

GW - 40

**ANNUAL
MONITORING
REPORT**

04/01/2008

GW040

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April 1, 2008

APR 13 2008

Oil Conservation Division
Environmental Bureau

Mr. Wayne Price
New Mexico Oil Conservation Division
Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, NM 87504

Dear Mr. Price:

On behalf of Western Refining, Inc., Lodestar Services, Incorporated is pleased to present to you the *Annual Data Report, Giant Bloomfield Refinery, March, 2008.*

Should you have any questions or require additional information, please do not hesitate to call Bill Robertson of Western at (505) 632-4077 or myself at (970) 946-1093.

Sincerely,
LODESTAR SERVICES, INCORPORATED



Ashley Ager

Enclosure

cc w/enc.: Mr. Brandon Powell, OCD Aztec
Mr. Bill Robertson, Western Refining

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Annual Data Report
Former Giant Bloomfield Refinery

APR 13 2008

March 2008

Oil Conservation Division
Environmental Bureau

Prepared For



Western Refining, Inc.
111 CR 4990
Bloomfield, New Mexico



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PO Box 3861 Farmington, NM 87499-3861 Office (970) 946-1093

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1.0 INTRODUCTION AND METHODOLOGY

Introduction

The following annual report describes work completed at Western Refining, Inc.'s (Western's) former refinery in Bloomfield, New Mexico since the previous annual report submitted in March 2007. The report contains data collected during 2007 including:

- Analytical data from groundwater sampling;
- Groundwater elevations;
- Product levels from monitoring wells;
- Tank volume data.

The refinery is located in the NW $\frac{1}{4}$ of Section 27 and the SW $\frac{1}{4}$ of Section 22, Township 29 N, Range 12W in San Juan County, New Mexico. It is on the corner of Highway 64 and County Road 350, approximately 5 miles west of the town of Bloomfield, New Mexico (Figure 1). The facility consists of the former Giant Bloomfield Refinery and associated remedial equipment both within and south of the refinery boundary. The refinery operated from 1974 to 1982 and is presently inactive.

A remedial system was installed in stages beginning in 1988 and gradually has been simplified over time. Remediation was designed to treat groundwater affected by various releases during operation of the former refinery and periodic spills at the truck unloading facility. It consists of a series of groundwater monitoring wells, groundwater recovery wells, water treatment facilities and treated water infiltration trenches (Figure 2). The system processed approximately 2,599,613 gallons of water in 2007.

Methodology

Impacted groundwater is pumped from the aquifer through a series of recovery wells located strategically within the affected area. Recovery wells are utilized to create a hydraulic barrier and prevent migration of affected water beyond the well. A hydraulic barrier is formed as water is pumped through the recovery well, thereby depressing the water table. Figure 3 illustrates the concept. Sufficient recovery wells are placed



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throughout the site so that the radii of influence from adjacent wells overlap, and a barrier is formed across the plume to prevent migration of affected water.

Impacted groundwater is collected in a storage tank (Tank 102) and subsequently treated. The method of treatment used at the former Bloomfield Refinery is carbon adsorption, where recovered water is pumped into a carbon filtration tank. Inside, volatile and non-volatile organic compounds are adsorbed into a carbon matrix lining the tank.

The treated water is discharged into the aquifer through an infiltration trench. The infiltration trench consists of a subsurface distribution system placed within gravel packs. Water infiltrates the surrounding strata and eventually makes its way back to the aquifer. The return of recovered water to the aquifer serves as a recharge mechanism. Figure 4 is a simplified diagram representation of groundwater recovery, treatment and disposal at the former refinery.

Monitoring at the site consists of regular inspections and maintenance of facilities, as well as regular sampling of groundwater on site. Section 2 describes the sampling program. Results are presented in Section 3. Numerous monitoring wells are located within and south of the refinery (Figure 2). Analytical results of groundwater samples collected from monitoring wells help determine the effectiveness and progress of remedial efforts. In addition to sampling, water and product levels in each well are determined quarterly. This information is tabulated and utilized to prepare potentiometric surface maps. Water levels are included in Section 4. Any measured product levels are also shown. Figures 5-8 are potentiometric surface maps for 2007 water levels. The contours on the maps represent the elevation of surface of the groundwater for each quarter. The maps are useful in determining direction of groundwater flow and effectiveness of hydraulic control achieved by the recovery well system. Additionally, oil absorbent socks are installed in all monitoring wells showing free-phase hydrocarbons. These socks are checked quarterly and replaced as necessary.

Regular weekly inspections are performed to assure safe and efficient operation of the remediation system. The Control Panel, located in the Dispatch Office, serves to monitor and control the operation of the treatment system, while providing alarm and shutdown functions to safeguard against spills and other undesirable events. The Control Panel is checked weekly. An inspection is also made in the control building at Tank 102, the southern infiltration gallery and each recovery well. Treated effluent volumes and flow rates are monitored weekly with a water meter that has been installed near the carbon



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adsorption tank. These values are recorded and compared with previous readings to ensure normal operation. Maintenance of the system includes repair and replacement of well pumps, replacement of filters in well houses, equipment lubrication, air compressor oil changes, adding nutrients as necessary, listening for unusual pump and motor noise, inspecting the carbon pre-filter and repairing all equipment as required. Observations are recorded in a bound field logbook with the date, time and person recording the information noted. All equipment is inspected for leaks and malfunctions. The operator is familiar with the location of underground lines and notes any surface indication of underground leaks. Leaks of any size are noted and repaired.

Modifications to the Sampling Schedule

In 2005, Giant Industries (now Western) requested approval from the New Mexico Oil Conservation Division (NMOCD) to change the sampling schedule for groundwater wells located downgradient of the refinery. The proposed changes were based on historical results from sampling conducted at the site and are detailed in the letter dated March 13, 2005. Giant intended to plug and abandon nine groundwater monitoring wells and one groundwater recovery well and initiate closure sampling on additional monitoring wells. The following wells were to be abandoned:

Type of Well	Identification	Years of Monitoring Beneath Standards
Monitoring	SHS-3	7
Monitoring	SHS-4	8
Monitoring	SHS-6	8
Monitoring	SHS-10	8
Monitoring	SHS-12	8
Monitoring	SHS-13	8
Recovery	SHS-14	3
Monitoring	SHS-15	8
Monitoring	SHS-16	8
Monitoring	SHS-17	7

The proposal suggests quarterly sampling at wells SHS-9, SHS-18 and SHS-19 until the analytical results from four consecutive quarters are beneath New Mexico Water Quality Control Commission (NMWQCC) standards, at which time those wells could be abandoned. Wells SHS-1, SHS-2, SHS-5 and SHS-8 had not previously been included on the sampling schedule. Giant proposed annual sampling at these wells until laboratory analyses indicate the groundwater is beneath NMWQCC standards. At that time



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sampling should be conducted quarterly until the analytical results from four consecutive quarters are beneath standards and closure can be pursued.

The NMOCD has not formally responded to this proposal. Subsequently, Giant submitted a revised sample schedule in Discharge Plan GW040 in 2006 and an amended Discharge Plan GW040 in 2007 to remove the wells listed above from the sampling matrix and discontinue pumping well SHS-14 based on the number of clean reporting quarters.

The revised sampling schedule was instituted in October of 2006. The wells listed for abandonment were last sampled in the first quarter of 2006. They were not sampled in 2007. Quarterly sampling of groundwater from SHS-9, SHS-18 and SHS-19 began in November 2007. In order to move forward with site closure, Western intends to continue sampling according to the revised schedule and to begin annual sampling of SHS-1, SHS-2, SHS-5 and SHS-8 beginning in January of 2008.

Table 1 shows the revised schedule followed in 2007, and Table 2 shows the schedule to be carried out in 2008.



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Table 1. Giant Industries, Inc. Bloomfield Refinery Sampling Schedule for 2007

LOCATION	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007	Dec 2006
System Influent	601 602 GWC			601 602 GWC			601 602 GWC			601 602 GWC		
System Effluent	601 602 GWC Metals PAH			601 602 GWC			601 602 GWC			601 602 GWC		
GRW-3	601 602 GWC PAH											
GRW-6	601 602 GWC PAH											
GBR-17*												601 602 GWC PAH
GBR-24D	601 602 GWC PAH											
GBR-30	601 602 GWC PAH											
GBR-31	601 602 GWC PAH											
GBR-32*												601 602 GWC Metals
GBR-48*												601 602 GWC Metals
GBR-49*												601 602 GWC Metals



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LOCATION	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	July 2007	Aug 2007	Sept 2007	Oct 2007	Nov 2007	Dec 2006
GBR-50*												601 602 GWC Metals
GBR-51	601 602 GWC											
GBR-52	601 602 GWC											
SHS-9											601 602	
SHS-18											601 602	
SHS-19											601 602	
NOTES: All wells have water and free product elevations determined on a quarterly basis. Wells exhibiting free product are not sampled. 601 and 602 refer to United States Environmental Protection Agency methods for organic chemical analysis. GWC refers to groundwater characteristics. *First quarter sampling for 2007 was conducted in Dec. 2006.												



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Table 2. Giant Industries, Inc. Bloomfield Refinery Sampling Schedule for 2008

LOCATION	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	July 2008	Aug 2008	Sept 2008	Oct 2008	Nov 2008	Dec 2008
System Influent	601 602 GWC			601 602 GWC			601 602 GWC			601 602 GWC		
System Effluent	601 602 GWC Metals PAH			601 602 GWC			601 602 GWC			601 602 GWC		
GRW-3	601 602 GWC PAH											
GRW-6	601 602 GWC PAH											
GBR-17	601 602 GWC PAH											
GBR-24D	601 602 GWC PAH											
GBR-30	601 602 GWC PAH											
GBR-31	601 602 GWC PAH											
GBR-32	601 602 GWC Metals											
GBR-48	601 602 GWC Metals											
GBR-49	601 602 GWC Metals											



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LOCATION	Jan 2008	Feb 2008	Mar 2008	Apr 2008	May 2008	Jun 2008	July 2008	Aug 2008	Sept 2008	Oct 2008	Nov 2008	Dec 2008
GBR-50	601 602 GWC Metals											
GBR-51	601 602 GWC											
GBR-52	601 602 GWC											
SHS-1*	601 602 GWC											
SHS-2*	601 602 GWC											
SHS-5*	601 602 GWC											
SHS-8*	601 602 GWC											
SHS-9†	601 602 GWC			601 602 GWC			601 602 GWC					
SHS-18†	601 602 GWC			601 602 GWC			601 602 GWC					
SHS-19†	601 602 GWC			601 602 GWC			601 602 GWC					

NOTES:

All wells have water and free product elevations determined on a quarterly basis.

Wells exhibiting free product are not sampled.

601 and 602 refer to United States Environmental Protection Agency methods for organic chemical analysis.

GWC refers to groundwater characteristics.

*If results from annual sampling are below NMWQCC standards, quarterly sampling will begin in April.

†If four quarters of samples are below NMWQCC standards, wells will be abandoned.



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2.0 SAMPLING PROGRAM

Introduction

Table 1 describes water sampling conducted at the Giant Bloomfield Refinery during 2007. Influent and effluent water quality is monitored to verify compliance with NMWQCC standards. System influent and effluent is sampled and analyzed for general chemistry, halocarbons and aromatics on a quarterly basis throughout the year. Facility effluent is also sampled annually for PAHs and metals. Recovery and monitoring wells are sampled as shown in Table 1.

Methodology

Influent water is collected from a system valve prior to entering storage Tank 102. Samples of effluent water are collected through a sample valve as treated water exits the carbon adsorption tank. Water is collected in appropriate pre-cleaned and/or pre-preserved sample bottles or glass vials. For EPA methods 601 and 602 analyses, 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, sample designation, project name, collector's name and parameters to be analyzed. They are immediately sealed and packed on ice. The samples are shipped to Pinnacle Laboratories in Albuquerque, NM in a sealed cooler via UPS 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.

Prior to sampling monitoring and 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 extracted, pH, electric conductivity and temperature are monitored. Wells are purged until these properties stabilize or the well bails dry, indicating that the purge water is representative of aquifer conditions. Stabilization is



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defined as three consecutive stable readings for each water property (± 0.4 units for pH, ± 10 percent for electric conductivity and $\pm 2^\circ$ C for temperature). Once each monitoring well is properly purged, groundwater samples are collected in bottles or vials and shipped to the laboratory as described above. The method for sampling recovery wells is similar, the difference being that pumps installed within the wells are used to purge groundwater.

3.0 ANNUAL ANALYTICAL RESULTS

Lab results detailing the quality of groundwater sampled at the Giant Bloomfield Refinery is shown in Table 2. Raw data, as received from the laboratory, is available on request as a supplement to the annual report. Toxic pollutants, as defined by NMWQCC standards, are absent from influent and effluent water. Results indicate most analytes are not detected. When constituents are present, they are detected only in trace amounts.

The analytical results presented in Table 3 are listed in units as described below:

	<u>Unit of Measure</u>
Total dissolved solids (180)	mg/l
Total dissolved solids (calc)	mg/l
Total alkalinity as CaCO ₃	mg/l
Total hardness as CaCO ₃	mg/l
Bicarbonate as HCO ₃	mg/l
Carbonate as CO ₃	mg/l
Chloride	mg/l
Sulfate	mg/l
Calcium	mg/l
Magnesium	mg/l
Potassium	mg/l
Sodium	mg/l
Laboratory Conductivity	μ mhos/cm

The remainder of the data is measured in μ g/l.

Table 3. Giant Industries, Inc. Bloomfield Refinery 2007 Annual Analytical Data

	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
SYSTEM EFFLUENT						
Lab pH	8.1	7.2	7.6	8.0		
Lab Conductivity@25C	3160	3400	3330	2940		
Total Dissolved Solids (Calc)	2250	2360	2320	2000		
Total Alkalinity as CaCO3	338	410	480	656		
Total Hardness as CaCO3	727	669	618	548		
Bicarbonate as HCO3	337	409	478	654		
Carbonate as CO3	nd	1.61	1.79	2.09		
Hydroxide	nd	nd	nd	nd		
Chloride	nd	77.9	78.9	91.1		
Sulfate	1270	1360	1000	549		
Calcium	251	229	234	195		
Magnesium	24.6	23.4	25	29.5		
Potassium	9.77	7.94	11.9	2.62		
Sodium	357	356	399	452		
HALOCARBONS						
Bromodichloromethane	nd	nd	nd	nd		
Bromoform	nd	nd	nd	nd		
Bromomethane	nd	nd	nd	nd		
Carbon Tetrachloride	nd	nd	nd	nd		
Chloroethane	nd	nd	nd	nd		
Chloroform	nd	nd	nd	nd		
Chloromethane	nd	nd	nd	nd		
Dibromochloromethane	nd	nd	nd	nd		
1,2-Dibromomethane (EDB)	nd	nd	nd	nd		
1,2-Dichlorobenzene	nd	nd	nd	nd		
1,3-Dichlorobenzene	nd	nd	nd	nd		
1,4-Dichlorobenzene	nd	nd	nd	nd		
1,1-Dichloroethane	nd	nd	nd	nd		
1,2-Dichloroethane (EDC)	nd	nd	nd	nd		
1,1-Dichloroethene	nd	nd	nd	nd		
trans-1,2-Dichloroethene	nd	nd	nd	nd		
1,2-Dichloropropane	nd	nd	nd	nd		
cis-1,3-Dichloropropene	nd	nd	nd	nd		
trans-1,3-Dichloropropene	nd	nd	nd	nd		
Methylene Chloride	nd	nd	nd	nd		
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd		



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	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
Tetrachloroethane	nd	nd	nd	nd		
1,1,1-Trichloroethane	nd	nd	nd	nd		
1,1,2-Trichloroethane	nd	nd	nd	nd		
Trichloroethene	nd	nd	nd	nd		
Trichlorofluoromethane	nd	nd	nd	nd		
Vinyl Chloride	nd	nd	nd	nd		
AROMATICS						
Benzene	nd	nd	nd	nd		
Chlorobenzene	nd	nd	nd	nd		
1,2-Dichlorobenzene	nd	nd	nd	nd		
1,3-Dichlorobenzene	nd	nd	nd	nd		
1,4-Dichlorobenzene	nd	nd	nd	nd		
Ethylbenzene	nd	nd	nd	nd		
Methyl-t-Butyl Ether	nd	nd	nd	nd		
Toluene	nd	nd	nd	nd		
Total Xylenes	nd	nd	nd	nd		
PAH						
1-Methylnaphthalene	nd					
2-Methylnaphthalene	nd					
Benzo(a)pyrene	nd					
Napthalene	nd					
METALS (mg/l)						
Antimony	nd					
Arsenic	nd					
Beryllium	nd					
Cadmium	nd					
Chromium	0.009					
Copper	0.009					
Lead	nd					
Nickel	0.043					
Selenium	nd					
Silver	0.002					
Thallium	nd					
Zinc	nd					
Mercury	nd					
SYSTEM INFLUENT						
Lab pH	7.9	7.3	7.7	7.4		



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Lab Conductivity@25C	3480	3780	3220	3130		
Total Dissolved Solids (Calc)	2550	2370	2320	1960		
Total Alkalinity as CaCO3	316	422	512	652		
Total Hardness as CaCO3	941	658	642	537		
Bicarbonate as HCO3	315	421	510	650		
Carbonate as CO3	nd	1.59	1.89	2.07		
Hydroxide	nd	nd	nd	nd		
Chloride	nd	77	79	93.2		
Sulfate	1510	1390	1070	566		
Calcium	330	226	245	192		
Magnesium	28.2	22.9	24.6	28.6		
Potassium	10.9	7.43	12.4	2.6		
Sodium	389	350	400	439		
HALOCARBONS						
Bromodichloromethane	nd	nd	nd	nd		
Bromoform	nd	nd	nd	nd		
Bromomethane	nd	nd	nd	nd		
Carbon Tetrachloride	nd	nd	nd	nd		
Chloroethane	nd	nd	nd	nd		
Chloroform	nd	nd	nd	nd		
Chloromethane	nd	nd	nd	nd		
Dibromochloromethane	nd	nd	nd	nd		
1,2-Dibromomethane (EDB)	nd	nd	nd	nd		
1,2-Dichlorobenzene	nd	nd	nd	nd		
1,3-Dichlorobenzene	nd	nd	nd	nd		
1,4-Dichlorobenzene	nd	nd	nd	nd		
1,1-Dichloroethane	nd	nd	nd	nd		
1,2-Dichloroethane (EDC)	nd	nd	nd	nd		
1,1-Dichloroethene	nd	nd	nd	nd		
trans-1,2-Dichloroethene	nd	nd	nd	nd		
1,2-Dichloropropane	nd	nd	nd	nd		
cis-1,2-Dichloropropene	nd	nd	nd	nd		
trans-1,2-Dichloropropene	nd	nd	nd	nd		
Methylene Chloride	nd	nd	nd	nd		
1,1,2,2-Tetrachloroethane	nd	nd	nd	nd		
Tetrachloroethane	nd	nd	nd	nd		
1,1,1-Trichloroethane	nd	nd	nd	nd		
1,1,2-Trichloroethane	nd	nd	nd	nd		
Trichloroethene	nd	nd	nd	nd		
Trichlorofluoromethane	nd	nd	nd	nd		



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	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
Vinyl Chloride	nd	nd	nd	nd		
AROMATICS						
Benzene	nd	nd	nd	nd		
Chlorobenzene	nd	nd	nd	nd		
1,2-Dichlorobenzene	nd	nd	nd	nd		
1,3-Dichlorobenzene	nd	nd	nd	nd		
1,4-Dichlorobenzene	nd	nd	nd	nd		
Ethylbenzene	nd	nd	nd	nd		
Methyl-t-Butyl Ether	nd	nd	nd	nd		
Toluene	nd	nd	nd	nd		
Total Xylenes	nd	nd	nd	nd		
GRW-3						
Lab pH	8					
Lab Conductivity@25C	2620					
Total Dissolved Solids (Calc)	1710					
Total Alkalinity as CaCO3	750					
Total Hardness as CaCO3	499					
Bicarbonate as HCO3	748					
Carbonate as CO3	1.65					
Hydroxide	nd					
Chloride	nd					
Sulfate	580					
Calcium	152					
Magnesium	28.9					
Potassium	6.71					
Sodium	329					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					



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	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	4.6					
Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
PAH						
1-Methylnapthalene	1.87					
2-Methylnapthalene	0.27					
Benzo(a)pyrene	nd					
Napthalene	1.09					
GRW-6						
Lab pH	8.3					
Lab Conductivity@25C	2870					
Total Dissolved Solids (Calc)	576					
Total Alkalinity as CaCO3	619					
Total Hardness as CaCO3	576					
Bicarbonate as HCO3	618					



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Carbonate as CO ₃	1.52					
Hydroxide	nd					
Chloride	nd					
Sulfate	926					
Calcium	182					
Magnesium	29.8					
Potassium	6.7					
Sodium	402					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					



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1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					
Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
PAH						
1-Methylnaphthalene	nd					
2-Methylnaphthalene	nd					
Benzo(a)pyrene	nd					
Naphthalene	nd					
GBR-17						
Lab pH						7.0
Lab Conductivity@25C						2500
Total Dissolved Solids (Calc)						2000
Total Alkalinity as CaCO3						164
Total Hardness as CaCO3						696
Bicarbonate as HCO3						163
Carbonate as CO3						nd
Hydroxide						nd
Chloride						48
Sulfate						1400
Calcium						273
Magnesium						22.6
Potassium						7.27
Sodium						222
HALOCARBONS						
Bromodichloromethane						nd
Bromoform						nd
Bromomethane						nd
Carbon Tetrachloride						nd
Chloroethane						nd
Chloroform						nd
Chloromethane						nd
Dibromochloromethane						nd
1,2-Dibromomethane (EDB)						nd
1,2-Dichlorobenzene						nd



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1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
1,1-Dichloroethane						nd
1,2-Dichloroethane (EDC)						nd
1,1-Dichloroethene						nd
trans-1,2-Dichloroethene						nd
1,2-Dichloropropane						nd
cis-1,2-Dichloropropene						nd
trans-1,2-Dichloropropene						nd
Methylene Chloride						nd
1,1,2,2-Tetrachloroethane						nd
Tetrachloroethane						nd
1,1,1-Trichloroethane						nd
1,1,2-Trichloroethane						nd
Trichloroethene						nd
Trichlorofluoromethane						nd
Vinyl Chloride						nd
AROMATICS						
Benzene						nd
Chlorobenzene						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
Ethylbenzene						nd
Methyl-t-Butyl Ether						nd
Toluene						nd
Total Xylenes						nd
GBR-24D						
Lab pH	8					
Lab Conductivity@25C	4500					
Total Dissolved Solids (Calc)	3490					
Total Alkalinity as CaCO3	213					
Total Hardness as CaCO3	1220					
Bicarbonate as HCO3	213					
Carbonate as CO3	nd					
Hydroxide	nd					
Chloride	190					
Sulfate	2000					
Calcium	421					



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Magnesium	40.5					
Potassium	14.7					
Sodium	503					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	0.4					
1,2-Dichloroethane (EDC)	2.6					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					
Methyl-t-Butyl Ether	nd					



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Toluene	nd					
Total Xylenes	nd					
PAH						
1-Methylnapthalene	nd					
2-Methylnapthalene	nd					
Benzo(a)pyrene	nd					
Napthalene	nd					
GBR-30						
Lab pH	8					
Lab Conductivity@25C	3320					
Total Dissolved Solids (Calc)	2570					
Total Alkalinity as CaCO3	259					
Total Hardness as CaCO3	1070					
Bicarbonate as HCO3	259					
Carbonate as CO3	nd					
Hydroxide	nd					
Chloride	144					
Sulfate	1420					
Calcium	370					
Magnesium	35.2					
Potassium	11.7					
Sodium	284					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					



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trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					
Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
PAH						
1-Methylnapthalene	nd					
2-Methylnapthalene	nd					
Benzo(a)pyrene	nd					
Napthalene	nd					
GBR-31						
Lab pH	7.9					
Lab Conductivity@25C	3280					
Total Dissolved Solids (Calc)	2590					
Total Alkalinity as CaCO3	228					
Total Hardness as CaCO3	933					
Bicarbonate as HCO3	228					
Carbonate as CO3	nd					
Hydroxide	nd					
Chloride	nd					
Sulfate	1540					

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Calcium	328					
Magnesium	27.9					
Potassium	10.7					
Sodium	351					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	0.6					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					



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Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
PAH						
1-Methylnapthalene	nd					
2-Methylnapthalene	nd					
Benzo(a)pyrene	nd					
Napthalene	nd					
GBR-32						
Lab pH						7.2
Lab Conductivity@25C						5480
Total Dissolved Solids (Calc)						3880
Total Alkalinity as CaCO3						228
Total Hardness as CaCO3						962
Bicarbonate as HCO3						227
Carbonate as CO3						nd
Hydroxide						nd
Chloride						480
Sulfate						1800
Calcium						363
Magnesium						39.5
Potassium						10.1
Sodium						564
HALOCARBONS						
Bromodichloromethane						nd
Bromoform						nd
Bromomethane						nd
Carbon Tetrachloride						nd
Chloroethane						nd
Chloroform						nd
Chloromethane						nd
Dibromochloromethane						nd
1,2-Dibromomethane (EDB)						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
1,1-Dichloroethane						nd
1,2-Dichloroethane (EDC)						nd



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1,1-Dichloroethene						nd
trans-1,2-Dichloroethene						nd
1,2-Dichloropropane						nd
cis-1,2-Dichloropropene						nd
trans-1,2-Dichloropropene						nd
Methylene Chloride						nd
1,1,2,2-Tetrachloroethane						nd
Tetrachloroethane						nd
1,1,1-Trichloroethane						nd
1,1,2-Trichloroethane						nd
Trichloroethene						nd
Trichlorofluoromethane						nd
Vinyl Chloride						nd
AROMATICS						
Benzene						nd
Chlorobenzene						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
Ethylbenzene						nd
Methyl-t-Butyl Ether						nd
Toluene						nd
Total Xylenes						nd
METALS						
Calcium						363
Magnesium						39.5
Potassium						10.1
Sodium						564
Iron						1.24
Manganese						1.04
GBR-48						
Lab pH						7.1
Lab Conductivity@25C						2700
Total Dissolved Solids (Calc)						1850
Total Alkalinity as CaCO3						176
Total Hardness as CaCO3						458
Bicarbonate as HCO3						175
Carbonate as CO3						nd



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Hydroxide						nd
Chloride						140
Sulfate						820
Calcium						174
Magnesium						18.1
Potassium						7.27
Sodium						293
HALOCARBONS						
Bromodichloromethane						nd
Bromoform						nd
Bromomethane						nd
Carbon Tetrachloride						nd
Chloroethane						nd
Chloroform						nd
Chloromethane						nd
Dibromochloromethane						nd
1,2-Dibromomethane (EDB)						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
1,1-Dichloroethane						nd
1,2-Dichloroethane (EDC)						nd
1,1-Dichloroethene						nd
trans-1,2-Dichloroethene						nd
1,2-Dichloropropane						nd
cis-1,2-Dichloropropene						nd
trans-1,2-Dichloropropene						nd
Methylene Chloride						nd
1,1,2,2-Tetrachloroethane						nd
Tetrachloroethane						nd
1,1,1-Trichloroethane						nd
1,1,2-Trichloroethane						nd
Trichloroethene						nd
Trichlorofluoromethane						nd
Vinyl Chloride						nd
AROMATICS						
Benzene						nd
Chlorobenzene						nd
1,2-Dichlorobenzene						nd



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1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
Ethylbenzene						nd
Methyl-t-Butyl Ether						nd
Toluene						nd
Total Xylenes						nd
METALS						
Calcium						174
Magnesium						18.1
Potassium						7.27
Sodium						293
Iron						7.77
Manganese						0.457
GBR-49						
Lab pH						6.4
Lab Conductivity@25C						4520
Total Dissolved Solids (Calc)						3460
Total Alkalinity as CaCO3						112
Total Hardness as CaCO3						1060
Bicarbonate as HCO3						112
Carbonate as CO3						nd
Hydroxide						nd
Chloride						280
Sulfate						2200
Calcium						406
Magnesium						38.8
Potassium						13.5
Sodium						495
HALOCARBONS						
Bromodichloromethane						nd
Bromoform						nd
Bromomethane						nd
Carbon Tetrachloride						nd
Chloroethane						nd
Chloroform						nd
Chloromethane						nd
Dibromochloromethane						nd
1,2-Dibromomethane (EDB)						nd



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1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
1,1-Dichloroethane						nd
1,2-Dichloroethane (EDC)						nd
1,1-Dichloroethene						nd
trans-1,2-Dichloroethene						nd
1,2-Dichloropropane						nd
cis-1,2-Dichloropropene						nd
trans-1,2-Dichloropropene						nd
Methylene Chloride						nd
1,1,2,2-Tetrachloroethane						nd
Tetrachloroethane						0.6
1,1,1-Trichloroethane						nd
1,1,2-Trichloroethane						nd
Trichloroethene						nd
Trichlorofluoromethane						nd
Vinyl Chloride						nd
AROMATICS						
Benzene						5.4
Chlorobenzene						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
Ethylbenzene						nd
Methyl-t-Butyl Ether						nd
Toluene						nd
Total Xylenes						nd
METALS						
Calcium						406
Magnesium						38.8
Potassium						13.5
Sodium						495
Iron						120
Manganese						5.91
GBR-50						
Lab pH						6.7
Lab Conductivity@25C						3510

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Total Dissolved Solids (Calc)						2600
Total Alkalinity as CaCO3						225
Total Hardness as CaCO3						956
Bicarbonate as HCO3						224
Carbonate as CO3						nd
Hydroxide						nd
Chloride						61
Sulfate						1700
Calcium						378
Magnesium						5.73
Potassium						326
Sodium						
HALOCARBONS						nd
Bromodichloromethane						nd
Bromoform						nd
Bromomethane						nd
Carbon Tetrachloride						nd
Chloroethane						nd
Chloroform						nd
Chloromethane						nd
Dibromochloromethane						nd
1,2-Dibromomethane (EDB)						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
1,1-Dichloroethane						nd
1,2-Dichloroethane (EDC)						nd
1,1-Dichloroethene						nd
trans-1,2-Dichloroethene						nd
1,2-Dichloropropane						nd
cis-1,2-Dichloropropene						nd
trans-1,2-Dichloropropene						nd
Methylene Chloride						nd
1,1,2,2-Tetrachloroethane						nd
Tetrachloroethane						nd
1,1,1-Trichloroethane						nd
1,1,2-Trichloroethane						nd
Trichloroethene						nd
Trichlorofluoromethane						nd
Vinyl Chloride						nd



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AROMATICS						
Benzene						nd
Chlorobenzene						nd
1,2-Dichlorobenzene						nd
1,3-Dichlorobenzene						nd
1,4-Dichlorobenzene						nd
Ethylbenzene						nd
Methyl-t-Butyl Ether						nd
Toluene						nd
Total Xylenes						nd
METALS						
Calcium						378
Magnesium						28.9
Potassium						9.04
Sodium						326
Iron						5.73
Manganese						0.373
GBR-51						
Lab pH	8.1					
Lab Conductivity@25C	3290					
Total Dissolved Solids (Calc)	2620					
Total Alkalinity as CaCO3	215					
Total Hardness as CaCO3	1120					
Bicarbonate as HCO3	214					
Carbonate as CO3	nd					
Hydroxide	nd					
Chloride	nd					
Sulfate	1570					
Calcium	398					
Magnesium	30.6					
Potassium	9.53					
Sodium	282					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					



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Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						
Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					
Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
GBR-52						
Lab pH	8.1					
Lab Conductivity@25C	2920					
Total Dissolved Solids (Calc)	2280					
Total Alkalinity as CaCO3	203					

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Total Hardness as CaCO ₃	971					
Bicarbonate as HCO ₃	202					
Carbonate as CO ₃	nd					
Hydroxide	nd					
Chloride	nd					
Sulfate	1370					
Calcium	344					
Magnesium	27.3					
Potassium	9.70					
Sodium	253					
HALOCARBONS						
Bromodichloromethane	nd					
Bromoform	nd					
Bromomethane	nd					
Carbon Tetrachloride	nd					
Chloroethane	nd					
Chloroform	nd					
Chloromethane	nd					
Dibromochloromethane	nd					
1,2-Dibromomethane (EDB)	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
1,1-Dichloroethane	nd					
1,2-Dichloroethane (EDC)	nd					
1,1-Dichloroethene	nd					
trans-1,2-Dichloroethene	nd					
1,2-Dichloropropane	nd					
cis-1,2-Dichloropropene	nd					
trans-1,2-Dichloropropene	nd					
Methylene Chloride	nd					
1,1,2,2-Tetrachloroethane	nd					
Tetrachloroethane	nd					
1,1,1-Trichloroethane	nd					
1,1,2-Trichloroethane	nd					
Trichloroethene	nd					
Trichlorofluoromethane	nd					
Vinyl Chloride	nd					
AROMATICS						



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Benzene	nd					
Chlorobenzene	nd					
1,2-Dichlorobenzene	nd					
1,3-Dichlorobenzene	nd					
1,4-Dichlorobenzene	nd					
Ethylbenzene	nd					
Methyl-t-Butyl Ether	nd					
Toluene	nd					
Total Xylenes	nd					
SHS-9						
HALOCARBONS						
Bromodichloromethane					nd	
Bromoform					nd	
Bromomethane					nd	
Carbon Tetrachloride					nd	
Chloroethane					nd	
Chloroform					nd	
Chloromethane					nd	
Dibromochloromethane					nd	
1,2-Dibromomethane (EDB)					nd	
1,2-Dichlorobenzene					nd	
1,3-Dichlorobenzene					nd	
1,4-Dichlorobenzene					nd	
1,1-Dichloroethane					nd	
1,2-Dichloroethane (EDC)					nd	
1,1-Dichloroethene					nd	
trans-1,2-Dichloroethene					nd	
1,2-Dichloropropane					nd	
cis-1,2-Dichloropropene					nd	
trans-1,2-Dichloropropene					nd	
Methylene Chloride					nd	
1,1,2,2-Tetrachloroethane					nd	
Tetrachloroethane					nd	
1,1,1-Trichloroethane					nd	
1,1,2-Trichloroethane					nd	
Trichloroethene					nd	
Trichlorofluoromethane					nd	
Vinyl Chloride					nd	
AROMATICS						



