3R - 173

2006 AGWMR

04/15/2007

3R173

BURLINGTON RESOURCES
San Juan Division

April 15, 2007

Hand Delivered

RECEIVED

APR 17 2007

Oil Conservation Division
Environmental Bureau

Glen Von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: 2006 Annual Groundwater Investigation and Remediation Reports
San Juan Basin, New Mexico

Dear Mr. Von Gonten:

As required in Burlington Resources approved Groundwater Investigation and Remediation Plan dated August, 1998, enclosed are the 2005 annual reports for Burlington's groundwater impact sites in the San Juan Basin. Separate reports are enclosed for the following locations:

Hampton #4M
Johnson Federal #4 Metering Station
Flora Vista
Howell K-1

If you have questions or additional information is needed, please contact me at (505) 326-9537.

Sincerely,

Gregg Wurtz
Sr. Environmental Representative

Attachments - Groundwater Investigation and Remediation Reports

cc: Brandon Powell - NMOCD Aztec
WFS - Mark Harvey (Hampton #4M)
EPFS - Scott Pope (Johnson Fed. #4)
Facility and Correspondence Files

3401 East 30th Street, 87402-8807, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

BURLINGTON RESOURCES 2006 ANNUAL GROUND WATER REPORT

Flora Vista No. 1

SITE DETAILS

Location: Unit Letter F, Section 22, Township 30N, Range 12W; San Juan County, New Mexico
Land Type: Fee

2003 ACTIVITIES

Historic petroleum contaminated soil was discovered at the Flora Vista #1 location during a routine production resetting activity in 2003. Approximately 49,986 cubic yards (cu. yds.) of contaminated soil were removed and 4,446 cu. yds. of clean soil were removed. The contaminated soil was taken to a commercial landfill facility located on Crouch Mesa in Farmington, New Mexico. The clean soil was backfilled into the excavation. Ground water was observed in the bottom of the excavation at approximately 25 feet below the ground surface. During excavation, field screening was conducted by collecting samples to determine extent of impacted soil. Soil headspace gas was monitored with a photo-ionization detector (PID). Soil samples were collected for laboratory analysis to document clean closure. Field notes of the excavation work are included in Attachment 1. To enhance the remediation of the remaining minor amounts of residual petroleum contamination in the soil of the excavation approximately 80 bbls of an oxidizer (potassium permanganate) solution was sprayed on the soils to breakdown the hydrocarbons.

A ground water source well (Monitoring Well #1) was installed slightly down gradient from the center of the excavation (Figure 1). The soil boring and well construction notes are found in Attachment 2. A general water quality characterization analysis was performed. Subsequent monitoring included more specific analyses for benzene, toluene, ethylbenze, and total xylenes (BTEX), as well as total petroleum hydrocarbons (TPH). The general ground water analysis did not detect any constituents of concern, except iron and manganese. The concentrations of iron and manganese could not be linked to the oil and gas operations conducted on location. The manganese concentration may be linked to the potassium permanganate (oxidizer) solution applied to the soil in the open excavation. The oxidizer solution will naturally break down in a short period of time. BTEX concentrations in the initial sample warranted further observation. Quarterly ground water monitoring for BTEX began in September, 2003.

2003 – 2006 GROUND WATER MONITORING

Monitoring Well #1 has been sampled quarterly for BTEX analysis through 2006. Results are shown in Table 1. Prior to sampling at monitoring wells, depth to ground water and total depth of wells is measured with a Keck oil/water interface probe. Presence of any free-phase crude oil is also investigated using the interface probe. The interface probe is decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. The volume of water in the wells is calculated, and a minimum of three casing volumes of water is purged from each well using a disposable bailer or a permanent decontaminated PVC bailer. As water is removed, pH, electric conductivity and temperature are monitored. Wells are purged until these properties stabilize, indicating that the purge water is

representative of aquifer conditions. Stabilization is defined as three consecutive stable readings for each water property (±0.4 units for pH, ±10 percent for electric conductivity and ±2° C for temperature). All purge water is disposed into tanks on site. Data is recorded on the attached *Well Development and Sampling Logs* (Attachment 3). Once each monitoring well is properly purged, groundwater samples are collected by filling at least two 40-milliliter (ml) glass vials. The pre-cleaned and pre-preserved (with hydrochloric acid or mercuric chloride) vials are filled and capped with no air inside to prevent degradation of the sample. Samples are labeled with the date and time of collection, well designation, project name, collector's name and parameters to be analyzed. They are immediately sealed and packed on ice. The samples are shipped to ACZ Laboratory in Steamboat Springs, Colorado in a sealed cooler via FedEx before designated holding times expire. Proper chain-of-custody (COC) procedures are followed with logs documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used, analyses required and sampler's signatures.

ACZ analyzes the samples for BTEX by USEPA Method 8021. Laboratory reports are included as Attachment 4. 2006 sampling indicates ground water in MW-1 remains high in benzene, ethylbenzene and xylene concentrations. Toluene concentrations are below New Mexico Water Quality Control Commission (NMWQCC) standards.

CONCLUSIONS

The petroleum-contaminated soils were removed from this location to the extent practical. The soil samples collected for laboratory analysis were below New Mexico Oil and Gas Conservation Division (NMOCD) standards and confirm the affected soil was removed (Attachment 1, Field Excavation Work Log and Soil Excavation Analytical Results).

The ground water monitoring results through 2006 indicate that ground water quality is above the NMWQCC standards for benzene, ethylbenzene, and total xylenes (Table 1). Concentrations of these analytes tend to be higher during the winter months, concurrent with low-flow stage of the adjacent San Juan River and irrigation ditches (Figure 2). During the summer, ground water is more likely to be affected by higher flow rates in the nearby surface water and is probably recharged with additional fresh water.

RECOMMENDATIONS

- Burlington Resources proposes to continue quarterly sampling at this site to monitor progression of natural degradation of hydrocarbons.
- Burlington Resources will request official closure of this site when four quarters of ground water analysis demonstrate the water quality is below NMWQCC standards.

Attachments:
Figure 1 - Site Map
Figure 2 - Graphical Presentation of Analytical Results
Table 1 - Ground Water Sampling Results Summary
Attachment 1 - Field excavation work log and soil excavation analytical results
Attachment 2 - Drilling Logs and Wellbore Diagrams
Attachment 3 - Well Development and Sampling Logs
Attachment 4 - Laboratory Reports

