	2,058	vacuum extraction truck
4/14/2008	T-1 through T-5	2,436	vacuum extraction truck
4/23/2008	T-1 through T-5	2,100	vacuum extraction truck
4/28/2008	T-1 through T-5	NR	vacuum extraction truck
5/5/2008	T-1 through T-5	2,436	vacuum extraction truck
5/15/2008	T-1 through T-5	2,730	vacuum extraction truck
5/19/2008	T-1 through T-5	2,730	vacuum extraction truck
5/27/2008	T-1 through T-5	NR	vacuum extraction truck

Notes:

1) Approximate sample locations are shown on Figure 3.

**TABLE 3**  
**GROUNDWATER RECOVERY**

(Page 2 of 3)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

DATE	WELL NAME	AMOUNT RECOVERED (gal)	RECOVERY METHOD
6/2/2008	T-1 through T-5	2,730	vacuum extraction truck
6/10/2008	T-1 through T-5	2,814	vacuum extraction truck
6/16/2008	T-1 through T-5	2,142	vacuum extraction truck
6/24/2008	T-1 through T-5	2,604	vacuum extraction truck
6/30/2008	T-1 through T-5	2,814	vacuum extraction truck
7/7/2008	T-1 through T-5	1,848	vacuum extraction truck
7/14/2008	T-1 through T-5	NR	vacuum extraction truck
7/22/2008	T-1 through T-5	1,974	vacuum extraction truck
7/28/2008	T-1 through T-5	3,066	vacuum extraction truck
8/4/2008	T-1 through T-5	2,940	vacuum extraction truck
8/13/2008	T-1 through T-5	1,680	vacuum extraction truck
8/18/2008	T-1 through T-5	2,940	vacuum extraction truck
8/25/2008	T-1 through T-5	2,940	vacuum extraction truck
9/3/2008	T-1 through T-5	2,940	vacuum extraction truck
9/8/2008	T-1 through T-5	1,848	vacuum extraction truck
9/22/2008	T-1 through T-5	2,940	vacuum extraction truck
9/29/2008	T-1 through T-5	2,310	vacuum extraction truck
10/6/2008	T-1 through T-5	2,730	vacuum extraction truck
10/13/2008	T-1 through T-5	2,940	vacuum extraction truck
11/3/2008	T-1 through T-5	2,520	vacuum extraction truck
11/10/2008	T-1 through T-5	2,940	vacuum extraction truck
11/17/2008	T-1 through T-5	2,730	vacuum extraction truck
11/24/2008	T-1 through T-5	2,730	vacuum extraction truck
12/1/2008	T-1 through T-5	2,520	vacuum extraction truck
12/8/2008	T-1 through T-5	2,310	vacuum extraction truck
12/15/2008	T-1 through T-5	2,268	vacuum extraction truck
12/22/2008	T-1 through T-5	1,974	vacuum extraction truck
12/29/2008	T-1 through T-5	2,520	vacuum extraction truck
1/5/2009	T-1 through T-5	2,520	vacuum extraction truck
1/12/2009	T-1 through T-5	2,058	vacuum extraction truck
1/19/2009	T-1 through T-5	1,680	vacuum extraction truck
1/26/2009	T-1 through T-5	2,310	vacuum extraction truck
2/2/2009	T-1 through T-5	2,142	vacuum extraction truck
2/9/2009	T-1 through T-5	1,680	vacuum extraction truck
2/16/2009	T-1 through T-5	2,142	vacuum extraction truck
2/23/2009	T-1 through T-5	2,142	vacuum extraction truck
3/2/2009	T-1 through T-5	1,890	vacuum extraction truck
3/9/2009	T-1 through T-5	2,436	vacuum extraction truck
3/16/2009	T-1 through T-5	2,730	vacuum extraction truck
3/23/2009	T-1 through T-5	2,730	vacuum extraction truck

Notes:

1) Approximate sample locations are shown on Figure 3.