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	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
Benzene					nd	
Chlorobenzene					nd	
1,2-Dichlorobenzene					nd	
1,3-Dichlorobenzene					nd	
1,4-Dichlorobenzene					nd	
Ethylbenzene					nd	
Methyl-t-Butyl Ether					nd	
Toluene					nd	
Total Xylenes					nd	
SHS-18						
Lab pH	9					
Lab Conductivity@25C	2500					
Total Dissolved Solids (Calc)	1530					
Total Alkalinity as CaCO3	897					
Total Hardness as CaCO3	385					
Bicarbonate as HCO3	893					
Carbonate as CO3	3.63					
Hydroxide	nd					
Chloride	111					
Sulfate	109					
Calcium	129					
Magnesium	15.4					
Potassium	4.56					
Sodium	354					
HALOCARBONS						
Bromodichloromethane	nd				nd	
Bromoform	nd				nd	
Bromomethane	nd				nd	
Carbon Tetrachloride	nd				nd	
Chloroethane	nd				nd	
Chloroform	nd				nd	
Chloromethane	nd				nd	
Dibromochloromethane	nd				nd	
1,2-Dibromomethane (EDB)	nd				nd	
1,2-Dichlorobenzene	nd				nd	
1,3-Dichlorobenzene	nd				nd	
1,4-Dichlorobenzene	nd				nd	
1,1-Dichloroethane	nd				nd	



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1,2-Dichloroethane (EDC)	nd				nd	
1,1-Dichloroethene	nd				nd	
trans-1,2-Dichloroethene	nd				nd	
1,2-Dichloropropane	nd				nd	
cis-1,2-Dichloropropene	nd				nd	
trans-1,2-Dichloropropene	nd				nd	
Methylene Chloride	nd				nd	
1,1,2,2-Tetrachloroethane	nd				nd	
Tetrachloroethane	nd				nd	
1,1,1-Trichloroethane	nd				nd	
1,1,2-Trichloroethane	nd				nd	
Trichloroethene	nd				nd	
Trichlorofluoromethane	nd				nd	
Vinyl Chloride	nd				nd	
AROMATICS						
Benzene	nd				nd	
Chlorobenzene	nd				nd	
1,2-Dichlorobenzene	nd				nd	
1,3-Dichlorobenzene	nd				nd	
1,4-Dichlorobenzene	nd				nd	
Ethylbenzene	0.5				nd	
Methyl-t-Butyl Ether	nd				nd	
Toluene	nd				nd	
Total Xylenes	nd				nd	
SHS-19						
Lab pH	7.2					
Lab Conductivity@25C	2600					
Total Dissolved Solids (Calc)	1650					
Total Alkalinity as CaCO3	786					
Total Hardness as CaCO3	423					
Bicarbonate as HCO3	785					
Carbonate as CO3	1.80					
Hydroxide	nd					
Chloride	85.6					
Sulfate	460					
Calcium	135					
Magnesium	20.8					
Potassium	7.16					
Sodium	370					



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	JAN 2007	APR 2007	JUL 2007	OCT 2007	NOV 2007	DEC 2006
HALOCARBONS						
Bromodichloromethane	nd				nd	
Bromoform	nd				nd	
Bromomethane	nd				nd	
Carbon Tetrachloride	nd				nd	
Chloroethane	nd				nd	
Chloroform	nd				nd	
Chloromethane	nd				nd	
Dibromochloromethane	nd				nd	
1,2-Dibromomethane (EDB)	nd				nd	
1,2-Dichlorobenzene	nd				nd	
1,3-Dichlorobenzene	nd				nd	
1,4-Dichlorobenzene	nd				nd	
1,1-Dichloroethane	nd				nd	
1,2-Dichloroethane (EDC)	nd				nd	
1,1-Dichloroethene	nd				nd	
trans-1,2-Dichloroethene	nd				nd	
1,2-Dichloropropane	nd				nd	
cis-1,2-Dichloropropene	nd				nd	
trans-1,2-Dichloropropene	nd				nd	
Methylene Chloride	nd				nd	
1,1,2,2-Tetrachloroethane	nd				nd	
Tetrachloroethane	nd				nd	
1,1,1-Trichloroethane	nd				nd	
1,1,2-Trichloroethane	nd				nd	
Trichloroethene	nd				nd	
Trichlorofluoromethane	nd				nd	
Vinyl Chloride	nd				nd	
AROMATICS						
Benzene	nd				nd	
Chlorobenzene	nd				nd	
1,2-Dichlorobenzene	nd				nd	
1,3-Dichlorobenzene	nd				nd	
1,4-Dichlorobenzene	nd				nd	
Ethylbenzene	nd				nd	
Methyl-t-Butyl Ether	nd				nd	
Toluene	nd				nd	
Total Xylenes	nd				nd	



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NOTES: *First quarter sampling was conducted in December 2006.						



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4.0 Water and Product Levels

Groundwater monitoring wells have been installed throughout the site of the former refinery to monitor groundwater quality and flow direction (Figure 2). Water and product levels in each well are determined quarterly. These data are presented in tables 4 and 5 and are utilized to prepare the potentiometric surface maps shown in figures 5-8. The contours on the maps represent the groundwater surface elevation. The rate of groundwater flow is, on average, 0.633 ft/ft in a southwest direction, and is consistent throughout the year. Wells containing measurable product levels are fitted with oil-absorbent socks, which are replaced as necessary. Free-phase product is consistently measured in GBR-23 and GBR-25 (Table 5).

Table 4. Giant Industries, Inc. Bloomfield Refinery 2007 Quarterly Water Levels

Well #	Wellhead Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted WSEL* (ft)
January 2007					
GRW-1	5394.30	54.62	-	-	5339.68
GRW-2	5391.28	49.65	-	-	5341.63
GRW-3	5388.77	53.12	-	-	5335.65
GRW-4	5390.02	58.99	-	-	5331.03
GRW-5	5390.56	64.88	-	-	5325.68
GRW-6	5390.81	48.28	-	-	5342.53
GRW-9	5395.70	53.03	-	-	5342.67
GRW-10	5395.02	58.95	58.84	0.01	5336.07
GRW-11	5397.85	57.86	-	-	5339.99
GRW-12	5397.24	water beneath pump	-	-	water beneath pump
GRW-13	5396.90	52.46	-	-	5344.44
GBR-5	5395.07	26.77	-	-	5368.3
GBR-7	5395.85	28.89	-	-	5366.96
GBR-8	5390.50	42.04	-	-	5348.46
GBR-9	5389.92	47.59	-	-	5342.33
GBR-10	5390.57	42.58	-	-	5347.99
GBR-11	5389.43	42.62	-	-	5346.81
GBR-13	5393.04	42.56	-	-	5350.48
GBR-15	5397.99	41.02	-	-	5356.97



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Well #	Wellhead Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted WSEL* (ft)
GBR-18	5421.68	55.33	-	-	5366.35
GBR-19	5393.83	43.33	42.85	0.38	5350.5
GBR-20	5393.47	35.94	-	-	5357.53
GBR-21S	5400.65	26.22	-	-	5374.43
GBR-21D	5400.19	41.02	-	-	5359.17
GBR-22	5395.91	dry	-	-	dry
GBR-23	5403.72	29.7	29.68	0.02	5374.036
GBR-24S	5396.08	33.52	-	-	5362.56
GBR-24D	5396.77	34.93	-	-	5361.84
GBR-25	5396.72	38.68	37.83	0.85	5358.72
GBR-26	5395.59	38.09	-	-	5357.5
GBR-30	5396.58	36.44	-	-	5360.14
GBR-31	5394.86	37.53	-	-	5357.33
GBR-33†	5396.28	39.72	-	-	5356.56
GBR-34	5394.00	39.98			5354.02
GBR-35	5393.66	39.86			5353.8
GBR-39	5397.55	40.26	-	-	5357.29
GBR-40	5400.76	32.37	-	-	5368.39
GBR-41	5396.35	27.1	-	-	5369.25
GBR-51	5389.68	44.09	-	-	5345.59
GBR-52	5387.74	41.77	-	-	5345.97
SHS-1	5383.54	40.69	-	-	5342.85
SHS-2	5381.66	31.12	-	-	5350.54
SHS-3	5383.33	dry	-	-	-
SHS-4	5383.62	43.1	-	-	5340.52
SHS-5	5378.36	39.93	-	-	5338.43
SHS-6	5378.17	39.96	-	-	5338.21
SHS-8	5380.25	40.5	-	-	5339.75
SHS-9	5380.79	39.59	-	-	5341.2
SHS-10	5373.80	37.93	-	-	5335.87
SHS-12	5373.94	40.73	-	-	5333.21
SHS-13	5367.81	no access	-	-	no access
SHS-14	5367.07	35.46	-	-	5331.61
SHS-15	5366.21	35.36	-	-	5330.85
SHS-16	5362.58	33.12	-	-	5329.46
SHS-17	5364.35	34.46	-	-	5329.89
SHS-18	5373.64	40.97	-	-	5332.67



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Well #	Wellhead Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted WSEL* (ft)
SHS-19	5378.89	43.56	-	-	5335.33
April 2007					
GRW-1	5394.30	53.67	-	-	5340.63
GRW-2	5391.28	42.15	-	-	5349.13
GRW-3	5388.77	54.11	-	-	5334.66
GRW-4	5390.02	58.35	-	-	5331.67
GRW-5	5390.56	64.65	-	-	5325.91
GRW-6	5390.81	48.38	-	-	5342.43
GRW-9	5395.70	48.07	-	-	5347.63
GRW-10	5395.02	53.35	-	-	5341.67
GRW-11	5397.85	36.32	-	-	5361.53
GRW-12	5397.24	water beneath pump	-	-	water beneath pump
GRW-13	5396.90	55.33	-	-	5341.57
GBR-5	5395.07	27.7	-	-	5367.37
GBR-7	5395.85	29.47	-	-	5366.38
GBR-8	5390.50	41.76	-	-	5348.74
GBR-9	5389.92	47.45	-	-	5342.47
GBR-10	5390.57	42.54	-	-	5348.03
GBR-11	5389.43	42.05	-	-	5347.38
GBR-13	5393.04	42.16	-	-	5350.88
GBR-15	5397.99	37.76	-	-	5360.23
GBR-18	5421.68	36.53	-	-	5385.15
GBR-19	5393.83	41.65	-	-	5352.18
GBR-20	5393.47	36.83	-	-	5356.64
GBR-21S	5400.65	27.04	-	-	5373.61
GBR-21D	5400.19	38.89	-	-	5361.3
GBR-22	5395.91	dry	-	-	dry
GBR-23	5403.72	30.44	30.36	0.08	5373.344
GBR-24S	5396.08	32.4	-	-	5363.68
GBR-24D	5396.77	33.53	-	-	5363.24
GBR-25	5396.72	38.25	37.74	0.51	5358.878
GBR-26	5395.59	34.84	-	-	5360.75
GBR-30	5396.58	35.7	-	-	5360.88
GBR-31	5394.86	36.54	-	-	5358.32
GBR-33†	5396.28	38.18	-	-	5358.1
GBR-34	5394.00	38.29	-	-	5355.71



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GBR-35	5393.66	38.33	-	-	5355.33
GBR-39	5397.55	37.33	-	-	5360.22
GBR-40	5400.76	32.28	-	-	5368.48
GBR-41	5396.35	37.61	-	-	5358.74
GBR-51	5389.68	42.48	-	-	5347.2
GBR-52	5387.74	40.39	-	-	5347.35
SHS-1	5383.54	39.91	-	-	5343.63
SHS-2	5381.66	39.56	-	-	5342.1
SHS-3	5383.33	dry	-	-	dry
SHS-4	5383.62	42.33	-	-	5341.29
SHS-5	5378.36	39.34	-	-	5339.02
SHS-6	5378.17	37.05	-	-	5341.12
SHS-8	5380.25	39.73	-	-	5340.52
SHS-9	5380.79	38.33	-	-	5342.46
SHS-10	5373.80	36.42	-	-	5337.38
SHS-12	5373.94	39.67	-	-	5334.27
SHS-13	5367.81	no access	-	-	no access
SHS-14	5367.07	34.33	-	-	5332.74
SHS-15	5366.21	33.11	-	-	5333.1
SHS-16	5362.58	30.92	-	-	5331.66
SHS-17	5364.35	32.89	-	-	5331.46
SHS-18	5373.64	39.66	-	-	5333.98
SHS-19	5378.89	40.32	-	-	5338.57
July 2007					
GRW-1	5394.30	41.63	-	-	5352.67
GRW-2	5391.28	42.46	-	-	5348.82
GRW-3	5388.77	44.54	-	-	5344.23
GRW-4	5390.02	54.76	-	-	5335.26
GRW-5	5390.56	48.98	-	-	5341.58
GRW-6	5390.81	50.27	-	-	5340.54
GRW-9	5395.70	49.15	-	-	5346.55
GRW-10	5395.02	43.37	-	-	5351.65
GRW-11	5397.85	34.53	-	-	5363.32
GRW-12	5397.24	41.97	-	-	5355.27
GRW-13	5396.90	46.91	-	-	5349.99
GBR-5	5395.07	29.91	-	-	5365.16
GBR-7	5395.85	31.33	-	-	5364.52

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GBR-8	5390.50	42.7	-	-	5347.8
GBR-9	5389.92	47.29	-	-	5342.63
GBR-10	5390.57	42.51	-	-	5348.06
GBR-11	5389.43	42.6	-	-	5346.83
GBR-13	5393.04	42.89	-	-	5350.15
GBR-15	5397.99	37.42	-	-	5360.57
GBR-18	5421.68	37.02	-	-	5384.66
GBR-19	5393.83	41.44	-	-	5352.39
GBR-20	5393.47	38.28	-	-	5355.19
GBR-21S	5400.65	28.86	-	-	5371.79
GBR-21D	5400.19	38.44	-	-	5361.75
GBR-22	5395.91	38.76	38.46	0.3	5357.39
GBR-23	5403.72	30.57	-	-	5373.15
GBR-24S	5396.08	32.25	-	-	5363.83
GBR-24D	5396.77	33.25	-	-	5363.52
GBR-25	5396.72	38.66	37.72	0.94	5358.812
GBR-26	5395.59	34.57	-	-	5361.02
GBR-30	5396.58	35.63	-	-	5360.95
GBR-31	5394.86	36.12	-	-	5358.74
GBR-33†	5396.28	37.58	-	-	5358.7
GBR-34	5394.00	37.59	-	-	5356.41
GBR-35	5393.66	37.7	-	-	5355.96
GBR-39	5397.55	36.94	-	-	5360.61
GBR-40	5400.76	32.83	-	-	5367.93
GBR-41	5396.35	28.64	-	-	5367.71
GBR-51	5389.68	42.49	-	-	5347.19
GBR-52	5387.74	40.34	-	-	5347.4
SHS-1	5383.54	40.04	-	-	5343.5
SHS-2	5381.66	40.17	-	-	5341.49
SHS-3	5383.33	dry	-	-	dry
SHS-4	5383.62	42.43	-	-	5341.19
SHS-5	5378.36	39.28	-	-	5339.08
SHS-6	5378.17	39.28	-	-	5338.89
SHS-8	5380.25	39.97	-	-	5340.28
SHS-9	5380.79	38.65	-	-	5342.14
SHS-10	5373.80	37.11	-	-	5336.69
SHS-12	5373.94	40.16	-	-	5333.78

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SHS-13	5367.81	no access	-	-	no access
SHS-14	5367.07	35.02	-	-	5332.05
SHS-15	5366.21	33.87	-	-	5332.34
SHS-16	5362.58	31.55	-	-	5331.03
SHS-17	5364.35	33.42	-	-	5330.93
SHS-18	5373.64	40.21	-	-	5333.43
SHS-19	5378.89	39.98	-	-	5338.91
October 2007					
GRW-1	5394.30	61	-	-	5333.3
GRW-2	5391.28	49.92	-	-	5341.36
GRW-3	5388.77	45.24	-	-	5343.53
GRW-4	5390.02	43.53	-	-	5346.49
GRW-5	5390.56	64.3	-	-	5326.26
GRW-6	5390.81	50.67	-	-	5340.14
GRW-9	5395.70	45.11	-	-	5350.59
GRW-10	5395.02	39.38	-	-	5355.64
GRW-11	5397.85	34.12	-	-	5363.73
GRW-12	5397.24	43.68	-	-	5353.56
GRW-13	5396.90	51.27	-	-	5345.63
GBR-5	5395.07	30.13	-	-	5364.94
GBR-7	5395.85	32.48	-	-	5363.37
GBR-8	5390.50	43.41	-	-	5347.09
GBR-9	5389.92	43.7	-	-	5346.22
GBR-10	5390.57	42.57	-	-	5348
GBR-11	5389.43	43.03	-	-	5346.4
GBR-13	5393.04	43.29	-	-	5349.75
GBR-15	5397.99	36.97	-	-	5361.02
GBR-18	5421.68	27.28	-	-	5394.4
GBR-19	5393.13	40.23	-	-	5353.6
GBR-20	5393.47	38.73	-	-	5354.74
GBR-21S	5400.65	26.68	-	-	5373.97
GBR-21D	5400.19	37.93	-	-	5362.26
GBR-22	5395.91	39.95	-	-	5355.96
GBR-23	5403.72	30.01	-	-	5373.71
GBR-24S	5396.08	31.53	-	-	5364.55
GBR-24D	5396.77	32.8	-	-	5363.97
GBR-25	5396.72	36.93	-	-	5359.79



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GBR-26	5395.59	35.28	-	-	5360.31
GBR-30	5396.58	36.31	-	-	5360.27
GBR-31	5393.69	35.76	-	-	5359.1
GBR-33†	5396.28	37.22	-	-	5359.06
GBR-34	5394.00	37.23	-	-	5356.77
GBR-35	5393.66	37.44	-	-	5356.22
GBR-39	5397.55	36.47	-	-	5361.08
GBR-40	5400.76	33.73	-	-	5367.03
GBR-41	5396.35	29.63	-	-	5366.72
GBR-51	5389.68	42.46	-	-	5347.22
GBR-52	5387.74	40.3	-	-	5347.44
SHS-1	5383.54	40.27	-	-	5343.27
SHS-2	5381.66	40.63	-	-	5341.03
SHS-3	5383.33	37.07	-	-	5346.26
SHS-4	5383.62	42.57	-	-	5341.05
SHS-5	5378.36	39.77	-	-	5338.59
SHS-6	5378.17	39.55	-	-	5338.62
SHS-8	5380.25	40.18	-	-	5340.07
SHS-9	5380.79	39.03	-	-	5341.76
SHS-10	5373.80	37.41	-	-	5336.39
SHS-12	5373.94	40.67	-	-	5333.27
SHS-13	5367.81	no access	-	-	no access
SHS-14	5367.07	35.52	-	-	5331.55
SHS-15	5366.21	34.45	-	-	5331.76
SHS-16	5362.58	32.02	-	-	5330.56
SHS-17	5364.35	33.9	-	-	5330.45
SHS-18	5373.64	40.7	-	-	5332.94
SHS-19	5378.89	40.62	-	-	5338.27

*WSEL = Water Surface Elevation Adjusted for Product Depth using 0.8 g/ml.
† Wellhead elevation has not been corrected after road construction.

Table 5. Giant Industries, Inc. Bloomfield Refinery Quarterly Product Levels



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Annual Report 2007, Former Giant Refinery
Western Refining, Inc.
March 2008

Well #	Product Thickness (ft) January 2007	Product Thickness (ft) April 2007	Product Thickness (ft) July 2007	Product Thickness (ft) October 2007
GBR-22	0	0	0.3	0
GBR-23	0.02	0.08	0	0
GBR-25	0.85	0.51	0.94	0

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5.0 Total Volume History

Section 5 presents the volume of groundwater managed for the year. Total volume pumped from each well, current tank volumes and the re-injection volume is reported.

**Table 6. Giant Industries, Inc. Bloomfield Refinery
Tank Volume Change 2007**

Tank Number	Beginning Volume (Gallons)	Ending Volume (Gallons)	Change (Gallons)
102	11,830	13,312	1,482
Total Net Volume Change (Gallons):			1,482

**Table 7. Giant Industries, Inc. Bloomfield Refinery
Recovery Well Volume Tabulation 2007**

Well #	Jan-Jul	Jul-Dec	Total
GRW-1	18,273	12,415	30,688
GRW-2	18,584	33,633	52,217
GRW-3	47,011	96,782	143,793
GRW-4	47,982	28,255	76,237
GRW-5	165,163	141,887	307,050
GRW-6	104,794	221,626	326,420
GRW-9	40,819	30,876	71,695
GRW-10	928,548	187,509	1,116,057
GRW-11	22	25	47
GRW-12	8,325	15,394	18,304
GRW-13	91,321	18,217	109,538
SHS-9	0	19	19
SHS-14	24	121	145
SHS-18	0	0	0
SHS-19	143,134	200,336	343,470
Total Volume Pumped in Gallons:			2,601,095



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Western Refining, Inc.
March 2008

**Table 8. Giant Industries, Inc. Bloomfield Refinery
Total Volume Summary 2007**

Total Volume of Water Recovered:	2,601,095 gallons
Net Change in Storage Volume:	1,482 gallons
Total Water Treated and Pumped to the Infiltration Gallery:	2,599,613 gallons



Lodestar Services, Incorporated

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5.0 Recommendations

Regular analyses of influent and effluent water indicate the treated water at the former Bloomfield Refinery is beneath NMWQCC standards. However, quarterly monitoring of groundwater levels indicate free-phase product is present at the site. Modifications to the treatment system are warranted, but more data are required to determine appropriate actions. Recommendations include:

- Institute the proposed changes to the groundwater monitoring well sampling schedule listed in Section 1.0 and proceed with closure for the downgradient monitoring wells.
- During 2008, Western should sample all monitoring wells located north of Hwy 64 to determine existing groundwater quality.
- Once sampling results are reported, a comprehensive analysis of groundwater quality and flow characteristics should be conducted. Results of the detailed study can be used to make recommendations for modifications to the treatment system. Such a study will allow Western to pursue a more efficient approach to groundwater remediation and facilitate closure of the entire project.



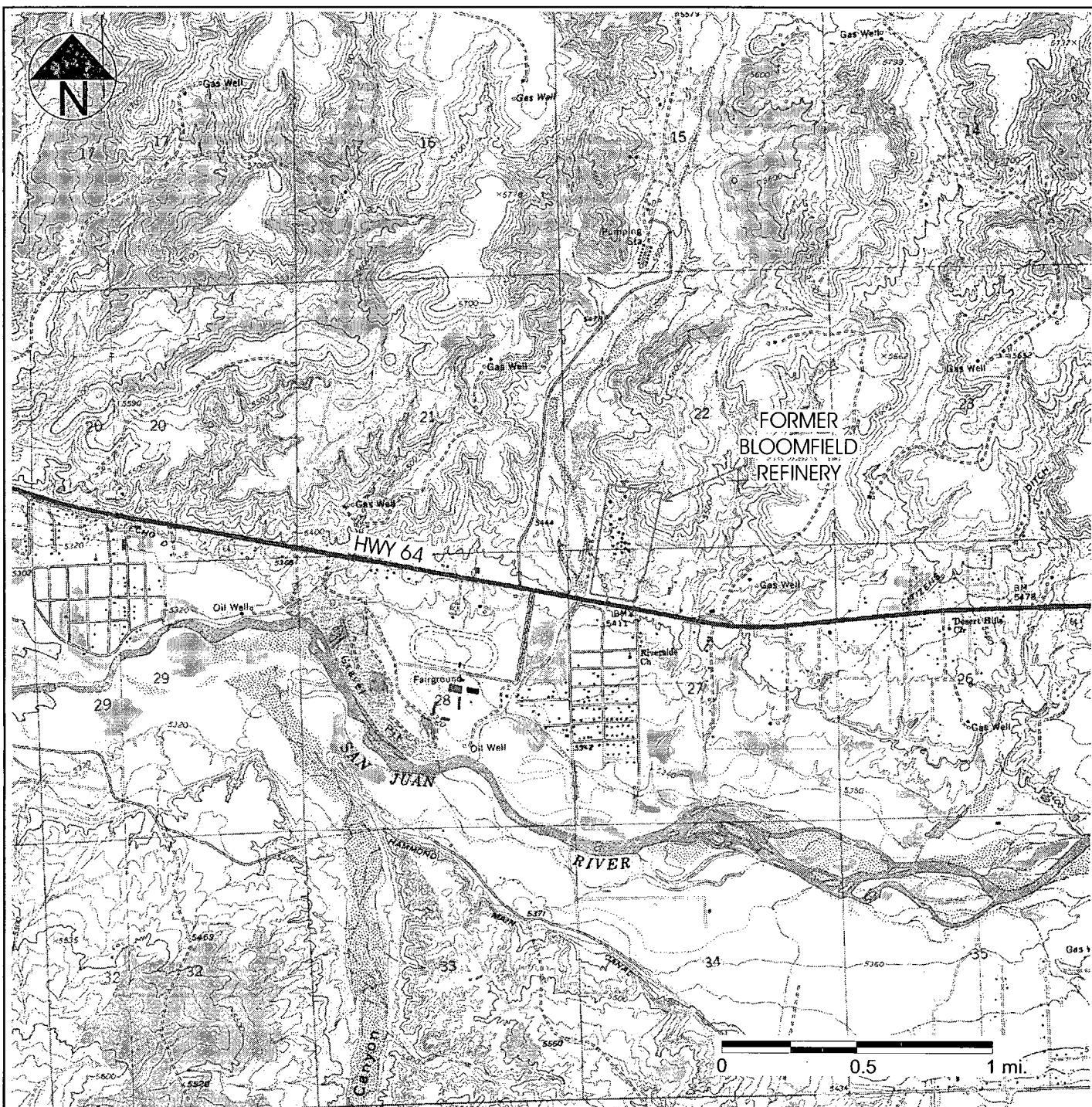
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Annual Report 2007, Former Giant Refinery
Western Refining, Inc.
March 2008

6.0 FIGURES

 **Lodestar Services, Incorporated**

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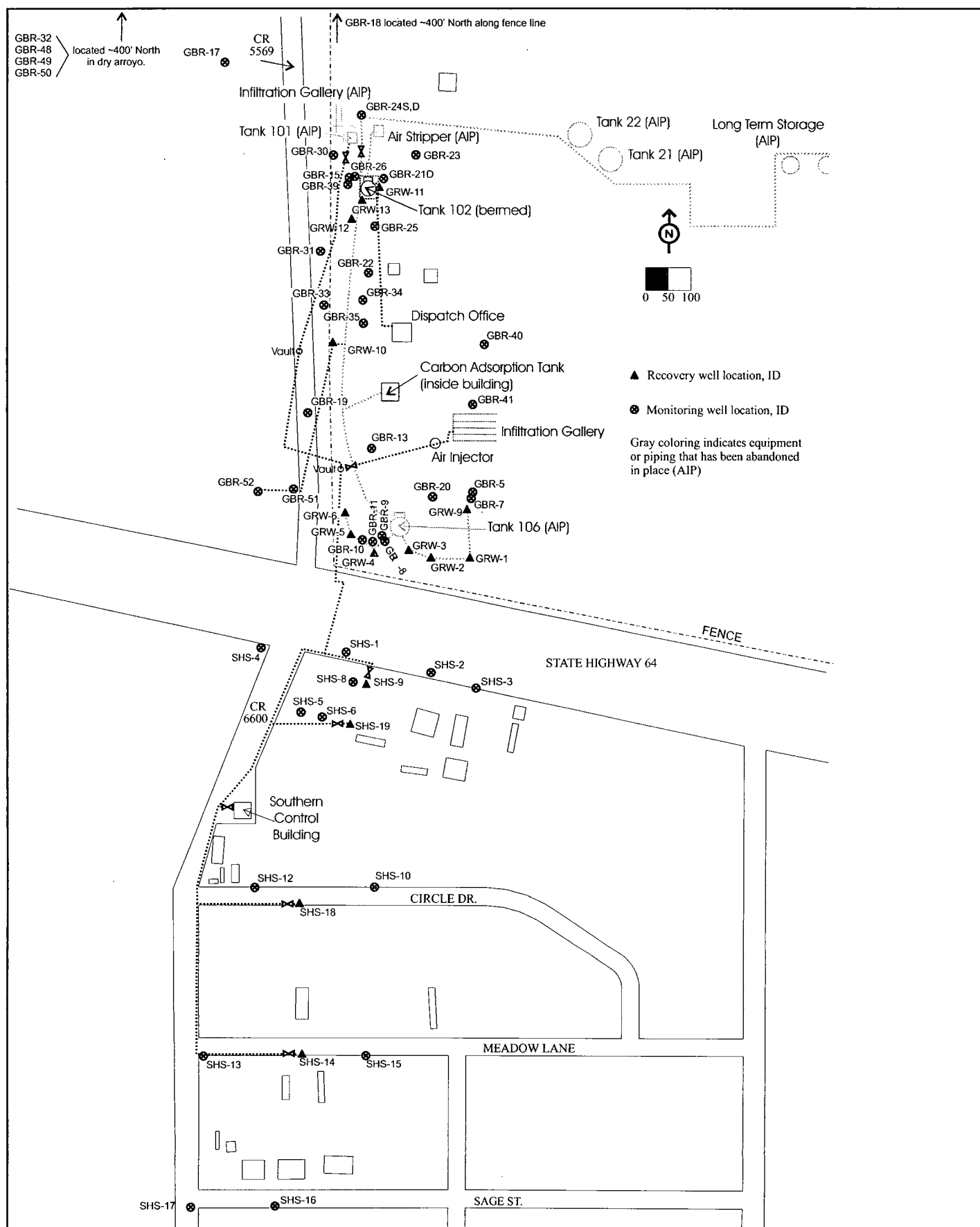


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GIANT BLOOMFIELD FORMER REFINERY
 SAN JUAN COUNTY, NEW MEXICO
 TOPOGRAPHIC MAP
 (USGS 1:100,000 Scale Horn Canyon, New Mexico
 Topographic Map)