Figure 1: Site Map of Flora Vista #1

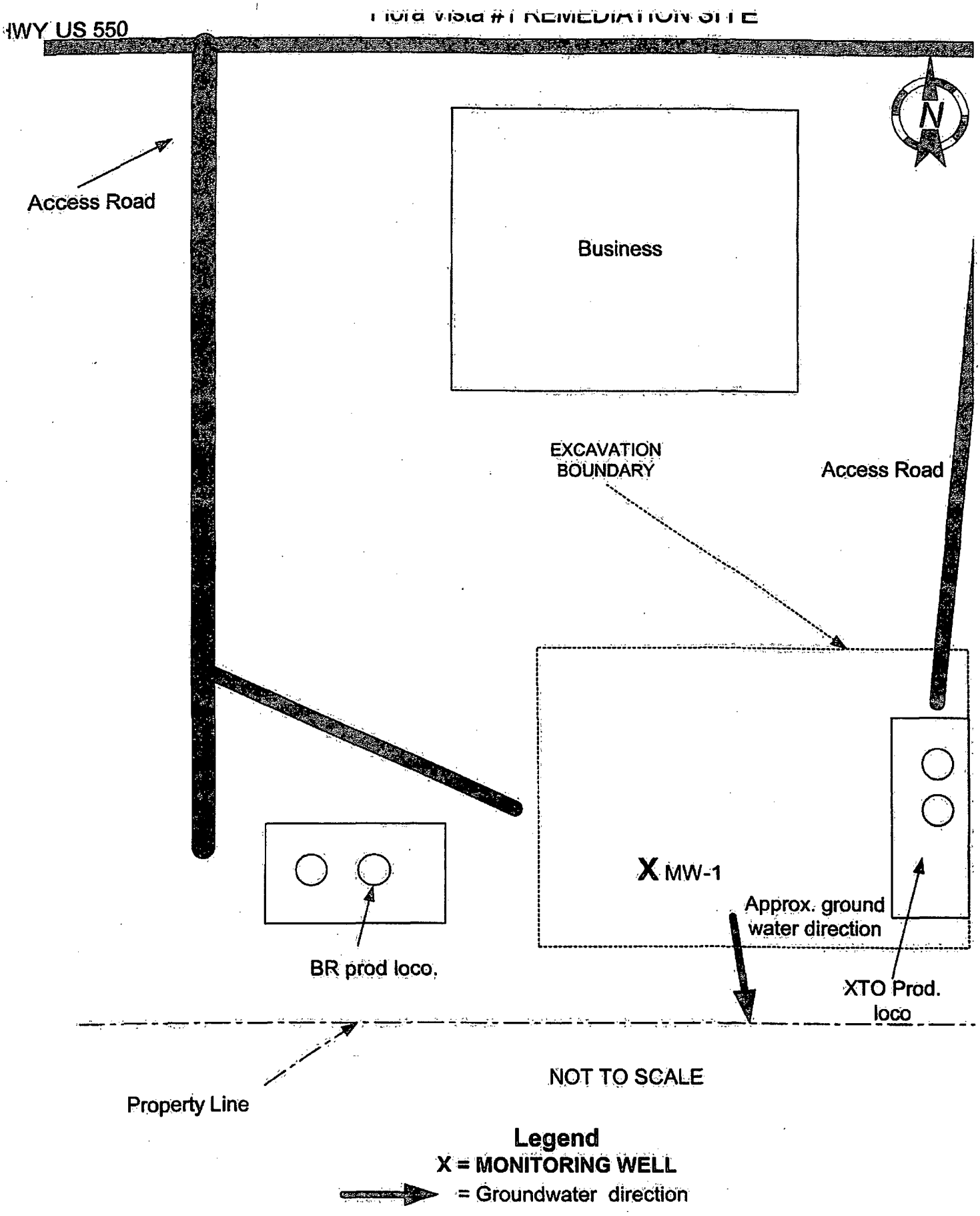
HWY US 550
Flora Vista #1 REMEDIATION SITE
N
Access Road
Business
EXCAVATION BOUNDARY
Access Road
X MW-1
Approx. ground water direction
BR prod loco.
XTO Prod. loco
NOT TO SCALE
Property Line
Legend
X = MONITORING WELL
= Groundwater direction

Figure 2: Graphical Presentation of Analytical Results

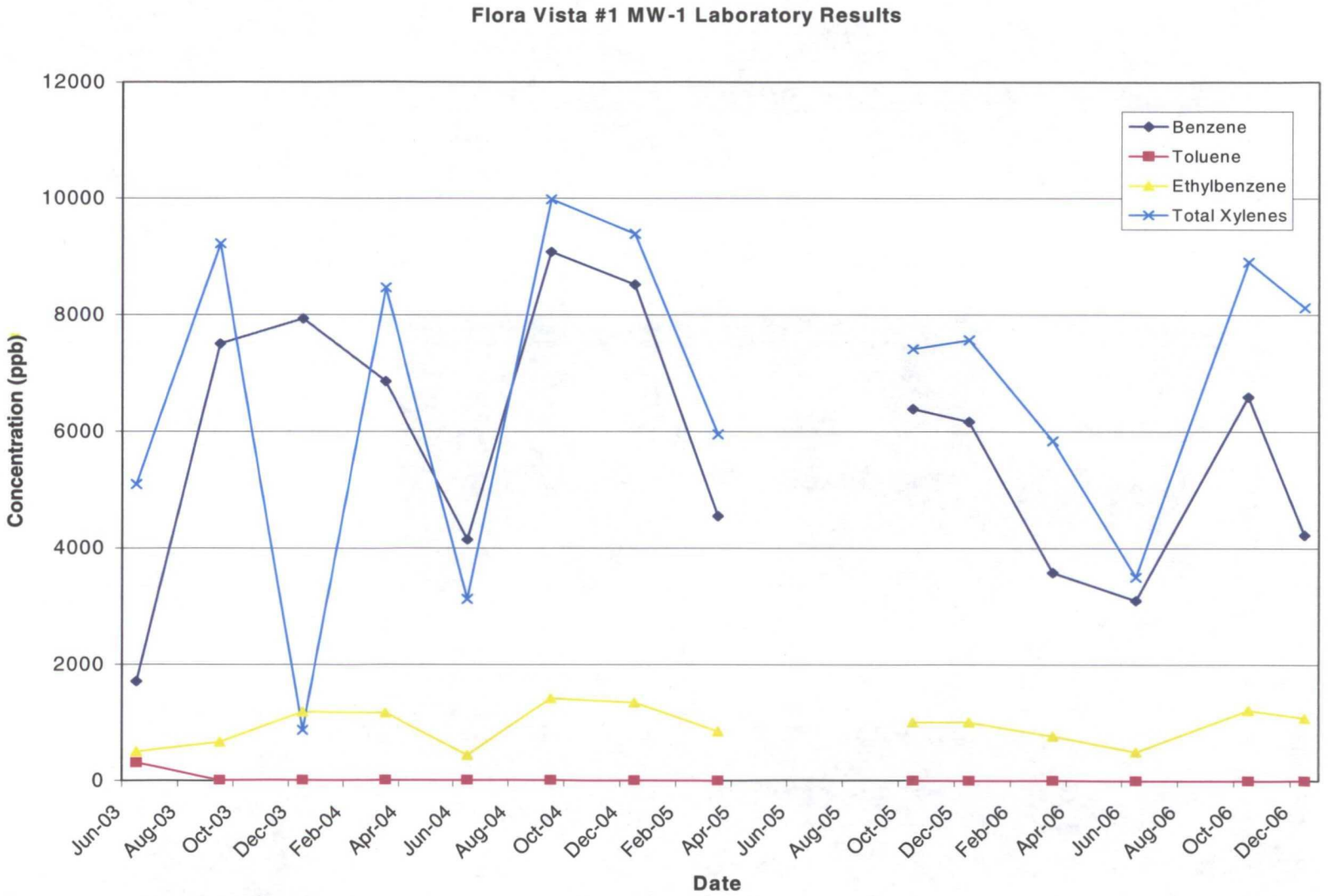
Flora Vista #1 MW-1 Laboratory Results
Concentration (ppb)
12000
10000
8000
6000
4000
2000
0
Benzene
Toluene
Ethylbenzene
Total Xylenes
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Aug-04
Oct-04
Dec-04
Feb-05
Apr-05
Jun-05
Aug-05
Oct-05
Dec-05
Feb-06
Apr-06
Jun-06
Aug-06
Oct-06
Dec-06
Date