### TABLE 3 GROUNDWATER RECOVERY

(Page 3 of 3)

**PROJECT NAME:** Machii Ross/Berger Battery

**PROJECT LOCATION:** WCR 11 & WCR 20, Weld County, Colorado

**PROJECT NUMBER:** 1007004

DATE	WELL NAME	AMOUNT RECOVERED (gal)	RECOVERY METHOD
3/30/2009	T-1 through T-5	2,520	vacuum extraction truck
4/6/2009	T-1 through T-5	2,730	vacuum extraction truck
4/13/2009	T-1 through T-5	2,562	vacuum extraction truck
4/20/2009	T-1 through T-5	2,898	vacuum extraction truck
4/27/2009	T-1 through T-5	2,562	vacuum extraction truck
5/4/2009	T-1 through T-5	2,940	vacuum extraction truck
5/11/2009	T-1 through T-5	2,730	vacuum extraction truck
5/18/2009	T-1 through T-5	2,520	vacuum extraction truck
5/26/2009	T-1 through T-5	2,184	vacuum extraction truck
6/1/2009	T-1 through T-5	2,268	vacuum extraction truck
6/8/2009	T-1 through T-5	2,142	vacuum extraction truck
6/15/2009	T-1 through T-5	2,730	vacuum extraction truck
6/22/2009	T-1 through T-5	2,394	vacuum extraction truck
6/29/2009	T-1 through T-5	2,730	vacuum extraction truck
7/6/2009	T-1 through T-5	2,478	vacuum extraction truck
7/13/2009	T-1 through T-5	NR	vacuum extraction truck
7/20/2009	T-1 through T-5	2,562	vacuum extraction truck
7/27/2009	T-1 through T-5	1,806	vacuum extraction truck
8/3/2009	T-1 through T-5	2,730	vacuum extraction truck
8/10/2009	T-1 through T-5	2,940	vacuum extraction truck
8/17/2009	T-1 through T-5	2,940	vacuum extraction truck
8/24/2009	T-1 through T-5	2,940	vacuum extraction truck
8/31/2009	T-1 through T-5	2,268	vacuum extraction truck
9/14/2009	T-1 through T-5	2,940	vacuum extraction truck
9/28/2009	T-1 through T-5	3,150	vacuum extraction truck
10/12/2009	T-1 through T-5	2,268	vacuum extraction truck
10/26/2009	T-1 through T-5	2,436	vacuum extraction truck
11/24/2009	T-1 through T-5	2,520	vacuum extraction truck
6/21/2010	T-2 through T-5	2,184	vacuum extraction truck
8/9/2011	T-2 through T-5	2,520	vacuum extraction truck
12/27/2011	T-2 through T-5	2,016	vacuum extraction truck
2/15/2012	T-2 through T-5	1,680	vacuum extraction truck
<b>TOTAL LIQUID REMOVED</b>		<b>277,242</b>	

Notes:

- 1) Approximate sample locations are shown on Figure 3.



# TECHNOLOGY LABORATORY, INC.

## CENTRE PROFESSIONAL PARK

1012 Centre Avenue  
Fort Collins, Colorado 80526  
(970) 490-1414

### CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.  
1103 Oak Park Drive  
Fort Collins, CO 80525

Date Received: 03/01/12

Matrix: Water

Project No.: 1007004

<u>Lab ID</u>	<u>Sample ID</u>	<u>Date Sampled</u>	<u>Date Analyzed</u>	<u>Benzene mg/L</u>	<u>Toluene mg/L</u>	<u>Ethylbenzene mg/L</u>	<u>Total Xylenes mg/L</u>
A5805-01	PMW-1	03/01/12	03/02/12	< 0.001	< 0.001	< 0.001	< 0.001
A5805-02	PMW-2	03/01/12	03/02/12	< 0.001	< 0.001	< 0.001	< 0.001
A5805-03	PMW-3	03/01/12	03/02/12	< 0.001	< 0.001	< 0.001	< 0.001
A5805-04	PMW-4	03/01/12	03/02/12	< 0.001	< 0.001	< 0.001	< 0.001
A5805-05	T-3	03/01/12	03/05/12	0.005	< 0.001	0.001	0.002
A5805-06	T-4	03/01/12	03/05/12	0.006	< 0.001	0.001	0.002
A5805-07	T-5	03/01/12	03/05/12	< 0.001	< 0.001	< 0.001	0.003

BTEX Method:

EPA-8260B

TECHNOLOGY LABORATORY, INC.



