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REPORTS

DATE: 2001 - 2000



CERTIFIED MAIL 7000 1670 0012 7260 9259

July 19, 2001

RE:

Mr. William E. Freeman Navajo Environmental Protection Agency P. O. Box 1999 Shiprock, New Mexico 87420

Bisti Flare Pit #1 Annual Report

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JUL 2 3 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Dear Mr. Freeman:

El Paso Field Services (EPFS) hereby submits the annual report for the Bisti Flare Pit #1. The annual report includes all work in 2000 as well as the excavation and other site work completed during the first and second quarter of 2001. Volume 1 contains a summary of all work conducted at the site during 2000, and first and second quarter 2001. Volume 2 contains the PSC report, which details the excavation and backfilling work.

Should you have any questions or comments regarding the enclosed reports, please feel free to contact me at (505) 599-2124.

Sincerely.

Scott T. Pope, P.G. Senior Environmental Scientist

Attachments: as stated

c.c.

Mr. James Walker, USEPA, Farmington - w / enclosures; Certified Mail # 7000 1670 0012 7260 9273 Mr. Denny Foust; NMOCD, Aztec - w / enclosures; Certified Mail # 7000 1670 0012 7260 9242 Mr. Bill Olson; NMOCD, Santa Fe - w / enclosures; Certified Mail # 7000 1670 0012 7260 9266 NNEPA - File

El Paso Field Services 614 Reilly Avenue Farmington, New Mexico 87401 tel 505.599.2147

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JUL 23 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

ANNUAL REPORT BISTI FLARE PIT #1 SAN JUAN COUNTY, NEW MEXICO

Prepared for

El Paso Corporation

GeoAnalysis Project # 01-900

July 2001

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1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

At the request of El Paso Corporation (El Paso), GeoAnalysis, Inc. (GeoAnalysis) has prepared the following annual report for the Bisti Flare Pit #1 Meter Code LD-267 site. Hydrologic Consultants, Inc. of Colorado (HCI) produced an annual report in March 2000 for the site that summarized all of the previous work that had occurred and provided recommendations for remediation of the pit and ground water. This annual report will not duplicate the background discussion of the site, and the reader is directed to that report for a summary of all activities that occurred at the site up to the date of the report. The current annual report will describe activities that occurred at the site from March 2000 until May 31, 2001. For ease of reference, Figure 1 shows the location of the Bisti Flare Pit. Figure 2 shows the locations of the former flare pit and the monitoring wells.

1.2 SUMMARY OF ACTIVITIES SINCE THE LAST ANNUAL REPORT

Since the production of the last annual report the following activities have occurred at the site:

- Water sampling of select wells in March 2000,
- Water sampling of select wells in October 2000,
- Installation and water sampling of three wells in December 2000,
- Measurement of water levels in all wells in March 2001,
- Excavation and removal of approximately 6,000 cubic yards of hydrocarbon impacted soil from the former flare pit and subsequent backfilling in March 2001,
- Water sampling of select wells in April 2001, and
- Installation and water sampling of two additional monitoring wells in May 2001.

A description and results of each of these activities will be provided in this report.

2.0 SITE INVESTIGATIONS

2.1 WATER-QUALITY SAMPLING IN YEAR 2000

Based upon the analysis of water-quality trends that was presented in the 2000 Annual Report (HCI, 2000) a number of monitoring wells were selected for sampling on a semi-annual basis. These wells are located north, east, southeast, and south of the pit for the purpose of monitoring water quality trends away from the pit. The goal was not to monitor wells that were known to have relatively high concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) close to the pit. The wells selected for monitoring included: PZ-8, PZ-9, PZ-16, PZ-21, PZ-22, PZ-23, PZ-26, and PZ-29 (Figure 2). Water samples were collected from these wells on March 20, 2000 and on October 25, 2000. These time periods were selected as they represent ground-water elevations at the end of winter prior to irrigation on adjacent agricultural land, and at the end of the summer coinciding with the end of irrigation. The samples are analyzed for BTEX, nitrates, and sulfates. The results of the analyses are tabulated in Table 1 and the data packages are contained in Appendix A.