PROJECT: FORMER REFINERY
 ANNUAL REPORT
 DRAWN BY: ALA
 REVISED: 02/13/07

FIGURE 1

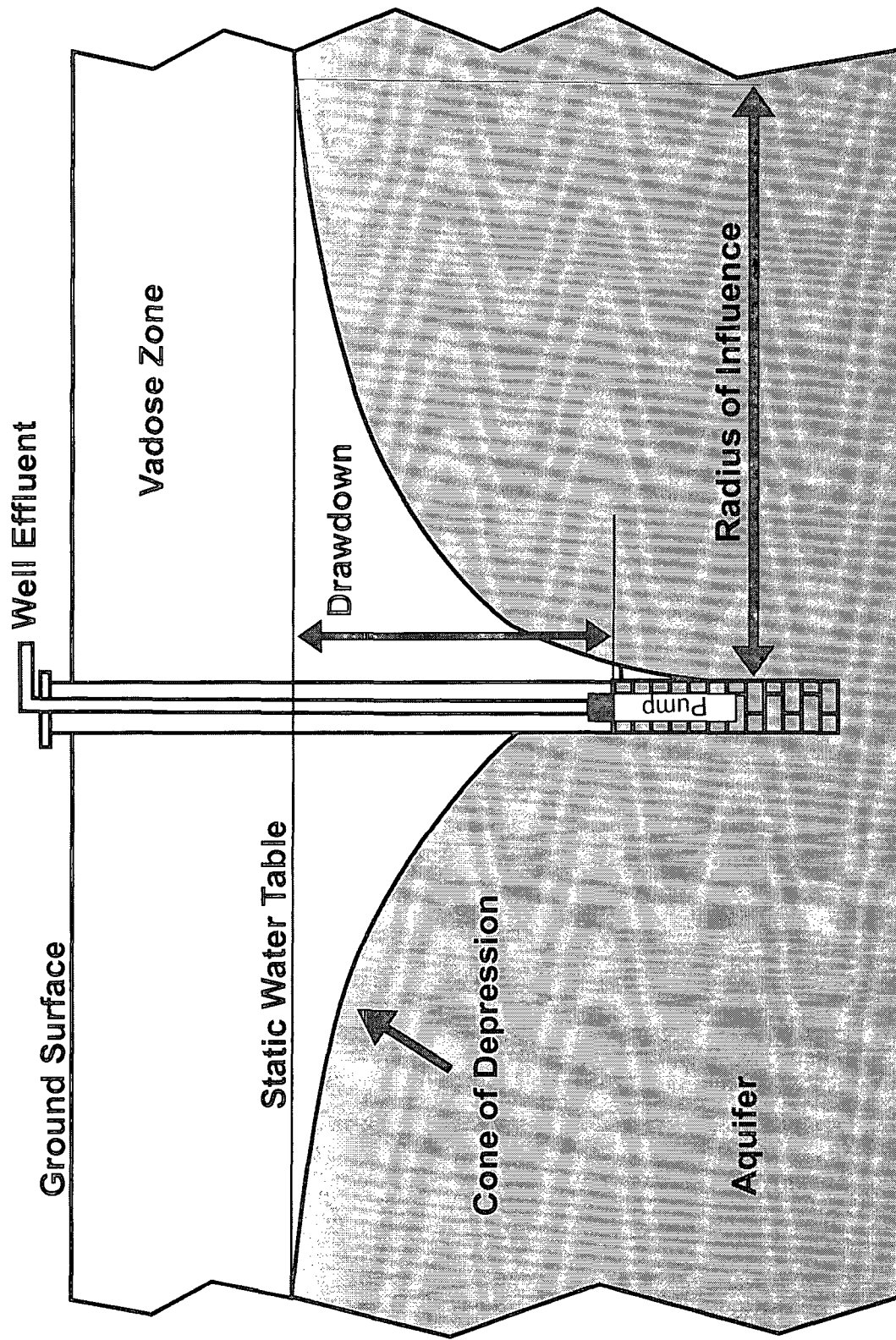



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 Farmington, NM 87499

GIANT BLOOMFIELD
 FORMER REFINERY
 SITE MAP

PROJECT: FORMER REFINERY
 ANNUAL REPORT
 DRAWN BY: ALA
 REVISED: 02/13/07

FIGURE 2

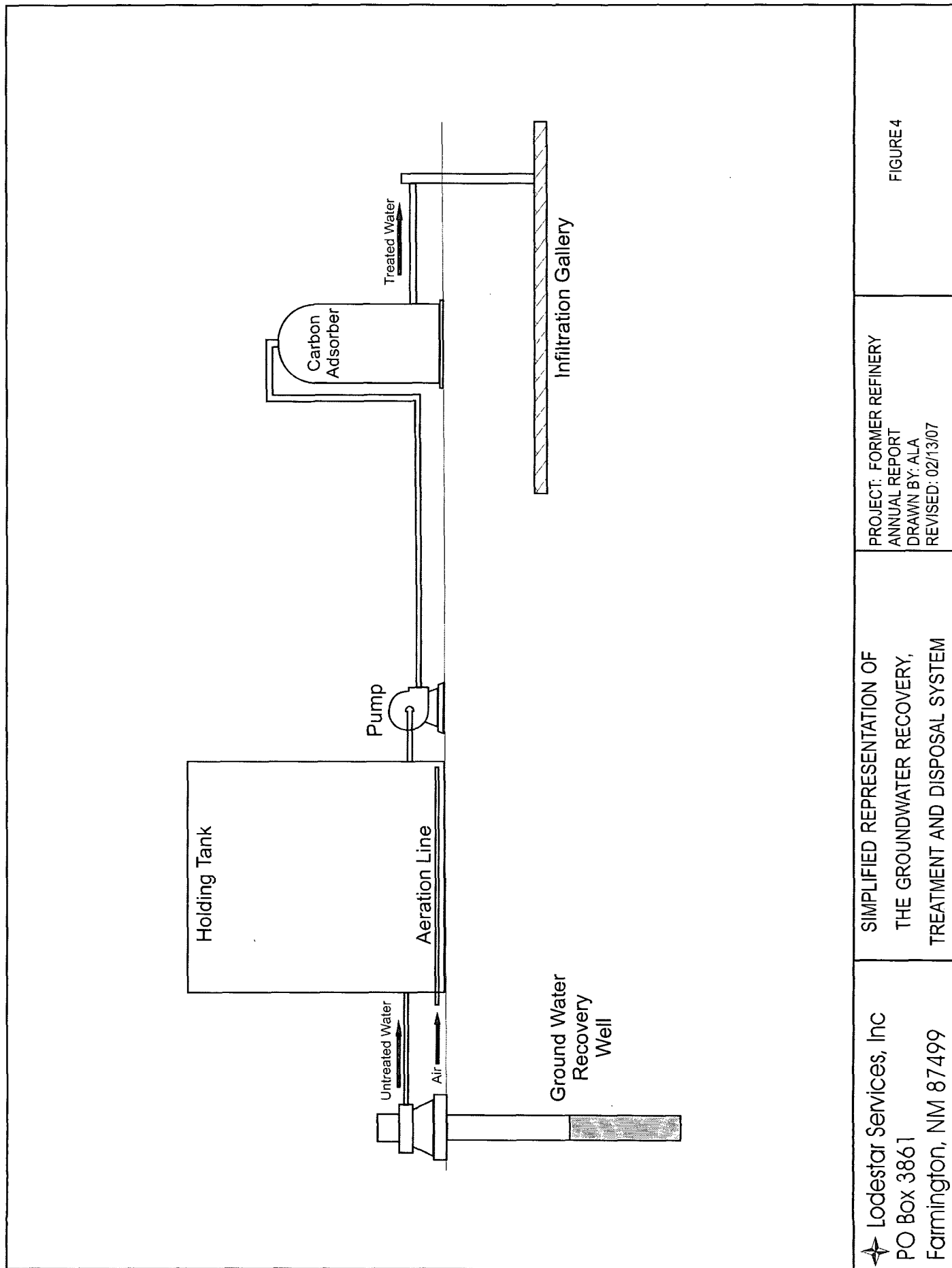


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EFFECT OF PUMPING
 ON AN AQUIFER

PROJECT: FORMER REFINERY
 ANNUAL REPORT
 DRAWN BY: ALA
 REVISED: 02/13/07

FIGURE 3

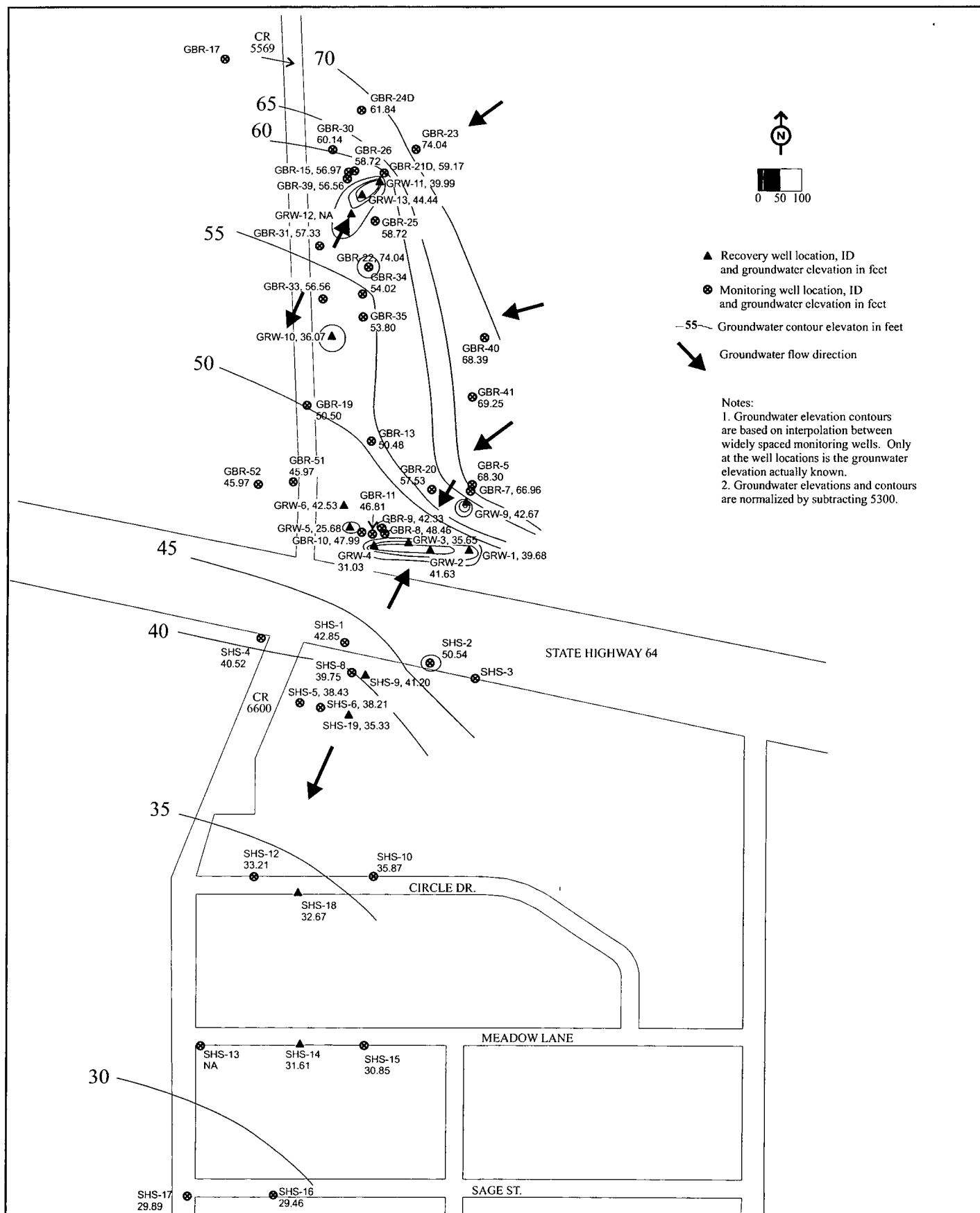


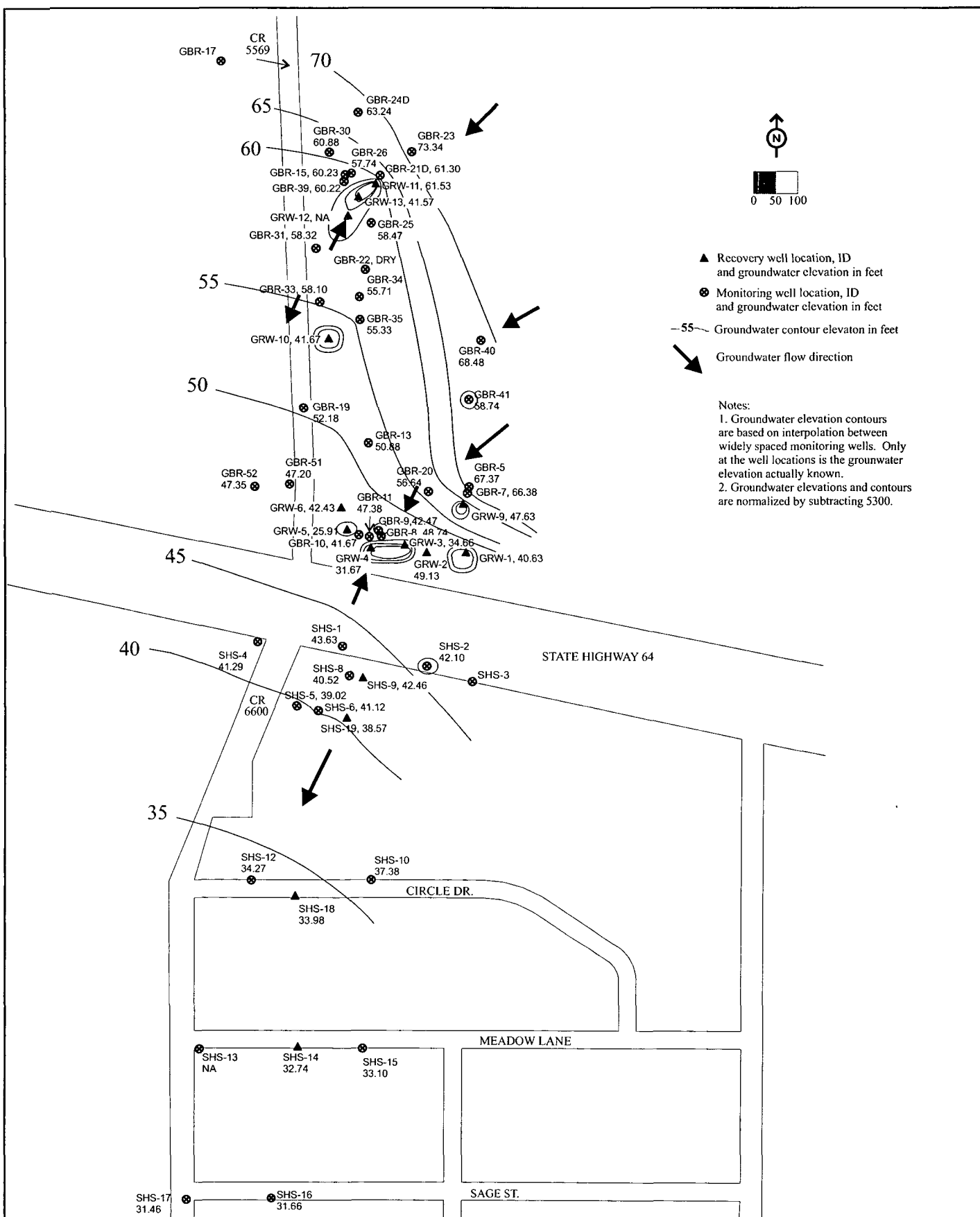
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SIMPLIFIED REPRESENTATION OF
 THE GROUNDWATER RECOVERY,
 TREATMENT AND DISPOSAL SYSTEM

PROJECT: FORMER REFINERY
 ANNUAL REPORT
 DRAWN BY: ALA
 REVISED: 02/13/07

FIGURE 4



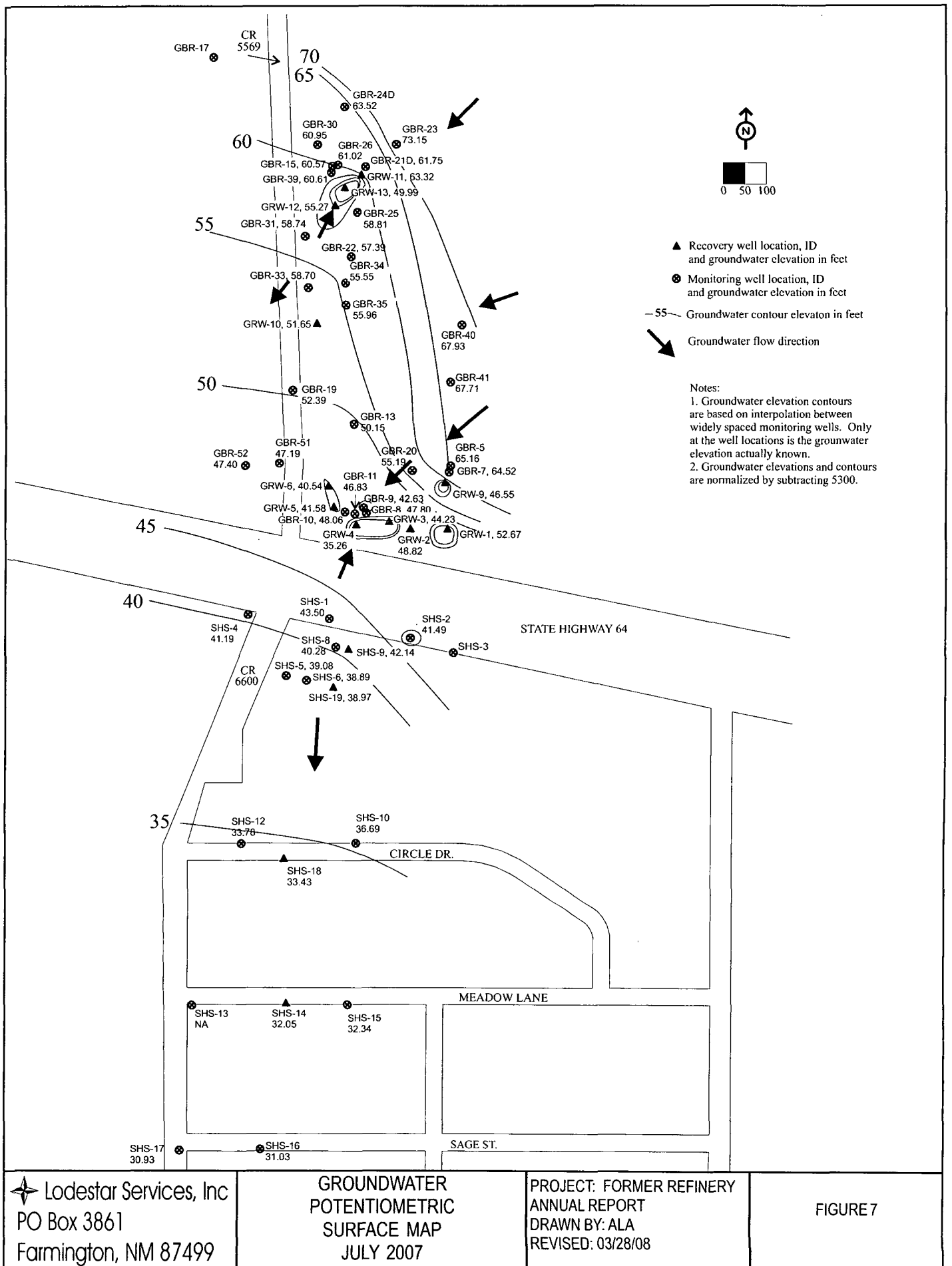


Lodestar Services, Inc
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Farmington, NM 87499

GROUNDWATER
POTENTIOMETRIC
SURFACE MAP
APRIL 2007

PROJECT: FORMER REFINERY
ANNUAL REPORT
DRAWN BY: ALA
REVISED: 03/28/08

FIGURE 6

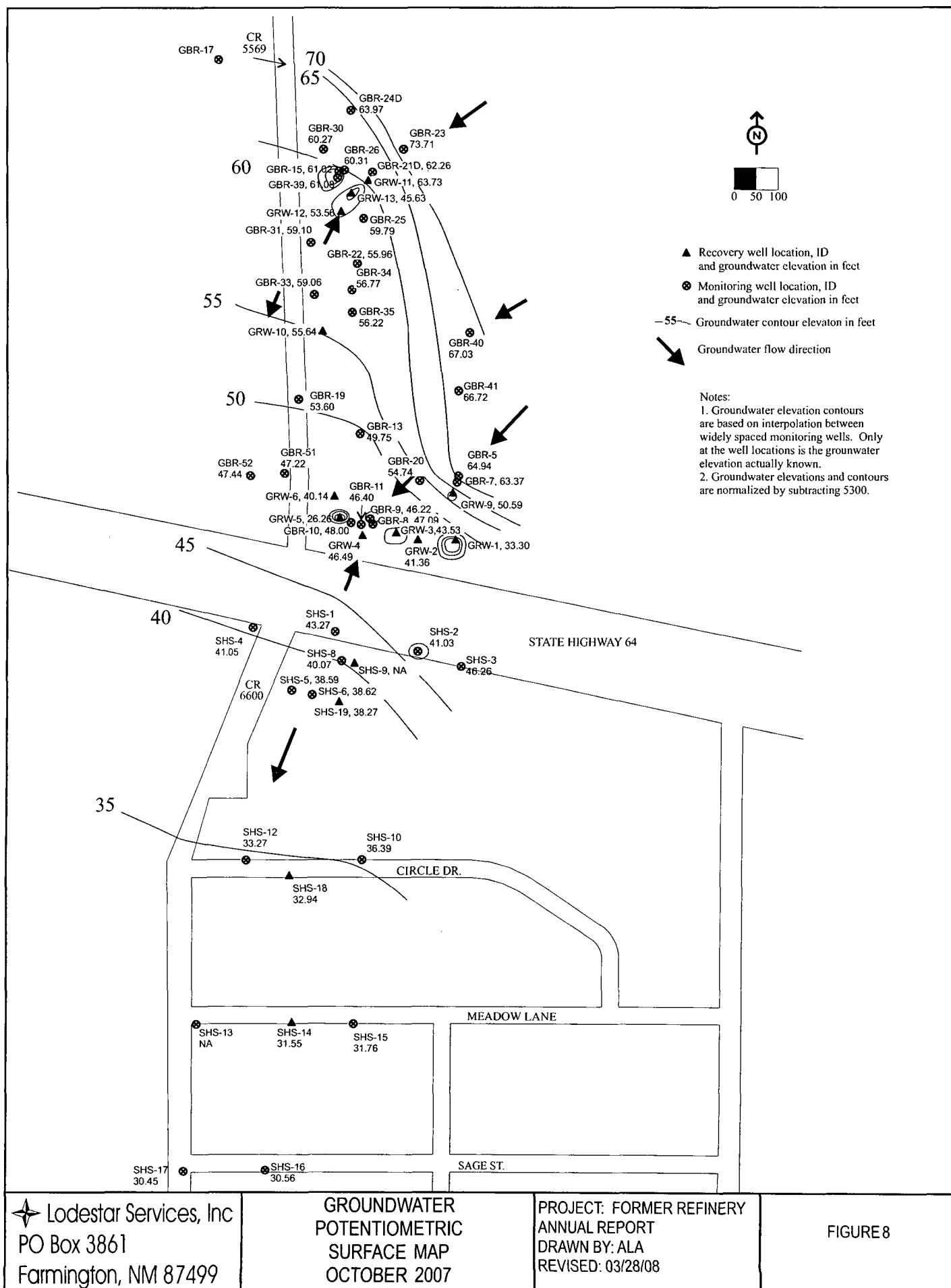


Lodestar Services, Inc
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Farmington, NM 87499

GROUNDWATER
POTENTIOMETRIC
SURFACE MAP
JULY 2007

PROJECT: FORMER REFINERY
ANNUAL REPORT
DRAWN BY: ALA
REVISED: 03/28/08

FIGURE 7



Lodestar Services, Inc
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GROUNDWATER
POTENTIOMETRIC
SURFACE MAP
OCTOBER 2007

PROJECT: FORMER REFINERY
ANNUAL REPORT
DRAWN BY: ALA
REVISED: 03/28/08

FIGURE 8

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number **612213**
January 11, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name GIANT FORMER REFINERY
Project Number (NONE)

Attention: MARTIN NEE/BILL ROBERTSON

On 12/21/2006 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Due to instrument maintenance, EPA 624 was substituted for EPA 601/602 at no additional cost.

EPA Methods 601/602, 300.0 and 150.1 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All other analyses were performed by Flowers Chemical Laboratories, Inc. (FCL), Altamonte Springs, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS

Environmental Testing

CLIENT	: LODESTAR	PINNACLE ID	: 612213
PROJECT #	: (NONE)	DATE RECEIVED	: 12/21/2006
PROJECT NAME	: GIANT FORMER REFINERY	REPORT DATE	: 01/11/2007

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
612213 - 01	GBR - 50	AQUEOUS	12/20/2006
612213 - 02	GBR - 48	AQUEOUS	12/20/2006
612213 - 03	GBR - 32	AQUEOUS	12/20/2006
612213 - 04	GBR - 49	AQUEOUS	12/20/2006
612213 - 05	GBR - 17	AQUEOUS	12/20/2006
612213 - 06	TRIP BLANK	AQUEOUS	12/07/2006

ION CHROMATOGRAPHY RESULTS

TEST : ANIONS BY EPA 300.0
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 612213
 ANALYST : BP

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	GBR - 50	AQUEOUS	12/20/2006	NA	12/21/2006	10
02	GBR - 48	AQUEOUS	12/20/2006	NA	12/21/2006	10
03	GBR - 32	AQUEOUS	12/20/2006	NA	12/21/2006	10
PARAMETER		DET. LIMIT	UNITS	GBR - 50	GBR - 48	GBR - 32
CHLORIDE		1.0	MG/L	61	140	480
SULFATE		1.0	MG/L	1700 - D100a	820	1800 - D100b

CHEMIST NOTES:

D100a = Reported from a 100X dilution run on 12-21-06.

D100b = Reported from a 100X dilution run on 12-21-06.

ION CHROMATOGRAPHY RESULTS

TEST : ANIONS BY EPA 300.0
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 612213
 ANALYST : BP

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	GBR - 49	AQUEOUS	12/20/2006	NA	12/21/2006	10
05	GBR - 17	AQUEOUS	12/20/2006	NA	12/21/2006	10
PARAMETER		DET. LIMIT	UNITS	GBR - 49	GBR - 17	
CHLORIDE		1.0	MG/L	280	48	
SULFATE		1.0	MG/L	2200 - D100c	1400 - D100d	

CHEMIST NOTES:

D100c = Reported from a 100X dilution run on 12-21-06.

D100d = Reported from a 100X dilution run on 12-21-06.

PINNACLE LABS

Environmental Testing

PINNACLE I.D. : 612213
 TEST : ANIONS BY EPA 300.0
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GIANT FORMER REFINERY

ION CHROMATOGRAPHY RESULTS REAGENT BLANK

BLANK I.D. : 122106 SAMPLE MATRIX : AQUEOUS
 DATE EXTRACTED : N/A ANALYST : BP
 DATE ANALYZED : 12/21/2006 UNITS : MG/L

PARAMETER	UNITS	
CHLORIDE	MG/L	<1.0
SULFATE	MG/L	<1.0

ION CHROMATOGRAPHY QUALITY CONTROL LFB/LFBD

BATCH I.D. : 122106 SAMPLE MATRIX : AQUEOUS
 DATE EXTRACTED : N/A ANALYST : BP
 DATE ANALYZED : 12/21/2007 UNITS : MG/L

PARAMETER	LFB RESULT	CONC SPIKE	SPIKED BLANK	% REC	DUP SPIKE	DUP % REC	RPD	RPD LIMITS	REC LIMITS
CHLORIDE	<1.0	10.0	9.42	94	9.48	95	1	20	(90 - 110)
SULFATE	<1.0	10.0	9.84	98	9.89	99	1	20	(90 - 110)

ION CHROMATOGRAPHY QUALITY CONTROL LFM

SAMPLE I.D. : 612211-01 SAMPLE MATRIX : AQUEOUS
 DATE EXTRACTED : N/A ANALYST : BP
 DATE ANALYZED : 12/21/2007 UNITS : MG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	REC LIMITS
CHLORIDE	IC1 9.9	10.0	18.0	81	(80 - 120)
SULFATE	IC1 27	10.0	36.0	90	(80 - 120)

CHEMIST NOTES:

IC1 = Sample results were normalized to 90% of reported values due to dilution during spiking.

GENERAL CHEMISTRY RESULTS

CLIENT : LODESTAR PINNACLE I.D. : 612213
 PROJECT # : (NONE) DATE RECEIVED : 12/21/2006
 PROJECT NAME : GIANT FORMER REFINERY ANALYST : BP

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
01	GBR - 50	AQUEOUS	12/20/2006	12/22/2006
02	GBR - 48	AQUEOUS	12/20/2006	12/22/2006
03	GBR - 32	AQUEOUS	12/20/2006	12/22/2006

PARAMETER	GBR - 50	GBR - 48	GBR - 32
PH (150.1)	6.7	7.1	7.2
TEMPERATURE (°C)	20.4	20.3	20.0

CHEMIST NOTES:
 N/A

GENERAL CHEMISTRY RESULTS

CLIENT	: LODESTAR	PINNACLE I.D.	: 612213
PROJECT #	: (NONE)	DATE RECEIVED	: 12/21/2006
PROJECT NAME	: GIANT FORMER REFINERY	ANALYST	: BP

SAMPLE		DATE		DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
04	GBR - 49	AQUEOUS	12/20/2006	12/22/2006
05	GBR - 17	AQUEOUS	12/20/2006	12/22/2006

PARAMETER	GBR - 49	GBR - 17
PH (150.1)	6.4	7.0
TEMPERATURE (°C)	20.0	19.8

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: LODESTAR	PINNACLE I.D.	: 612213
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: GIANT FORMER REFINERY	DATE ANALYZED	: 12/22/2006

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	612213-01	6.68	6.76	1
TEMPERATURE (°C)		20.4	20.0	

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 612213
 ANALYST : DRK

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GBR - 50	AQUEOUS	12/20/2006	NA	01/03/2007	1
02	GBR - 48	AQUEOUS	12/20/2006	NA	01/03/2007	1
03	GBR - 32	AQUEOUS	12/20/2006	NA	01/03/2007	1

PARAMETER	DET. LIMIT	UNITS	GBR - 50	GBR - 48	GBR - 32	P/E
METHYL -t-BUTYL ETHER	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TOLUENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
ETHYLBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TOTAL XYLENES	3.0	UG/L	< 3.0	< 3.0	< 3.0	MS
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
VINYL CHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMOMETHANE	2.0	UG/L	< 2.0	< 2.0	< 2.0	MS
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRICHLOROFLUOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
METHYLENE CHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1-DICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CHLOROFORM	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROETHANE (EDC)	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CARBON TETRACHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROPROPANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMODICHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CIS-1,3-DICHLOROPROPENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRANS-1,3-DICHLOROPROPENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,2-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
DIBROMOCHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DIBROMOETHANE (EDB)	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TETRACHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMOFORM	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,2,2-TETRACHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,3-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,4-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS

SURROGATE:

1,2-DICHLOROETHANE-D4 (%)		95	95	94
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		107	103	102
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		113	105	107
SURROGATE LIMITS	(86 - 115)			

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 612213
 ANALYST : DRK

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	GBR - 49	AQUEOUS	12/20/2006	NA	01/03/2007	1
05	GBR - 17	AQUEOUS	12/20/2006	NA	01/03/2007	1
06	TRIP BLANK	AQUEOUS	12/07/2006	NA	01/03/2007	1

PARAMETER	DET. LIMIT	UNITS	GBR - 49	GBR - 17	TRIP BLANK	P/E
METHYL -t-BUTYL ETHER	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BENZENE	1.0	UG/L	5.4	< 1.0	< 1.0	MS
TOLUENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
ETHYLBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TOTAL XYLENES	3.0	UG/L	< 3.0	< 3.0	< 3.0	MS
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
VINYL CHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMOMETHANE	2.0	UG/L	< 2.0	< 2.0	< 2.0	MS
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRICHLOROFLUOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
METHYLENE CHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1-DICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CHLOROFORM	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROETHANE (EDC)	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CARBON TETRACHLORIDE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROPROPANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMODICHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CIS-1,3-DICHLOROPROPENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TRANS-1,3-DICHLOROPROPENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,2-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
DIBROMOCHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DIBROMOETHANE (EDB)	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
TETRACHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
CHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
BROMOFORM	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,1,2,2-TETRACHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,3-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,4-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS
1,2-DICHLOROBENZENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	MS

SURROGATE:

1,2-DICHLOROETHANE-D4 (%)		91	93	96
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		105	106	106
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		108	111	107
SURROGATE LIMITS	(86 - 115)			

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 601/602	LIST	PINNACLE I.D.	: 612213
BLANK I.D.	: 010307E		DATE EXTRACTED	: NA
CLIENT	: LODESTAR		DATE ANALYZED	: 01/03/2007
PROJECT #	: (NONE)		SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: GIANT FORMER REFINERY		ANALYST	: DRK

PARAMETER	UNITS	
METHYL -t-BUTYL ETHER	UG/L	1.0
BENZENE	UG/L	1.0
TOLUENE	UG/L	1.0
ETHYLBENZENE	UG/L	1.0
TOTAL XYLENES	UG/L	3.0
CHLOROMETHANE	UG/L	1.0
VINYL CHLORIDE	UG/L	1.0
BROMOMETHANE	UG/L	2.0
CHLOROETHANE	UG/L	1.0
TRICHLOROFLUOROMETHANE	UG/L	1.0
1,1-DICHLOROETHENE	UG/L	1.0
METHYLENE CHLORIDE	UG/L	1.0
TRANS-1,2-DICHLOROETHENE	UG/L	1.0
1,1-DICHLOROETHANE	UG/L	1.0
CHLOROFORM	UG/L	1.0
1,2-DICHLOROETHANE (EDC)	UG/L	1.0
1,1,1-TRICHLOROETHANE	UG/L	1.0
CARBON TETRACHLORIDE	UG/L	1.0
1,2-DICHLOROPROPANE	UG/L	1.0
TRICHLOROETHENE	UG/L	1.0
BROMODICHLOROMETHANE	UG/L	1.0
CIS-1,3-DICHLOROPROPENE	UG/L	1.0
TRANS-1,3-DICHLOROPROPENE	UG/L	1.0
1,1,2-TRICHLOROETHANE	UG/L	1.0
DIBROMOCHLOROMETHANE	UG/L	1.0
1,2-DIBROMOETHANE (EDB)	UG/L	1.0
TETRACHLOROETHENE	UG/L	1.0
CHLOROBENZENE	UG/L	1.0
BROMOFORM	UG/L	1.0
1,1,2,2-TETRACHLOROETHANE	UG/L	1.0
1,3-DICHLOROBENZENE	UG/L	1.0
1,4-DICHLOROBENZENE	UG/L	1.0
1,2-DICHLOROBENZENE	UG/L	1.0
SURROGATE:		
1,2-DICHLOROETHANE-D4 (%)		100
SURROGATE LIMITS		(76 - 114)
TOLUENE-D8 (%)		106
SURROGATE LIMITS		(88 - 110)
BROMOFLUOROBENZENE (%)		109
SURROGATE LIMITS		(86 - 115)