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## CENTRE PROFESSIONAL PARK

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(970) 490-1414

### CERTIFICATE OF ANALYSIS

#### QA/QC SURROGATE RECOVERY

Paragon Consulting Group, Inc.  
1103 Oak Park Drive  
Fort Collins, CO 80525

Date Received: 03/01/12

Matrix: Water

Project No.: 1007004

(% Recovery)

<u>Lab ID</u>	<u>Sample ID</u>	Bromofluorobenzene <u>Limits (70-113%)</u>	Dibromofluoromethane <u>Limits (68-120%)</u>	Toluene-d8 <u>Limits (81-128%)</u>
A5805-01	PMW-1	95	113	93
A5805-02	PMW-2	94	113	93
A5805-03	PMW-3	94	113	92
A5805-04	PMW-4	93	113	92
A5805-05	T-3	94	111	89
A5805-06	T-4	95	113	91
A5805-07	T-5	95	112	91

TECHNOLOGY LABORATORY, INC.





# TECHNOLOGY LABORATORY, INC.

## CENTRE PROFESSIONAL PARK

1012 Centre Avenue  
Fort Collins, Colorado 80526  
(970) 490-1414

### CERTIFICATE OF ANALYSIS

Paragon Consulting Group, Inc.  
1103 Oak Park Drive  
Fort Collins, CO 80525

Sampled: 03/21/12

Received: 03/21/12

Sample ID: T-2

Project No.: 1007004

Laboratory ID A5903-01

Matrix: Water

<u>CAS Number</u>	<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>MDL</u>	<u>Method</u>	<u>Date Analyzed</u>
71-43-2	Benzene	0.002	mg/L	0.001	EPA-8260B	03/22/12
108-88-3	Toluene	0.002	mg/L	0.001	EPA-8260B	03/22/12
100-41-4	Ethylbenzene	< 0.001	mg/L	0.001	EPA-8260B	03/22/12
1330-20-7	Total Xylenes	0.003	mg/L	0.001	EPA-8260B	03/22/12

### QA/QC SURROGATE RECOVERIES

<u>Compound</u>	<u>% Recovery</u>	<u>% Rec. Limits</u>
Dibromofluoromethane	86	68-120
Toluene-d8	102	81-128
Bromofluorobenzene	97	70-113

*Lee Batters*

TECHNOLOGY LABORATORY, INC.

The results contained in this report  
relate only to those items tested.

Yard No. 2009-4708	Unit/Asset No. 0101721	Manifest	RCC No.
SWD Name	<input type="checkbox"/> Key SWD	<input type="checkbox"/> Customer SWD	<input type="checkbox"/> Public SWD
			Disposal Ticket No.

Start	End	Description	# BBL	Oil/Water	Rec'd By
7:00	12:00	Go to loc / pull water from pvc / Take to			
AM	10:14	Dispose / 40 BBLs			
		3" elbow Broken off 3" pvc nipple / I cut			
		off Broken part and Put elbow Broken pipe			
Tank No.	Tank No.	Tank No.	Mileage Start	Mileage End	
Top Gauge	Top Gauge	Top Gauge	11865	11870	
Bottom Gauge	Bottom Gauge	Bottom Gauge	Ita _____ State	Ita _____ State	