2.2 DECEMBER 2000 SITE INVESTIGATION

In order to assess the lateral extent of BTEX in perched ground water that is encountered at the site, two standard-type monitoring wells and one temporary well were installed to the south and east of the pit (Figure 2) in December 2000. The two standard-type monitoring wells are labeled PZ-32 and PZ-33; whereas, the temporary well is designated as PZ-34 on Figure 2. A temporary well had to be installed at the location of PZ-34 because it is located in an agricultural field that is owned by Navajo Agricultural Products Industry, and they did not want a permanent well in the field. Temporary well PZ-34 was constructed with 15 feet of screen and a riser pipe. The annulus around the screen was sandpacked and 2.5 feet of bentonite chips were placed above the sandpack. The remainder of the borehole was backfilled with soil. After collection of the water sample, the temporary well was abandoned in accordance with Navajo Agricultural Products Industry construction guidelines. Geologic logs and well completion forms for these wells are contained in Appendix B. In all three borings, sandy silts or silty sands were encountered at depths of 22 to 29 feet below land surface. As discussed in the March 2000 Annual Report, the shallow ground water beneath the site is contained in a perched water-bearing zone. This zone was screened by the three new wells. The three new wells were sampled on either December 6 or December 7, 2000, and the water samples were submitted to Pinnacle Laboratory for analysis of BTEX constituents, nitrates and sulfates. The results of the analyses are listed in Table 1 and the laboratory report is contained in Appendix A. Water levels in select existing wells were also measured in December and the resulting potentiometric map for December 2000 is shown in Figure 3. Table 2 contains a tabulation of all water levels measured at the site.

2.3 MARCH 2001 SITE INVESTIGATION

Three days prior to the excavation and subsequent backfilling of the flare pit, water levels were measured in all of the wells at the site. The purpose of these measurements were to collect one last round of water levels in some wells that would be destroyed during the excavation, and to establish a benchmark to measure changes in water levels that could be attributed to the closure of the pit. It was hypothesized that the pit enhanced recharge to ground water, and the measurements taken prior to closure of the pit were to establish flow conditions before closure. The water levels are tabulated in Table 2. Figure 4 is a water-level map for measurements made in March 2001.

2.4 APRIL/MAY 2001 SAMPLING AND INVESTIGATION

After backfilling of the excavation (to be described below), two new monitoring wells were installed at the request of the Navajo Nation Environmental Protection Agency (NNEPA). These wells were installed to supplement wells that were removed as part of the soil excavation. The locations of the wells are shown on Figure 2. The geologic logs and well completion forms are contained in Appendix B. In the boreholes for the new wells (PZ-35 & PZ-36), the upper 15

feet of sediments consist primarily of silty sands and clays. A dense clay was encountered at a depth of approximately 15 to 16 feet. This clay continued to a depth of approximately 25 feet where very dense silty sand was encountered. A screen that is 15 feet long was placed in the bottom of each of the holes, and the wells were completed as acceptable (standard) monitoring wells. Water samples and water levels were collected from these wells. The data are tabulated in Tables 1 and 2 and the laboratory reports are contained in Appendix A.

3.0 SOIL REMOVAL ACTION

The March 2000 Annual Report presented a calculation that the soil beneath the former flare pit contained at least 32,000 pounds of petroleum hydrocarbons. Based upon this analysis, El Paso determined that it would probably be more cost effect to remove the highly impacted soils that were on the sides and bottom of the former pit rather than continuing the in situ bioremediation. In October 2000, Mr. Scott Pope, El Paso's project manager, sent a letter to NNEPA stating that El Paso would remove the highly impacted soils that were adjacent to the former pit. A copy of this letter is contained in Appendix C.

A meeting was held on January 10, 2001 between representatives of El Paso, NNEPA, and the U.S. Environmental Protection Agency (USEPA) to discuss the overall project and the proposed excavation. The discussion centered on the fact that the primary purpose of the excavation was to remove the highly impacted soil (the source of hydrocarbons) so that the remaining hydrocarbons detected in perched ground water would naturally attenuate. The approach for natural attenuation that El Paso recommended followed USEPA protocols for natural attenuation of petroleum hydrocarbons. It was and still is El Paso's opinion that once the core of highly impacted soils was removed, the residual hydrocarbons in ground water. The sulfates would facilitate the degradation of hydrocarbons.