Table 1: Ground Water Sampling Results

Ground Water Analytical Results
Flora Vista #1
MW-1

Sample Date	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	BTEX (ppb)	DTW (ft)
NMWQCC Standards	*10*	*750*	*750*	*620*	*50*	
6/20/2003	**1700**	300	490	**5090**	**7580**	standing
9/23/2003	**7500**	20 (J)	660	**9220**	**17400**	17.03
12/16/2003	**7930**	10 (J)	**1180**	**864**	**9984**	20.11
3/16/2004	**6860**	U	**1160**	**8470**	**16490**	23.69
6/21/2004	**4140**	U	430	**3120**	**7690**	19.92
9/30/2004	**9080**	30 (J)	**1410**	**9980**	**20500**	16.82
12/13/2004	**8520**	U	**1340**	**9390**	**19250**	20.40
3/22/2005	**4550**	U	**850**	**5950**	**11350**	24.32
6/22/2005					*Lab data lost*	21.88
10/24/2005	**6390**	U	**1010**	**7416**	**14816**	
12/13/2005	**6170**	U	**1010**	**7570**	**14750**	21.24
3/22/2006	**3580**	U	**770**	**5840**	**10190**	24.75
6/22/2006	**3100**	U	500	**3500**	**7100**	20.48
10/20/2006	**6600**	10 (J)	**1220**	**8910**	**16740**	19.13
12/13/2006	**4230**	10 (J)	**1090**	**8130**	**13460**	21.24

Notes:
DTW is Depth to Water measured from top of well casing
(J): analyte concentration detected at a value between Method Detection Limit and Pratical Quantitation Limit
U: denotes analyte was not detected

Attachment 1: Field Excavation Work Log and Soil Excavation Analytical Results

Flora Vista 1 June 19 – July 7, 2003

Burlington Resources

Field Notes

June 19:

This pit remediation was started at an earlier date with an original size of 40' x 47' x 16' for a total approximation of 1114 cubic yards. Beginning on this date – ramped down on west wall; hit water at 25'. Removed an additional 924 cubic yards of soil; 50% was contaminated and 50% was not.

16 feet – PID 1585 ppm
23 feet – PID 830 ppm
25 feet – water

June 20:

Obtained water sample and delivered to On-Site Lab. Continued digging on west wall. A four-point composite on this wall showed a head space reading of 98.8 ppm. This composite sample was also delivered to On-Site Lab. Of the approximated 1152 cubic yards removed on this day, 50% was estimated to be contaminated and 50% was not.

June 23:

Stripped out and moved gas line from wellhead to dehydrator. Stripped out farm tap line. Worked on north wall, stair-stepping to northeast. A four-point composite on this wall showed a head space reading of 20 ppm. This composite sample was taken to On-Site Lab. Of the approximated 296 cubic yards removed this day, 50% was contaminated and 50% was not.

Flora Vista 1

Burlington Resources

June 24:

Started stripping overburden on south wall. Removed contaminated soil. A three-point composite reading showed a headspace reading of 56.6 ppm. Of the approximated 1167 cubic yards of soil removed this day, 40% was contaminated and 60% was not.

June 25:

Stripped overburden on east wall in a 25' x 90' x 12' strip. Ramped in on north wall. Found a highly contaminated small area (10' x 10') running to surface. This area was located just to the west of Merrion Oil Company water tank.

Started removing contamination. East wall was still determined to be contaminated. Of approximated 1222 cubic yards removed this day, 20% was contaminated and 80% was not.

June 26:

Continued to remove contaminated soil from east side. On the west side of the Merrion Oil Company water tank, another old extremely contaminated pit was discovered. The contamination continued underneath the Merrion tank. Merrion Oil removed this tank and pipes to the tank. Of the approximated 713 cubic yards of soil removed this day, 100% was contaminated.

June 27:

Started ramping down to remove another 25' strip on east wall. Removed approximately 741 cubic yards of non-contaminated soil this day.

Flora Vista 1

Burlington Resources

June 30:

Started removing contamination from strip – east wall began to appear less contaminated on the south end. Approximately 50' of east wall cleaned up, but a 4' x 30' strip on northeast corner did not. A sample of this contamination was delivered to On-Site Lab. Directed by Burlington representative to avoid row of large cottonwood trees on east side of excavation ; contamination was running northeast in the direction of these trees, so overburden was stripped. Of the approximated 1514 cubic yards of soil removed on this day, 80% was contaminated and 20% was clean.

July 1:

Overnight, a great deal of contaminated soil located on east wall fell out. Were able to remove most of it before overburden fell; however, a sample was not available to obtain from this area. Continued to strip overburden on northeast corner. Removed enough contaminated soil to assess this area as no longer being contaminated. Of the approximated 600 cubic yards of soil removed this day, 25% was contaminated, and 75% was not.

July 2:

Backfilled pit

July 7:

Backfilled pit and bladed location. Moved equipment.

Flora Vista 1

Burlington Resources

SUMMARY:

June 19	924 cubic yards
June 20	1152 cubic yards
June 23	296 cubic yards
June 24	1167 cubic yards
June 25	1222 cubic yards
June 26	713 cubic yards
June 27	741 cubic yards
June 30	1514 cubic yards
July 1	600 cubic yards

8329 cubic yards

1114 previously removed

9443 total cubic yards

277 truck loads contaminated soil @ 18 cubic yards / truckload = 4986 cubic yards taken to Eco-Systems' land farm.

247 truckloads uncontaminated soil @ 18 cubic yards / truckload = 4446 cubic yards taken to location to fill pit.

RECORD OF SUBSURFACE EXPLORATION

Lodestar Services, Inc

PO Box 3681
Farmington, New Mexico 87499
(505) 334-2791

Project Name: Burlington Resources Flora Vista 1
Project Number: 30003 Phase:
Project Location: nm 8 nm 516

Elevation: 5534'
Borehole Location: center of former pit
GWL Depth: -15.47'
Logged By: MJN
Drilled By: Envirotech
Date/Time Started: September 2, 2003
Date/Time Completed: September 2, 2003

Well Logged By: M Nee
Personnel On-Site: K Padilla, T. Benally
Contractors On-Site: Envirotech
Client Personnel On-Site: G Wurtz

Drilling Method: CME 75 Hollow Stem Auger
Air Monitoring Method: Photo Vac 2020

Depth (Feet)	Sample Interval	Sample Type & Recovery (%)	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change (feet)	Air Monitoring Units: NDU BZ	BH	S	Drilling Conditions & Blow Counts
0			0-18 ' Backfill material in former excavated pit. Brown clayey sand with grave and cobbles encountered at 8-13 ft.			0			
5									
10									cobbles and gavel 8 and 13 feet
15									
20	18-20	85	18-20.5' colar change to gray, old hc odor, sandy clay		18	0			
	20-22	50	20.5-21.5 clean well sorted sand, gray, medium size grains.		20.5 21.5	0 0			
	22-24	80	21.5-22.0 clay, gray 22-28' Clayey sand, gray, sand is med-fine grained.		22	0			
25									
30									
35									
40									

Comments: Borehole logged on cuttings 0-18 feet. Water at 18.9' bgs @0928, 18.15' bgs @0933, 17.15'@ 0938, 17.55' @ 0943

Geologist Signature

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

June 23, 2003

Sample of free standing water in bottom of excavation.