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY QUALITY CONTROL MS/MSD

TEST : EPA 601/602 LIST PINNACLE I.D. : 612213
 SAMPLE ID : 612213-03 DATE EXTRACTED : NA
 CLIENT : LODESTAR DATE ANALYZED : 01/03/2007
 PROJECT # : (NONE) SAMPLE MATRIX : AQUEOUS
 PROJECT NAME : GIANT FORMER REFINERY UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
METHYL T-BUTYL ETHER	1.0	20	19.5	98	19.8	99	2	(70 - 130)	20
BENZENE	1.0	20	18.9	95	19.3	97	2	(39 - 150)	20
TOLUENE	1.0	20	19.1	96	19.8	99	4	(46 - 148)	20
ETHYLBENZENE	1.0	20	19.5	98	20.4	102	5	(32 - 160)	20
TOTAL XYLENES	3.0	60	60.4	101	61.4	102	2	(80 - 120)	20
CHLOROMETHANE	1.0	20	20.0	100	19.5	98	3	(D - 193)	20
VINYL CHLORIDE	1.0	20	15.8	79	15.5	78	2	(28 - 163)	20
BROMOMETHANE	2.0	20	22.3	112	21.0	105	6	(D - 144)	20
CHLOROETHANE	1.0	20	19.8	99	18.8	94	5	(46 - 137)	20
TRICHLOROFLUOROMETHANE	1.0	20	23.4	117	23.3	117	0	(21 - 156)	20
1,1-DICHLOROETHENE	1.0	20	16.6	83	16.6	83	0	(28 - 167)	20
METHYLENE CHLORIDE	1.0	20	16.9	85	17.4	87	3	(25 - 162)	20
TRANS-1,2-DICHLOROETHENE	1.0	20	16.5	83	17.6	88	6	(38 - 155)	20
1,1-DICHLOROETHANE	1.0	20	18.6	93	18.7	94	1	(47 - 132)	20
CHLOROFORM	1.0	20	19.8	99	19.3	97	3	(49 - 133)	20
1,2-DICHLOROETHANE (EDC)	1.0	20	19.6	98	20.5	103	4	(51 - 147)	20
1,1,1-TRICHLOROETHANE	1.0	20	18.3	92	19.2	96	5	(41 - 138)	20
CARBON TETRACHLORIDE	1.0	20	19.1	96	19.1	96	0	(43 - 143)	20
1,2-DICHLOROPROPANE	1.0	20	18.7	94	19.4	97	4	(44 - 156)	20
TRICHLOROETHENE	1.0	20	19.8	99	20.1	101	2	(35 - 146)	20
BROMODICHLOROMETHANE	1.0	20	18.9	95	19.2	96	2	(42 - 172)	20
CIS-1,3-DICHLOROPROPENE	1.0	20	19.3	97	19.9	100	3	(22 - 178)	20
TRANS-1,3-DICHLOROPROPENE	1.0	20	17.9	90	18.9	95	5	(22 - 178)	20
1,1,2-TRICHLOROETHANE	1.0	20	19.9	100	21.0	105	5	(39 - 136)	20
DIBROMOCHLOROMETHANE	1.0	20	19.4	97	20.0	100	3	(24 - 191)	20
1,2-DIBROMOETHANE (EDB)	1.0	20	21.2	106	21.5	108	1	(80 - 120)	20
TETRACHLOROETHENE	1.0	20	23.2	116	23.9	120	3	(26 - 162)	20
CHLOROBENZENE	1.0	20	19.6	98	20.2	101	3	(38 - 150)	20
BROMOFORM	1.0	20	18.0	90	18.8	94	4	(13 - 159)	20
1,1,2,2-TETRACHLOROETHANE	1.0	20	19.7	99	21.1	106	7	(8 - 184)	20
1,3-DICHLOROBENZENE	1.0	20	19.2	96	19.0	95	1	(7 - 187)	20
1,4-DICHLOROBENZENE	1.0	20	20.3	102	20.2	101	0	(42 - 143)	20
1,2-DICHLOROBENZENE	1.0	20	20.5	103	21.0	105	2	(D - 208)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Cation-Anion Balance Worksheet

Accession Number: 612213-01

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	225		
Chloride	61	0.02821	1.72081
Fluoride		0.05264	0.00000
Nitrate as N	0	0.01613	0.00000
Sulfate	1700	0.02082	35.39400
Carbonate		0.03333	0.00000
Bi-Carbonate	224	0.01639	3.67136
Total Anions =			40.78617

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	378	0.04990	18.86220
Potassium	9.04	0.02558	0.23124
Magnesium	28.9	0.08229	2.37818
Sodium	326	0.04350	14.18100
Copper		0.03147	0.00000
Iron	5.73	0.05372	0.30782
Manganese	0.373	0.03640	0.01358
Zinc		0.03059	0.00000
Total Cations =			35.97402

Anion/Cation Balance (% difference) = 6.3%

Total Anions+Cations =	2644 mg/l	(calculated)
Total Dissolved Solids =	2600 mg/l	(measured)
TDS/ion sum ratio =	0.98	
Electrical Cond =	3510 umh/cm	(measured)
TDS/EC ratio =	0.741	

Cation-Anion Balance Worksheet

Accession Number: 612213-02

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	176		
Chloride	140	0.02821	3.94940
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	820	0.02082	17.07240
Carbonate		0.03333	0.00000
Bi-Carbonate	175	0.01639	2.86825
Total Anions =			23.89005

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	174	0.04990	8.68260
Potassium	7.27	0.02558	0.18597
Magnesium	18.1	0.08229	1.48945
Sodium	293	0.04350	12.74550
Copper		0.03147	0.00000
Iron	7.77	0.05372	0.41740
Manganese	0.457	0.03640	0.01663
Zinc		0.03059	0.00000
Total Cations =			23.53755

Anion/Cation Balance (% difference) = 0.7%

Total Anions+Cations =	1566 mg/l	(calculated)
Total Dissolved Solids =	1850 mg/l	(measured)
TDS/ion sum ratio =	1.18	
Electrical Cond =	2700 umh/cm	(measured)
TDS/EC ratio =	0.685	

Cation-Anion Balance Worksheet

Accession Number: 612213-03

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	228		
Chloride	480	0.02821	13.54080
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1800	0.02082	37.47600
Carbonate		0.03333	0.00000
Bi-Carbonate	227	0.01639	3.72053
Total Anions =			54.73733

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	363	0.04990	18.11370
Potassium	10.1	0.02558	0.25836
Magnesium	39.5	0.08229	3.25046
Sodium	564	0.04350	24.53400
Copper		0.03147	0.00000
Iron	1.24	0.05372	0.06661
Manganese	1.07	0.03640	0.03895
Zinc		0.03059	0.00000
Total Cations =			46.26207

Anion/Cation Balance (% difference) = 8.4%

Total Anions+Cations =	3396 mg/l	(calculated)
Total Dissolved Solids =	3880 mg/l	(measured)
TDS/ion sum ratio =	1.14	
Electrical Cond =	5480 umh/cm	(measured)
TDS/EC ratio =	0.708	

Cation-Anion Balance Worksheet

Accession Number: 612213-04

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	112		
Chloride	280	0.02821	7.89880
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	2200	0.02082	45.80400
Carbonate		0.03333	0.00000
Bi-Carbonate	112	0.01639	1.83568
Total Anions =			55.53848

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	406	0.04990	20.25940
Potassium	13.5	0.02558	0.34533
Magnesium	38.8	0.08229	3.19285
Sodium	495	0.04350	21.53250
Copper		0.03147	0.00000
Iron	120	0.05372	6.44640
Manganese	5.91	0.03640	0.21512
Zinc		0.03059	0.00000
Total Cations =			51.99161

Anion/Cation Balance (% difference) = 3.3%

Total Anions+Cations =	3626 mg/l	(calculated)
Total Dissolved Solids =	3460 mg/l	(measured)
TDS/ion sum ratio =	0.95	
Electrical Cond =	4520 umh/cm	(measured)
TDS/EC ratio =	0.765	

Cation-Anion Balance Worksheet

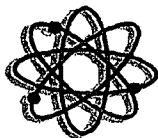
Accession Number: 612215-05

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	164		
Chloride	48	0.02821	1.35408
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1400	0.02082	29.14800
Carbonate		0.03333	0.00000
Bi-Carbonate	163	0.01639	2.67157
Total Anions =			33.17365

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	273	0.04990	13.62270
Potassium	7.27	0.02558	0.18597
Magnesium	22.6	0.08229	1.85975
Sodium	222	0.04350	9.65700
Copper		0.03147	0.00000
Iron	4.3	0.05372	0.23100
Manganese	0.235	0.03640	0.00855
Zinc		0.03059	0.00000
Total Cations =			25.56497

Anion/Cation Balance (% difference) = 13.0%

Total Anions+Cations =	2076 mg/l	(calculated)
Total Dissolved Solids =	2000 mg/l	(measured)
TDS/ion sum ratio =	0.96	
Electrical Cond =	2500 umh/cm	(measured)
TDS/EC ratio =	0.800	



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODE
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Report Summary

Date Received: Dec 22, 2006

FCL Project Manager: June S. Flowers

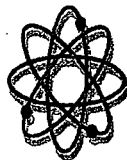
Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
30965GW1	GBR-50/612213-01	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
30965GW2	GBR-48/612213-02	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
30965GW3	GBR-32/612213-03	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
30965GW4	GBR-49/612213-04	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
30965GW5	GBR-17/612213-05	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODE
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Analysis Report

Lab #: 30965GW1 Sampled: 12/20/06 10:00 AM Desc: GBR-50/612213-01

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	2600	mg/L	1.00	2.50	5.00	10076615	EPA160.1	10-33-3	12/27/06
Calcium	378	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-70-2	12/28/06
Iron	5.73	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-89-6	12/28/06
Magnesium	28.9	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-95-4	12/28/06
Manganese	0.373	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-96-5	12/28/06
Potassium	9.04	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-09-7	12/28/06
Sodium	326	mg/L	1.00	0.500	1.00	10076739	EPA6010	7440-23-5	12/28/06
Total Hardness (as CaCO3)	956	mg/L	1.00	0.100	0.200	10076739	SM2340B	40-11-9	12/28/06
Bicarbonate Alkalinity	224	mg/L	5.00	0.500	1.00	10076934	EPA310.1	E1640226	01/03/07
Carbonate Alkalinity	0.500 U	mg/L	5.00	0.500	1.00	10076934	EPA310.1	3812-32-6	01/03/07
Hydroxide CaCO3	0.500 U	mg/L	5.00	0.500	0.500	10076934	EPA310.1	T-005	01/03/07
Total Alkalinity CaCO3	225	mg/L	5.00	0.500	1.00	10076934	EPA310.1	10-34-4	01/03/07
Specific Conductance	3510	umhos/cm	1.00	1.00	2.00	10076977	EPA120.1		12/29/06

Lab #: 30965GW2 Sampled: 12/20/06 10:00 AM Desc: GBR-49/612213-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	1850	mg/L	1.00	2.50	5.00	10076615	EPA160.1	10-33-3	12/27/06
Calcium	174	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-70-2	12/28/06
Iron	7.77	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-89-6	12/28/06
Magnesium	18.1	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-95-4	12/28/06
Manganese	0.457	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-96-5	12/28/06
Potassium	7.27	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-09-7	12/28/06
Sodium	293	mg/L	1.00	0.500	1.00	10076739	EPA6010	7440-23-5	12/28/06
Total Hardness (as CaCO3)	458	mg/L	1.00	0.100	0.200	10076739	SM2340B	40-11-9	12/28/06
Bicarbonate Alkalinity	175	mg/L	5.00	0.500	1.00	10076934	EPA310.1	E1640226	01/03/07
Carbonate Alkalinity	0.500 U	mg/L	5.00	0.500	1.00	10076934	EPA310.1	3812-32-6	01/03/07
Hydroxide CaCO3	0.500 U	mg/L	5.00	0.500	0.500	10076934	EPA310.1		01/03/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODS
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Lab # 30965GW2 Sampled: 12/20/06 10:00 AM Desc: GBR-48161213-02									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Total Alkalinity CaCO3	176	mg/L	5.00	0.500	1.00	10076934	EPA310.1	T-005	01/03/07
Specific Conductance	2700	umhos/cm	1.00	1.00	2.00	10076977	EPA120.1	10-34-4	12/29/06

Lab # 30965GW3 Sampled: 12/20/06 10:00 AM Desc: GBR-321612213-03									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	3880	mg/L	1.00	2.50	5.00	10076615	EPA160.1	10-33-3	12/27/06
Calcium	363	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-70-2	12/28/06
Iron	1.24	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-89-6	12/28/06
Magnesium	39.5	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-95-4	12/28/06
Manganese	1.07	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-96-5	12/28/06
Potassium	10.1	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-09-7	12/28/06
Sodium	564	mg/L	1.00	0.500	1.00	10076739	EPA6010	7440-23-5	12/28/06
Total Hardness (as CaCO3)	962	mg/L	1.00	0.100	0.200	10076739	SM2340B	40-11-9	12/28/06
Bicarbonate Alkalinity	227	mg/L	5.00	0.500	1.00	10076934	EPA310.1	E1640226	01/03/07
Carbonate Alkalinity	0.500 U	mg/L	5.00	0.500	1.00	10076934	EPA310.1	3812-32-6	01/03/07
Hydroxide CaCO3	0.500 U	mg/L	5.00	0.500	0.500	10076934	EPA310.1		01/03/07
Total Alkalinity CaCO3	228	mg/L	5.00	0.500	1.00	10076934	EPA310.1	T-005	01/03/07
Specific Conductance	5480	umhos/cm	1.00	1.00	2.00	10076977	EPA120.1	10-34-4	12/29/06

Lab # 30965GW4 Sampled: 12/20/06 10:00 AM Desc: GBR-491612213-04									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	3460	mg/L	1.00	2.50	5.00	10076615	EPA160.1	10-33-3	12/27/06
Calcium	406	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-70-2	12/28/06
Iron	120	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-89-6	12/28/06
Magnesium	38.8	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-95-4	12/28/06
Manganese	5.91	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-96-5	12/28/06
Potassium	13.5	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-09-7	12/28/06
Sodium	495	mg/L	1.00	0.500	1.00	10076739	EPA6010	7440-23-5	12/28/06
Total Hardness (as CaCO3)	1060	mg/L	1.00	0.100	0.200	10076739	SM2340B	40-11-9	12/28/06



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODE
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

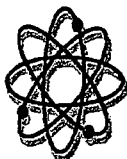
Lab #: 30965QW4 Sampled: 12/20/06 10:00 AM Desc: GBR-49/612213-04

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Bicarbonate Alkalinity	112	mg/L	5.00	0.500	1.00	10076934	EPA310.1	E1640226	01/03/07
Carbonate Alkalinity	0.500 U	mg/L	5.00	0.500	1.00	10076934	EPA310.1	3812-32-6	01/03/07
Hydroxide CaCO3	0.500 U	mg/L	5.00	0.500	0.500	10076934	EPA310.1		01/03/07
Total Alkalinity CaCO3	112	mg/L	5.00	0.500	1.00	10076934	EPA310.1	T-005	01/03/07
Specific Conductance	4520	umhos/cm	1.00	1.00	2.00	10076977	EPA120.1	10-34-4	12/29/06

Lab #: 30965QW5 Sampled: 12/20/06 10:00 AM Desc: GBR-17/612213-05

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	2000	mg/L	1.00	2.50	5.00	10076615	EPA160.1	10-33-3	12/27/06
Calcium	273	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-70-2	12/28/06
Iron	4.30	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-89-6	12/28/06
Magnesium	22.6	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-95-4	12/28/06
Manganese	0.235	mg/L	1.00	0.0100	0.0200	10076739	EPA6010	7439-96-5	12/28/06
Potassium	7.27	mg/L	1.00	0.100	0.200	10076739	EPA6010	7440-09-7	12/28/06
Sodium	222	mg/L	1.00	0.500	1.00	10076739	EPA6010	7440-23-5	12/28/06
Total Hardness (as CaCO3)	696	mg/L	1.00	0.100	0.200	10076739	SM2340B	40-11-9	12/28/06
Bicarbonate Alkalinity	163	mg/L	5.00	0.500	1.00	10076934	EPA310.1	E1640226	01/03/07
Carbonate Alkalinity	0.500 U	mg/L	5.00	0.500	1.00	10076934	EPA310.1	3812-32-6	01/03/07
Hydroxide CaCO3	0.500 U	mg/L	5.00	0.500	0.500	10076934	EPA310.1		01/03/07
Total Alkalinity CaCO3	164	mg/L	5.00	0.500	1.00	10076934	EPA310.1	T-005	01/03/07
Specific Conductance	2500	umhos/cm	1.00	1.00	2.00	10076977	EPA120.1	10-34-4	12/29/06

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODE
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Quality Report

Quality Control Batch: 10076615

	Analyst: RMV	Units
Blank	Result	mg/L
TDS	2.50U	

Laboratory Control Sample

	Result	Units	Spike	%REC	%REC Lim
TDS	1420	mg/L	1500	94.93	54.32-138.56

Quality Control Batch: 19076739

	Analyst: EVB	Units
Blank	Result	mg/L
Calcium	0.100U	mg/L
Iron	0.0100U	mg/L
Magnesium	0.0100U	mg/L
Manganese	0.0100U	mg/L
Potassium	0.100U	mg/L
Sodium	0.500U	mg/L
Total Hardness (as CaCO3)	0.100U	mg/L

Laboratory Control Sample

	Result	Units	Spike	%REC	%REC Lim
Calcium	4.92	mg/L	5.00	98.34	49.09-141.67
Iron	4.88	mg/L	5.00	97.69	49.43-140.21
Magnesium	5.31	mg/L	5.00	106.15	49.57-140.35
Manganese	5.07	mg/L	5.00	101.33	49.43-140.21
Potassium	5.24	mg/L	5.00	104.86	49.54-140.32
Sodium	4.78	mg/L	5.00	95.52	49.43-140.21
Total Hardness (as CaCO3)	34.1	mg/L	33.1	103.20	62.28-133.26

Matrix Spike
Calcium

	Result	Units	Spike	%REC	%REC Lim	Sample
Calcium	349	mg/L	5.00	171.42	47.68-150.22	340

FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab)

FLDOH: E82405 (North Lab)

NJDEP: FL015

Page 5 of 7



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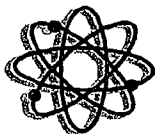
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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODC
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Quality Control Batch: 10076739		Analyst: EVB	
Matrix Spike		Result	Units
Iron		9.93	mg/L
Magnesium		31.0	mg/L
Manganese		5.48	mg/L
Potassium		13.7	mg/L
Sodium		301	mg/L
Matrix Spike Duplicate		Result	Units
Calcium		344	mg/L
Iron		9.95	mg/L
Magnesium		31.0	mg/L
Manganese		5.52	mg/L
Potassium		13.0	mg/L
Sodium		304	mg/L
		%REC	%REC Lim
		95.43	50.64-148.50
		100.89	50.43-149.01
		102.91	50.64-148.50
		111.32	50.49-148.89
		145.30	50.64-148.50
		Sample	Sample
		5.16	5.16
		26.0	26.0
		0.335	0.335
		8.14	8.14
		294	294
		%REC	%REC Lim
		86.98	47.68-150.22
		95.84	50.64-148.50
		101.07	50.43-149.01
		103.74	50.64-148.50
		96.33	50.49-148.89
		215.88	50.64-148.50
		Sample	Sample
		340	340
		5.16	5.16
		26.0	26.0
		0.335	0.335
		8.14	8.14
		294	294
		RPD	RPD Lim
		1.22	20.54
		0.21	19.70
		0.03	19.72
		0.76	19.70
		5.62	19.72
		1.17	19.70

Quality Control Batch: 10076934		Analyst: LCC	
Blank		Result	Units
Total Alkalinity CaCO3		0.100U	mg/L
Laboratory Control Sample		Result	Units
Total Alkalinity CaCO3		90.8	mg/L
		%REC	%REC Lim
		90.76	58.94-137.60
		Spike	Spike
		100	100



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 612213
Client Project #: LODE
Date Sampled: Dec 20, 2006
Jan 4, 2007; Invoice: 30965

Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Pinnacle Laboratories, Inc.

Interlab Chain of Custody

Date: 12/21/06 Page: 1 of 1

Network Project Manager: Jatinia Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, NM 87107
(505) 344-3777 Fax (505) 344-4413

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	TCLP RCRA (8) Metals	Metals-13 PP List	Metals-TAL (23 Metals)	Dissolved Fe, Mn, Pb (6010)	Total Ca, Mg, K, Na, Fe, Mn	TOC	Gen Chemistry:	Alka. Int. + Bicarb/Carb + H	BOD	COD	Pesticides/PCB (608/8081/8082)	Herbicides (615/8151)	PNA (8310)/8270 SIMS	8260 (TCLP 1311) ZHE	Base/Neutral Acid Compounds GC/MS (625/8270)	Uranium (ICP-MS)	Radium 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
GBR-50/612213-01	12/20/06	1000	GLD309156m	1	X				X															
GBR-48/612213-02		1056		2	X				X															
GBR-32/612213-03		1132		3	X				X															
GBR-49/612213-04		1233		4	X				X															
GBR-17/612213-05		1224		5	X				X															

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	612213	Total Number of Containers	PENSACOLA - STL-FL	Signature:	Time:	Signature:	Time:
PROJ. NAME:	LODE	Chain of Custody Seals	ESL - OR	Printed Name:	Date:	Printed Name:	Date:
QC LEVEL:	STD IV	Received Intact?	ATEL - AZ	Printed Name:	Date:	Printed Name:	Date:
QC REQUIRED:	MS MSD BLANK	Received Good Cond/Cold	ATEL - MARION	Printed Name:	Date:	Printed Name:	Date:
TAT:	STANDARD RUSH!!	LAB NUMBER:	ATEL - MELMORE	Company		Company	
DUE DATE: 7/6/07		COMMENTS:		1. RECEIVED BY:		2.	
RUSH SURCHARGE: -				Signature:		Signature:	
CLIENT DISCOUNT: -				Time:		Time:	
SPECIAL CERTIFICATION				Printed Name:		Printed Name:	
REQUIRED: YES (NO)				Company		Company	

CHAIN OF CUSTODY

PLI Accession #

DATE: _____ PAGE: _____ OF _____

[illegible]

July, 2003 PLI Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN.LAB@ATT.NET

DISTRIBUTION: White - PLL. Canary - Originator

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number **701147**
February 23, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name GIANT FORMER REFINERY
Project Number 30002

Attention: MARTIN NEE/BILL ROBERTSON

On 01/25/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Methods 624 and 150.1 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All other analyses were performed by Flowers Chemical Laboratories, Inc. (FCL), Altamonte Springs, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS

Environmental Testing

CLIENT : LODESTAR
PROJECT # : 30002
PROJECT NAME : GIANT FORMER REFINERY

PINNACLE ID : 701147
DATE RECEIVED : 01/25/2007
REPORT DATE : 02/23/2007

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
701147 - 01	GBR-24D	AQUEOUS	01/23/2007
701147 - 02	GBR-30	AQUEOUS	01/23/2007
701147 - 03	INFLUENT	AQUEOUS	01/23/2007
701147 - 04	EFFLUENT	AQUEOUS	01/23/2007
701147 - 05	GRW-3	AQUEOUS	01/23/2007
701147 - 06	GBR-31	AQUEOUS	01/23/2007
701147 - 07	GBR-52	AQUEOUS	01/23/2007
701147 - 08	GBR-51	AQUEOUS	01/23/2007
701147 - 09	GRW-6	AQUEOUS	01/23/2007
701147 - 10	SHS-19	AQUEOUS	01/23/2007
701147 - 11	SHS-18	AQUEOUS	01/23/2007
701147 - 12	TRIP BLANK	AQUEOUS	01/15/2007



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Report Summary

Date Received: Jan 26, 2007

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
33014GW1	GBR-24D/701147-01	EPA120.1	LCC	Main Lab	Ground Water
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		EPA8270	CLS	Main Lab	
		SM2340B	EVB	Main Lab	
33014GW2	GBR-30/701147-02	XBNE	CDG	Main Lab	Ground Water
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		EPA8270	CLS	Main Lab	
33014GW3	Influent/701147-03	SM2340B	EVB	Main Lab	Ground Water
		XBNE	CDG	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
33014GW4	Effluent/701147-04	SM2340B	EVB	Main Lab	Ground Water
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		EPA6020	EVB	Main Lab	
		EPA7470	EVB	Main Lab	
		EPA8270	CLS	Main Lab	
33014GW5	GRW-3/701147-05	SM2340B	EVB	Main Lab	Ground Water
		XBNE	CDG	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

33014GW6	GBR-31/701147-06	EPA8270	CLS	Main Lab	Ground Water
		SM2340B	EVB	Main Lab	
		XBNE	CDG	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		EPA8270	CLS	Main Lab	
33014GW7	GBR-52/701147-07	SM2340B	EVB	Main Lab	Ground Water
		XBNE	CDG	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
		EPA120.1	LCC	Main Lab	
33014GW8	GBR-51/701147-08	EPA160.1	RMV	Main Lab	Ground Water
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
33014GW9	GRW-6/701147-09	EPA375.2	JGK	Main Lab	Ground Water
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		EPA8270	CLS	Main Lab	
33014GW10	SHS-19/701147-10	SM2340B	EVB	Main Lab	Ground Water
		XBNE	CDG	Main Lab	
		EPA120.1	LCC	Main Lab	
		EPA160.1	RMV	Main Lab	
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	
		EPA6010	EVB	Main Lab	
		SM2340B	EVB	Main Lab	
		EPA120.1	LCC	Main Lab	
33014GW11	SHS-18/701147-11	EPA160.1	RMV	Main Lab	Ground Water
		EPA310.1	LCC	Main Lab	
		EPA325.2	JGK	Main Lab	
		EPA375.2	JGK	Main Lab	

GENERAL CHEMISTRY RESULTS

CLIENT	: LODESTAR	PINNACLE I.D.	: 701147
PROJECT #	: 30002	DATE RECEIVED	: 01/25/2007
PROJECT NAME	: GIANT FORMER REFINERY	ANALYST	: DRK

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
01	GBR-24D	AQUEOUS	01/23/2007	02/22/2007
02	GBR-30	AQUEOUS	01/23/2007	02/22/2007
03	INFLUENT	AQUEOUS	01/23/2007	02/22/2007

PARAMETER	GBR-24D	GBR-30	INFLUENT
PH (150.1)	8.0	8.0	7.9
TEMPERATURE (°C)	19.1	19.5	18.5

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY RESULTS

CLIENT : LODESTAR PINNACLE I.D. : 701147
 PROJECT # : 30002 DATE RECEIVED : 01/25/2007
 PROJECT NAME : GIANT FORMER REFINERY ANALYST : DRK

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
04	EFFLUENT	AQUEOUS	01/23/2007	02/22/2007
05	GRW-3	AQUEOUS	01/23/2007	02/22/2007
06	GBR-31	AQUEOUS	01/23/2007	02/22/2007

PARAMETER	EFFLUENT	GRW-3	GBR-31
PH (150.1)	8.1	8.0	7.9
TEMPERATURE (°C)	18.4	18.4	19.0

CHEMIST NOTES:
 N/A

GENERAL CHEMISTRY RESULTS

CLIENT	: LODESTAR	PINNACLE I.D.	: 701147
PROJECT #	: 30002	DATE RECEIVED	: 01/25/2007
PROJECT NAME	: GIANT FORMER REFINERY	ANALYST	: DRK

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
07	GBR-52	AQUEOUS	01/23/2007	02/22/2007
08	GBR-51	AQUEOUS	01/23/2007	02/22/2007
09	GRW-6	AQUEOUS	01/23/2007	02/22/2007

PARAMETER	GBR-52	GBR-51	GRW-6
PH (150.1)	8.1	8.1	8.3
TEMPERATURE (°C)	18.7	19.1	19.4

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY RESULTS

CLIENT : LODESTAR PINNACLE I.D. : 701147
PROJECT # : 30002 DATE RECEIVED : 01/25/2007
PROJECT NAME : GIANT FORMER REFINERY ANALYST : DRK

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
10	SHS-19	AQUEOUS	01/23/2007	02/22/2007
11	SHS-18	AQUEOUS	01/23/2007	02/22/2007

PARAMETER	SHS-19	SHS-18
PH (150.1)	8.8	9.0
TEMPERATURE (°C)	19.0	19.5

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: LODESTAR	PINNACLE I.D.	: 701147
PROJECT #	: 30002	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: GIANT FORMER REFINERY	DATE ANALYZED	: 02/22/2007

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	701147-03	7.87	7.95	1
TEMPERATURE (°C)		18.5	18.5	

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: LODESTAR	PINNACLE I.D.	: 701147
PROJECT #	: 30002	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: GIANT FORMER REFINERY	DATE ANALYZED	: 02/22/2007

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	701147-06	7.91	7.90	0
TEMPERATURE (°C)		19.0	18.6	

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST BY EPA METHOD 624 (GC/MS)
 CLIENT : LODESTAR
 PROJECT # : 30002
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 701147
 ANALYST : DRK

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	GBR-24D	AQUEOUS	01/23/2007	NA	02/06/2007	1
02	GBR-30	AQUEOUS	01/23/2007	NA	02/06/2007	1
03	INFLUENT	AQUEOUS	01/23/2007	NA	02/06/2007	1
PARAMETER	DET. LIMIT	UNITS	GBR-24D	GBR-30	INFLUENT	
METHYL -t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
1,1-DICHLOROETHANE	0.3	UG/L	0.4	< 0.3	< 0.3	J1
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	2.6	< 0.5	< 0.5	J1
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
DIBROMOCHLOROMETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOFORM	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1

SURROGATE:

1,2-DICHLOROETHANE-D4 (%)		110	103	102
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		107	103	102
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		103	96	95
SURROGATE LIMITS	(86 - 115)			

CHEMIST NOTES:

J1 = Estimated concentration is less than the lower calibration level but is above the method detection limit.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST BY EPA METHOD 624 (GC/MS)
 CLIENT : LODESTAR
 PROJECT # : 30002
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 701147
 ANALYST : DRK

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	EFFLUENT	AQUEOUS	01/23/2007	NA	02/06/2007	1
05	GRW-3	AQUEOUS	01/23/2007	NA	02/06/2007	1
06	GBR-31	AQUEOUS	01/23/2007	NA	02/06/2007	1

PARAMETER	DET. LIMIT	UNITS	EFFLUENT	GRW-3	GBR-31	
METHYL -t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
ETHYLBENZENE	0.5	UG/L	< 0.5	4.6	< 0.5	J1
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
DIBROMOCHLOROMETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	0.6	J1
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOFORM	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1

SURROGATE:				
1,2-DICHLOROETHANE-D4 (%)		99	110	100
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		97	110	98
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		94	108	94
SURROGATE LIMITS	(86 - 115)			

CHEMIST NOTES:

J1 = Estimated concentration is less than the lower calibration level but is above the method detection limit.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST BY EPA METHOD 624 (GC/MS)
 CLIENT : LODESTAR
 PROJECT # : 30002
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 701147
 ANALYST : DRK

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	GBR-52	AQUEOUS	01/23/2007	NA	02/06/2007	1
08	GBR-51	AQUEOUS	01/23/2007	NA	02/06/2007	1
09	GRW-6	AQUEOUS	01/23/2007	NA	02/06/2007	1

PARAMETER	DET. LIMIT	UNITS	GBR-52	GBR-51	GRW-6	
METHYL -t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
DIBROMOCHLOROMETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOFORM	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1

SURROGATE:				
1,2-DICHLOROETHANE-D4 (%)		103	104	103
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		103	102	100
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		99	97	95
SURROGATE LIMITS	(86 - 115)			

CHEMIST NOTES:

J1 = Estimated concentration is less than the lower calibration level but is above the method detection limit.

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602 LIST BY EPA METHOD 624 (GC/MS)
 CLIENT : LODESTAR
 PROJECT # : 30002
 PROJECT NAME : GIANT FORMER REFINERY

PINNACLE I.D. : 701147
 ANALYST : DRK

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
10	SHS-19	AQUEOUS	01/23/2007	NA	02/06/2007	1
11	SHS-18	AQUEOUS	01/23/2007	NA	02/06/2007	1
12	TRIP BLANK	AQUEOUS	01/15/2007	NA	02/06/07-T1	1

PARAMETER	DET. LIMIT	UNITS	SHS-19	SHS-18	TRIP BLANK	
METHYL -t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	J1
DIBROMOCHLOROMETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
BROMOFORM	0.3	UG/L	< 0.3	< 0.3	< 0.3	J1
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	J1

SURROGATE:

1,2-DICHLOROETHANE-D4 (%)		103	103	99
SURROGATE LIMITS	(76 - 114)			
TOLUENE-D8 (%)		101	103	97
SURROGATE LIMITS	(88 - 110)			
BROMOFLUOROBENZENE (%)		97	99	93
SURROGATE LIMITS	(86 - 115)			

J1 = Estimated concentration is less than the lower calibration level but is above the method detection limit.

T1 = Trip Blank was analyzed past the 14 day hold time.

GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 601/602 BY EPA 624 (GC/MS)	PINNACLE I.D.	: 701147
BLANK I.D.	: 020607A2	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 02/06/2007
PROJECT #	: 30002	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: GIANT FORMER REFINERY	ANALYST	: DRK

PARAMETER	UNITS		
METHYL t-BUTYL ETHER	UG/L	<2.5	
BENZENE	UG/L	<0.5	J1
TOLUENE	UG/L	<0.5	J1
ETHYLBENZENE	UG/L	<0.5	J1
TOTAL XYLENES	UG/L	<2.0	
CHLOROMETHANE	UG/L	<1.0	
VINYL CHLORIDE	UG/L	<0.5	J1
BROMOMETHANE	UG/L	<1.0	
CHLOROETHANE	UG/L	<0.5	
TRICHLOROFLUOROMETHANE	UG/L	<0.2	J1
1,1-DICHLOROETHENE	UG/L	<0.2	J1
METHYLENE CHLORIDE	UG/L	<2.0	
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	
1,1-DICHLOROETHANE	UG/L	<0.3	J1
CHLOROFORM	UG/L	<0.5	J1
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	J1
1,1,1-TRICHLOROETHANE	UG/L	<1.0	
CARBON TETRACHLORIDE	UG/L	<0.2	J1
1,2-DICHLOROPROPANE	UG/L	<0.2	J1
TRICHLOROETHENE	UG/L	<0.3	J1
BROMODICHLOROMETHANE	UG/L	<0.2	J1
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	J1
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	J1
1,1,2-TRICHLOROETHANE	UG/L	<0.2	J1
DIBROMOCHLOROMETHANE	UG/L	<0.3	J1
1,2-DIBROMOETHANE (EDB)	UG/L	<0.5	J1
TETRACHLOROETHENE	UG/L	<0.5	J1
CHLOROBENZENE	UG/L	<0.5	J1
BROMOFORM	UG/L	<0.3	J1
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5	J1
1,3-DICHLOROBENZENE	UG/L	<0.5	J1
1,4-DICHLOROBENZENE	UG/L	<0.5	J1
1,2-DICHLOROBENZENE	UG/L	<0.5	J1

SURROGATE:		
1,2-DICHLOROETHANE-D4 (%)		102
SURROGATE LIMITS	(76 - 114)	
TOLUENE-D8 (%)		102
SURROGATE LIMITS	(88 - 110)	
BROMOFLUOROBENZENE (%)		96
SURROGATE LIMITS	(86 - 115)	

CHEMIST NOTES:

J1 = Estimated concentration is less than the lower calibration level but is above the method detection limit.