<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Safety Belts	<input type="checkbox"/> Safety Harness / Ankl Fall Device	<input type="checkbox"/> Proper Clothing	<input type="checkbox"/> Hearing Protection
<input type="checkbox"/> Fire Extinguishers	<input type="checkbox"/> Steel Toed Boots	<input type="checkbox"/> Cotton/ Rubber Gloves	<input type="checkbox"/> Safety Glasses	<input type="checkbox"/> Other - Explain:
<input type="checkbox"/> Face Shields / Goggles	<input type="checkbox"/> Wheel Chock/Cones	<input type="checkbox"/> Confined Space Permit	<input type="checkbox"/> Work Permit Required	
<input type="checkbox"/> H2S / Tr-Monitors	<input type="checkbox"/> Back Support Belts	<input type="checkbox"/> Lock Out/Tag Out	<input type="checkbox"/> Ground Cable	

Lifting		Hazards		Body Position/Movement		Environmental Condition	
Manual Lifting (Body Position)	<input type="checkbox"/> Y <input type="checkbox"/> N	Proper Technique/Material Placement	<input type="checkbox"/> Y <input type="checkbox"/> N	Climbing	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Day <input type="checkbox"/> Night	<input type="checkbox"/> Clear
Mechanical Lifting Equipment	<input type="checkbox"/> Y <input type="checkbox"/> N	Hot/Cold Surface or Material	<input type="checkbox"/> Y <input type="checkbox"/> N	Pulling, Pushing	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Drizzle <input type="checkbox"/> Humid	<input type="checkbox"/> Rain
Awkward Body Position	<input type="checkbox"/> Y <input type="checkbox"/> N	Inadequate Lighting	<input type="checkbox"/> Y <input type="checkbox"/> N	Bending	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Ice <input type="checkbox"/> Snow <input type="checkbox"/> Dust	<input type="checkbox"/> Fog
Slip/Trip Potential	<input type="checkbox"/> Y <input type="checkbox"/> N	Fall Protection/Anchor Points	<input type="checkbox"/> Y <input type="checkbox"/> N	Twisting Motion	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Temp _____ Degrees	
Lifting w/Other Employees	<input type="checkbox"/> Y <input type="checkbox"/> N	Pinch Points	<input type="checkbox"/> Y <input type="checkbox"/> N	Walking	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Wind _____ mph	
Proper Rigging Practices	<input type="checkbox"/> Y <input type="checkbox"/> N	Trenching/Excavation	<input type="checkbox"/> Y <input type="checkbox"/> N	Swinging	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Chains Required	
		Hand and Finger Hazards	<input type="checkbox"/> Y <input type="checkbox"/> N	Straining	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Slope Grades	
		Electrical Hazards	<input type="checkbox"/> Y <input type="checkbox"/> N	Stretching	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Mud _____ Condition	
Access/Exit		Welding/Flame Cutting	<input type="checkbox"/> Y <input type="checkbox"/> N	Reaching	<input type="checkbox"/> Y <input type="checkbox"/> N		
Scaffold (properly inspected)	<input type="checkbox"/> Y <input type="checkbox"/> N	Mechanical Equipment	<input type="checkbox"/> Y <input type="checkbox"/> N	Over Extending	<input type="checkbox"/> Y <input type="checkbox"/> N		
Ladder	<input type="checkbox"/> Y <input type="checkbox"/> N			Jumping	<input type="checkbox"/> Y <input type="checkbox"/> N		
Hoisting of Tools/Materials	<input type="checkbox"/> Y <input type="checkbox"/> N	Environmental		Crawling	<input type="checkbox"/> Y <input type="checkbox"/> N		
Secure Footing	<input type="checkbox"/> Y <input type="checkbox"/> N	Pollution (Personal Exposure)	<input type="checkbox"/> Y <input type="checkbox"/> N				

If YES to any HAZARDS - Identify: \_\_\_\_\_



Date: 2/14/12 Work Ticket No. T2645921  
S M ~~W~~ T F S

\*T2645921\*

[illegible]

Class	Employee No.	Employee Name / Signature	Start	End	Work	Travel	Down	Other	Total Hours
DRIVER	52370	Douglas Burge	7:00	12:00	5	-	-	-	5
SWAMPER TRAFFIC			AM	NOON					

DYTES P/O