El Paso obtained approval of the proposal for soil excavation and off-site landfarming from NNEPA on January 12, 2001. Removal of the soil commenced on March 19, 2001. Prior to initiating the soil removal action, several treatment wells were abandoned by filling the casings with bentonite. Six monitoring wells were also abandoned by filling the casing with cementbentonite grout. The treatment wells and monitoring wells that were abandoned are listed in the report that was issued by Philip Services Corporation (PSC), the contractor who performed the soil removal. A copy of this report is contained in volume two of this annual report. The documentation provided in this section will supplement the information provided in PSC's report.

The excavation was conducted by using a 1.5 cubic yard track-mounted excavator. The soil was initially removed from beneath the former flare pit. The soil was stacked along the sides of the excavation where it was then moved by a four-cubic yard front-end loader to a stockpile. The loader then placed 18 cubic yards of impacted soils into trucks for off-site landfarming. The goal and criterion for removal of soil was to remove the highly impacted soil. The determination of highly impacted soil was based on visual as well as photoionization detector (PID) readings.

The depth of the excavation ceased at approximately 20 feet below land surface (plus or minus two feet). This depth was selected in that a claystone/siltstone unit was encountered at this depth. GeoAnalysis and representatives from the NNEPA and USEPA judged that the claystone was of sufficiently low permeability to restrict the downward movement of hydrocarbons. The representatives did not want this barrier removed. The sides of the excavation consisted primarily of silts and very fine sands.

During the excavation, no free water was encountered. The geologic evidence indicated that ground water was contained in perched zones at depths of approximately 15 to 20 feet below land surface. Seep zones in this depth range were noted only three or four days after the soil was removed. Prior to backfilling, water had pooled (less than a gallon of total volume) at the bottom of the excavation in the vicinity of former well PZ-4 (Figure 2) and near former well PZ-19. The lack of significant water indicated that the perched zone is of low transmissibility.

Visual inspection of the excavation indicated that the geologic materials on the southeast corner (Figure 1, Volume 2) of the excavation were sandier in nature than the rest of the materials contained within the excavation. Based upon visual staining of the soils, it appeared that the depth to stained soil increased away from the center of the former flare pit. This observation suggests that during its operation, the pit acted as a recharge source to the perched ground water.

Up until March 2001, significant thicknesses of free product were not noted in the monitoring wells at the site. In March 2001, when water levels were measured in all of the wells, approximately 1.5 feet of free product were noted in well PZ-19. This monitoring well was

purged of free product approximately four times between March 19 and March 22, 2001 (once each day). The initial measurement on March 19 revealed 1.5 feet of free product. Subsequent measurements on the following days were approximately 0.13 feet. On March 26, four days after the last purging, 0.5 feet of product had accumulated in the well. El Paso decided to remove the well and the soil surrounding the well by extending the excavation. The keyhole area noted on the eastern side of the excavation (Figure 1, Volume 2) is the former location of well PZ-19. Upon removal of this well, significant quantities of hydrocarbons were not noted. It is hypothesized that the thickness of free product noted in a monitoring well is not indicative of significant volumes of free product in the water-bearing zone.

Based upon the fact that the ground water was contained in a perched zone and that water resources and humans would not be exposed to the hydrocarbons remaining at the site, the USEPA and NNEPA determined that the site could be closed with residual hydrocarbon concentrations of 5,000 mg/kg. The agencies determined that the site was of low risk and that residual hydrocarbons would not present a significant threat to human health or the environment. Composite samples of the sides and bottom of the excavation were collected to determine if the hydrocarbon criterion had been achieved. As discussed in PSC's report, the residual concentrations in the composite soil samples did not exceed 5,000 mg/kg (2,072 mg/kg for bottom sample and 2,543 for the side sample); as such, the excavation was backfilled.

The excavation removed approximately 6,000 cubic yards of impacted soil. This figure is significantly greater than the 2,300 cubic yards estimated by El Paso because the thickness of impacted soil was greater than originally predicted.