Greg Wurtz
Burlington Resources
3535 E. 30th Street
P.O. Box 4289
Farmington, NM 87499

TEL: (505) 326-9700
FAX (505) 326-9725

RE: Burlington Resources

Order No.: 0306038

Dear Greg Wurtz:

iiná bá, Ltd. received 1 sample on 6/20/2003 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

David Cox

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá, Ltd.

Date: *23-Jun-03*

CLIENT: Burlington Resources
Project: Burlington Resources
Lab Order: 0306038

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *23-Jun-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	Burlington Resources
Work Order:	0306038	**Client Sample ID:**	0306200842
Project:	Burlington Resources	**Collection Date:**	6/20/2003 8:42:00 AM
Lab ID:	0306038-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	1700	25		µg/L	50	6/20/2003
Toluene	300	25		µg/L	50	6/20/2003
Ethylbenzene	490	25		µg/L	50	6/20/2003
m,p-Xylene	4700	50		µg/L	50	6/20/2003
o-Xylene	390	25		µg/L	50	6/20/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

E - Value above Upper Quantitation Limit - UQL

(for life's sake)

612 E. Murray Dr. • P. O. Box 2606 • Farmington NM 87499
(505) 327-1072 • FAX: (505) 327-1496

Date: 6/20/03

Page 1 of 1

Purchase Order No.:	Job No.		
SEND INVOICE TO: Name: Greg Wartz		REPORT RESULTS TO: Name: Greg Wartz	Title:
Company: Burlington	Dept.	Company:	
Address:		Mailing Address:	
City, State, Zip:		City, State, Zip:	
		Telephone No.	Telefax No.
Sampling Location:			
Sampler:			

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX 8021	LAB ID
030620084 2	6/20/03	0842	H_2O	HCl	2		(illegible)

Relinquished by: Ronald Dodson	Date/Time 6/20/03 1233	Received by:	Date/Time 6/20/03 1233
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:
1 D			(illegible)

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

July 10, 2003

Greg Wurtz
Burlington Resources
3535 E. 30th Street
P.O. Box 4289
Farmington, NM 87499

TEL: (505) 326-9537
FAX (505) 599-4005

RE: Flora Vista 1

Order No.: 0307002

Dear Greg Wurtz:

iiná bá, Ltd. received 1 sample on 7/1/2003 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

David Cox

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá, Ltd.

Date: *10-Jul-03*

CLIENT: Burlington Resources
Project: Flora Vista 1
Lab Order: 0307002

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *10-Jul-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	East Wall 3pt. Comp
Work Order:	0307002	**Client Sample ID:**	0307011155
Project:	Flora Vista 1	**Collection Date:**	7/1/2003 11:55:00 AM
Lab ID:	0307002-001A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C10-C28	ND	60.2		mg/Kg-dry	1	7/9/2003
GASOLINE RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C6-C10	ND	5.42		mg/Kg-dry	25	7/9/2003
PERCENT MOISTURE		**D2216**				Analyst: **JEM**
Percent Moisture	17	0.1		wt%	1	7/9/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

iina ba (for life's sake)
612 E. Murray Dr. • P. O. Box 2606 • Farmington NM 87499
(505) 327-1072 • FAX: (505) 327-1496

Date: 7/1/03

Purchase Order No.: | Job No.:

SEND INVOICE TO
Name: Greg Wurtz
Company: Burlington Resources | Dept.:
Address: P.O. Box 4289
City, State, Zip: Farmington, N.Mex. 87499-4289

REPORT RESULTS TO
Name: Greg Wurtz | Title:
Company: Burlington Resources
Mailing Address: P.O. Box 4289
City, State, Zip: Farmington, N.Mex. 87499-4289
Telephone No.: 326-9537 | Telefax No.:

Sampling Location: Eastwall 3 pt comp

Sampler: [illegible] Dedrick

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8015 modified									LAB ID
0307011135 Eastwall 3 pt comp	7/1/03	1135	Soil	Ice	1	X									0307002-001

Relinquished by: [illegible] Dedrick	Date/Time 7/1/03 1458	Received by: [illegible] Carter	Date/Time 7/1/03 3:00
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Rush	24-48 Hours	10 Working Days	Special Instructions:
		X	[illegible] 12.5°C

Authorized by: ______ Date ______
(Client Signature Must Accompany Request)

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
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iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

June 25, 2003

Greg Wurtz
Burlington Resources
3535 E. 30th Street
P.O. Box 4289
Farmington, NM 87499

TEL: 505-326-9700
FAX 505-326-9725

RE: Flora Vista 1

Order No.: 0306043

Dear Greg Wurtz:

iiná bá, Ltd. received 2 samples on 6/23/2003 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

David Cox

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá, Ltd.

Date: *25-Jun-03*

CLIENT: Burlington Resources
Project: Flora Vista 1
Lab Order: 0306043

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *25-Jun-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	West Wall 3pt. Comp.
Work Order:	0306043	**Client Sample ID:**	0306201423
Project:	Flora Vista 1	**Collection Date:**	6/20/2003 2:23:00 PM
Lab ID:	0306043-001A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C10-C28	ND	25.0		mg/Kg	1	6/24/2003
GASOLINE RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C6-C10	ND	4.50		mg/Kg	25	6/23/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

612 E. Murray Drive
Farmington, NM 87499

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FAX: (505) 327-1496

iiná bá

P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *25-Jun-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	North Wall 3pt. Comp.
Work Order:	0306043	**Client Sample ID:**	0306231130
Project:	Flora Vista 1	**Collection Date:**	6/20/2003 11:30:00 AM
Lab ID:	0306043-002A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C10-C28	ND	25.0		mg/Kg	1	6/24/2003
GASOLINE RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C6-C10	ND	4.50		mg/Kg	25	6/23/2003

Qualifiers:

- ND - Not Detected at the Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted precision limits
- E - Value above Upper Quantitation Limit - UQL

á bá, Ltd.