GAS CHROMATOGRAPHY QUALITY CONTROL MS/MSD

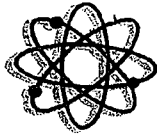
TEST : EPA 601/602 LIST BY EPA METHOD 624 PINNACLE I.D. : 701147
 SAMPLE ID : 701147-02 DATE EXTRACTED : NA
 CLIENT : LODESTAR DATE ANALYZED : 02/06/2007
 PROJECT # : 30002 SAMPLE MATRIX : AQUEOUS
 PROJECT NAME : GIANT FORMER REFINERY UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
METHYL -t-BUTYL ETHER	<2.5	40.0	36.5	91	36.4	91	0	(70 - 130)	20
BENZENE	<0.5	40.0	39.7	99	40.0	100	1	(39 - 150)	20
TOLUENE	<0.5	40.0	39.0	97	39.2	98	1	(46 - 148)	20
ETHYLBENZENE	<0.5	40.0	38.8	97	38.9	97	0	(32 - 160)	20
TOTAL XYLENES	<2.0	120	120	100	120	100	0	(80 - 120)	20
CHLOROMETHANE	<1.0	40.0	37.1	93	37.1	93	0	(D - 193)	20
VINYL CHLORIDE	<0.5	40.0	41.9	105	43.7	109	4	(28 - 163)	20
BROMOMETHANE	<1.0	40.0	27.7	69	29.2	73	5	(D - 144)	20
CHLOROETHANE	<0.5	40.0	49.7	124	52.1	130	5	(46 - 137)	20
TRICHLOROFLUOROMETHANE	<0.2	40.0	35.7	89	34.8	87	2	(21 - 156)	20
1,1-DICHLOROETHENE	<0.2	40.0	32.1	80	32.7	82	2	(28 - 167)	20
METHYLENE CHLORIDE	<2.0	40.0	34.8	87	34.8	87	0	(25 - 162)	20
TRANS-1,2-DICHLOROETHENE	<1.0	40.0	34.6	86	35.1	88	1	(38 - 155)	20
1,1-DICHLOROETHANE	<0.3	40.0	36.5	91	37.3	93	2	(47 - 132)	20
CHLOROFORM	<0.5	40.0	38.5	96	38.9	97	1	(49 - 133)	20
1,2-DICHLOROETHANE (EDC)	<0.5	40.0	38.4	96	38.3	96	0	(51 - 147)	20
1,1,1-TRICHLOROETHANE	<1.0	40.0	37.8	94	37.1	93	2	(41 - 138)	20
CARBON TETRACHLORIDE	<0.2	40.0	37.9	95	38.3	96	1	(43 - 143)	20
1,2-DICHLOROPROPANE	<0.2	40.0	38.2	95	39.3	98	3	(44 - 156)	20
TRICHLOROETHENE	<0.3	40.0	36.6	91	37.0	92	1	(35 - 146)	20
BROMODICHLOROMETHANE	<0.2	40.0	37.9	95	38.2	95	1	(42 - 172)	20
CIS-1,3-DICHLOROPROPENE	<0.2	40.0	37.9	95	38.3	96	1	(22 - 178)	20
TRANS-1,3-DICHLOROPROPENE	<0.2	40.0	35.4	88	35.2	88	0	(22 - 178)	20
1,1,2-TRICHLOROETHANE	<0.2	40.0	40.3	101	39.7	99	1	(39 - 136)	20
DIBROMOCHLOROMETHANE	<0.2	40.0	35.9	90	35.2	88	2	(24 - 191)	20
1,2-DIBROMOETHANE (EDB)	<0.5	40.0	38.9	97	37.9	95	3	(80 - 120)	20
TETRACHLOROETHENE	<0.5	40.0	40.0	100	40.8	102	2	(26 - 162)	20
CHLOROBENZENE	<0.5	40.0	38.8	97	38.8	97	0	(38 - 150)	20
BROMOFORM	<0.5	40.0	36.6	92	36.1	90	2	(13 - 159)	20
1,1,2,2-TETRACHLOROETHANE	<0.5	40.0	40.1	100	40.2	100	0	(8 - 184)	20
1,3-DICHLOROBENZENE	<0.5	40.0	37.4	93	38.7	97	3	(7 - 187)	20
1,4-DICHLOROBENZENE	<0.5	40.0	37.3	93	38.0	95	2	(42 - 143)	20
1,2-DICHLOROBENZENE	<0.5	40.0	38.6	96	38.7	97	0	(D - 208)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

EPA6010
SM2340B

EVB
EVB

Main Lab
Main Lab

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



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Albuquerque, NM 87107

PO #: 701147
Client Project #: LODS
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Analysis Report

Lab # 33014GW1 Sampled: 01/23/07 10:10 AM DSS: GBR-24D701147-01

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	421	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	40.5	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	14.7	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	503	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	1220	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Base Neutral Extraction	1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity	213	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3	213	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS	3490	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	190 I	mg/L	30.0	150	300	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate	2000	mg/L	30.0	150	300	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	4500	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07
Anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene	0.320 I	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.270 I	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab #: 33014GW1 Sampled: 01/23/07 10:10 AM Desc: GBR-24D/701147-01

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Fluorene	0.340 I	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07
Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Phenanthrene	0.330 I	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Pyrene	0.870	ug/L	1.00	0.200	0.400	10078702	EPA8270	129-00-0	02/07/07
Surr:2-Fluorobiphenyl (73-217%)	39.36%		1.00	0.0100	0.0200	10078702	EPA8270	321-60-8	02/07/07
Surr:Nitrobenzene-d5 (77-228%)	49.22%		1.00	0.0100	0.400	10078702	EPA8270		02/07/07
Surr:Terphenyl-d14 (86-256%)	52.60%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07

Lab #: 33014GW2 Sampled: 01/23/07 10:45 AM Desc: GBR-30/701147-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	370	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	35.2	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	11.7	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	284	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	1070	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Base_Neutral_Extraction	1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity	259	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3	259	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS	2570	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	144 I	mg/L	20.0	100	200	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate	1420	mg/L	30.0	150	300	10078460	EPA375.2	14808-79-8	02/02/07
Specific_Conductance	3320	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07



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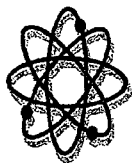
Lab #: 33014GW2 Sampled: 01/23/07 10:45 AM Desc: GBR-3070147-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07
Fluorene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07
Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Phenanthrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	129-00-0	02/07/07
Surr:2-Fluorobiphenyl (73-217%)	61.32%		1.00	0.0100	0.0200	10078702	EPA8270	321-60-8	02/07/07
Surr:Nitrobenzene-d5 (77-228%)	65.46%		1.00	0.0100	0.400	10078702	EPA8270		02/07/07
Surr:Terphenyl-d14 (86-256%)	63.78%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07

Lab #: 33014GW3 Sampled: 01/23/07 10:55 AM Desc: Influent:701147-03

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	330	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	28.2	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	10.9	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	389	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	941	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Bicarbonate Alkalinity	315	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3	316	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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PO #: 701147
Client Project #: LODS
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab # 33014GW3 Sampled: 01/23/07 10:55 AM Desc: Influent 701147-03

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
TDS	2550	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	100 U	mg/L	20.0	100	200	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate	1510	mg/L	30.0	150	300	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	3480	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07

Lab # 33014GW4 Sampled: 01/23/07 11:25 AM Desc: Effluent 701147-04

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Antimony	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-36-0	01/26/07
Arsenic	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-38-2	01/26/07
Beryllium	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-41-7	01/26/07
Cadmium	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-43-9	01/26/07
Chromium	0.00876	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-47-3	01/26/07
Copper	0.00860	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-50-8	01/26/07
Lead	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7439-92-1	01/26/07
Nickel	0.0432	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-02-0	01/26/07
Selenium	0.00200 U	mg/L	1.00	0.00200	0.00400	10078198	EPA6020	7782-49-2	01/26/07
Silver	0.00190	mg/L	1.00	0.000500	0.00100	10078198	EPA6020	7440-22-4	01/26/07
Thallium	0.00100 U	mg/L	1.00	0.00100	0.00200	10078198	EPA6020	7440-28-0	01/26/07
Zinc	0.0100 U	mg/L	1.00	0.0100	0.0200	10078198	EPA6020	7440-66-6	01/26/07
Calcium	251	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	24.6	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	9.77	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	357	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	727	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Mercury	0.000200 U	mg/L	1.00	0.000200	0.000400	10078296	EPA7470	7439-97-6	01/31/07
Base_Neutral_Extraction	1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity	337	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07

FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab)

FLDOH: E82405 (North Lab)

NUDEP: FL015

Page 7 of 25



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab #: 33014G04 Sampled: 01/23/07 11:25 AM Desc: Effluent 701147-04

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Total Alkalinity CaCO3	338	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS	2250	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	100 U	mg/L	20.0	100	200	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate	1270	mg/L	30.0	150	300	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	3160	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07
Anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07
Fluorene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07
Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Phenanthrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	129-00-0	02/07/07
Surr:2-Fluorobiphenyl (73-217%)	42.76%		1.00	0.0100	0.0200	10078702	EPA8270	321-60-8	02/07/07
Surr:Nitrobenzene-d5 (77-228%)	52.16%		1.00	0.0100	0.400	10078702	EPA8270		02/07/07
Surr:Terphenyl-d14 (86-256%)	80.54%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07

Lab #: 33014G05 Sampled: 01/23/07 11:41 AM Desc: GRW 330147-05

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147

Client Project #: LODS

Date Sampled: Jan 23, 2007

Feb 8, 2007; Invoice: 33014

Lab #: 33014GW5 Sampled: 01/23/07 11:41 AM Desc: GRW 3701147-05

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	152	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	28.9	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	6.71	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	329	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	499	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Base Neutral Extraction	1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity	748	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	1.65	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3	750	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS	1710	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	75.0 U	mg/L	15.0	75.0	150	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate	580 L	mg/L	5.00	25.0	50.0	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	2620	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene	1.87	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene	0.270 l	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene	0.350 l	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene	0.250 l	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07
Anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07
Fluorene	1.69	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07

FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab)

FLDOH: E82405 (North Lab)

NUDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab #	33014GW5	Sampled: 01/23/07	1.41 AMP Desc: GRW-3/701147-05	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Parameter					ug/L							
Naphthalene				1.09	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Phenanthrene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Pyrene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	129-00-0	02/07/07
Surr:2-Fluorobiphenyl (73-217%)				56.90%		1.00	0.0100	0.0200	10078702	EPA8270	321-60-8	02/07/07
Surr:Nitrobenzene-d5 (77-228%)				74.80%		1.00	0.0100	0.400	10078702	EPA8270		02/07/07
Surr:Terphenyl-d14 (86-256%)				56.70%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07

Lab #	33014GW6	Sampled: 01/23/07	2.20 PMV Desc: GBR-3/701147-06	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Parameter												
Calcium				328	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium				27.9	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium				10.7	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium				351	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)				933	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Base_Neutral_Extraction				1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity				228	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity				0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3				0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3				228	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS				2590	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride				75.0 U	mg/L	15.0	75.0	150	10078456	EPA325.2	16887-00-6	02/01/07
Sulfate				1540	mg/L	20.0	100	200	10078460	EPA375.2	14808-79-8	02/02/07
Specific_Conductance				3280	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07
Anthracene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene				0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab #: 33014GW6 Sampled: 01/23/07 12:20 PM Desc: GBR-31701147-06									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07
Fluorene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07
Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Phenanthrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	129-00-0	02/07/07
Surr:2-Fluorobiphenyl (73-217%)	63.38%		1.00	0.0100	0.0200	10078702	EPA8270	321-60-8	02/07/07
Surr:Nitrobenzene-d5 (77-228%)	72.74%		1.00	0.0100	0.400	10078702	EPA8270		02/07/07
Surr:Terphenyl-d14 (86-256%)	67.40%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07

Lab #: 33014GW7 Sampled: 01/23/07 01:02 PM Desc: GBR-52701147-07									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	344	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	27.3	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	9.70	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	253	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	971	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Bicarbonate Alkalinity	202	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078331	EPA310.1		01/29/07
Total Alkalinity CaCO3	203	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
TDS	2280	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	75.0 U	mg/L	15.0	75.0	150	10078456	EPA325.2	16887-00-6	02/01/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab # 33014GW7 Sampled: 01/23/07 01:02 PM Desc: GBR-52701147-07									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Sulfate	1370	mg/L	20.0	100	200	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	2920	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07

Lab # 33014GW8 Sampled: 01/23/07 01:25 PM Desc: GBR-51701147-08									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	398	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	30.6	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	9.53	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	282	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	1120	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Bicarbonate Alkalinity	214	mg/L	1.00	0.100	0.200	10078331	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10078331	EPA310.1	T-005	01/29/07
Total Alkalinity CaCO3	215	mg/L	1.00	0.100	0.200	10078331	EPA310.1	10-33-3	01/30/07
TDS	2620	mg/L	1.00	2.50	5.00	10078395	EPA160.1	16887-00-6	02/01/07
Chloride	75.0 U	mg/L	15.0	75.0	150	10078456	EPA325.2	14808-79-8	02/02/07
Sulfate	1570	mg/L	20.0	100	200	10078460	EPA375.2	10-34-4	02/02/07
Specific Conductance	3290	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1		

Lab # 33014GW9 Sampled: 01/23/07 01:53 PM Desc: GRW-6701147-09									
Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	182	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	29.8	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	6.70	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	402	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	576	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Base Neutral Extraction	1000	mL	1.00			10078318	XBNE		01/30/07
Bicarbonate Alkalinity	618	mg/L	1.00	0.100	0.200	10078332	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	1.52	mg/L	1.00	0.100	0.200	10078332	EPA310.1	3812-32-6	01/29/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015



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2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
Client Project #: LODS
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab # 33014GW9 Sampled: 01/23/07 01:53 PM Desc: GRW-6/701147-09

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.100	10078332	EPA310.1		01/29/07
Total Alkalinity CaCO3	619	mg/L	1.00	0.100	0.200	10078332	EPA310.1	T-005	01/29/07
TDS	2040	mg/L	1.00	2.50	5.00	10078395	EPA160.1	10-33-3	01/30/07
Chloride	75.0 U	mg/L	15.0	75.0	150	10078457	EPA325.2	16887-00-6	02/01/07
Sulfate	926	mg/L	20.0	100	200	10078460	EPA375.2	14808-79-8	02/02/07
Specific Conductance	2870	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1	10-34-4	02/02/07
1-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	090-12-0	02/07/07
2-methyl-Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-57-6	02/07/07
Acenaphthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	83-32-9	02/07/07
Acenaphthylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	208-96-8	02/07/07
Anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	120-12-7	02/07/07
Benzo(a)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	56-55-3	02/07/07
Benzo(a)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	50-32-8	02/07/07
Benzo(b)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	205-99-2	02/07/07
Benzo(g,h,i)perylene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	191-24-2	02/07/07
Benzo(k)fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	207-08-9	02/07/07
Chrysene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	218-01-9	02/07/07
Dibenz(a,h)anthracene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	53-70-3	02/07/07
Fluoranthene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	206-44-0	02/07/07
Indeno(1,2,3-cd)pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	86-73-7	02/07/07
Naphthalene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	193-39-5	02/07/07
Phenanthrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	91-20-3	02/07/07
Pyrene	0.200 U	ug/L	1.00	0.200	0.400	10078702	EPA8270	85-01-8	02/07/07
Surr:2-Fluorobiphenyl (73-217%)	41.54%		1.00	0.0100	0.0200	10078702	EPA8270	129-00-0	02/07/07
Surr:Nitrobenzene-d5 (77-228%)	56.24%		1.00	0.0100	0.400	10078702	EPA8270	321-60-8	02/07/07
Surr:Terphenyl-d14 (86-256%)	92.84%		1.00	0.0100	0.0200	10078702	EPA8270		02/07/07



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Albuquerque, NM 87107

PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Lab #: 33014GW10 Sampled: 01/23/07 03:05 PM Desc: SHS-18/701147-10

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	135	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	20.8	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	7.16	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	370	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	423	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Bicarbonate Alkalinity	785	mg/L	1.00	0.100	0.200	10078332	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	1.80	mg/L	1.00	0.100	0.200	10078332	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10078332	EPA310.1	T-005	01/29/07
Total Alkalinity CaCO3	786	mg/L	1.00	0.100	0.200	10078332	EPA310.1	10-33-3	01/30/07
TDS	1650	mg/L	1.00	2.50	5.00	10078395	EPA160.1	16887-00-6	02/01/07
Chloride	85.6 l	mg/L	10.0	50.0	100	10078457	EPA325.2	14808-79-8	02/02/07
Sulfate	460	mg/L	20.0	100	200	10078460	EPA375.2	10-34-4	02/02/07
Specific_Conductance	2600	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1		02/02/07

Lab #: 33014GW11 Sampled: 01/23/07 03:10 PM Desc: SHS-18/701147-11

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	129	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-70-2	01/30/07
Magnesium	15.4	mg/L	1.00	0.0100	0.0200	10078247	EPA6010	7439-95-4	01/30/07
Potassium	4.56	mg/L	1.00	0.100	0.200	10078247	EPA6010	7440-09-7	01/30/07
Sodium	354	mg/L	1.00	0.500	1.00	10078247	EPA6010	7440-23-5	01/30/07
Total Hardness (as CaCO3)	385	mg/L	1.00	0.100	0.200	10078249	SM2340B	40-11-9	01/30/07
Bicarbonate Alkalinity	893	mg/L	1.00	0.100	0.200	10078332	EPA310.1	E1640226	01/29/07
Carbonate Alkalinity	3.63	mg/L	1.00	0.100	0.200	10078332	EPA310.1	3812-32-6	01/29/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10078332	EPA310.1	T-005	01/29/07
Total Alkalinity CaCO3	897	mg/L	1.00	0.100	0.200	10078332	EPA310.1	10-33-3	01/30/07
TDS	1530	mg/L	1.00	2.50	5.00	10078395	EPA160.1	16887-00-6	02/01/07
Chloride	111	mg/L	10.0	50.0	100	10078457	EPA325.2	14808-79-8	02/02/07
Sulfate	109	mg/L	10.0	50.0	100	10078461	EPA375.2	10-34-4	02/02/07
Specific_Conductance	2500	umhos/cm	1.00	1.00	2.00	10078621	EPA120.1		02/02/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FLO15



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Client Project #: LODE
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FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015

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PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
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Quality Report

Quality Control Batch: 13028198		Analyst: EVB	
Blank	Result	Units	
Antimony	0.00100U	mg/L	
Arsenic	0.00100U	mg/L	
Beryllium	0.000500U	mg/L	
Cadmium	0.00100U	mg/L	
Chromium	0.00100U	mg/L	
Copper	0.00100U	mg/L	
Lead	0.00100U	mg/L	
Nickel	0.00100U	mg/L	
Selenium	0.00200U	mg/L	
Silver	0.000500U	mg/L	
Thallium	0.00100U	mg/L	
Zinc	0.0100U	mg/L	
Laboratory Control Sample			
Antimony	Result	Units	Spike
Arsenic	0.506	mg/L	0.500
Beryllium	0.518	mg/L	0.500
Cadmium	0.561	mg/L	0.500
Chromium	0.547	mg/L	0.500
Copper	0.542	mg/L	0.500
Lead	0.559	mg/L	0.500
Nickel	0.533	mg/L	0.500
Selenium	0.551	mg/L	0.500
Silver	0.535	mg/L	0.500
Thallium	0.534	mg/L	0.500
Zinc	0.548	mg/L	0.500
	0.508	mg/L	0.500
			%REC
			101.13
			103.53
			112.14
			109.48
			108.31
			111.85
			106.63
			110.11
			107.08
			106.75
			109.64
			101.52
			%REC Lim
			61.24-133.24
			61.94-133.16
			62.45-133.19
			61.75-133.27
			45.90-136.68
			62.35-133.09
			62.15-133.13
			61.53-133.29
			60.88-133.36
			61.43-133.19
			61.32-133.32
			46.42-136.84

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FLO15



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PO #: 701147
Client Project #: LODE
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Matrix Spike		Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Antimony		0.106	mg/L	0.100	103.57	50.77-146.77	0.00208	32.31	20.52
Arsenic		0.145	mg/L	0.100	144.85	51.05-147.77	0.00100U	31.51	21.36
Beryllium		0.124	mg/L	0.100	124.03	50.98-148.48	0.000500U	28.00	21.76
Cadmium		0.110	mg/L	0.100	110.17	51.04-147.22	0.00100U	27.89	21.29
Chromium		0.110	mg/L	0.100	100.30	31.23-150.75	0.00960	31.48	18.59
Copper		0.103	mg/L	0.100	93.32	51.00-147.96	0.00972	29.74	21.71
Lead		0.125	mg/L	0.100	125.37	51.29-147.83	0.00100U	32.57	21.67
Nickel		0.0973	mg/L	0.100	95.59	50.71-147.07	0.00168	35.28	20.98
Selenium		0.165	mg/L	0.100	164.51	50.83-146.65	0.00200U	32.36	20.14
Silver		0.0534	mg/L	0.0500	106.78	50.47-147.19	0.000500U	8.27	20.92
Thallium		0.139	mg/L	0.100	139.08	50.77-147.13	0.00100U	32.55	20.57
Zinc		0.106	mg/L	0.100	98.90	31.87-150.97	0.00691	27.51	18.67
Matrix Spike Duplicate									
Antimony		0.0763	mg/L	0.100	74.18	50.77-146.77	0.00208	32.31	20.52
Arsenic		0.105	mg/L	0.100	105.42	51.05-147.77	0.00100U	31.51	21.36
Beryllium		0.0936	mg/L	0.100	93.57	50.98-148.48	0.000500U	28.00	21.76
Cadmium		0.0832	mg/L	0.100	83.20	51.04-147.22	0.00100U	27.89	21.29
Chromium		0.0800	mg/L	0.100	70.41	31.23-150.75	0.00960	31.48	18.59
Copper		0.0764	mg/L	0.100	66.64	51.00-147.96	0.00972	29.74	21.71
Lead		0.0903	mg/L	0.100	90.26	51.29-147.83	0.00100U	32.57	21.67
Nickel		0.0681	mg/L	0.100	66.42	50.71-147.07	0.00168	35.28	20.98
Selenium		0.119	mg/L	0.100	118.69	50.83-146.65	0.00200U	32.36	20.14
Silver		0.0492	mg/L	0.0500	98.30	50.47-147.19	0.000500U	8.27	20.92
Thallium		0.100	mg/L	0.100	100.15	50.77-147.13	0.00100U	32.55	20.57
Zinc		0.0802	mg/L	0.100	73.31	31.87-150.97	0.00691	27.51	18.67
Quality Control Batch: 10078247									
Blank		Result	Units						
Calcium		0.100U	mg/L						

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL015



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Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Quality Control Batch: 10078247		Analyst: EYE					
Blank	Result	Units					
Magnesium	0.0100U	mg/L					
Potassium	0.100U	mg/L					
Sodium	0.500U	mg/L					
Laboratory Control Sample							
Calcium	Result	Units	Spike	%REC	%REC Lim	Sample	RPD
	9.35	mg/L	10.0	93.53	49.09-141.67	64.6	5.19
Magnesium	9.53	mg/L	10.0	95.28	49.57-140.35	8.51	18.27
Potassium	9.82	mg/L	10.0	98.20	49.54-140.32	4.92	27.20
Sodium	9.36	mg/L	10.0	93.60	49.43-140.21	19.4	12.29
Matrix Spike							
Calcium	Result	Units	Spike	%REC	%REC Lim	Sample	RPD
	72.6	mg/L	5.00	159.71	47.68-150.22	64.6	5.19
Magnesium	16.6	mg/L	5.00	161.94	50.43-149.01	8.51	18.27
Potassium	12.9	mg/L	5.00	159.94	50.49-148.89	4.92	27.20
Sodium	27.3	mg/L	5.00	159.84	50.64-148.50	19.4	12.29
Matrix Spike Duplicate							
Calcium	Result	Units	Spike	%REC	%REC Lim	Sample	RPD
	69.0	mg/L	5.00	86.23	47.68-150.22	64.6	5.19
Magnesium	13.8	mg/L	5.00	106.33	50.43-149.01	8.51	18.27
Potassium	9.83	mg/L	5.00	98.08	50.49-148.89	4.92	27.20
Sodium	24.2	mg/L	5.00	96.52	50.64-148.50	19.4	12.29
Quality Control Batch: 10078249							
Blank	Result	Units					
Total Hardness (as CaCO3)	0.100U	mg/L					
Laboratory Control Sample							
Total Hardness (as CaCO3)	Result	Units	Spike	%REC	%REC Lim		
	62.6	mg/L	66.2	94.62	62.28-133.26		

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL016



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Albuquerque, NM 87107

PO #: 701147
Client Project #: LODDE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Quality Control Batch: 10078296

Analyst: EYB

Blank Result 0.000200U Units mg/L

Laboratory Control Sample Result 0.00515 Units mg/L Spike 0.00500 %REC 102.93 %REC Lim 49.60-142.54

Matrix Spike Mercury Result 0.00501 Units mg/L Spike 0.00500 %REC 100.14 %REC Lim 45.84-150.78 Sample 0.000200U

Matrix Spike Duplicate Mercury Result 0.00515 Units mg/L Spike 0.00500 %REC 102.93 %REC Lim 45.84-150.78 Sample 0.000200U RPD 2.75 RPD Lim 21.59

Quality Control Batch: 10078331

Analyst: LCC

Blank Result 0.100U Units mg/L

Laboratory Control Sample Total Alkalinity CaCO3 Result 103 Units mg/L Spike 100 %REC 103.28 %REC Lim 63.23-132.71

Quality Control Batch: 10078332

Analyst: LCC

Blank Result 0.100U Units mg/L

Laboratory Control Sample Total Alkalinity CaCO3 Result 94.4 Units mg/L Spike 100 %REC 94.38 %REC Lim 58.94-137.60

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL015



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2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 701147
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Quality Control Batch: 10078395

Analyst: RMV

Blank Result Units
TDS 2.50U mg/L

Laboratory Control Sample Result Units Spike %REC %REC Lim
TDS 1500 mg/L 1500 100.27 49.29-141.45

Quality Control Batch: 10078456

Analyst: JGK

Blank Result Units
Chloride 5.00U mg/L

Laboratory Control Sample Result Units Spike %REC %REC Lim
Chloride 20.0 mg/L 20.0 99.95 58.27-138.07

Quality Control Batch: 10078457

Analyst: JGK

Blank Result Units
Chloride 5.00U mg/L

Laboratory Control Sample Result Units Spike %REC %REC Lim
Chloride 51.8 mg/L 50.0 103.52 58.27-138.07

Matrix Spike Result Units Spike %REC %REC Lim Sample
Chloride 49.3 mg/L 50.0 98.58 49.69-151.69 15.0U

Matrix Spike Duplicate Result Units Spike %REC %REC Lim Sample RPD RPD Lim
Chloride 48.2 mg/L 50.0 96.30 49.69-151.69 15.0U 2.34 24.25

Quality Control Batch: 10078460

Analyst: JGK

Blank Result Units

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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Client Project #: LODE
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Quality Control Batch: 10078460

Analyst: JGK

Blank
Sulfate
Result 5.00U
Units mg/L

Laboratory Control Sample
Sulfate
Result 58.2
Units mg/L
Spike 60.0
%REC 97.00
%REC Lim 80.00-120.00

Matrix Spike
Sulfate
Result 166
Units mg/L
Spike 50.0
%REC 135.20
%REC Lim 80.00-120.00
Sample 98.4

Matrix Spike Duplicate
Sulfate
Result 165
Units mg/L
Spike 50.0
%REC 133.20
%REC Lim 80.00-120.00
Sample 98.4
RPD 0.60
RPD Lim 20.00

Quality Control Batch: 10078461

Analyst: JGK

Blank
Sulfate
Result 5.00U
Units mg/L

Laboratory Control Sample
Sulfate
Result 59.9
Units mg/L
Spike 60.0
%REC 99.83
%REC Lim 80.00-120.00

Quality Control Batch: 10078792

Analyst: CJS

Blank
Acenaphthene
Acenaphthylene
Anthracene
Benzol(a)anthracene
Benzol(a)pyrene
Benzol(b)fluoranthene
Benzol(g,h,i)perylene
Result 0.200U
Units ug/L
0.200U ug/L
0.200U ug/L
0.200U ug/L
0.200U ug/L
0.200U ug/L
0.200U ug/L



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PO #: 701147
Client Project #: LODC
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Quality Control Batch: 10078702

Analyst: CLS

Blank	Result	Units
Benzo(k)fluoranthene	0.200U	ug/L
Chrysene	0.200U	ug/L
Dibenz(a,h)anthracene	0.200U	ug/L
Fluoranthene	0.200U	ug/L
Fluorene	0.200U	ug/L
Indeno(1,2,3-cd)pyrene	0.200U	ug/L
Naphthalene	0.200U	ug/L
Phenanthrene	0.200U	ug/L
Pyrene	0.200U	ug/L
1-methyl-Naphthalene	0.200U	ug/L
2-methyl-Naphthalene	0.200U	ug/L
Surr:Nitrobenzene-d5	27.6	ug/L
Surr:Terphenyl-d14	54.0	ug/L
Surr:2-Fluorobiphenyl	25.7	ug/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Acenaphthene	38.0	ug/L	50.0	75.96	49.73-140.51
Acenaphthylene	31.4	ug/L	50.0	62.86	49.74-140.52
Anthracene	38.7	ug/L	50.0	77.48	49.74-140.52
Benzo(a)anthracene	46.7	ug/L	50.0	93.34	49.74-140.52
Benzo(a)pyrene	45.0	ug/L	50.0	89.90	49.74-140.52
Benzo(b)fluoranthene	15.0	ug/L	50.0	30.02	49.74-140.52
Benzo(g,h)perylene	43.6	ug/L	50.0	87.12	49.74-140.52
Benzo(k)fluoranthene	65.9	ug/L	50.0	131.82	49.74-140.52
Chrysene	52.4	ug/L	50.0	104.88	49.74-140.52
Dibenz(a,h)anthracene	40.7	ug/L	50.0	81.48	49.74-140.52
Fluoranthene	34.4	ug/L	50.0	68.70	49.73-140.51
Fluorene	35.7	ug/L	50.0	71.36	49.73-140.51
Indeno(1,2,3-cd)pyrene	44.8	ug/L	50.0	89.52	49.74-140.52

FLDOH: E83018 (Main Lab) FLDOH: E86662 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO16



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PO #: 701147
Client Project #: LODE
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Quality Control Batch: 10078702		Analyst: CLS			
Laboratory Control Sample		Result	Units	Spike	%REC
Naphthalene	31.3	ug/L	50.0	62.54	49.74-140.52
Phenanthrene	42.3	ug/L	50.0	84.50	49.73-140.51
Pyrene	44.3	ug/L	50.0	88.60	49.74-140.52
1-methyl-Naphthalene	27.6	ug/L	50.0	55.26	49.74-140.52
2-methyl-Naphthalene	22.9	ug/L	50.0	45.84	49.73-140.51
Surr:Nitrobenzene-d5	41.7	ug/L	50.0	83.48	49.74-140.52
Surr:Terphenyl-d14	53.8	ug/L	50.0	107.66	49.74-140.52
Surr:2-Fluorobiphenyl	32.8	ug/L	50.0	65.56	49.74-140.52
Matrix Spike					
Acenaphthene	32.0	ug/L	50.0	64.06	50.53-149.47
Acenaphthylene	28.0	ug/L	50.0	56.04	50.53-149.47
Anthracene	38.1	ug/L	50.0	76.18	50.53-149.47
Benzolanthracene	43.2	ug/L	50.0	86.40	50.53-149.47
Benzolapyrene	40.7	ug/L	50.0	81.48	50.53-149.47
Benzol(b)fluoranthene	21.8	ug/L	50.0	43.54	50.53-149.47
Benzol(g,h,i)perylene	38.1	ug/L	50.0	76.24	50.53-149.47
Benzol(k)fluoranthene	65.5	ug/L	50.0	130.92	50.53-149.47
Chrysene	49.2	ug/L	50.0	98.42	50.53-149.47
Dibenz(a,h)anthracene	37.6	ug/L	50.0	75.18	50.53-149.47
Fluoranthene	34.3	ug/L	50.0	68.68	50.53-149.47
Indeno(1,2,3-cd)pyrene	33.8	ug/L	50.0	67.68	50.53-149.47
Naphthalene	40.0	ug/L	50.0	79.94	50.53-149.47
Phenanthrene	28.9	ug/L	50.0	57.82	50.53-149.47
Pyrene	41.4	ug/L	50.0	82.76	50.53-149.47
1-methyl-Naphthalene	43.6	ug/L	50.0	87.16	50.53-149.47
2-methyl-Naphthalene	24.7	ug/L	50.0	49.38	50.53-149.47
Surr:Nitrobenzene-d5	19.6	ug/L	50.0	39.10	50.53-149.47
	39.5	ug/L	50.0	79.08	50.53-149.47

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FL015



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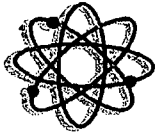
PO #: 701147
Client Project #: LODC
Date Sampled: Jan 23, 2007
Feb 8, 2007; Invoice: 33014