4.0 RESULTS OF DATA COLLECTION SINCE MARCH 2000 ANNUAL REPORT

4.1 WATER QUALITY ANALYSES

As discussed earlier, select wells have been sampled since March 2000. Table 1 lists the wells and the analytical results for the various sampling events. Appendix D contains graphs of the BTEX concentrations measured in the wells. Based upon a visual observation of the trends of Total BTEX it appears that concentrations were increasing in PZ-8, generally decreasing in PZ-9,

an increase in PZ-21 and downward trends in PZ-22 and PZ-29. The waters from wells PZ-16 and PZ-23 were non-detectable. It is expected that concentrations will generally decline because the major source of BTEX, the former pit, has been removed. Table 1 also provides information on the analyses for nitrate and sulfate. In general, the perched water-bearing zone contains low to non-detectable concentrations of nitrate and elevated concentrations of sulfate. The nitrates that are found in several of the wells are probably due to the treatment fluids that were injected. The elevated concentrations of nitrates are generally detected in wells that contain low concentrations of hydrocarbons. Elevated concentrations (in the range of 4,000 to 5,000 mg/L) of sulfate are generally associated with low concentrations (a few parts per billion or non-detectable) of hydrocarbons. In areas where the sulfate concentrations are low (500 mg/L or less), the hydrocarbons, and the observations noted above support this hypothesis.

There is significant variability in the analysis for sulfates. This variability is attributed to differences in analytical procedures. Split samples were sent to different laboratories for analyses. One laboratory used co-precipitation and another laboratory used ion chromatography for the analysis of sulfate. Appendix E is a letter from the laboratory that explains these differences. Future analyses will probably employ ion chromatography.

4.2 WATER LEVELS AND GROUND-WATER FLOW DIRECTIONS

Table 2 is a listing of the water levels for the monitoring wells at the site. Appendix F contains the hydrographs for the various monitoring wells. As shown in Appendix F almost all of the water levels have declined significantly since the injection of the treatment fluids ceased in 1998. As discussed in the Annual Report for the year 2000 (HCI, 2000), the volume of fluid injected was approximately four times greater than the natural flow volume. Since the cessation of injection, the water levels have dropped significantly.

Figures 3 through 5 are water-level maps for December 2000, March 2001, and April/May 2001 respectively. As discussed in the previous Annual Report (HCI, 2000), the former flare pit exerted a significant influence on the ground-water flow conditions at the site as it acted as a source of recharge. Since cessation of injection and treatment in the pit, the influence of the pit

has diminished as indicated in the figures. The general ground-water flow direction is still to the south and southeast; however, in the middle of the study area there is a component of flow to the west suggesting recharge from the east. Continued monitoring of water levels over time will demonstrate the effectiveness of backfilling the former flare pit and what influence irrigation to the south of the site will have on ground-water flow directions.

5.0 <u>SUMMARY AND RECOMMENDATIONS</u>

The field investigations and observations made during the excavation of the former flare pit, demonstrate that the ground water encountered at the site is perched, and that soils beneath the perched zones are of low hydraulic conductivity and are relatively dry. Given the isolation of the site and the fact that the former flare pit has been removed, backfilled, and covered, the site presents a low risk to the quality of regional ground water and to humans and the environment. Water quality will continue to be monitored twice per year in the seven wells that have been monitored in the past (PZ-8 was abandoned due to the excavation of the pit) and in the four new wells (PZ-32, PZ-33, PZ-35, and PZ-36). It is expected that concentrations of BTEX will decline over time due to natural attenuation. Water levels are recommended to be measured in all wells when water samples are collected in the select wells.

Because the site presents a low risk, negotiations with regulatory agencies are recommended to be initiated so that final closure criteria, based upon risk, can be determined.

6.0 <u>REFERENCES</u>

Hydrologic Consultants, Inc. of Colorado, 2000, Annual Report Bisti Flares Pit #1, San Juan County, New Mexico, 15p.