Sample Receipt Checklist

nt Name: BUR1001 | Date and Time Received: 6/23/2003

k Order Number: 0306043 | Received by: HNR

cklist completed by: Heidi R 6/23/03 (Signature / Date) | Reviewed by: jm 6/23/03 (Initials / Date)

ix: | Carrier name: Courier

ping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
ody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
ody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
n of custody present?	Yes ☑	No ☐	
n of custody signed when relinquished and received?	Yes ☑	No ☐	
n of custody agrees with sample labels?	Yes ☑	No ☐	
ples in proper container/bottle?	Yes ☑	No ☐	
ple containers intact?	Yes ☑	No ☐	
cient sample volume for indicated test?	Yes ☑	No ☐	
amples received within holding time?	Yes ☑	No ☐	
ainer/Temp Blank temperature in compliance?	Yes ☑	No ☐	
r - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐
r - pH acceptable upon receipt?	Yes ☑ N/A	No ☐	

Adjusted? _____ Checked by: _____

No and/or NA (not applicable) response must be detailed in the comments section below.

t contacted: _____ Date contacted: _____ Person contacted: _____

acted by: Regarding: _____

ments: _____

ective Action: _____

(for life's sake)

612 E. Murray Dr. • P. O. Box 2606 • Farmington NM 87499
(505) 327-1072 • FAX: (505) 327-1496

Date: 6/23/03

Page 1 of 1

SEND INVOICE TO

Purchase Order No.:

Job No.:

Name: Greg Wurtz

Company: Burlington Resources

Dept.:

Address: P.O. Box 4289

City, State, Zip: Farmington, N. Mex 87499-4289

REPORT RESULTS TO

Name: Greg Wurtz

Title:

Company: Burlington

Mailing Address:

City, State, Zip:

Telephone No.:

Telefax No.:

Sampling Location: Flora Vista 1

Sampler: Ron Dedrick

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8015 DRO/GRO	LAB ID
030620 1423 West Wall 3pt Comp	6/20/03	1423	Soil	Ice	1	X	0306...
03062 3 1130 ~~...~~ Wall 3 pt. Comp (South)	6/23/03	1130	Soil	Ice	1	X	...

Relinquished by: R. R. Dedrick — Date/Time: 6/23/03 1336

Received by: [illegible] — Date/Time: 6/23/03 [illegible]

Relinquished by: — Date/Time:

Received by: — Date/Time:

Relinquished by: — Date/Time:

Received by: — Date/Time:

Method of Shipment:

Rush | 24-48 Hours: X | 10 Working Days | Special Instructions:

Authorized by: ________ Date ________
(Client Signature Must Accompany Request)

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

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Off: (505) 368-4065

July 02, 2003

Greg Wurtz
Burlington Resources
3535 E. 30th Street
P.O. Box 4289
Farmington, NM 87499

TEL: 505-326-9700
FAX 505-326-9725

RE: Flora Vista 1

Order No.: 0306050

Dear Greg Wurtz:

iiná bá, Ltd. received 2 samples on 6/25/2003 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

David Cox

612 E. Murray Drive
Farmington, NM 87499

Off: (505) 327-1072
FAX: (505) 327-1496

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P.O. Box 3788
Shiprock, NM 87420

Off: (505) 368-4065

iiná bá, Ltd. **Date:** *02-Jul-03*

CLIENT: Burlington Resources
Project: Flora Vista 1
Lab Order: 0306050

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s), the quality control summary report(s) or the sample receipt checklist.

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Farmington, NM 87499

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Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *02-Jul-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	South Wall 3pt. Comp.
Work Order:	0306050	**Client Sample ID:**	030624 1634
Project:	Flora Vista 1	**Collection Date:**	6/24/2003 4:34:00 PM
Lab ID:	0306050-001A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C10-C28	ND	25.0		mg/Kg	1	6/26/2003
GASOLINE RANGE ORGANICS		**SW8015B**				Analyst: **JEM**
T/R Hydrocarbons: C6-C10	ND	4.50		mg/Kg	25	6/30/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

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Shiprock, NM 87420

Off: (505) 368-4065

ANALYTICAL REPORT

Date: *02-Jul-03*

CLIENT:	Burlington Resources	**Client Sample Info:**	East Wall Grab
Work Order:	0306050	**Client Sample ID:**	0306251611
Project:	Flora Vista 1	**Collection Date:**	6/25/2003 4:11:00 PM
Lab ID:	0306050-002A	**Matrix:**	SOIL

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	ND	25		µg/Kg	25	6/26/2003
Ethylbenzene	170	25		µg/Kg	25	6/26/2003
m,p-Xylene	1400	50		µg/Kg	25	6/26/2003
o-Xylene	160	25		µg/Kg	25	6/26/2003
Toluene	ND	50		µg/Kg	25	6/26/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

(for life's sake)

612 E. Murray Dr. • P. O. Box 2606 • Farmington NM 87499
(505) 327-1072 • FAX: (505) 327-1496

Date: 6/25/03

SEND INVOICE TO

Purchase Order No.:	Job No.
Name	Greg Wurtz
Company	Burlington
Dept.	
Address	
City, State, Zip	

REPORT RESULTS TO

Name	Greg Wurtz
Title	
Company	
Mailing Address	
City, State, Zip	
Telephone No.	
Telefax No.	

Sampling Location: [illegible]

Sampler: L. Dedrick

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8015 DRO/GRO	8021 BTEX								LAB ID
030624 1634 South Wall 3pt Comp	6/24/03	1634	Soil	Ice	1	✓									0306050-001A
030625 1614 East Wall Grab	6/25/03	1614	Soil	Ice			✓								↓ -002A

Relinquished by: L. Dedrick	Date/Time 6/25/03 [illegible]	Received by: J. Moore	Date/Time 6/25/03 [illegible]
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: ______ Date ______
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

Attachment 2: Drilling Logs and Wellbore Diagrams

MONITORING WELL INSTALLATION RECORD

Borehole # 1
Well # 1
Page 1 of 1

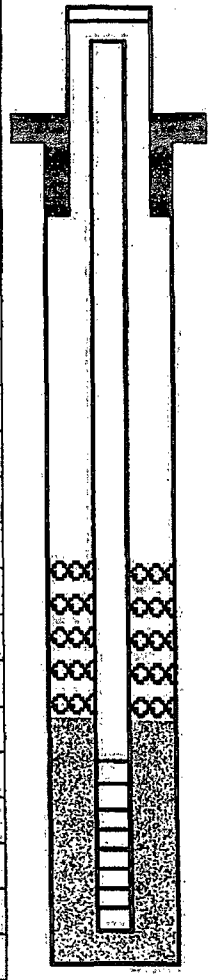
Lodestar Services, Inc
PO Box 3861
Farmington, New Mexico 87499
(505) 334-2791

Project Name: Burlington Resources Flora Vista 1
Project Number: 30003.0 Cost Code:
Project Location: US Highway 516 MM 8
On-Site Geologist: M. Nee
Personnel On-Site: K. Padilla, T. Benally
Contractors On-Site: Envirotech
Client Personnel On-Site: G. Wurtz

Elevation: 5534'
Well Location: Center of former pit
GWL Depth: 17.55 beneath ground surface
Installed By: Envirotech
Date/Time Started: 9/2/03 0700
Date/Time Completed: 9/2/03 1230

Depths in Reference to Ground Surface

Item	Material	Depth (feet)
Top of Protective Casing	Flush to grade vault	
Bottom of Protective Casing		na
Top of Permanent Borehole Casing		na
Bottom of Permanent Borehole Casing		na
Top of Concrete	2 bags quickcrete	0.0
Bottom of Concrete		-0.5
Top of Grout	4 96# bags portland with 5% hole plug	-0.5
Bottom of Grout		-7.0
Top of Well Riser	2" flush threaded schedule 40 pvc	-.33
Bottom of Well Riser		-11.02
Top of Well Screen	10 slot schedule 40 flush threaded pvc	-11.02
Bottom of Well Screen		-26.02
Top of Peltonite Seal	1 bag 3/8 bentonite chips	-7.0
Bottom of Peltonite Seal		-9.6
Top of Gravel Pack	8 #50 bags 10-20 silica sand	-9.6
Bottom of Gravel Pack		-23.2
Top of Natural Cave-In		-23.2
Bottom of Natural Cave-In		-28
Top of Groundwater		-15.8
Total Depth of Borehole		-28'