Quality Control Batch: 0078702

Analyst: CJS

Matrix Spike	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Surr:1-Terphenyl-d14	50.9	ug/L	50.0	101.84	50.53-149.47	0.200U	32.15	19.60
Surr:2-Fluorobiphenyl	28.3	ug/L	50.0	56.62	50.53-149.47	0.200U	14.13	19.61
Matrix Spike Duplicate								
Acenaphthene	44.3	ug/L	50.0	88.60	50.53-149.47	0.200U	32.15	19.60
Acenaphthylene	32.3	ug/L	50.0	64.56	50.53-149.47	0.200U	14.13	19.61
Anthracene	39.0	ug/L	50.0	77.94	50.53-149.47	0.200U	2.28	19.60
Benzo(a)anthracene	42.7	ug/L	50.0	85.40	50.53-149.47	0.200U	1.16	19.61
Benzo(a)pyrene	40.3	ug/L	50.0	80.68	50.53-149.47	0.200U	0.99	19.60
Benzo(b)fluoranthene	21.7	ug/L	50.0	43.30	50.53-149.47	0.200U	0.55	19.61
Benzo(g,h,i)perylene	40.5	ug/L	50.0	80.96	50.53-149.47	0.200U	6.01	19.61
Benzol(k)fluoranthene	61.3	ug/L	50.0	122.54	50.53-149.47	0.200U	6.61	19.60
Chrysene	48.1	ug/L	50.0	96.10	50.53-149.47	0.200U	2.39	19.60
Dibenz(a,h)anthracene	38.2	ug/L	50.0	76.40	50.53-149.47	0.200U	1.61	19.61
Fluoranthene	34.4	ug/L	50.0	68.70	50.53-149.47	0.200U	0.03	19.60
Fluorene	36.0	ug/L	50.0	71.98	50.53-149.47	0.200U	6.16	19.60
Indeno(1,2,3-cd)pyrene	41.3	ug/L	50.0	82.56	50.53-149.47	0.200U	3.22	19.60
Naphthalene	33.7	ug/L	50.0	67.32	50.53-149.47	0.200U	15.18	19.61
Phenanthrene	43.4	ug/L	50.0	86.70	50.53-149.47	0.200U	4.65	19.60
Pyrene	43.0	ug/L	50.0	85.90	50.53-149.47	0.200U	1.46	19.61
1-methyl-Naphthalene	30.7	ug/L	50.0	61.36	50.53-149.47	0.200U	21.64	19.61
2-methyl-Naphthalene	27.5	ug/L	50.0	55.08	50.53-149.47	0.200U	33.94	19.60
Surr:Nitrobenzene-d5	53.6	ug/L	50.0	107.16	50.53-149.47		30.15	19.61
Surr:1-Terphenyl-d14	45.8	ug/L	50.0	91.62	50.53-149.47		10.57	19.61
Surr:2-Fluorobiphenyl	36.2	ug/L	50.0	72.48	50.53-149.47		24.57	19.61

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Additional Comments

High RPD or matrix spike values may be due to sample homogeneity of the spiked sample aliquots. The LCS validates the batch.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Cation-Anion Balance Worksheet

Accession Number: 701147-01

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	213		
Chloride	190	0.02821	5.35990
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	2000	0.02082	41.64000
Carbonate		0.03333	0.00000
Bi-Carbonate	213	0.01639	3.49107
Total Anions =			50.49097

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	421	0.04990	21.00790
Potassium	14.7	0.02558	0.37603
Magnesium	40.5	0.08229	3.33275
Sodium	503	0.04350	21.88050
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			46.597171

Anion/Cation Balance (% difference) = 4.0%

Total Anions+Cations =	3297 mg/l	(calculated)
Total Dissolved Solids =	3490 mg/l	(measured)
TDS/ion sum ratio =	1.06	
Electrical Cond =	4500 umh/cm	(measured)
TDS/EC ratio =	0.776	

Cation-Anion Balance Worksheet

Accession Number: 701147-02

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	259		
Chloride	144	0.02821	4.06224
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1420	0.02082	29.56440
Carbonate		0.03333	0.00000
Bi-Carbonate	259	0.01639	4.24501
Total Anions =			37.87165

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	370	0.04990	18.46300
Potassium	11.7	0.02558	0.29929
Magnesium	35.2	0.08229	2.89661
Sodium	284	0.04350	12.35400
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			34.012894

Anion/Cation Balance (% difference) = 5.4%

Total Anions+Cations =	2420 mg/l	(calculated)
Total Dissolved Solids =	2570 mg/l	(measured)
TDS/ion sum ratio =	1.06	
Electrical Cond =	3320 umh/cm	(measured)
TDS/EC ratio =	0.774	

Cation-Anion Balance Worksheet

Accession Number: 701147-03

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	316		
Chloride		0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1510	0.02082	31.43820
Carbonate		0.03333	0.00000
Bi-Carbonate	315	0.01639	5.16285
Total Anions =			36.60105

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	330	0.04990	16.46700
Potassium	10.9	0.02558	0.27882
Magnesium	28.2	0.08229	2.32058
Sodium	389	0.04350	16.92150
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			35.9879

Anion/Cation Balance (% difference) = 0.8%

Total Anions+Cations =	2458 mg/l	(calculated)
Total Dissolved Solids =	2550 mg/l	(measured)
TDS/ion sum ratio =	1.04	
Electrical Cond =	3480 umh/cm	(measured)
TDS/EC ratio =	0.733	

Cation-Anion Balance Worksheet

Accession Number: 701147-04

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	338		
Chloride		0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1270	0.02082	26.44140
Carbonate		0.03333	0.00000
Bi-Carbonate	337	0.01639	5.52343
Total Anions =			31.96483

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	251	0.04990	12.52490
Potassium	9.77	0.02558	0.24992
Magnesium	24.6	0.08229	2.02433
Sodium	357	0.04350	15.52950
Copper	0.008	0.03147	0.00025
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			30.3289024

Anion/Cation Balance (% difference) = 2.6%

Total Anions+Cations =	2115 mg/l	(calculated)
Total Dissolved Solids =	2250 mg/l	(measured)
TDS/ion sum ratio =	1.06	
Electrical Cond =	3160 umh/cm	(measured)
TDS/EC ratio =	0.712	

Cation-Anion Balance Worksheet

Accession Number: 701147-05

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	750		
Chloride		0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	580	0.02082	12.07560
Carbonate		0.03333	0.00000
Bi-Carbonate	748	0.01639	12.25972
Total Anions =			24.33532

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	152	0.04990	7.58480
Potassium	6.71	0.02558	0.17164
Magnesium	28.9	0.08229	2.37818
Sodium	329	0.04350	14.31150
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			24.4461228

Anion/Cation Balance (% difference) = 0.2%

Total Anions+Cations = 1547 mg/l (calculated)
Total Dissolved Solids = 1710 mg/l (measured)
TDS/ion sum ratio = 1.11
Electrical Cond = 2620 umh/cm (measured)
TDS/EC ratio = 0.653

Cation-Anion Balance Worksheet

Accession Number: 701147-06

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	228		
Chloride	0	0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1540	0.02082	32.06280
Carbonate		0.03333	0.00000
Bi-Carbonate	228	0.01639	3.73692
Total Anions =			35.79972

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	328	0.04990	16.36720
Potassium	10.7	0.02558	0.27371
Magnesium	27.9	0.08229	2.29589
Sodium	351	0.04350	15.26850
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			34.205297

Anion/Cation Balance (% difference) = 2.3%

Total Anions+Cations =	2394 mg/l	(calculated)
Total Dissolved Solids =	2590 mg/l	(measured)
TDS/ion sum ratio =	1.08	
Electrical Cond =	3280 umh/cm	(measured)
TDS/EC ratio =		

Cation-Anion Balance Worksheet

Accession Number: 701147-07

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	203		
Chloride	0	0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1370	0.02082	28.52340
Carbonate		0.03333	0.00000
Bi-Carbonate	202	0.01639	3.31078
Total Anions =			31.83418

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	344	0.04990	17.16560
Potassium	9.7	0.02558	0.24813
Magnesium	27.3	0.08229	2.24652
Sodium	253	0.04350	11.00550
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			30.665743

Anion/Cation Balance (% difference) = 1.9%

Total Anions+Cations =	2126 mg/l	(calculated)
Total Dissolved Solids =	2280 mg/l	(measured)
TDS/ion sum ratio =	1.07	
Electrical Cond =	2920 umh/cm	(measured)
TDS/EC ratio =	0.781	

Cation-Anion Balance Worksheet

Accession Number: 701147-08

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	215		
Chloride	0	0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1570	0.02082	32.68740
Carbonate		0.03333	0.00000
Bi-Carbonate	214	0.01639	3.50746
Total Anions =			36.19486

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	398	0.04990	19.86020
Potassium	9.53	0.02558	0.24378
Magnesium	30.6	0.08229	2.51807
Sodium	282	0.04350	12.26700
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			34.8890514

Anion/Cation Balance (% difference) = 1.8%

Total Anions+Cations =	2419 mg/l	(calculated)
Total Dissolved Solids =	2620 mg/l	(measured)
TDS/ion sum ratio =	1.08	
Electrical Cond =	3290 umh/cm	(measured)
TDS/EC ratio =	0.796	

Cation-Anion Balance Worksheet

Accession Number: 701147-09

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	619		
Chloride	0	0.02821	0.00000
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	926	0.02082	19.27932
Carbonate		0.03333	0.00000
Bi-Carbonate	618	0.01639	10.12902
Total Anions =			29.40834

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	182	0.04990	9.08180
Potassium	6.7	0.02558	0.17139
Magnesium	29.8	0.08229	2.45224
Sodium	402	0.04350	17.48700
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			29.192428

Anion/Cation Balance (% difference) = 0.4%

Total Anions+Cations =	1918 mg/l	(calculated)
Total Dissolved Solids =	2040 mg/l	(measured)
TDS/ion sum ratio =	1.06	
Electrical Cond =	2870 umh/cm	(measured)
TDS/EC ratio =	0.711	

Cation-Anion Balance Worksheet

Accession Number: 701147-10

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	786		
Chloride	85.6	0.02821	2.41478
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	460	0.02082	9.57720
Carbonate		0.03333	0.00000
Bi-Carbonate	785	0.01639	12.86615
Total Anions =			24.858126

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	135	0.04990	6.73650
Potassium	7.16	0.02558	0.18315
Magnesium	20.8	0.08229	1.71163
Sodium	370	0.04350	16.09500
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			24.7262848

Anion/Cation Balance (% difference) = 0.3%

Total Anions+Cations =	1550 mg/l	(calculated)
Total Dissolved Solids =	1650 mg/l	(measured)
TDS/ion sum ratio =	1.06	
Electrical Cond =	2600 umh/cm	(measured)
TDS/EC ratio =	0.635	

Cation-Anion Balance Worksheet

Accession Number: 701147-11

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	897		
Chloride	111	0.02821	3.13131
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	109	0.02082	2.26938
Carbonate		0.03333	0.00000
Bi-Carbonate	893	0.01639	14.63627
Total Anions =			20.03696

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	129	0.04990	6.43710
Potassium	4.56	0.02558	0.11664
Magnesium	15.4	0.08229	1.26727
Sodium	354	0.04350	15.39900
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			23.2200108

Anion/Cation Balance (% difference) = 7.4%

Total Anions+Cations =	1261 mg/l	(calculated)
Total Dissolved Solids =	1530 mg/l	(measured)
TDS/ion sum ratio =	1.21	
Electrical Cond =	2500 umh/cm	(measured)
TDS/EC ratio =	0.612	

Pinnacle Laboratories, Inc.

Interlab Chain of Custody

Date: 12/25/07 Page: 1 of 1

LABORATORY Network Project Manager: Jabinta Tenorio

Pinnacle Laboratories, Inc.
2709-D Pan American Freeway, NE
Albuquerque, NM 87107
(505) 344-3777 Fax (505) 344-4413

(Add CL, SDY per Client sec ATTACHED)
12/30/07

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	TCLP RCRA (8) Metals	Metals-13 PP List	Metals-Sb, As, Be, Cd, Cr, Ni, Cu, Pb, Se, Ag, Ti, Zn, Hg, Hf, In, Sn, Co, Mg, K, Na	TOC	Gen Chemistry:	Alkalinity + Bicarbonate/OH	TDS, EC	Volatile Organics GC/MS (8260)	BOD	COD	Pesticides/PCB (608/8081/8082)	Herbicides (615/8151)	PNA (6310) (8270 SIMS)	8260 (TCLP 1311) ZHE	Base/Neutral Acid Compounds GC/MS (625/8270)	Uranium (ICP-MS)	Radium 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
GIBR-240/701147-01	12/25/07	1010	GCW	33014GW1					X		X	X						X	X						
GIBR-30/701147-02		1045		33014GW2														X	X						
INFILTRANT/701147-03		1055		33014GW3														X	X						
EFFLUENT/701147-04		1125		33014GW4														X	X						
GRW-3/701147-05		1141		33014GW5														X	X						
GIBR-31/701147-06		1220		33014GW6														X	X						
GIBR-52/701147-07		1302		33014GW7																					
GIBR-51/701147-08		1326		33014GW8																					
GRW-6/701147-09		1353		33014GW9																					
SHS-19/701147-10		1505		33014GW10																					
SHS-18/701147-11		1510		33014GW11																					

← BROKEN RJL

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	701147	Total Number of Containers		PENSACOLA - STL-FL		Signature:		Signature:	
PROJ. NAME:	LONE	Chain of Custody Seals		ESL - OR		Time:	1700	Time:	
QC LEVEL:	(STD) IV	Received Intact?		ATEL - AZ		Printed Name:		Printed Name:	
QC REQUIRED:	MS MSD BLANK	Received Good Cond/Cold		ATEL - MARION		Date:	12/25/07	Date:	
TAT:	(STANDARD) RUSH!!	LAB NUMBER:		ATEL - MELMORE		Company:	Pinnacle Laboratories, Inc.	Company:	
				FCL		RECEIVED BY:		RECEIVED BY:	
				EHL		Signature:		Signature:	
				GEL		Time:	10100	Time:	
				WCAS		Printed Name:	Robert Carpenter	Printed Name:	
				WOHL		Date:	1/6/08	Date:	
						Company:	FCL	Company:	

COMMENTS:

DUE DATE: 8/9/07
RUSH SURCHARGE: -
CLIENT DISCOUNT: -
SPECIAL CERTIFICATION
REQUIRED: YES NO



Pinnacle Laboratories Inc.

CHAIN OF CUSTODY
DATE: 1/23/07 PAGE: 1 OF 2

PL# Accession# 701127

PROJECT MANAGER: Martin Neser		ANALYSIS REQUEST		
COMPANY:	ADDRESS:	PHONE:	FAX:	
Ladester Services	24 CR 3500	505 334 2791		
Flora Vista NM				
Bill Robertson				
511 CR 4990				
Bloomfield NM 87413				
SAMPLE ID	DATE	TIME	MATRIX	LAB ID
GABR-24D	012307	1010	WLG	01
GABR-30	012307	1045	WLG	02
Influent	012307	1055	WLG	03
effluent	012307	1125	WLG	04
GARW-3	012307	1144	WLG	05
GABR-31	012307	1220	WLG	06
GABR-52	012307	1302	WLG	07
GABR-51	012307	1325	WLG	08
GARW-60	012307	1353	WLG	09
Pinnacles Hydrocarbons (418.1) TRPH				
(MOD.8015) Diesel/Direct Inject				
Hardness, Ca, Mg, K, Na				
(M8015) Gas/Purge & Trap				
8021 (BTEX)/8015 (Gasoline) MTBE				
8021 (BTEX) DMTHBE DMTHB DPCE				
8021 (TCL)				
8021 (EDX)				
8021 (HALO)				
8021 (CUST)				
504.1 EDB DBCP				
8260 (TCL) Volatile Organics				
8260 (Full) Volatile Organics CPBMS				
8260 (CUST) Volatile Organics				
8260 (Landfill) Volatile Organics				
Pesticides/PCB (608/8081/8082)				
Herbicides (615/8151)				
Base/Neutral/Acid Compounds GC/MS (625/8270)				
Polynuclear Aromatics (610/8310/6270-SIMS)				
General Chemistry: pH, SO4, Cl				
Alkalinity, TS, EC				
Priority Pollutant Metals (13)				
Target Analyte List Metals (23)				
RCRA Metals (8)				
RCRA Metals by TCLP (Method 1311)				
Metals: Sb, As, Be, Cd, Cr, Ni, Cu, Pb, Se, Ag, Hg, Zn, Hs				
NUMBER OF CONTAINERS				

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		WEEKEND ANALYSES MAY RESULT IN AN ADDITIONAL SURCHARGE - PLEASE INQUIRE.	
PROJ. NO.:	30002	(RUSH) 024hr* 048hr* 072hr*	01 WEEK		
P.O. NO.:		CERTIFICATION REQUIRED		METALS PRESERVATION	
SHIPPED VIA: UPS		METHANOL PRESERVATION		COMMENTS:	
SAMPLE RECEIPT		NO CONTAINERS		CUSTODY SEALS	
RECEIVED INTACT		BLUE/WHITE		0.32	

RELINQUISHED BY:		RELINQUISHED BY:		RELINQUISHED BY:	
Signature:	Time:	Signature:	Time:	Signature:	Time:
M. Neser	1430	M. Neser	1430	M. Neser	1430
Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
M. Neser	1/23/07	M. Neser	1/23/07	M. Neser	1/23/07
Company:	See Reverse side (For Major)	Company:	See Reverse side (For Major)	Company:	See Reverse side (For Major)
RECEIVED BY: (LAB)		RECEIVED BY: (LAB)		RECEIVED BY: (LAB)	
Signature:	Time:	Signature:	Time:	Signature:	Time:
M. Neser	1430	M. Neser	1430	M. Neser	1430
Printed Name:	Date:	Printed Name:	Date:	Printed Name:	Date:
M. Neser	1/23/07	M. Neser	1/23/07	M. Neser	1/23/07
Company:	Pinnacle Laboratories Inc.	Company:	Pinnacle Laboratories Inc.	Company:	Pinnacle Laboratories Inc.

SHADED AREAS ARE FOR LAB USE ONLY. PLEASE FILL THIS FORM IN COMPLETELY.

CHAIN OF CUSTODY

DATE: 1/23/07 PAGE: 2 OF 2

PLI Accession# 74112

[illegible]

July, 2003 PLI Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN LAB@ATT.NET

DISTRIBUTION: White - P.U. Canary - Ordinator

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number 704173
May 22, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name BLOOMFIELD REFINERY
Project Number (NONE)

Attention: MARTIN NEE/BILL ROBERTSON

On 04/24/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Methods 8021 and 150.1 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All other analyses were performed by Flowers Chemical Laboratories, Inc. (FCL), Altamonte Springs, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

CLIENT	: LODESTAR	PINNACLE ID	: 704173
PROJECT #	: (NONE)	DATE RECEIVED	: 04/24/2007
PROJECT NAME	: BLOOMFIELD REFINERY	REPORT DATE	: 05/22/2007
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
704173 - 01	INFLUENT	AQUEOUS	04/20/2007
704173 - 02	EFFLUENT	AQUEOUS	04/20/2007
704173 - 03	20042007TB01	AQUEOUS	04/20/2007

GENERAL CHEMISTRY RESULTS

CLIENT	: LODESTAR	PINNACLE I.D.	: 704173
PROJECT #	: (NONE)	DATE RECEIVED	: 04/24/2007
PROJECT NAME	: BLOOMFIELD REFINERY	ANALYST	: DRK

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
01	INFLUENT	AQUEOUS	04/20/2007	04/24/2007
02	EFFLUENT	AQUEOUS	04/20/2007	04/24/2007

PARAMETER	INFLUENT	EFFLUENT
PH (150.1)	7.3	7.2
TEMPERATURE (°C)	20.4	19.8

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: LODESTAR	PINNACLE I.D.	: 704173
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	DATE ANALYZED	: 04/24/2007

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	704173-01	7.25	7.23	0
TEMPERATURE (°C)		20.4	20.1	

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021B
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : BLOOMFIELD REFINERY

PINNACLE I.D. : 704173
 ANALYST : DRK

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	INFLUENT	AQUEOUS	04/20/2007	NA	05/03/2007	1
02	EFFLUENT	AQUEOUS	04/20/2007	NA	05/03/2007	1
03	20042007TB01	AQUEOUS	04/20/2007	NA	05/03/2007	1
PARAMETER	DET. LIMIT	UNITS	INFLUENT	EFFLUENT	20042007TB01	
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	

SURROGATE:
 BROMOFLUOROBENZENE (%) 99 99 101
 SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
 N/A

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021B	PINNACLE I.D.	: 704173
BLANK I. D.	: 050307B	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 05/03/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	ANALYST	: DRK

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<2.0

SURROGATE:
BROMOFLUOROBENZENE (%) 99
SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY QUALITY CONTROL LCS/LCSD

TEST	: EPA 8021B	PINNACLE I.D.	: 704173
BATCH ID	: 050307B	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 05/03/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	18.9	95	18.4	92	3	(80 - 120)	20
TOLUENE	<0.5	20.0	17.8	89	17.4	87	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.2	101	19.8	99	2	(80 - 120)	20
TOTAL XYLENES	<2.0	60.0	55.7	93	55.3	92	1	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

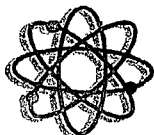
TEST	: EPA 8021B	PINNACLE I.D.	: 704173
SAMPLE ID	: 704171-05	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 05/03/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	18.5	92	18.4	92	0	(80 - 120)	20
TOLUENE	<0.5	20.0	17.4	87	17.3	87	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.9	100	19.4	97	3	(80 - 120)	20
TOTAL XYLENES	<2.0	60.0	55.9	93	54.0	90	3	(80 - 120)	20

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407-339-5984 Fax 407-260-6110 www.flowerslabs.com
8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772-343-8006 Fax 772-343-8089
P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 704173
Client Project #: LODE
Date Sampled: Apr 20, 2007
May 7, 2007; Invoice: 39092

Report Summary

Date Received: Apr 25, 2007

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
39092WW1	Influent/704173-01				Waste Water
39092WW2	Effluent/704173-02				Waste Water

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407-339-5984 Fax 407-260-8110 www.flowerslabs.com
8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772-343-8006 Fax 772-343-8089
P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 704173
Client Project #: LODE
Date Sampled: Apr 20, 2007
May 7, 2007; Invoice: 39092

Analysis Report

Lab #: 39092WW1 Sampled: 04/20/07 10:15 AM Desc: Influent 704173-01

Parameter	Result	Units	DF	MDL	POL	QC Batch	Method	CAS #	Analyzed
Sulfate	1390	mg/L	30.0	150	300	10082866	EPA375.2	14808-79-8	04/27/07
TDS	2370	mg/L	1.00	2.50	5.00	10082911	SM2540C	10-33-3	04/26/07
Chloride	77.01	mg/L	10.0	50.0	100	10082978	SM4500CIE	16887-00-6	04/27/07
Bicarbonate Alkalinity	421	mg/L	1.00	0.100	0.200	10083062	SM2320B	E1640226	04/26/07
Carbonate Alkalinity	1.59	mg/L	1.00	0.100	0.200	10083062	SM2320B	3812-32-6	04/26/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10083062	SM2320B	T-005	04/26/07
Total Alkalinity CaCO3	422	mg/L	1.00	0.100	0.200	10083062	SM2320B	10-34-4	04/27/07
Specific Conductance	3780	umhos/cm	1.00	1.00	2.00	10083098	EPA120.1	7440-70-2	05/03/07
Calcium	226	mg/L	1.00	0.100	0.200	10083283	EPA200.7	7439-95-4	05/03/07
Magnesium	22.9	mg/L	1.00	0.100	0.200	10083283	EPA200.7	7440-09-7	05/03/07
Potassium	7.43	mg/L	1.00	0.100	0.200	10083283	EPA200.7	7440-23-5	05/03/07
Sodium	350	mg/L	1.00	0.500	1.00	10083283	EPA200.7	40-11-9	05/03/07
Total Hardness (as CaCO3)	658	mg/L	1.00	0.100	0.200	10083284	SM2340B		

Lab #: 39092WW2 Sampled: 04/20/07 10:15 AM Desc: Effluent 704173-02

Parameter	Result	Units	DF	MDL	POL	QC Batch	Method	CAS #	Analyzed
Sulfate	1360	mg/L	20.0	100	200	10082866	EPA375.2	14808-79-8	04/27/07
TDS	2360	mg/L	1.00	2.50	5.00	10082911	SM2540C	10-33-3	04/26/07
Chloride	77.91	mg/L	10.0	50.0	100	10082978	SM4500CIE	16887-00-6	04/27/07
Bicarbonate Alkalinity	409	mg/L	1.00	0.100	0.200	10083062	SM2320B	E1640226	04/26/07
Carbonate Alkalinity	1.61	mg/L	1.00	0.100	0.200	10083062	SM2320B	3812-32-6	04/26/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10083062	SM2320B	T-005	04/26/07
Total Alkalinity CaCO3	410	mg/L	1.00	0.100	0.200	10083098	EPA120.1	10-34-4	04/27/07
Specific Conductance	3400	umhos/cm	1.00	1.00	2.00	10083283	EPA200.7	7440-70-2	05/03/07
Calcium	229	mg/L	1.00	0.100	0.200	10083283	EPA200.7	7439-95-4	05/03/07
Magnesium	23.4	mg/L	1.00	0.100	0.200	10083283	EPA200.7	7440-09-7	05/03/07
Potassium	7.94	mg/L	1.00	0.100	0.200	10083283	EPA200.7		

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 704173
Client Project #: LODE
Date Sampled: Apr 20, 2007
May 7, 2007; Invoice: 39092

Lab #: 39092-0002 Sampled: 04/20/07 10:15 AM Desc: Effluent 704173-02

Parameter	Result	Units	DF	MDL	POL	QC Batch	Method	CAS #	Analyzed
Sodium	356	mg/L	1.00	0.500	1.00	10083283	EPA200.7	7440-23-5	05/03/07
Total Hardness (as CaCO3)	669	mg/L	1.00	0.100	0.200	10083284	SM2340B	40-11-9	05/03/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL015



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 704173
Client Project #: LODC
Date Sampled: Apr 20, 2007
May 7, 2007; Invoice: 39092

Quality Report

Quality Control Batch: 10082911 Analyst: RMV
Blank Result 2.50U Units mg/L
TDS

Laboratory Control Sample
TDS Result 1480 Units mg/L
Spike 1500
%REC 98.53
%REC Lim 55.54-137.56

Quality Control Batch: 10082978 Analyst: EMB
Blank Result 5.00U Units mg/L
Chloride

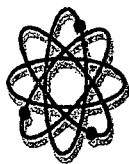
Laboratory Control Sample
Chloride Result 54.2 Units mg/L
Spike 50.0
%REC 108.48
%REC Lim 58.27-138.07

Quality Control Batch: 10083062 Analyst: EMB
Blank Result 0.100U Units mg/L
Total Alkalinity CaCO3

Laboratory Control Sample
Total Alkalinity CaCO3 Result 96.6 Units mg/L
Spike 100
%REC 96.62
%REC Lim 50.93-142.91

Quality Control Batch: 10083283 Analyst: EMB
Blank Result 0.100U Units mg/L
Calcium

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NJDEP: FLO15



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 704173
Client Project #: LODS
Date Sampled: Apr 20, 2007
May 7, 2007; Invoice: 39092

Quality Control Batch: 10083283

	Analyst: EYE
Blank	Result Units
Magnesium	0.0100U mg/L
Potassium	0.100U mg/L
Sodium	0.500U mg/L

Laboratory Control Sample

	Result	Units	Spike	%REC	%REC Lim
Calcium	9.10	mg/L	10.0	91.05	48.98-140.78
Magnesium	9.93	mg/L	10.0	99.34	50.20-139.78
Potassium	9.84	mg/L	10.0	98.38	50.21-139.79
Sodium	10.6	mg/L	10.0	105.97	49.67-140.27

Matrix Spike

	Result	Units	Spike	%REC	%REC Lim	Sample
Calcium	44.3	mg/L	5.00	102.95	50.44-149.74	39.1
Magnesium	14.0	mg/L	5.00	106.08	50.60-149.00	8.70
Potassium	15.9	mg/L	5.00	133.88	50.54-149.12	9.25
Sodium	36.1	mg/L	5.00	118.40	50.31-149.07	30.2

Matrix Spike Duplicate

	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Calcium	43.4	mg/L	5.00	85.67	50.44-149.74	39.1	1.97	19.22
Magnesium	13.0	mg/L	5.00	86.68	50.60-149.00	8.70	7.18	19.69
Potassium	14.5	mg/L	5.00	104.12	50.54-149.12	9.25	9.78	19.70
Sodium	34.6	mg/L	5.00	88.73	50.31-149.07	30.2	4.20	19.73

Quality Control Batch: 10083284

	Analyst: EYE
Blank	Result Units
Total Hardness (as CaCO3)	0.100U mg/L

Laboratory Control Sample
Total Hardness (as CaCO3)

Result	33.7	Units	mg/L
Spike	33.1		
%REC	101.82		
%REC Lim	62.28-133.26		

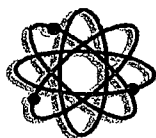
FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab)

FLDOH: E82405 (North Lab)

NJDEP: FLO15

Page 5 of 6



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PO #: 704173
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Date Sampled: Apr 20, 2007
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Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Interlab Chain of Custody

Date: 4/24/07 Page: 1 of 1

University of Birmingham Network Project Manager: Jaçinta Tenorio

Jacinta Tenorio

Pinnacle Laboratories, Inc.

2709-D Pan American Freeway, NE

Albuquerque, NM 87107

(505) 344-3777 Fax (505) 344-4413

ANALYSIS REQUEST

[illegible]

PROJECT INFORMATION			SAMPLE RECEIPT		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	704473		Total Number of Containers		Signature:		Signature:	
PROJ. NAME:	LOPE		Chain of Custody Seals		Printed Name:		Printed Name:	
QC LEVEL:	STD	IV	Received Intact?		Date:		Date:	
QC REQUIRED:	MS	MSD	Received Good Cont./Cold		Printed Name:		Printed Name:	
QC REQUIRED:	STANDARD	RUSH!!	LAB NUMBER:		Company		Company	
DUE DATE:			COMMENTS:		RECEIVED BY:		RECEIVED BY:	
RUSH SURCHARGE: -			350		Signature:		Signature:	
CLIENT DISCOUNT: -					Time:		Time:	
SPECIAL CERTIFICATION					Date:		Date:	
REQUIRED: YES (NO)					Printed Name:		Printed Name:	
					Company		Company	

Cation-Anion Balance Worksheet

Accession Number: 704173-01

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	422		
Chloride	77	0.02821	2.17217
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1390	0.02082	28.93980
Carbonate	1.59	0.03333	0.05299
Bi-Carbonate	421	0.01639	6.90019
Total Anions =			38.0651547

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	226	0.04990	11.27740
Potassium	7.43	0.02558	0.19006
Magnesium	22.9	0.08229	1.88444
Sodium	350	0.04350	15.22500
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			28.5769004

Anion/Cation Balance (% difference) = 14.2%

Total Anions+Cations =	2327 mg/l	(calculated)
Total Dissolved Solids =	2370 mg/l	(measured)
TDS/ion sum ratio =	1.02	
Electrical Cond =	3780 umh/cm	(measured)
TDS/EC ratio =	0.627	

Cation-Anion Balance Worksheet

Accession Number: 704173-02

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	410		
Chloride	77.9	0.02821	2.19756
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1360	0.02082	28.31520
Carbonate	1.61	0.03333	0.05366
Bi-Carbonate	409	0.01639	6.70351
Total Anions =			37.2699303

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	229	0.04990	11.42710
Potassium	7.94	0.02558	0.20311
Magnesium	23.4	0.08229	1.92559
Sodium	356	0.04350	15.48600
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			29.0417912

Anion/Cation Balance (% difference) = 12.4%

Total Anions+Cations =	2300 mg/l	(calculated)
Total Dissolved Solids =	2360 mg/l	(measured)
TDS/ion sum ratio =	1.03	
Electrical Cond =	3400 umh/cm	(measured)
TDS/EC ratio =	0.694	

CHAIN OF CUSTODY

DATE: 042007 PAGE: 3 OF 3

PLJ Accession #

704173

PROJECT MANAGER: Martin Nee COMPANY: Lodestar Services ADDRESS: PO Box 4465 Durango, CO 81302 PHONE: 505-334-2791 FAX: BILL TO: Bill Robertson COMPANY: Giant Industries AZ, Inc. ADDRESS: 111 CR 4990 Bloomfield, NM 87413		SAMPLE ID Influent Effluent 20042007TBO1		DATE 042007 1015 042007 1036 042007 0700	TIME WG WG WG	MATRIX 01 02 03	LAB ID 																																																																																																																																																																																																								
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July, 2003 PJI Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • Fax (505) 344-3777 • E-mail: PIN_LAB@ATT.NET

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PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number 707116
August 08, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name BLOOMFIELD REFINERY
Project Number (NONE)

Attention: MARTIN NEE/BILL ROBERTSON

On 04/24/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

The samples were originally submitted in April, 2007 for BTEX analysis. The samples were reanalyzed (past hold-time) at the request of the client for EPA 601/602. The original report was issued on May 22, 2007.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS

Environmental Testing

CLIENT	: LODESTAR	PINNACLE ID	: 707116
PROJECT #	: (NONE)	DATE RECEIVED	: 04/24/2007
PROJECT NAME	: BLOOMFIELD REFINERY	REPORT DATE	: 08/08/2007
PINNACLE			
ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
707116 - 01	INFLUENT	AQUEOUS	04/20/2007
707116 - 02	EFFLUENT	AQUEOUS	04/20/2007
707116 - 03	20042007TB01	AQUEOUS	04/20/2007

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : BLOOMFIELD REFINERY

PINNACLE I.D. : 707116
 ANALYST : DRK

SAMPLE			DATE	DATE	DATE	DIL.	
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR	
01	INFLUENT	AQUEOUS	04/20/2007	NA	07/31/2007	1	H1
02	EFFLUENT	AQUEOUS	04/20/2007	NA	07/31/2007	1	H1
03	20042007TB01	AQUEOUS	04/20/2007	NA	07/31/2007	1	H1

PARAMETER	DET. LIMIT	UNITS	INFLUENT	EFFLUENT	20042007TB01	P/E
METHYL -t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	P
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	P
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
TRICHLOROFLUOROMETHANE	0.8	UG/L	< 0.8	< 0.8	< 0.8	E
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	E
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	E
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	E
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
BROMOFORM	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E

SURROGATE:				
BROMOCHLOROMETHANE (%)		84	98	96
SURROGATE LIMITS	(71 - 126)			
TRIFLUOROTOLUENE (%)		91	98	95
SURROGATE LIMITS	(72 - 130)			

CHEMIST NOTES:

H1 = Sample was run past the 14 day hold time.

GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 601/602	PINNACLE I.D.	: 707116
BLANK I.D.	: 073107C	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 07/31/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	ANALYST	: STH/DRK

PARAMETER	UNITS	
METHYL -t-BUTYL ETHER	UG/L	<2.5
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<2.0
CHLOROMETHANE	UG/L	<1.0
VINYL CHLORIDE	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CHLOROETHANE	UG/L	<0.5
TRICHLOROFLUOROMETHANE	UG/L	<0.8
1,1-DICHLOROETHENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,1-DICHLOROETHANE	UG/L	<0.3
CHLOROFORM	UG/L	<0.5
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
1,2-DICHLOROPROPANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
BROMODICHLOROMETHANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
1,1,2-TRICHLOROETHANE	UG/L	<0.2
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
CHLOROBENZENE	UG/L	<0.5
BROMOFORM	UG/L	<0.5
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,2-DICHLOROBENZENE	UG/L	<0.5

SURROGATE:		
BROMOCHLOROMETHANE (%)		94
SURROGATE LIMITS	(71 - 126)	
TRIFLUOROTOLUENE (%)		96
SURROGATE LIMITS	(72 - 130)	

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

TEST	: EPA 601/602	PINNACLE I.D.	: 707116
SAMPLE ID	: 707116-02	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 07/31/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: BLOOMFIELD REFINERY	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
METHYL -t-BUTYL ETHER	<2.5	5.0	5.35	107	5.62	112	5	(70 - 130)	20
BENZENE	<0.5	5.0	4.93	99	4.97	99	1	(39 - 150)	20
TOLUENE	<0.5	5.0	5.20	104	4.99	100	4	(46 - 148)	20
ETHYLBENZENE	<0.5	5.0	4.77	95	4.83	97	1	(32 - 160)	20
TOTAL XYLENES	<2.0	15	14.9	99	15.3	102	3	(80 - 120)	20
CHLOROMETHANE	<1.0	20	26.4	132	27.2	136	3	(D - 193)	20
VINYL CHLORIDE	<0.5	20	23.6	118	21.9	110	7	(28 - 163)	20
BROMOMETHANE	<1.0	20	22.2	111	20.2	101	10	(D - 144)	20
CHLOROETHANE	<0.5	20	22.3	112	19.4	97	14	(46 - 137)	20
TRICHLOROFLUOROMETHANE	<0.8	20	21.7	108	18.7	93	15	(21 - 156)	20
1,1-DICHLOROETHENE	<0.2	5.0	6.15	123	5.15	103	18	(28 - 167)	20
METHYLENE CHLORIDE	<2.0	5.0	6.01	120	5.15	103	15	(25 - 162)	20
TRANS-1,2-DICHLOROETHENE	<1.0	5.0	5.18	104	5.11	102	1	(38 - 155)	20
1,1-DICHLOROETHANE	<0.3	5.0	5.86	117	5.58	112	5	(47 - 132)	20
CHLOROFORM	<0.5	5.0	2.27	45	2.18	44	4	(49 - 133)	20
1,2-DICHLOROETHANE (EDC)	<0.5	5.0	5.61	112	5.44	109	3	(51 - 147)	20
1,1,1-TRICHLOROETHANE	<1.0	5.0	5.31	106	5.08	102	4	(41 - 138)	20
CARBON TETRACHLORIDE	<0.2	5.0	5.66	113	5.25	105	7	(43 - 143)	20
1,2-DICHLOROPROPANE	<0.2	5.0	6.06	121	5.71	114	6	(44 - 156)	20
TRICHLOROETHENE	<0.3	5.0	4.82	96	4.51	90	7	(35 - 146)	20
BROMODICHLOROMETHANE	<0.2	5.0	5.26	105	4.80	96	9	(42 - 172)	20
CIS-1,3-DICHLOROPROPENE	<0.2	5.0	4.85	97	4.58	92	6	(22 - 178)	20
TRANS-1,3-DICHLOROPROPENE	<0.2	5.0	5.16	103	4.88	98	6	(22 - 178)	20
1,1,2-TRICHLOROETHANE	<0.2	5.0	5.42	108	4.91	98	10	(39 - 136)	20
DIBROMOCHLOROMETHANE	<0.2	5.0	6.33	127	5.76	115	10	(24 - 191)	20
1,2-DIBROMOETHANE (EDB)	<0.5	5.0	7.12	142	6.34	127	12	(80 - 120)	20
TETRACHLOROETHENE	<0.5	5.0	5.47	109	4.94	99	10	(26 - 162)	20
CHLOROBENZENE	<0.5	5.0	5.00	100	4.61	92	8	(38 - 150)	20
BROMOFORM	<0.5	5.0	5.31	106	4.63	93	14	(13 - 159)	20
1,1,2,2-TETRACHLOROETHANE	<0.5	5.0	1.45	29	1.35	27	7	(8 - 184)	20
1,3-DICHLOROBENZENE	<0.5	5.0	4.83	97	4.99	100	3	(7 - 187)	20
1,4-DICHLOROBENZENE	<0.5	5.0	3.17	63	3.35	67	6	(42 - 143)	20
1,2-DICHLOROBENZENE	<0.5	5.0	1.86	37	1.98	40	6	(D - 208)	20

CHEMIST NOTES:

EDB was recovered high in the LCS (122%) and LCSD (142%) but was not detected in the associated samples.

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number 707159
August 09, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name FORMER REFINERY
Project Number (NONE)

Attention: MARTIN NEE/BILL ROBERTSON

On 07/25/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Methods 601/602 and 150.1 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All other analyses were performed by Flowers Chemical Laboratories, Inc. (FCL), Altamonte Springs, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS

Environmental Testing

CLIENT	: LODESTAR	PINNACLE ID	: 707159
PROJECT #	: (NONE)	DATE RECEIVED	: 07/25/2007
PROJECT NAME	: FORMER REFINERY	REPORT DATE	: 08/09/2007
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
707159 - 01	INFLUENT	AQUEOUS	07/23/2007
707159 - 02	EFFLUENT	AQUEOUS	07/23/2007
707159 - 03	TRIP BLANK	AQUEOUS	07/16/2007

GENERAL CHEMISTRY RESULTS

CLIENT		: LODESTAR	PINNACLE I.D.	: 707159
PROJECT #		: (NONE)	DATE RECEIVED	: 07/25/07
PROJECT NAME		: FORMER REFINERY	ANALYST	: ARM
SAMPLE			DATE SAMPLED	DATE ANALYZED
ID. #	CLIENT I.D.	MATRIX		
01	INFLUENT	AQUEOUS	07/23/07	07/26/07
02	EFFLUENT	AQUEOUS	07/23/07	07/26/07
PARAMETER			INFLUENT	EFFLUENT
PH (150.1)			7.7	7.6
TEMPERATURE (°C)			20.6	20.8

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT	: LODESTAR	PINNACLE I.D.	: 707159
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: FORMER REFINERY	DATE ANALYZED	: 07/26/07

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	707159-01	7.68	7.71	0
TEMPERATURE (°C)		20.6	20.4	

(Spike Sample Result - Sample Result)
 % Recovery = $\frac{\text{Spike Sample Result} - \text{Sample Result}}{\text{Spike Concentration}} \times 100$

(Sample Result - Duplicate Result)
 RPD (Relative Percent Difference) = $\frac{\text{Sample Result} - \text{Duplicate Result}}{\text{Average Result}} \times 100$

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 601/602
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : FORMER REFINERY

PINNACLE I.D. : 707159
 ANALYST : STH/DRK

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR	
01	INFLUENT	AQUEOUS	07/23/2007	NA	07/31/2007	1	
02	EFFLUENT	AQUEOUS	07/23/2007	NA	07/31/2007	1	
03	TRIP BLANK	AQUEOUS	07/16/2007	NA	07/31/2007	1	H1

PARAMETER	DET. LIMIT	UNITS	INFLUENT	EFFLUENT	TRIP BLANK	P/E
METHYL t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	P
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	P
TOTAL XYLENES	2.0	UG/L	< 2.0	< 2.0	< 2.0	P
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
CHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
TRICHLOROFLUOROMETHANE	0.8	UG/L	< 0.8	< 0.8	< 0.8	E
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	E
TRANS-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3	E
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	E
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	E
BROMODICHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
CIS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
TRANS-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,2-DIBROMOETHANE (EDB)	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
BROMOFORM	0.2	UG/L	< 0.2	< 0.2	< 0.2	E
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	E

SURROGATE:				
BROMOCHLOROMETHANE (%)		104	87	101
SURROGATE LIMITS	(71 - 126)			
TRIFLUOROTOLUENE (%)		94	94	106
SURROGATE LIMITS	(72 - 130)			

CHEMIST NOTES:
 H1 = Trip Blank was run past the 14 day hold time.

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 601/602	PINNACLE I.D.	: 707159
BLANK I.D.	: 073107C	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 07/31/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: FORMER REFINERY	ANALYST	: STH/DRK

PARAMETER	UNITS	
METHYL -t-BUTYL ETHER	UG/L	<2.5
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<2.0
CHLOROMETHANE	UG/L	<1.0
VINYL CHLORIDE	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CHLOROETHANE	UG/L	<0.5
TRICHLOROFLUOROMETHANE	UG/L	<0.8
1,1-DICHLOROETHENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,1-DICHLOROETHANE	UG/L	<0.3
CHLOROFORM	UG/L	<0.5
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
1,2-DICHLOROPROPANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
BROMODICHLOROMETHANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
1,1,2-TRICHLOROETHANE	UG/L	<0.2
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
CHLOROBENZENE	UG/L	<0.5
BROMOFORM	UG/L	<0.5
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,2-DICHLOROBENZENE	UG/L	<0.5

SURROGATE:		
BROMOCHLOROMETHANE (%)		94
SURROGATE LIMITS	(71 - 126)	
TRIFLUOROTOLUENE (%)		96
SURROGATE LIMITS	(72 - 130)	

CHEMIST NOTES:
N/A

GAS CHROMATOGRAPHY QUALITY CONTROL MS/MSD

TEST	: EPA 601/602	PINNACLE I.D.	: 707159
SAMPLE ID	: 707116-02	DATE EXTRACTED	: NA
CLIENT	: LODESTAR	DATE ANALYZED	: 07/31/2007
PROJECT #	: (NONE)	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: FORMER REFINERY	UNITS	: UG/L

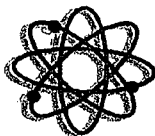
PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
METHYL T-BUTYL ETHER	<2.5	5.0	5.35	107	5.62	112	5	(70 - 130)	20
BENZENE	<0.5	5.0	4.93	99	4.97	99	1	(39 - 150)	20
TOLUENE	<0.5	5.0	5.20	104	4.99	100	4	(46 - 148)	20
ETHYLBENZENE	<0.5	5.0	4.77	95	4.83	97	1	(32 - 160)	20
TOTAL XYLENES	<2.0	15	14.9	99	15.3	102	3	(80 - 120)	20
CHLOROMETHANE	<1.0	20	26.4	132	27.2	136	3	(D - 193)	20
VINYL CHLORIDE	<0.5	20	23.6	118	21.9	110	7	(28 - 163)	20
BROMOMETHANE	<1.0	20	22.2	111	20.2	101	10	(D - 144)	20
CHLOROETHANE	<0.5	20	22.3	112	19.4	97	14	(46 - 137)	20
TRICHLOROFLUOROMETHANE	<0.8	20	21.7	108	18.7	93	15	(21 - 156)	20
1,1-DICHLOROETHENE	<0.2	5.0	6.15	123	5.15	103	18	(28 - 167)	20
METHYLENE CHLORIDE	<2.0	5.0	6.01	120	5.15	103	15	(25 - 162)	20
TRANS-1,2-DICHLOROETHENE	<1.0	5.0	5.18	104	5.11	102	1	(38 - 155)	20
1,1-DICHLOROETHANE	<0.3	5.0	5.86	117	5.58	112	5	(47 - 132)	20
CHLOROFORM	<0.5	5.0	2.27	45	2.18	44	4	(49 - 133)	20
1,2-DICHLOROETHANE (EDC)	<0.5	5.0	5.61	112	5.44	109	3	(51 - 147)	20
1,1,1-TRICHLOROETHANE	<1.0	5.0	5.31	106	5.08	102	4	(41 - 138)	20
CARBON TETRACHLORIDE	<0.2	5.0	5.66	113	5.25	105	7	(43 - 143)	20
1,2-DICHLOROPROPANE	<0.2	5.0	6.06	121	5.71	114	6	(44 - 156)	20
TRICHLOROETHENE	<0.3	5.0	4.82	96	4.51	90	7	(35 - 146)	20
BROMODICHLOROMETHANE	<0.2	5.0	5.26	105	4.80	96	9	(42 - 172)	20
CIS-1,3-DICHLOROPROPENE	<0.2	5.0	4.85	97	4.58	92	6	(22 - 178)	20
TRANS-1,3-DICHLOROPROPENE	<0.2	5.0	5.16	103	4.88	98	6	(22 - 178)	20
1,1,2-TRICHLOROETHANE	<0.2	5.0	5.42	108	4.91	98	10	(39 - 136)	20
DIBROMOCHLOROMETHANE	<0.2	5.0	6.33	127	5.76	115	10	(24 - 191)	20
1,2-DIBROMOETHANE (EDB)	<0.5	5.0	7.12	142	6.34	127	12	(80 - 120)	20
TETRACHLOROETHENE	<0.5	5.0	5.47	109	4.94	99	10	(26 - 162)	20
CHLOROBENZENE	<0.5	5.0	5.00	100	4.61	92	8	(38 - 150)	20
BROMOFORM	<0.5	5.0	5.31	106	4.63	93	14	(13 - 159)	20
1,1,2,2-TETRACHLOROETHANE	<0.5	5.0	1.45	29	1.35	27	7	(8 - 184)	20
1,3-DICHLOROBENZENE	<0.5	5.0	4.83	97	4.99	100	3	(7 - 187)	20
1,4-DICHLOROBENZENE	<0.5	5.0	3.17	63	3.35	67	6	(42 - 143)	20
1,2-DICHLOROBENZENE	<0.5	5.0	1.86	37	1.98	40	6	(D - 208)	20

CHEMIST NOTES:

EDB was recovered high in the LCS (122%) and LCSD (142%) but was not detected in the associated samples.

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 707159
Client Project #: GI
Date Sampled: Jul 23, 2007
Aug 1, 2007; Invoice: 45000

Report Summary

Date Received: Jul 26, 2007

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
45000WW1	Inf/707159-01	EPA120.1	LCC	Main Lab	Waste Water
		EPA200.7	EVB	Main Lab	
		EPA375.2	JGK	Main Lab	
		SM2320B	LCC	Main Lab	
		SM2340B	EVB	Main Lab	
		SM2540C	RMV	Main Lab	
		SM4500CIE	JGK	Main Lab	
45000WW2	Eff/707159-02	EPA120.1	LCC	Main Lab	Waste Water
		EPA200.7	EVB	Main Lab	
		EPA375.2	JGK	Main Lab	
		SM2320B	LCC	Main Lab	
		SM2340B	EVB	Main Lab	
		SM2540C	RMV	Main Lab	
		SM4500CIE	JGK	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 707159
Client Project #: GI
Date Sampled: Jul 23, 2007
Aug 1, 2007; Invoice: 45000

Analysis Report

Lab #: 45000WW1 Sampled: 07/23/07 10:50 AM Desc: Eff/707159-01

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Chloride	79.0 I	mg/L	10.0	50.0	100	10087535	SM4500CIE	16887-00-6	07/17/07
TDS	2320	mg/L	1.00	2.50	5.00	10087555	SM2540C	10-33-3	07/27/07
Specific Conductance	3320	umhos/cm	1.00	1.00	2.00	10087579	EPA 120.1	10-34-4	07/27/07
Bicarbonate Alkalinity	510	mg/L	1.00	0.100	0.200	10087626	SM2320B	E1640226	07/30/07
Carbonate CaCO3	1.89	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Total Alkalinity CaCO3	512	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Calcium	245	mg/L	1.00	0.100	0.200	10087750	EPA 200.7	T-005	07/30/07
Magnesium	24.6	mg/L	1.00	0.0100	0.0200	10087750	EPA 200.7	7440-70-2	07/31/07
Potassium	12.4	mg/L	1.00	0.100	0.200	10087750	EPA 200.7	7439-95-4	07/31/07
Sodium	400	mg/L	1.00	0.500	1.00	10087750	EPA 200.7	7440-09-7	07/31/07
Total Hardness (as CaCO3)	642	mg/L	1.00	0.100	0.200	10087751	SM2340B	40-11-9	07/31/07
Sulfate	1070 L	mg/L	10.0	50.0	100	10087779	EPA 375.2	14808-79-8	08/01/07

Lab #: 45000WW2 Sampled: 07/23/07 10:35 AM Desc: Eff/707159-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Chloride	78.9 I	mg/L	10.0	50.0	100	10087535	SM4500CIE	16887-00-6	07/17/07
TDS	2320	mg/L	1.00	2.50	5.00	10087555	SM2540C	10-33-3	07/27/07
Specific Conductance	3330	umhos/cm	1.00	1.00	2.00	10087579	EPA 120.1	10-34-4	07/27/07
Bicarbonate Alkalinity	478	mg/L	1.00	0.100	0.200	10087626	SM2320B	E1640226	07/30/07
Carbonate CaCO3	1.79	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Hydroxide CaCO3	0.100 U	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Total Alkalinity CaCO3	480	mg/L	1.00	0.100	0.200	10087626	SM2320B		07/30/07
Calcium	234	mg/L	1.00	0.100	0.200	10087750	EPA 200.7	T-005	07/30/07
Magnesium	25.0	mg/L	1.00	0.0100	0.0200	10087750	EPA 200.7	7440-70-2	07/31/07
Potassium	11.9	mg/L	1.00	0.100	0.200	10087750	EPA 200.7	7439-95-4	07/31/07
Sodium	399	mg/L	1.00	0.500	1.00	10087750	EPA 200.7	7440-09-7	07/31/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FLO15



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Lab #: 450000002 Sampled: 07/23/07 10:35 AM Desc: Eff/707159-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Total Hardness (as CaCO3)	618	mg/L	1.00	0.100	0.200	10087751	SM2340B	40-11-9	07/31/07
Sulfate	1000	mg/L	100	500	1000	10087780	EPA375.2	14808-79-8	08/01/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82405 (North Lab) NUDEP: FL015



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PO #: 707159
Client Project #: GI
Date Sampled: Jul 23, 2007
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Quality Report

Quality Control Batch: 10087535		Analyst: JCK	
Blank Chloride	Result	5.00U	Units mg/L
Laboratory Control Sample Chloride			
	Result	19.5	Units mg/L
			%REC 97.40
			Spike 20.0
Matrix Spike Chloride			
	Result	54.0	Units mg/L
			%REC 103.79
			Spike 50.0
Matrix Spike Duplicate Chloride			
	Result	54.7	Units mg/L
			%REC 105.11
			Spike 50.0
Quality Control Batch: 10087555		Analyst: RMV	
Blank TDS	Result	2.50U	Units mg/L
Laboratory Control Sample TDS			
	Result	1430	Units mg/L
			%REC 95.47
			Spike 1500
Quality Control Batch: 10087526		Analyst: LCC	
Blank Total Alkalinity CaCO3	Result	0.100U	Units mg/L
Laboratory Control Sample Total Alkalinity CaCO3			
	Result	97.6	Units mg/L
			%REC 97.57
			Spike 100
			%REC Lim 74.65-123.77
			%REC Lim 86.98-109.42
			%REC Lim 76.36-123.06
			%REC Lim 76.36-123.06
			%REC Lim 83.20-118.75
			Sample 2.14
			Sample 2.14
			RPD 1.21
			RPD Lim 6.55



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Quality Control Batch: 10087750

Analyst: EVB

Blank	Result	Units
Calcium	0.100U	mg/L
Magnesium	0.0100U	mg/L
Potassium	0.100U	mg/L
Sodium	0.500U	mg/L

Laboratory Control Sample

Calcium	Result	Units	Spike	%REC	%REC Lim
Calcium	8.55	mg/L	10.0	85.53	78.97-114.70
Magnesium	8.60	mg/L	10.0	86.02	85.74-116.82
Potassium	10.4	mg/L	10.0	104.01	82.40-115.28
Sodium	8.72	mg/L	10.0	87.18	77.47-114.43

Matrix Spike

Calcium	Result	Units	Spike	%REC	%REC Lim	Sample
Calcium	54.1	mg/L	10.0	88.86	27.68-167.72	45.2
Magnesium	13.6	mg/L	10.0	85.45	53.84-157.37	5.02
Potassium	14.2	mg/L	10.0	67.67	27.38-162.00	7.46
Sodium	23.8	mg/L	10.0	75.25	37.32-161.89	16.2

Matrix Spike Duplicate

Calcium	Result	Units	Spike	%REC	%REC Lim	Sample	RPD	RPD Lim
Calcium	59.7	mg/L	10.0	145.19	27.68-167.72	45.2	9.91	26.07
Magnesium	19.4	mg/L	10.0	143.47	53.84-157.37	5.02	35.24	31.28
Potassium	19.9	mg/L	10.0	124.90	27.38-162.00	7.46	33.49	34.44
Sodium	29.4	mg/L	10.0	131.41	37.32-161.89	16.2	21.14	20.02

Quality Control Batch: 10087751

Analyst: EVB

Blank	Result	Units
Total Hardness (as CaCO3)	0.100U	mg/L

Laboratory Control Sample

Total Hardness (as CaCO3)	Result	Units	Spike	%REC	%REC Lim
Total Hardness (as CaCO3)	56.8	mg/L	66.2	85.84	84.12-114.36

FLDOH: E83018 (Main Lab)

FLDOH: E86562 (South Lab)

FLDOH: E82405 (North Lab)

NJDEP: FL015

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Quality Control Batch: 10087780		Analyst: JGK	
Blank	Result	Units	
Sulfate	5.00U	mg/L	
Laboratory Control Sample			
Sulfate	61.9	Units	%REC 103.17
Matrix Spike			
Sulfate	85.8	Units	%REC 92.80
Matrix Spike Duplicate			
Sulfate	86.7	Units	%REC 94.60

	%REC Lim		RPD Lim
	91.94-106.64		7.31
Sample	%REC Lim		RPD
39.4	51.32-145.17		1.04
Sample	%REC Lim		
39.4	51.32-145.17		



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Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Network Project Manager: Jacinta Tenorio

Jacinta Tenorio

Pinnacle Laboratories, Inc.

2709-D Pan American Freeway, NE

Albuquerque, NM 87107

505) 344-3777 Fax (505) 344-4413

ANALYSIS REQUEST

[illegible]

PROJECT INFORMATION				SAMPLE RECEIPT		RELINQUISHED BY:		1. RELINQUISHED BY:	
PROJECT #:	707159			Total Number of Containers		Signature:		Signature:	
PROJ. NAME:	GI			Chain of Custody Seals		Time:		Time:	
QC LEVEL:	STD	IV		Received Intact?		Printed Name:		Printed Name:	
QC REQUIRED:	MS	MSD	BLANK	Received Good Cond./Cold		Date:		Date:	
TEST:	STANDARD	RUSH!!		LAB NUMBER:					
						RELINQUISHED BY:		1. RELINQUISHED BY:	
						Signature:		Signature:	
						Time:		Time:	
						Printed Name:		Printed Name:	
						Date:		Date:	
						Company:		Company:	
						RECEIVED BY:		1. RECEIVED BY:	
						Signature:		Signature:	
						Time:		Time:	
						Printed Name:		Printed Name:	
						Date:		Date:	
						Company:		Company:	
COMMENTS:									
DUE DATE:				8/8					
RUSH SURCHARGE:				-					
CLIENT DISCOUNT:				-					
SPECIAL CERTIFICATION									
REQUIRED: YES () NO ()									

Cation-Anion Balance Worksheet

Accession Number: 707159-01

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	512		
Chloride	79	0.02821	2.22859
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1070	0.02082	22.27740
Carbonate	1.89	0.03333	0.06299
Bi-Carbonate	510	0.01639	8.35890

Total Anions = 32.9278837

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	245	0.04990	12.22550
Potassium	12.4	0.02558	0.31719
Magnesium	24.6	0.08229	2.02433
Sodium	400	0.04350	17.40000
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000

Total Cations = 31.967026

Anion/Cation Balance (% difference) = 1.5%

Total Anions+Cations =	2138 mg/l	(calculated)
Total Dissolved Solids =	2320 mg/l	(measured)
TDS/ion sum ratio =	1.09	
Electrical Cond =	3220 umh/cm	(measured)
TDS/EC ratio =	0.720	

Cation-Anion Balance Worksheet

Accession Number: 707159-02

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	480		
Chloride	78.9	0.02821	2.22577
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	1000	0.02082	20.82000
Carbonate	1.79	0.03333	0.05966
Bi-Carbonate	478	0.01639	7.83442
Total Anions =			30.9398497

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	234	0.04990	11.67660
Potassium	11.9	0.02558	0.30440
Magnesium	25	0.08229	2.05725
Sodium	399	0.04350	17.35650
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			31.394752

Anion/Cation Balance (% difference) = 0.7%

Total Anions+Cations = 2037 mg/l (calculated)
Total Dissolved Solids = 2320 mg/l (measured)
TDS/ion sum ratio = 1.14
Electrical Cond = 3330 umh/cm (measured)
TDS/EC ratio = 0.697

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number **710230**
November 14, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name GBR
Project Number (NONE)

Attention: MARTIN NEE/BILL ROBERTSON

On 10/19/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Methods 601/602 and 150.1 analyses were performed by Pinnacle Laboratories, Inc. (PLI).

All remaining analyses were performed by Flowers Chemical Laboratories, Inc. (FCL), Altamonte Springs, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

PINNACLE LABS

Environmental Testing

CLIENT	: LODESTAR	PINNACLE ID	: 710230
PROJECT #	: (NONE)	DATE RECEIVED	: 10/19/2007
PROJECT NAME	: GBR	REPORT DATE	: 11/14/2007
PINNACLE		DATE	
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
710230 - 01	GBR INFLUENT	AQUEOUS	10/18/2007
710230 - 02	GBR EFFLUENT	AQUEOUS	10/18/2007
710230 - 03	TRIP BLANK	AQUEOUS	10/10/2007

GENERAL CHEMISTRY RESULTS

CLIENT : LODESTAR PINNACLE I.D. : 710230
PROJECT # : (NONE) DATE RECEIVED : 10/19/2007
PROJECT NAME : GBR ANALYST : STH

SAMPLE	DATE	DATE
ID. #	CLIENT I.D.	MATRIX
	SAMPLED	ANALYZED
01	GBR INFLUENT	AQUEOUS
02	GBR EFFLUENT	AQUEOUS

PARAMETER	GBR INFLUENT	GBR EFFLUENT
PH (150.1)	7.4	8.0
TEMPERATURE (°C)	13.7	15.7

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : LODESTAR PINNACLE I.D. : 710230
PROJECT # : (NONE) SAMPLE MATRIX : AQUEOUS
PROJECT NAME : GBR DATE ANALYZED : 10/31/2007

PARAMETER	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH (150.1)	710230-01	7.38	7.40	0
TEMPERATURE (°C)		13.7	14.2	

CHEMIST NOTES:
N/A

GC/MS RESULTS

TEST : EPA 601/602 by 624
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GBR

PINNACLE I.D. : 710230
 DATE RECEIVED : 10/19/2007
 ANALYST : STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
710230-01	GBR INFLUENT	AQUEOUS	10/18/2007	10/31/2007	1
PARAMETER	DET. LIMIT		UNITS		
Chloromethane	5.0	< 5.0	ug/L		
Vinyl Chloride	5.0	< 5.0	ug/L		
Bromomethane	5.0	< 5.0	ug/L		
Chloroethane	5.0	< 5.0	ug/L		
Trichlorofluoromethane	5.0	< 5.0	ug/L		
1,1-Dichloroethene	1.0	< 1.0	ug/L		
Methylene Chloride	1.0	< 1.0	ug/L		
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L		
1,1-Dichloroethane	1.0	< 1.0	ug/L		
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L		
Chloroform	1.0	< 1.0	ug/L		
1,1,1-Trichloroethane	1.0	< 1.0	ug/L		
Carbon Tetrachloride	1.0	< 1.0	ug/L		
Benzene	1.0	< 1.0	ug/L		
1,2-Dichloroethane	1.0	< 1.0	ug/L		
Trichloroethene	1.0	< 1.0	ug/L		
1,2-Dichloropropane	1.0	< 1.0	ug/L		
Bromodichloromethane	1.0	< 1.0	ug/L		
2-Chloroethyl Vinyl Ether	10	< 10	ug/L		
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L		
Toluene	1.0	< 1.0	ug/L		
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L		
1,1,2-Trichloroethane	1.0	< 1.0	ug/L		
Tetrachloroethene	1.0	< 1.0	ug/L		
Dibromochloromethane	1.0	< 1.0	ug/L		
Chlorobenzene	1.0	< 1.0	ug/L		
Ethylbenzene	1.0	< 1.0	ug/L		
Bromoform	1.0	< 1.0	ug/L		
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L		
1,3-Dichlorobenzene	1.0	< 1.0	ug/L		
1,4-Dichlorobenzene	1.0	< 1.0	ug/L		
1,2-Dichlorobenzene	1.0	< 1.0	ug/L		
Total Xylenes	3.0	< 3.0	ug/L		

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	99 (76 - 114)
Toluene-d8	90 (88 - 110)
Bromofluorobenzene	94 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 by 624
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GBR

PINNACLE I.D. : 710230
 DATE RECEIVED : 10/19/2007
 ANALYST : STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
710230-02	GBR EFFLUENT	AQUEOUS	10/18/2007	10/31/2007	1
PARAMETER	DET. LIMIT		UNITS		
Chloromethane	5.0	< 5.0	ug/L		
Vinyl Chloride	5.0	< 5.0	ug/L		
Bromomethane	5.0	< 5.0	ug/L		
Chloroethane	5.0	< 5.0	ug/L		
Trichlorofluoromethane	5.0	< 5.0	ug/L		
1,1-Dichloroethene	1.0	< 1.0	ug/L		
Methylene Chloride	1.0	< 1.0	ug/L		
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L		
1,1-Dichloroethane	1.0	< 1.0	ug/L		
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L		
Chloroform	1.0	< 1.0	ug/L		
1,1,1-Trichloroethane	1.0	< 1.0	ug/L		
Carbon Tetrachloride	1.0	< 1.0	ug/L		
Benzene	1.0	< 1.0	ug/L		
1,2-Dichloroethane	1.0	< 1.0	ug/L		
Trichloroethene	1.0	< 1.0	ug/L		
1,2-Dichloropropane	1.0	< 1.0	ug/L		
Bromodichloromethane	1.0	< 1.0	ug/L		
2-Chloroethyl Vinyl Ether	10	< 10	ug/L		
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L		
Toluene	1.0	< 1.0	ug/L		
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L		
1,1,2-Trichloroethane	1.0	< 1.0	ug/L		
Tetrachloroethene	1.0	< 1.0	ug/L		
Dibromochloromethane	1.0	< 1.0	ug/L		
Chlorobenzene	1.0	< 1.0	ug/L		
Ethylbenzene	1.0	< 1.0	ug/L		
Bromoform	1.0	< 1.0	ug/L		
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L		
1,3-Dichlorobenzene	1.0	< 1.0	ug/L		
1,4-Dichlorobenzene	1.0	< 1.0	ug/L		
1,2-Dichlorobenzene	1.0	< 1.0	ug/L		
Total Xylenes	3.0	< 3.0	ug/L		

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	104 (76 - 114)
Toluene-d8	98 (88 - 110)
Bromofluorobenzene	99 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 by 624
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GBR

PINNACLE I.D. : 710230
 DATE RECEIVED : 10/19/2007
 ANALYST : STH

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
710230-03	TRIP BLANK	AQUEOUS	10/10/2007	10/31/07 -H1	1
PARAMETER	DET. LIMIT	UNITS			
Chloromethane	5.0	< 5.0	ug/L		
Vinyl Chloride	5.0	< 5.0	ug/L		
Bromomethane	5.0	< 5.0	ug/L		
Chloroethane	5.0	< 5.0	ug/L		
Trichlorofluoromethane	5.0	< 5.0	ug/L		
1,1-Dichloroethene	1.0	< 1.0	ug/L		
Methylene Chloride	1.0	< 1.0	ug/L		
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L		
1,1-Dichloroethane	1.0	< 1.0	ug/L		
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L		
Chloroform	1.0	< 1.0	ug/L		
1,1,1-Trichloroethane	1.0	< 1.0	ug/L		
Carbon Tetrachloride	1.0	< 1.0	ug/L		
Benzene	1.0	< 1.0	ug/L		
1,2-Dichloroethane	1.0	< 1.0	ug/L		
Trichloroethene	1.0	< 1.0	ug/L		
1,2-Dichloropropane	1.0	< 1.0	ug/L		
Bromodichloromethane	1.0	< 1.0	ug/L		
2-Chloroethyl Vinyl Ether	10	< 10	ug/L		
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L		
Toluene	1.0	< 1.0	ug/L		
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L		
1,1,2-Trichloroethane	1.0	< 1.0	ug/L		
Tetrachloroethene	1.0	< 1.0	ug/L		
Dibromochloromethane	1.0	< 1.0	ug/L		
Chlorobenzene	1.0	< 1.0	ug/L		
Ethylbenzene	1.0	< 1.0	ug/L		
Bromoform	1.0	< 1.0	ug/L		
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L		
1,3-Dichlorobenzene	1.0	< 1.0	ug/L		
1,4-Dichlorobenzene	1.0	< 1.0	ug/L		
1,2-Dichlorobenzene	1.0	< 1.0	ug/L		
Total Xylenes	3.0	< 3.0	ug/L		

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	97 (76 - 114)
Toluene-d8	93 (88 - 110)
Bromofluorobenzene	94 (86 - 115)

H1 = Trip Blank was run past the 14 day hold time.