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D3) TOP OF PIPE TO GROUND:2.73 (T.O.P. ELEV. 6025.42)	
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Bisti Gathering System Juan County, New Mexico	
Bisti Gathering System Juan County, New Mexico Measured Water Levels	Figure
Bisti Gathering System Juan County, New Mexico Measured Water Levels with Associated Contours	Figure 4



Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
10/7/96	PZ-8	18000	10700	550	3600	32850	ND	20.6
6/16/97	PZ-8	20400	13000	462	4040	37902	NM	NM
7/16/97	PZ-8	20800	9660	536	3640	34636	ND	ND
8/18/97	PZ-8	20400	15300	502	4260	40462	NM	NM
9/19/97	PZ-8	20300	13700	546	4310	38856	ND	2.9
10/16/97	PZ-8	22300	15200	572	4700	42772	NM	NM
11/17/97	PZ-8	22100	15100	519	4280	41999	NM	NM
12/16/97	PZ-8	23000	16100	555	4680	44335	NM	NM
1/19/98	PZ-8	19100	14600	470	4140	38310	ND	1.1
3/3/98	PZ-8	21900	14600	563	4850	41913	NM	NM
4/1/98	PZ-8	21900	16100	550	4780	43330	NM	NM
5/7/98	PZ-8	23900	15900	561	5010	45371	NM	NM
6/2/98	PZ-8	22500	16000	548	4840	43888	NM	NM
7/6/98	PZ-8	22500	16200	493	4610	43803	ND	ND
10/9/98	PZ-8	20800	14300	402	3650	39152	NM	NM
3/23/99	PZ-8	21000	15000	470	4570	41040	NM	NM
10/19/99	PZ-8	23000	16000	380	4600	43980	NM	NM
3/15/00	PZ-8	27000	16000	520	5400	48920	ND	ND
10/25/00	PZ-8	15000	6900	650	17	22567	ND	41
				-				
Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
Date Sampled	Well # PZ-9	Benzene	Toluene	Ethyl benzene 400	Total Xylenes 5500	Total BTEX 33500	Total Nitrate ND	Sulfate
Date Sampled 	Well # PZ-9 PZ-9	Benzene 11900 8610	Toluene 15700 10500	Ethyl benzene 400 193	Total Xylenes 5500 5310	Total BTEX 33500 24613	Total Nitrate ND NM	Sulfate 32 NM
Date Sampled 10/7/96 6/16/97 7/16/97	Well # PZ-9 PZ-9 PZ-9	Benzene 11900 8610 8620	Toluenc 15700 10500 11000	Ethyl benzene 400 193 250	Total Xylencs 5500 5310 5900	Total BTEX 33500 24613 25770	Total Nitrate ND NM ND	Sulfate 32 NM ND
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97	Well # PZ-9 PZ-9 PZ-9 PZ-9 PZ-9	Benzene 11900 8610 8620 9710	Toluene 15700 10500 11000 11000	Ethyl benzene 400 193 250 183	Total Xylenes 5500 5310 5900 4980	Total BTEX 33500 24613 25770 25873	Total Nitrate ND NM ND NM	Sulfate 32 NM ND NM
Date Sampled <u>10/7/96</u> 6/16/97 7/16/97 <u>8/18/97</u> 9/19/97	Well # PZ-9 PZ-9 PZ-9 PZ-9 PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580	Toluene 15700 10500 11000 11000 9420	Ethyl benzene 400 193 250 183 1	Total Xylenes 5500 5310 5900 4980 5570	Total BTEX 33500 24613 25770 25873 23571	Total Nitrate ND NM ND NM ND	Sulfate 32 NM ND NM ND ND
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97	Well # PZ-9 PZ-9 PZ-9 PZ-9 PZ-9 PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970	Foluenc 15700 10500 11000 9420 11700	Ethyl benzene 400 193 250 183 1 156	Total Xylenes 5500 5310 5900 4980 5570 6220	Total BTEX 33500 24613 25770 25873 23571 28046	Total Nitrate ND NM ND NM ND NM	Sulfate 32 NM ND NM ND NM ND
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97	Well # PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960	Foluenc 15700 10500 11000 11000 9420 11700 10100	Ethyl benzene 400 193 250 183 1 156 41	Total Xylencs 5500 5310 5900 4980 5570 6220 3740	Total BTEX 33500 24613 25770 25873 23571 28046 22841	Total Nitrate ND NM ND NM ND NM NM	Sulfate 32 NM ND NM ND NM ND NM ND NM NM