Top of Protective Casing 0.0
Top of Riser -0.33
Ground Surface 0.0
Top of Seal -7.0
Top of Gravel Pack -9.6
Top of Screen -11.02
Bottom of Screen -26.02
Bottom of Borehole -28.0

Comments: Water level is 15.47 beneath top of casing

Geologist Signature

Attachment 3: Ground Water Monitoring Well Development and Sampling Logs

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 300003.0 Project Name: Burlington Groundwater Sampling Client: Burlington Resources
Location: Flora Vista No.1 Well No.: MW-1 Development: Sampling
Project Manager: MJN Date: 032206 Time: 1319 Weather: Clear 50s
Depth to Water: 24.75' Depth to Product: na Product Thickness: na Measuring Point: TOC
Water Column Height: 0.45' Well Dia.: 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other_____

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
.45 x .16		9.22 x 3	27.65

Time (military)	pH (su)	SC (umhos/cm)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
1320	**6.49**	**2150**	**57.4**				**12**	**Gray, HC odor**
	6.50	**1970**	**56.4**				**24**	**Gray, HC odor**
	6.50	**1940**	**57.0**				**36**	**Gray, HC odor**
1333	**6.50**	**1930**	**56.9**				**48**	**Gray, HC odor**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1333	**6.50**	**1930**	**56.9**					**48**	**Gray, HC odor**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor _____ Other _____
Conductivity Meter **X** _____

Water Disposal onsite Sample ID Flora Vista 1 MW-1 Sample Time 1340
Analysis: BTEX

MS/MSD_____ BD_____ BD Name/Time_____ TB_____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 300003.0 Project Name: Burlington Groundwater Sampling Client: Burlington Resources
Location: Flora Vista No.1 Well No.: MW-1 Development: Sampling
Project Manager: MJN Date: 06/22/06 Time: 0858 Weather: Clear
Depth to Water: 20.48' Depth to Product: na Product Thickness: na Measuring Point: TOC
Water Column Height: 4.72' Well Dia.: 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐
Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other_____

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
4.72 x .16	0.75		2.27

Time (military)	pH (su)	SC (umhos/cm)	Temp (°F)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
0858	**6.95**	**912**	**63.8**				**.5**	**clear**
	7.01	**874**	**61.9**				**.75**	**clear**
	7	**876**	**61.2**				**1**	**clear**
	7	**883**	**60.9**				**1.5**	**grey, slight hydrocarbon odor**
	7.02	**912**	**60.7**				**2**	**grey, slight hydrocarbon odor**
0925	**7.01**	**920**	**60.7**				**2.5**	**grey, slight hydrocarbon odor**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Vol Evac.	Comments/Flow Rate
1632	**6.94**	**899**	**16.3**				**3.25**	**Gray, HC odor**

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor _____ Other _____
Conductivity Meter **X** _____
Water Disposal onsite Sample ID Flora Vista 1 MW-1 Sample Time 0925
Analysis: BTEX

MS/MSD_____ BD_____ BD Name/Time_____ TB_____

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 300003.0 Project Name: Burlington Groundwater Sampling Client: Burlington Resources
Location: Flora Vista No.1 Well No.: MW-1 Development: Sampling
Project Manager: MJN Date: 102006 Time: 1608 Weather: Clear
Depth to Water: 19.13' Depth to Product: na Product Thickness: na Measuring Point: TOC
Water Column Height: 6.07' Well Dia.: 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal X stabilization of Indicator Parameters X Other_____

Gal/ft x ft of water	Water Volume in Well		**Gal**/oz to be removed
	Gallons	Ounces	
6.07x .16	0.97		2.91

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
1615	**6.87**	**1024**	**18.9**				**.25**	**clear, HC odor**
	6.85	**927**	**17.2**				**.5**	**Gray, HC odor**
	6.88	**916**	**17.1**				**.75**	**Gray, HC odor**
	6.93	**906**	**16.5**				**2**	**Gray, HC odor**
	6.92	**898**	**16.4**				**3**	**Gray, HC odor**
1632	**6.94**	**899**	**16.3**				**3.25**	**Gray, HC odor**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1632	**6.94**	**899**	**16.3**					**3.25**	**Gray, HC odor**

COMMENTS:

INSTRUMENTATION: pH Meter X _____ Temperature Meter x
DO Monitor _____ Other _____
Conductivity Meter X _____

Water Disposal onsite Sample ID Flora Vista 1 MW-1 Sample Time 1634

Analysis: BTEX

MS/MSD_____ BD_____ BD Name/Time_____ TB_____

WELL DEVELOPMENT AND SAMPLING LOG

Project No_____ Project Name Burlington Ground Water Sampling Client: Burlington
Location: Flora Vista Well No: MW-1 Development **Sampling**
Project Manager MJN Date 12/13/06 Start Time 1257 Weather clear 40
Depth to Water 21.24 Depth to Product na Product Thickness: na Measuring Point TOC
Water Column Height 4.11 Well Dia. 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer X Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal **X** stabilization of Indicator Parameters **X** Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/**oz** to be removed
	Gallons	Ounces	
4.11 x .16		84.2 x 3	252.5

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (oz)	Comments/ Flow rate
1302	**6.92**	**13830**	**60.3**				**32**	**black, sandy, strong odor, sheen**
	6.89	**12120**	**60.2**				**64**	
	6.85	**12600**	**59.9**				**96**	
	6.83	**12630**	**60.3**				**128**	
	6.81	**12500**	**60.1**				**192**	
	6.80	**12520**	**60.0**				**224**	**bailing down**
	6.80	**13050**	**60.1**				**256**	
	6.82	**13110**	**60.1**				**288**	

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1320	**6.81**	**13090**	**60.0**					**320 oz**	

COMMENTS:

INSTRUMENTATION: pH Meter **X** _____ Temperature Meter **x**
DO Monitor _____ Other _____
Conductivity Meter **X** _____

Water Disposal onsite Sample ID Flora Vista MW-1 Sample Time 1325

BTEX VOCs Diesel

MS/MSD_____ BD_____ BD Name/Time_____ TB 12122006TB01

Attachment 4: Laboratory Analytical Reports

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

March 31, 2006

Report to:
Gregg Wurtz
Burlington Resources, Inc.
3401 E. 30th St. P.O. Box 4289
Farmington, NM 87499

Bill to:
Gregg Wurtz
Burlington Resources, Inc.
P.O. Box 4289
Farmington, NM 87499

cc: Martin Nee

Project ID: FLORA VISTA
ACZ Project ID: L55783

Gregg Wurtz:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 23, 2006. This project has been assigned to ACZ's project number, L55783. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L55783. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after April 30, 2006. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

31/Mar/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Burlington Resources, Inc.
Project ID: FLORA VISTA
Sample ID: FLORA VISTA MW-1