GC/MS RESULTS

TEST : EPA 601/602 by 624
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GBR

PINNACLE I.D. : 710230

ANALYST : STH

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
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REAGENT BLANK	103107A	AQUEOUS	N/A	10/31/2007	1
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PARAMETER	DET. LIMIT		UNITS
Chloromethane	5.0	< 5.0	ug/L
Vinyl Chloride	5.0	< 5.0	ug/L
Bromomethane	5.0	< 5.0	ug/L
Chloroethane	5.0	< 5.0	ug/L
Trichlorofluoromethane	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
Bromoform	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L
1,3-Dichlorobenzene	1.0	< 1.0	ug/L
1,4-Dichlorobenzene	1.0	< 1.0	ug/L
1,2-Dichlorobenzene	1.0	< 1.0	ug/L
Total Xylenes	3.0	< 3.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	106 (76 - 114)
Toluene-d8	99 (88 - 110)
Bromofluorobenzene	99 (86 - 115)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

TEST : EPA 601/602 by 624
 SPIKED SAMPLE : 710230-02
 CLIENT : LODESTAR
 PROJECT # : (NONE)
 PROJECT NAME : GBR

PINNACLE I.D. : 710230
 DATE ANALYZED : 10/31/2007
 UNITS : ug/L (PPB)
 INSTRUMENT : GC/MS#2
 ANALYST : STH

COMPOUND	SAMPLE CONC.	SPIKE ADDED	MS RESULT	MSD RESULT	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS %RECOVERY
Chloromethane	<5.0	20.0	16.9	16.7	84	84	1	20	D-273
Vinyl Chloride	<5.0	20.0	18.3	19.1	92	95	4	20	D-251
Bromomethane	<5.0	20.0	20.6	20.9	103	104	1	20	D-242
Chloroethane	<5.0	20.0	18.3	18.8	91	94	3	20	14-230
Trichlorofluoromethane	<5.0	20.0	19.4	18.6	97	93	4	20	17-181
1,1-Dichloroethene	<1.0	20.0	17.9	17.9	90	89	0	14	D-234
Methylene Chloride	<1.0	20.0	17.5	18.4	88	92	5	20	D-221
trans-1,2-Dichloroethene	<1.0	20.0	18.9	19.1	94	96	1	20	54-156
1,1-Dichloroethane	<1.0	20.0	17.6	18.0	88	90	2	20	59-155
cis-1,2-Dichloroethene	<1.0	20.0	18.3	18.2	92	91	1	20	54-156
Chloroform	<1.0	20.0	17.5	18.6	87	93	6	20	51-138
1,1,1-Trichloroethane	<1.0	20.0	19.0	19.3	95	97	2	20	52-162
Carbon Tetrachloride	<1.0	20.0	18.3	19.2	91	96	5	20	70-140
Benzene	<1.0	20.0	19.3	19.3	96	97	0	11	37-151
1,2-Dichloroethane	<1.0	20.0	19.1	19.1	95	96	0	20	49-155
Trichloroethene	<1.0	20.0	17.7	17.9	89	90	1	14	71-157
1,2-Dichloropropane	<1.0	20.0	18.4	18.7	92	93	1	20	D-210
Bromodichloromethane	<1.0	20.0	17.2	18.6	86	93	8	20	35-155
2-Chloroethyl Vinyl Ether	<1.0	20.0	0.0	0.0	0	0	0	20	D - 305
cis-1,3-Dichloropropene	<1.0	20.0	18.3	18.6	92	93	1	20	D-227
Toluene	<1.0	20.0	20.1	20.1	100	101	0	13	47-150
trans-1,3-Dichloropropene	<1.0	20.0	17.8	18.2	89	91	2	20	17-183
1,1,2-Trichloroethane	<1.0	20.0	19.2	19.0	96	95	1	20	52-150
Tetrachloroethene	<1.0	20.0	12.3	12.7	62	64	4	20	64-148
Dibromochloromethane	<1.0	20.0	17.3	17.7	87	88	2	20	53-149
Chlorobenzene	<1.0	20.0	18.7	19.2	93	96	3	13	37-160
Ethylbenzene	<1.0	20.0	18.3	19.1	91	96	5	20	37-162
Bromoform	<1.0	20.0	19.7	20.2	98	101	3	20	45-169
1,1,2,2-Tetrachloroethane	<2.0	20.0	20.5	20.7	103	104	1	20	46-157
1,3-Dichlorobenzene	<1.0	20.0	18.7	19.1	94	95	2	20	59-156
1,4-Dichlorobenzene	<1.0	20.0	17.8	18.6	89	93	5	20	18-190
1,2-Dichlorobenzene	<1.0	20.0	17.9	18.7	90	93	4	20	18-190

Chemist Note: 2-Chloroethyl Vinyl Ether was not found due to sample preservation at pH<2.

CONFIDENTIAL



FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407-339-5984 Fax 407-260-6110 www.flowerslabs.com
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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 710230
Client Project #: LODE
Date Sampled: Oct 18, 2007
Nov 2, 2007; Invoice: 51154

Report Summary

Date Received: Oct 22, 2007

FCL Project Manager: June S. Flowers

Laboratory #	Sample Description	Analysis	Chemist	Location	Sample Matrix
51154WW1	GBR Inf/710230-01	EPA120.1	LCC	Main Lab	Waste Water
		EPA200.7	EVb	Main Lab	
		EPA375.2	PCW	Main Lab	
		SM2320B	CCP	Main Lab	
		SM2340B	EVb	Main Lab	
		SM2540C	RMV	Main Lab	
51154WW2	GBR Eff/710230-02	SM4500CIE	VLb	Main Lab	Waste Water
		EPA120.1	LCC	Main Lab	
		EPA200.7	EVb	Main Lab	
		EPA375.2	PCW	Main Lab	
		SM2320B	CCP	Main Lab	
		SM2340B	EVb	Main Lab	
		SM2540C	RMV	Main Lab	
		SM4500CIE	VLb	Main Lab	

Certificate of Results

Sample integrity was certified prior to analysis. Test results meet all requirements of the NELAC Standards except as noted in the Quality Control Report. Uncertainties for these data are available on request. This report may not be reproduced in part; results relate only to items tested.



Jefferson S. Flowers, Ph.D.
President/Technical Director



FLOWERS CHEMICAL LABORATORIES INC.

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P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 710230
Client Project #: LODE
Date Sampled: Oct 18, 2007
Nov 2, 2007; Invoice: 51154

Analysis Report

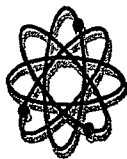
Lab # 51154WW1 Sampled: 10/18/07 12:56 PM Desc: GBR Inf 710230-01

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	192	mg/L	1.00	0.100	0.200	10091783	EPA200.7	7440-70-2	10/22/07
Magnesium	28.6	mg/L	1.00	0.0100	0.0200	10091783	EPA200.7	7439-95-4	10/22/07
Potassium	2.60	mg/L	1.00	0.100	0.200	10091783	EPA200.7	7440-09-7	10/22/07
Sodium	439	mg/L	1.00	0.500	1.00	10091783	EPA200.7	7440-23-5	10/22/07
Total Hardness (as CaCO ₃)	537	mg/L	1.00	0.100	0.200	10091803	SM2340B	40-11-9	10/22/07
TDS	1960	mg/L	1.00	2.50	5.00	10091975	SM2540C	10-33-3	10/23/07
Specific Conductance	3130	umhos/cm	1.00	1.00	2.00	10092133	EPA120.1	10-34-4	10/26/07
Chloride	93.2	mg/L	5.00	25.0	50.0	10092183	SM4500CIE	16887-00-6	10/27/07
Sulfate	566.1	mg/L	60.0	300	600	10092383	EPA375.2	14808-79-8	10/30/07
Bicarbonate Alkalinity	650	mg/L	1.00	0.100	0.200	10092463	SM2320B	E1640226	10/29/07
Carbonate CaCO ₃	2.07	mg/L	1.00	0.100	0.200	10092463	SM2320B	T-005	10/29/07
Total Alkalinity CaCO ₃	652	mg/L	1.00	0.100	0.200	10092463	SM2320B	T-005	10/29/07

Lab # 51154WW2 Sampled: 10/18/07 01:07 PM Desc: GBR Inf 710230-02

Parameter	Result	Units	DF	MDL	PQL	QC Batch	Method	CAS #	Analyzed
Calcium	195	mg/L	1.00	0.100	0.200	10091783	EPA200.7	7440-70-2	10/22/07
Magnesium	29.5	mg/L	1.00	0.0100	0.0200	10091783	EPA200.7	7439-95-4	10/22/07
Potassium	2.62	mg/L	1.00	0.100	0.200	10091783	EPA200.7	7440-09-7	10/22/07
Sodium	452	mg/L	1.00	0.500	1.00	10091783	EPA200.7	7440-23-5	10/22/07
Total Hardness (as CaCO ₃)	548	mg/L	1.00	0.100	0.200	10091803	SM2340B	40-11-9	10/22/07
TDS	2000	mg/L	1.00	2.50	5.00	10091975	SM2540C	10-33-3	10/23/07
Specific Conductance	2940	umhos/cm	1.00	1.00	2.00	10092133	EPA120.1	10-34-4	10/26/07
Chloride	91.1	mg/L	5.00	25.0	50.0	10092183	SM4500CIE	16887-00-6	10/27/07
Sulfate	549.1	mg/L	60.0	300	600	10092383	EPA375.2	14808-79-8	10/30/07
Bicarbonate Alkalinity	654	mg/L	1.00	0.100	0.200	10092463	SM2320B	E1640226	10/29/07
Carbonate CaCO ₃	2.09	mg/L	1.00	0.100	0.200	10092463	SM2320B	T-005	10/29/07
Total Alkalinity CaCO ₃	656	mg/L	1.00	0.100	0.200	10092463	SM2320B	T-005	10/29/07

FLDOH: E83018 (Main Lab) FLDOH: E86562 (South Lab) FLDOH: E82406 (North Lab) NJDEP: FLO15



FLOWERS CHEMICAL LABORATORIES INC.

P.O. Box 150597, Altamonte Springs FL 32715-0597 Phone 407 - 339 - 5984 Fax 407 - 260 - 6110 www.flowerslabs.com
8253 South U.S. Highway 1, Port St. Lucie FL 34952-2860 Phone 772 - 343 - 8006 Fax 772 - 343 - 8089
P.O. Box 1200, Madison FL 32341 Phone 850-973-6878 Fax 850-973-6878

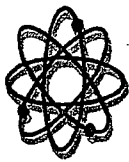
Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 710230
Client Project #: LODE
Date Sampled: Oct 18, 2007
Nov 2, 2007; Invoice: 51154

Quality Report

Quality Control Batch: 10091783		Analyst: EVB	
Blank	Result	Units	
Calcium	0.100U	mg/L	
Magnesium	0.0100U	mg/L	
Potassium	0.100U	mg/L	
Sodium	0.500U	mg/L	
Laboratory Control Sample			
Calcium	Result	Units	Spike
	4.77	mg/L	5.00
Magnesium	4.94	mg/L	5.00
Potassium	4.49	mg/L	5.00
Sodium	4.62	mg/L	5.00
Matrix Spike			
Calcium	Result	Units	Spike
	55.5	mg/L	5.00
Magnesium	15.3	mg/L	5.00
Potassium	13.1	mg/L	5.00
Sodium	34.2	mg/L	5.00
Matrix Spike Duplicate			
Calcium	Result	Units	Spike
	54.1	mg/L	5.00
Magnesium	14.7	mg/L	5.00
Potassium	13.0	mg/L	5.00
Sodium	34.9	mg/L	5.00
Quality Control Batch: 10091803		Analyst: EVB	
Blank	Result	Units	
Total Hardness (as CaCO3)	0.100U	mg/L	

	%REC	%REC Lim	Sample	RPD	RPD Lim
Calcium	95.34	78.97-114.70	49.9	2.50	26.07
Magnesium	98.73	85.74-116.82	9.86	4.15	31.28
Potassium	89.82	82.40-115.28	8.63	0.83	34.44
Sodium	92.44	77.47-114.43	30.6	1.96	20.02
Calcium	112.86	27.68-167.72	49.9	2.50	26.07
Magnesium	109.04	53.84-157.37	9.86	4.15	31.28
Potassium	89.85	27.38-162.00	8.63	0.83	34.44
Sodium	72.58	37.32-161.89	30.6	1.96	20.02
Calcium	85.41	27.68-167.72	49.9	2.50	26.07
Magnesium	96.59	53.84-157.37	9.86	4.15	31.28
Potassium	87.68	27.38-162.00	8.63	0.83	34.44
Sodium	86.11	37.32-161.89	30.6	1.96	20.02



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Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Total Hardness (as CaCO ₃)	30.4	mg/L	33.1	92.02	82.68-113.41

Quality Control Batch: 10091975 Analyst: RMV
Blank Result 2.50U Units mg/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
TDS	1470	mg/L	1500	98.13	80.62-116.79

Quality Control Batch: 10092183 Analyst: VLB
Blank Result 5.00U Units mg/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Chloride	52.0	mg/L	50.0	104.04	83.20-118.75
Matrix Spike Chloride	50.5	mg/L	50.0	100.96	76.36-123.06
Matrix Spike Duplicate Chloride	49.1	mg/L	50.0	98.16	76.36-123.06

Sample 1500U RPD 2.81 RPD Lim 6.55

Quality Control Batch: 10092383 Analyst: PCW
Blank Result 5.00U Units mg/L

Laboratory Control Sample	Result	Units	Spike	%REC	%REC Lim
Sulfate	5.00U	mg/L	50.0	98.16	76.36-123.06



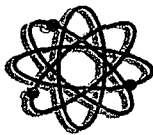
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2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 710230
Client Project #: LODE
Date Sampled: Oct 18, 2007
Nov 2, 2007; Invoice: 51154

Quality Control Batch: 10082383		Analyst: PCW	
Laboratory Control Sample	Result	Units	Spike
Sulfate	55.7	mg/L	60.0
			%REC 92.83
			%REC Lim 91.94-106.64
Matrix Spike			
Sulfate	Result	Units	Spike
	61.7	mg/L	50.0
			%REC 88.80
			%REC Lim 51.32-145.17
Matrix Spike Duplicate			
Sulfate	Result	Units	Spike
	62.9	mg/L	50.0
			%REC 91.20
			%REC Lim 51.32-145.17
			RPD 1.93
			RPD Lim 7.31
Quality Control Batch: 10092463		Analyst: CCP	
Blank	Result	Units	
Total Alkalinity CaCO3	0.100U	mg/L	
			%REC
Laboratory Control Sample	Result	Units	Spike
Total Alkalinity CaCO3	104	mg/L	100
			%REC 103.99
			%REC Lim 81.90-118.30



FLOWERS CHEMICAL LABORATORIES INC.

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Pinnacle Laboratories
2709 D Pan American Freeway NE
Albuquerque, NM 87107

PO #: 710230
Client Project #: LODE
Date Sampled: Oct 18, 2007
Nov 2, 2007; Invoice: 51154

Narrative Report

Sample Handling

Sample handling and holding time criteria were met for all samples. Samples collected by submitter. No unusual events occurred during analysis. Results are reported on a wet weight basis for aqueous matrices and on a dry weight basis for sludge and soil matrices unless otherwise noted. Sample results reported as dissolved were field filtered.

Quality Control

Enclosed analyses met method or FCL criteria, unless otherwise denoted on the sample results. Applied data qualifiers are defined below.

Attachments

Chain of Custody

Qualifier	Meaning
U	Compound was analyzed for but not detected.
J	One or more QC samples associated with this data value exceeded QC limits.
J1	Surrogate recovery limits have been exceeded.
J2	No known quality control criteria exist for the component.
J3	Reported value failed to meet established quality control criteria for either precision or accuracy.
J4	Sample matrix interfered with the ability to make an accurate determination on the spiked sample.
Q	Sample held beyond the accepted holding time.
L	Off-scale high; reported concentration exceeds the highest standard.
V	Analyte was detected in both the sample and the associated method blank.
ZTNTC	Too numerous to count. Numeric value represents filtration volume.
A	Absent
P	Present
T	Value reported is less than the statistical method detection limit. Reported for informational purposes only.
M	Value reported is greater than the statistical method detection limit, but less than the reported MDL.
G	The greatest of the dilutions performed did not yield sufficient oxygen depletion for valid data.
S	The least of the dilutions performed did not yield sufficient oxygen residual for valid data.
O	Result is greater than (over) the specified value.
I	Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
B	Results based upon colony plate count outside ideal range.
Y	The laboratory analysis was from an improperly preserved sample. The data may not be accurate.

Interlab Chain of Custody

Date: 6/19/08 Page: 1

Page: 1 of 1

4

Network Project Manager: Jacinta Tenorio

ANALYSIS REQUEST

Pinnacle Laboratories, Inc.

2709-D Pan American Freeway, NE

Albuquerque, NM 87107

(505) 344-3777 Fax (505) 344-4413

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
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LAB Influent/710230-01	10/18/07	1256	WN	5/154
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GBR Effluent	↓ -02	"	1307	"	5154
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[illegible]

[illegible]

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[illegible]

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PROJECT INFORMATION	SAMPLE RECEIPT
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PROJECT #:	710230	Total Number of Containers
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PROJ. NAME: <u>LODE</u>	Chain of Custody Seals
OC LEVEL: <u>STD IV</u>	Received Intact?

MS	MSD	BLANK	Received Good Cond./Cold
MS	MSD	BLANK	Received Good Cond./Cold

TAT: STANDARD RUSH!! LAB NUMBER:

DUE DATE: 11/2	COMMENTS:
----------------	-----------

RUSH SURCHARGE:	—
CLIENT DISCOUNT:	—

CLIENT DISCOUNT:	
SPECIAL CERTIFICATION	

REQUIRED: YES	NO
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[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	70230	Total Number of Containers		PENSACOLA - STL-FL		Signature:	Time:	Signature:	Time:
PROJ. NAME:	LODE	Chain of Custody Seals		ESL - OR					
QC LEVELS:	STD. IV	Received Intact?		ATEL - AZ		Printed Name:	Date:	Printed Name:	Date:
QC REQUIRED:	MS MSD BLANK	Received Good Cond./Cold		ATEL - MARION					
TAT:	STANDARD RUSH!!	LAB NUMBER:		ATEL - MELMORE		Company		Company	
				FCL	X	RECEIVED BY:		RECEIVED BY:	
				EHL		Signature:	Time:	Signature:	Time:
				GEL					
				WCAS		Printed Name:	Date:	Printed Name:	Date:
				WOHL					
						Company		Company	
COMMENTS:									
DUE DATE:			11/2						
RUSH SURCHARGE:			-						
CLIENT DISCOUNT:			-						
SPECIAL CERTIFICATION									
REQUIRED: YES (NO)									

Cation-Anion Balance Worksheet

Accession Number: 710230-01

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	652		
Chloride	93.2	0.02821	2.62917
Fluoride		0.05264	0.00000
Nitrate as N	0	0.01613	0.00000
Sulfate	566	0.02082	11.78412
Carbonate	2.07	0.03333	0.06899
Bi-Carbonate	652	0.01639	10.68628
Total Anions =			25.16857

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	192	0.04990	9.58080
Potassium	2.6	0.02558	0.06651
Magnesium	28.6	0.08229	2.35349
Sodium	439	0.04350	19.09650
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			31.0973

Anion/Cation Balance (% difference) = 10.5%

Total Anions+Cations =	1713 mg/l	(calculated)
Total Dissolved Solids =	1960 mg/l	(measured)
TDS/ion sum ratio =	1.14	
Electrical Cond =	3130 umh/cm	(measured)
TDS/EC ratio =	0.626	

Cation-Anion Balance Worksheet

Accession Number: 710230-02

<u>Anions</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Alkalinity	656		
Chloride	91.1	0.02821	2.56993
Fluoride		0.05264	0.00000
Nitrate as N		0.01613	0.00000
Sulfate	549	0.02082	11.43018
Carbonate	2.09	0.03333	0.06966
Bi-Carbonate	654	0.01639	10.71906
Total Anions =			24.78883

<u>Cations</u>	<u>Result (mg/l)</u>	<u>Factor</u>	<u>Total (me/l)</u>
Calcium	195	0.04990	9.73050
Potassium	2.62	0.02558	0.06702
Magnesium	29.5	0.08229	2.42756
Sodium	452	0.04350	19.66200
Copper		0.03147	0.00000
Iron		0.05372	0.00000
Manganese		0.03640	0.00000
Zinc		0.03059	0.00000
Total Cations =			31.88707

Anion/Cation Balance (% difference) = 12.5%

Total Anions+Cations =	1713 mg/l	(calculated)
Total Dissolved Solids =	2000 mg/l	(measured)
TDS/ion sum ratio =	1.17	
Electrical Cond =	2940 umh/cm	(measured)
TDS/EC ratio =	0.680	

PINNACLE LABS

Environmental Testing

Pinnacle Lab ID number 711084
December 05, 2007

LODESTAR
26 CR 3500
FLORA VISTA, NM 87415

Project Name FORMER REF.
Project Number 30002

Attention: MARTIN NEE/BILL ROBERTSON

On 11/13/2007 Pinnacle Laboratories Inc., (ADHS License No. AZ0643), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

EPA Method 601/602 could not be analyzed due to instrument difficulties. EPA Method 624 was substituted at no additional cost.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.



H. Mitchell Rubenstein, Ph.D.
General Manager, Pinnacle Laboratories, Inc.

MR: jt

Enclosure

CLIENT	: LODESTAR	PINNACLE ID	: 711084
PROJECT #	: 30002	DATE RECEIVED	: 11/13/2007
PROJECT NAME	: FORMER REF.	REPORT DATE	: 12/05/2007

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
711084 - 01	SHS-19	AQUEOUS	11/12/2007
711084 - 02	SHS-18	AQUEOUS	11/12/2007
711084 - 03	SHS-9	AQUEOUS	11/12/2007

GC/MS RESULTS

TEST : EPA 601/602 BY 624
 CLIENT : LODESTAR
 PROJECT # : 030002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084
 DATE RECEIVED : 11/13/07
 ANALYST : ARM

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
711084-01	SHS-19	AQUEOUS	11/12/07	11/19/07	1

PARAMETER	DET. LIMIT		UNITS
Chloromethane	5.0	< 5.0	ug/L
Vinyl Chloride	5.0	< 5.0	ug/L
Bromomethane	5.0	< 5.0	ug/L
Chloroethane	5.0	< 5.0	ug/L
Trichlorofluoromethane	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
Bromoform	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L
1,3-Dichlorobenzene	1.0	< 1.0	ug/L
1,4-Dichlorobenzene	1.0	< 1.0	ug/L
1,2-Dichlorobenzene	1.0	< 1.0	ug/L
Total Xylenes	3.0	< 3.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	100 (76 - 114)
Toluene-d8	98 (88 - 110)
Bromofluorobenzene	95 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 BY 624
 CLIENT : LODESTAR
 PROJECT # : 030002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084
 DATE RECEIVED : 11/13/07
 ANALYST : ARM

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
711084-02	SHS-18	AQUEOUS	11/12/07	11/20/07	1

PARAMETER	DET. LIMIT		UNITS
Chloromethane	5.0	< 5.0	ug/L
Vinyl Chloride	5.0	< 5.0	ug/L
Bromomethane	5.0	< 5.0	ug/L
Chloroethane	5.0	< 5.0	ug/L
Trichlorofluoromethane	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
Bromoform	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L
1,3-Dichlorobenzene	1.0	< 1.0	ug/L
1,4-Dichlorobenzene	1.0	< 1.0	ug/L
1,2-Dichlorobenzene	1.0	< 1.0	ug/L
Total Xylenes	3.0	< 3.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	104 (76 - 114)
Toluene-d8	96 (88 - 110)
Bromofluorobenzene	90 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 BY 624
 CLIENT : LODESTAR
 PROJECT # : 030002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084
 DATE RECEIVED : 11/13/07
 ANALYST : ARM

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE ANALYZED	DIL. FACTOR
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711084-03	SHS-9	AQUEOUS	11/12/07	11/19/07	1
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PARAMETER	DET. LIMIT		UNITS
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Chloromethane	5.0	< 5.0	ug/L
Vinyl Chloride	5.0	< 5.0	ug/L
Bromomethane	5.0	< 5.0	ug/L
Chloroethane	5.0	< 5.0	ug/L
Trichlorofluoromethane	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
Bromoform	1.0	< 1.0	ug/L
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L
1,3-Dichlorobenzene	1.0	< 1.0	ug/L
1,4-Dichlorobenzene	1.0	< 1.0	ug/L
1,2-Dichlorobenzene	1.0	< 1.0	ug/L
Total Xylenes	3.0	< 3.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	106 (76 - 114)
Toluene-d8	101 (88 - 110)
Bromofluorobenzene	95 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 BY 624
 CLIENT : LODESTAR
 PROJECT # : 030002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084

ANALYST : ARM

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
METHOD BLANK	111907EW	AQUEOUS	N/A	11/19/07	1
PARAMETER	DET. LIMIT		UNITS		
Chloromethane	5.0	< 5.0	ug/L		
Vinyl Chloride	5.0	< 5.0	ug/L		
Bromomethane	5.0	< 5.0	ug/L		
Chloroethane	5.0	< 5.0	ug/L		
Trichlorofluoromethane	5.0	< 5.0	ug/L		
1,1-Dichloroethene	1.0	< 1.0	ug/L		
Methylene Chloride	1.0	< 1.0	ug/L		
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L		
1,1-Dichloroethane	1.0	< 1.0	ug/L		
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L		
Chloroform	1.0	< 1.0	ug/L		
1,1,1-Trichloroethane	1.0	< 1.0	ug/L		
Carbon Tetrachloride	1.0	< 1.0	ug/L		
Benzene	1.0	< 1.0	ug/L		
1,2-Dichloroethane	1.0	< 1.0	ug/L		
Trichloroethene	1.0	< 1.0	ug/L		
1,2-Dichloropropane	1.0	< 1.0	ug/L		
Bromodichloromethane	1.0	< 1.0	ug/L		
2-Chloroethyl Vinyl Ether	10	< 10	ug/L		
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L		
Toluene	1.0	< 1.0	ug/L		
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L		
1,1,2-Trichloroethane	1.0	< 1.0	ug/L		
Tetrachloroethene	1.0	< 1.0	ug/L		
Dibromochloromethane	1.0	< 1.0	ug/L		
Chlorobenzene	1.0	< 1.0	ug/L		
Ethylbenzene	1.0	< 1.0	ug/L		
Bromoform	1.0	< 1.0	ug/L		
1,1,2,2-Tetrachloroethane	2.0	< 2.0	ug/L		
1,3-Dichlorobenzene	1.0	< 1.0	ug/L		
1,4-Dichlorobenzene	1.0	< 1.0	ug/L		
1,2-Dichlorobenzene	1.0	< 1.0	ug/L		
Total Xylenes	3.0	< 3.0	ug/L		

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	105 (76 - 114)
Toluene-d8	104 (88 - 110)
Bromofluorobenzene	101 (86 - 115)

GC/MS RESULTS

TEST : EPA 601/602 BY 624
 CLIENT : LODESTAR
 PROJECT # : 030002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084

SAMPLE		DATE		DATE	DIL.
ID #		EXTRACTED		ANALYZED	FACTOR
METHOD BLANK		N/A		11/20/07	1
PARAMETER	DET. LIMIT	UNITS			
Chloromethane	5.0	< 5.0		ug/L	
Vinyl Chloride	5.0	< 5.0		ug/L	
Bromomethane	5.0	< 5.0		ug/L	
Chloroethane	5.0	< 5.0		ug/L	
Trichlorofluoromethane	5.0	< 5.0		ug/L	
1,1-Dichloroethene	1.0	< 1.0		ug/L	
Methylene Chloride	1.0	< 1.0		ug/L	
trans-1,2-Dichloroethene	1.0	< 1.0		ug/L	
1,1-Dichloroethane	1.0	< 1.0		ug/L	
cis-1,2-Dichloroethene	1.0	< 1.0		ug/L	
Chloroform	1.0	< 1.0		ug/L	
1,1,1-Trichloroethane	1.0	< 1.0		ug/L	
Carbon Tetrachloride	1.0	< 1.0		ug/L	
Benzene	1.0	< 1.0		ug/L	
1,2-Dichloroethane	1.0	< 1.0		ug/L	
Trichloroethene	1.0	< 1.0		ug/L	
1,2-Dichloropropane	1.0	< 1.0		ug/L	
Bromodichloromethane	1.0	< 1.0		ug/L	
2-Chloroethyl Vinyl Ether	10	< 10		ug/L	
cis-1,3-Dichloropropene	1.0	< 1.0		ug/L	
Toluene	1.0	< 1.0		ug/L	
trans-1,3-Dichloropropene	1.0	< 1.0		ug/L	
1,1,2-Trichloroethane	1.0	< 1.0		ug/L	
Tetrachloroethene	1.0	< 1.0		ug/L	
Dibromochloromethane	1.0	< 1.0		ug/L	
Chlorobenzene	1.0	< 1.0		ug/L	
Ethylbenzene	1.0	< 1.0		ug/L	
Bromoform	1.0	< 1.0		ug/L	
1,1,2,2-Tetrachloroethane	2.0	< 2.0		ug/L	
1,3-Dichlorobenzene	1.0	< 1.0		ug/L	
1,4-Dichlorobenzene	1.0	< 1.0		ug/L	
1,2-Dichlorobenzene	1.0	< 1.0		ug/L	
Total Xylenes	3.0	< 3.0		ug/L	

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	107 (76 - 114)
Toluene-d8	106 (88 - 110)
Bromofluorobenzene	102 (86 - 115)

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

TEST : EPA 601/602 BY 624
 SPIKED SAMPLE : 711084-01
 CLIENT : LODESTAR
 PROJECT # : 30002
 PROJECT NAME : FORMER REF.

PINNACLE I.D. : 711084
 DATE ANALYZED : 11/19/07
 UNITS : ug/L (PPB)
 INSTRUMENT : GCMS-1
 ANALYST : ARM

COMPOUND	SAMPLE CONC.	SPIKE ADDED	MS RESULT	MSD RESULT	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS %RECOVERY
Chloromethane	<5.0	40.0	44.4	44.1	111	110	1	20	D-273
Vinyl Chloride	<5.0	40.0	44.9	45.4	112	113	1	20	D-251
Bromomethane	<5.0	40.0	46.9	45.8	117	115	2	20	D-242
Chloroethane	<5.0	40.0	44.8	44.2	112	110	1	20	14-230
Trichlorofluoromethane	<5.0	40.0	45.5	45.9	114	115	1	20	17-181
1,1-Dichloroethene	<1.0	40.0	42.1	41.5	105	104	1	14	D-234
Methylene Chloride	<1.0	40.0	42.3	41.9	106	105	1	20	D-221
trans-1,2-Dichloroethene	<1.0	40.0	43.2	41.8	108	104	3	20	54-156
1,1-Dichloroethane	<1.0	40.0	43.0	42.5	108	106	1	20	59-155
cis-1,2-Dichloroethene	<1.0	40.0	43.2	43.2	108	108	0	20	54-156
Chloroform	<1.0	40.0	41.5	41.2	104	103	1	20	51-138
1,1,1-Trichloroethane	<1.0	40.0	41.4	40.8	104	102	2	20	52-162
Carbon Tetrachloride	<1.0	40.0	41.1	41.7	103	104	1	20	70-140
Benzene	<1.0	40.0	41.7	42.0	104	105	1	11	37-151
1,2-Dichloroethane	<1.0	40.0	40.5	40.6	101	102	0	20	49-155
Trichloroethene	<1.0	40.0	40.5	42.1	101	105	4	14	71-157
1,2-Dichloropropane	<1.0	40.0	41.1	42.8	103	107	4	20	D-210
Bromodichloromethane	<1.0	40.0	41.6	43.0	104	108	3	20	35-155
2-Chloroethyl Vinyl Ether	<1.0	40.0	0.0	0.0	0	0	0	20	D - 305
cis-1,3-Dichloropropene	<1.0	40.0	41.2	43.1	103	108	4	20	D-227
Toluene	<1.0	40.0	41.0	42.5	103	106	4	13	47-150
trans-1,3-Dichloropropene	<1.0	40.0	40.9	43.1	102	108	5	20	17-183
1,1,2-Trichloroethane	<1.0	40.0	41.4	43.9	103	110	6	20	52-150
Tetrachloroethene	<1.0	40.0	28.8	29.2	72	73	2	20	64-148
Dibromochloromethane	<1.0	40.0	40.1	40.2	100	100	0	20	53-149
Chlorobenzene	<1.0	40.0	40.0	40.7	100	102	2	13	37-160
Ethylbenzene	<1.0	40.0	40.2	41.1	101	103	2	20	37-162
Bromoform	<1.0	40.0	39.0	39.2	98	98	1	20	45-169
1,1,2,2-Tetrachloroethane	<2.0	40.0	44.5	44.0	111	110	1	20	46-157
1,3-Dichlorobenzene	<1.0	40.0	40.3	41.5	101	104	3	20	59-156
1,4-Dichlorobenzene	<1.0	40.0	39.6	40.3	99	101	2	20	18-190
1,2-Dichlorobenzene	<1.0	40.0	40.9	41.4	102	104	1	20	18-190

Chemist Note: 2-Chloroethyl Vinyl Ether was not found due to sample preservation at pH<2.

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PLEASE FILL THIS FORM IN COMPLETELY.

July, 2003 PJI Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • (505) 344-3777 • Fax (505) 344-4413 • E-mail: PIN_LAB@ATT.NET