ACZ Sample ID: ***L55783-01***
Date Sampled: *03/22/06 0:00*
Date Received: *03/23/06*
Sample Matrix: *Ground Water*

Benzene, Toluene, Ethylbenzene & Xylene

Analysis Method: **M8021B GC/PID**
Extract Method: **Method**

Workgroup: ***WG204013***
Analyst: *km*
Extract Date: *03/27/06 20:09*
Analysis Date: ***03/27/06 20:09***

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Benzene	000071-43-2	3580		50	*	ug/L	20	50
Ethylbenzene	000100-41-4	770		50		ug/L	10	50
m p Xylene	01330 20 7	5830		50		ug/L	20	100
o Xylene	00095-47- 6	10	J	50		ug/L	10	50
Toluene	000108-88-3		U	50		ug/L	10	50

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Bromofluorobenzene	000460-00-4	101.4		50		%	83	117

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control.Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFM*	Laboratory Fortified Matrix
INTS	Internal Standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	*PBS*	Prep Blank - Soil
LFB	Laboratory Fortified Blank	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Extended Qualifier Report

Burlington Resources, Inc.

ACZ Project ID: ***L55783***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L55783-01	WG204013	Benzene	M8021B GC/PID	V8	Calibration verification recovery was below the method control limit for this analyte, however the average % difference or % drift for all the analytes met method criteria.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Burlington Resources, Inc.

ACZ Project ID: ***L55783***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA

ACZ Project ID: L55783
Date Received: 3/23/2006
Received By:
Date Printed: 3/23/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?	X		
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
293		8.3	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA

ACZ Project ID: L55783
Date Received: 3/23/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L55783-01	FLORA VISTA MW-1									X		☐

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L55783

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Gregg Wurtz	Address: PO 4289
Company: Burlington	Farmington NM 87499
E-mail:	Telephone: 505 326 9537

Copy of Report to:

Name: M Nee	E-mail: mjn@lodestarservices.com
Company: Lodestar	Telephone: 505 334-2791

Invoice to:

Name: Gregg Wurtz	Address:
Company: Burlington	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

PROJECT INFORMATION

Quote #:	
Project/PO #:	Flora Vista
Shipping Co.:	Fed Ex
Tracking #:	874982592640
Reporting State for compliance testing:	NM
Sample	M Nee

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	BTEX
Flora Vista MW-1	3220 6	WG	2	2

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature] 3220	1600	[signature]	3/23/06 10:00

PAGE 1 Of 1

FRMQA021.06.03.05

White - Return with sample. Yellow - Retain for your records.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

July 12, 2006

Report to:
Gregg Wurtz
Burlington Resources, Inc.
3401 E. 30th St. P.O. Box 4289
Farmington, NM 87499

Bill to:
Gregg Wurtz
Burlington Resources, Inc.
P.O. Box 4289
Farmington, NM 87499

cc: Martin Nee

Project ID: FLORA VISTA #1
ACZ Project ID: L57330

Gregg Wurtz:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 23, 2006. This project has been assigned to ACZ's project number, L57330. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L57330. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after August 12, 2006. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

12/Jul/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Burlington Resources, Inc.
Project ID: FLORA VISTA #1
Sample ID: FLORA VISTA MW 1

ACZ Sample ID: ***L57330-01***
Date Sampled: *06/22/06 9:27*
Date Received: *06/23/06*
Sample Matrix: *Ground Water*

Benzene, Toluene, Ethylbenzene & Xylene

Analysis Method: **M8021B GC/PID**
Extract Method:

Workgroup: ***WG208951***
Analyst: *ccp*
Extract Date:
Analysis Date: ***07/05/06 15:13***

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Benzene	71-43-2	3100		50	*	ug/L	20	50
Ethylbenzene	100-41-4	500		50	*	ug/L	10	50
m p Xylene	1330 20 7	3500		50	*	ug/L	20	100
o Xylene	95-47- 6		U	50		ug/L	10	50
Toluene	108-88-3		U	50	*	ug/L	10	50

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	104.6	50		%	83	117

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFM*	Laboratory Fortified Matrix
INTS	Internal Standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	*PBS*	Prep Blank - Soil
LFB	Laboratory Fortified Blank	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Extended Qualifier Report

Burlington Resources, Inc.

ACZ Project ID: ***L57330***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L57330-01	WG208951	Benzene	M8021B GC/PID	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Ethylbenzene	M8021B GC/PID	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		m p Xylene	M8021B GC/PID	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Toluene	M8021B GC/PID	BF	Target analyte in prep / method blank at or above the acceptance criteria. Data is useable because analyte concentration in client sample is less than the MDL.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Burlington Resources, Inc.

ACZ Project ID: ***L57330***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA #1

ACZ Project ID: L57330
Date Received: 6/23/2006
Received By:
Date Printed: 6/23/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?	X		
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?	X		
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
1410		0.5	17

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA #1

ACZ Project ID: L57330
Date Received: 6/23/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L57330-01	FLORA VISTA MW 1									X		☐

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

L57330

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Gregg Wurtz	Address: P.O. Box 4289
Company: Burlington	Farmington, NM 87499
E-mail:	Telephone: 505-326-9537

Copy of Report to:

Name: M. Nee	E-mail: mjn@lodestarservices.com
Company: Lodestar	Telephone:

Invoice to:

Name: Gregg Wurtz	Address:
Company: As Above	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES [X] NO [ ]

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

PROJECT INFORMATION

Quote #:

Project/PO #: Flora Vista #1

Reporting state for compliance testing: N.M

Sampler's Name:

Are any samples NRC licensable material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	BTEX							
Flora Vista MW 1	62206 0927	GW	2	2							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Fed Ex 847982594263

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
[signature]	622061600	[signature]	6.23.06 10:20

FRMAD050.03.05.02 White - Return with sample. Yellow - Retain for your records.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

December 22, 2006

Report to:
Gregg Wurtz
Burlington Resources, Inc.
3401 E. 30th St. P.O. Box 4289
Farmington, NM 87499

Bill to:
Gregg Wurtz
Burlington Resources, Inc.
P.O. Box 4289
Farmington, NM 87499

cc: Martin Nee

Project ID: FLORA VISTA 1
ACZ Project ID: L59605

Gregg Wurtz:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 24, 2006. This project has been assigned to ACZ's project number, L59605. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L59605. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 22, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

22/Dec/06

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Burlington Resources, Inc.
Project ID: FLORA VISTA 1
Sample ID: FLORA VISTA 1 MW-1

ACZ Sample ID: ***L59605-01***
Date Sampled: *10/20/06 16:34*
Date Received: *10/24/06*
Sample Matrix: *Ground Water*

Benzene, Toluene, Ethylbenzene & Xylene

Analysis Method: **M8021B GC/PID**
Extract Method:

Workgroup: ***WG215778***
Analyst: *ccp*
Extract Date:
Analysis Date: ***11/02/06 13:37***

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Benzene	71-43-2	6600		50		ug/L	20	50
Ethylbenzene	100-41-4	1220		50		ug/L	10	50
m p Xylene	1330 20 7	8880		50		ug/L	20	100
o Xylene	95-47- 6	30	J	50		ug/L	10	50
Toluene	108-88-3	10	J	50		ug/L	10	50

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	107.7	50		%	70	130

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFM*	Laboratory Fortified Matrix
INTS	Internal Standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	*PBS*	Prep Blank - Soil
LFB	Laboratory Fortified Blank	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Extended Qualifier Report

Burlington Resources, Inc.

ACZ Project ID: ***L59605***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION

No extended qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Certification Qualifiers

Burlington Resources, Inc.

ACZ Project ID: ***L59605***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA 1

ACZ Project ID: L59605
Date Received: 10/24/2006
Received By:
Date Printed: 10/24/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?	X		
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?			X
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
1019		4.1	15

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA 1

ACZ Project ID: L59605
Date Received: 10/24/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L59605-01	FLORA VISTA 1 MW-1									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

L59605

CHAIN of CUSTODY

Report to:

Name: Gregg Wurtz	Address: Box 4289
Company: Burlington Conoco Phillips	Farmington, NM
E-mail: gwurtz@BR-inc.com	Telephone: 505 326 9537

Copy of Report to:

Name: M Nee	E-mail: mjn@lodestarservices.com
Company: Lodestar Services	Telephone: 505 334 2791

Invoice to:

Name: Gregg Wurtz	Address:
Company: as above	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?
If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

YES ✓
NO

PROJECT INFORMATION

Quote #:
Project/PO #: Flora Vista 1
Reporting state for compliance testing:
Sampler's Name: MJN
Are any samples NRC licensable material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	BTEX 8021B							
Flora Vista 1 MW-1	102006 1634	GW	3	✓							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

FedEx 847982594285

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
	102306 1600		10.24.06 11:43

FRMAD050.03.05.02 White - Return with sample. Yellow - Retain for your records.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

January 09, 2007

Report to:
Gregg Wurtz
Burlington Resources, Inc.
3401 E. 30th St. P.O. Box 4289
Farmington, NM 87499

Bill to:
Gregg Wurtz
Burlington Resources, Inc.
P.O. Box 4289
Farmington, NM 87499

cc: Martin Nee

Project ID: FLORA VISTA 1
ACZ Project ID: L60373

Gregg Wurtz:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 14, 2006. This project has been assigned to ACZ's project number, L60373. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60373. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after February 09, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than $10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

09/Jan/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Burlington Resources, Inc.
Project ID: FLORA VISTA 1
Sample ID: FLORA VISTA 1 MW-1

ACZ Sample ID: ***L60373-01***
Date Sampled: *12/13/06 13:25*
Date Received: *12/14/06*
Sample Matrix: *Ground Water*

Benzene, Toluene, Ethylbenzene & Xylene

Analysis Method: **M8021B GC/PID**
Extract Method:

Workgroup: ***WG218465***
Analyst: *ccp*
Extract Date:
Analysis Date: ***12/22/06 1:57***

Compound	CAS	Result	QUAL	Dilution	XQ	Units	MDL	PQL
Benzene	71-43-2	4230		50	*	ug/L	20	50
Ethylbenzene	100-41-4	1090		50		ug/L	10	50
m p Xylene	1330 20 7	8100		50		ug/L	20	100
o Xylene	95-47- 6	30	J	50		ug/L	10	50
Toluene	108-88-3	10	J	50		ug/L	10	50

Surrogate Recoveries	CAS	% Recovery	Dilution	XQ	Units	LCL	UCL
Bromofluorobenzene	460-00-4	110.5	50		%	70	130

** Please refer to Qualifier Reports for detail.*

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Reference

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
LCL	Lower Control Limit
MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
UCL	Upper Control Limit
Sample	Value of the Sample of interest

QC Sample Types

SURR	Surrogate	*LFM*	Laboratory Fortified Matrix
INTS	Internal Standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
LCSS	Laboratory Control Sample - Soil	*MS/MSD*	Matrix Spike/Matrix Spike Duplicate
LCSW	Laboratory Control Sample - Water	*PBS*	Prep Blank - Soil
LFB	Laboratory Fortified Blank	*PBW*	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

B	Analyte detected in daily blank
H	Analysis exceeded method hold time.
J	Analyte concentration detected at a value between MDL and PQL
R	Poor spike recovery accepted because the other spike in the set fell within the given limits.
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicated MDL
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
X	Quality contreol sample is out of control.
Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
P	Analyte concentration differs from second detector by more than 40%.
E	Analyte concentration is estimated due to result exceeding calibration range.
M	Analyte concentration is estimated due to matrix interferences.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (I), July 1990.
(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December, 1996.
(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Organic analyses are reported on an "as received" basis.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Extended Qualifier Report

Burlington Resources, Inc.

ACZ Project ID: ***L60373***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L60373-01	WG218465	Benzene	M8021B GC/PID	V8	Calibration verification recovery was below the method control limit for this analyte, however the average % difference or % drift for all the analytes met method criteria.

ACZ Laboratories, Inc.
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Certification Qualifiers

Burlington Resources, Inc.

ACZ Project ID: ***L60373***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA 1

ACZ Project ID: L60373
Date Received: 12/14/2006
Received By:
Date Printed: 12/14/2006

Receipt Verification

	YES	NO	NA
1) Does this project require special handling procedures such as CLP protocol?			X
2) Are the custody seals on the cooler intact?			X
3) Are the custody seals on the sample containers intact?			X
4) Is there a Chain of Custody or other directive shipping papers present?	X		
5) Is the Chain of Custody complete?	X		
6) Is the Chain of Custody in agreement with the samples received?	X		
7) Is there enough sample for all requested analyses?	X		
8) Are all samples within holding times for requested analyses?	X		
9) Were all sample containers received intact?	X		
10) Are the temperature blanks present?			X
11) Are the trip blanks (VOA and/or Cyanide) present?			X
12) Are samples requiring no headspace, headspace free?	X		
13) Do the samples that require a Foreign Soils Permit have one?			X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
1244		5.9	22

Client must contact ACZ Project Manager if analysis should not proceed for samples received outside of thermal preservation acceptance criteria.

Notes

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Burlington Resources, Inc.
FLORA VISTA 1

ACZ Project ID: L60373
Date Received: 12/14/2006
Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	O < 2	T >12	N/A	RAD	ID
L60373-01	FLORA VISTA 1 MW-1									X		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
B	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
O	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

* pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By: _____

ACZ Laboratories, Inc. L60373

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Gregg Wurtz	Address: Box 4289
Company: Burlington ConocoPhillips	Farmington NM 87499
E-mail: gwurtz@BR-inc.com	Telephone: 505 326 9537

Copy of Report to:

Name: M Nee	E-mail: mjn@lodestarservices.com
Company: Lodestar Services	Telephone: 505 334 2791

Invoice to:

Name: G Wurtz	Address:
Company: as above	
E-mail:	Telephone:

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ✓ / NO

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

PROJECT INFORMATION

Quote #:

Project/PO #: Flora Vista 1

Reporting state for compliance testing:

Sampler's Name: ALA

Are any samples NRC licensable material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	8021B BTEX							
Flora Vista 1 MW-1	121306 1325	GW	3	✓							

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

FedEx 879825943000

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Ashley L Ager	121306 1530		

FRMAD050.03.05.02 White - Return with sample. Yellow - Retain for your records.