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Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98	Well # PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960 7890 4170 8200 9860 10800 10200 9710 8980	Foluenc 15700 10500 11000 11000 9420 11700 10100 8100 6490 8760 11600 13600 12500 11400 9740	Ethyl benzene 400 193 250 183 1 156 41 33.6 22.1 103 160 185 224 188 120	Total Xylenes 5500 5310 5900 4980 5570 6220 3740 2520 2240 3020 4150 4080 4170	Total BTEX 33500 24613 25770 25873 23571 28046 22841 18544 12922 20083 25770 28925 27214 25378 23010	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 32 NM ND NM ND NM 0.7 NM
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99	Well # PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960 7890 4170 8200 9860 10800 10200 9710 8980 4530	Foluene 15700 10500 11000 11000 9420 11700 10100 8100 6490 8760 11600 13600 12500 11400 9740 4940	Ethyl benzene 400 193 250 183 1 156 41 33.6 22.1 103 160 185 224 188 120 42.6	Total Xylenes 5500 5310 5900 4980 5570 6220 3740 2520 2240 3020 4150 4340 4290 4080 4170 2340	Total BTEX 33500 24613 25770 25873 23571 28046 22841 18544 12922 20083 25770 28925 27214 25378 23010 11853	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 32 NM ND NM ND NM
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99	Well # PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960 7890 4170 8200 9860 10800 10200 9710 8980 4530 3200	Foluene 15700 10500 11000 11000 9420 11700 10100 8100 6490 8760 11600 13600 12500 11400 9740 4940 4300	Ethyl benzene 400 193 250 183 1 156 41 33.6 22.1 103 160 185 224 188 120 42.6 310	Total Xylenes 5500 5310 5900 4980 5570 6220 3740 2520 2240 3020 4150 4340 4290 4080 4170 2340 2900	Total BTEX 33500 24613 25770 25873 23571 28046 22841 18544 12922 20083 25770 28925 27214 25378 23010 11853 10710	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 32 NM ND NM ND NM
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00	Well # PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960 7890 4170 8200 9860 10800 10200 9710 8980 4530 3200 8300	Foluenc 15700 10500 11000 9420 11700 10100 8100 6490 8760 11600 13600 12500 11400 9740 4940 4300 7300	Ethyl benzene 400 193 250 183 1 156 41 33.6 22.1 103 160 185 224 188 120 42.6 310 330	Total Xylenes 5500 5310 5900 4980 5570 6220 3740 2520 2240 3020 4150 4340 4290 4080 4170 2340 2900 3400	Total BTEX 33500 24613 25770 25873 23571 28046 22841 18544 12922 20083 25770 28925 27214 25378 23010 11853 10710 19330	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 32 NM ND NM ND NM NM NM 0.7 NM
Date Sampled 10/7/96 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00 10/25/00	Well # PZ-9 PZ-9	Benzene 11900 8610 8620 9710 8580 9970 8960 7890 4170 8200 9860 10800 10200 9710 8980 4530 3200 8300 2500	Foluenc 15700 10500 11000 11000 9420 11700 10100 8100 6490 8760 11600 13600 12500 11400 9740 4940 4300 7300 3300	Ethyl benzene 400 193 250 183 1 156 41 33.6 22.1 103 160 185 224 188 120 42.6 310 330 150	Total Xylenes 5500 5310 5900 4980 5570 6220 3740 2520 2240 3020 4150 4340 4290 4080 4170 2340 2900 3400 2000	Total BTEX 33500 24613 25770 25873 23571 28046 22841 18544 12922 20083 25770 28925 27214 25378 23010 11853 10710 19330 7950	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 32 NM ND NM ND NM 0.7 NM

BTEX constituent concentrations reported in micrograms per liter (ppb) Sulfate and nitrate concentrations reported in milligrams per liter (ppm)

Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
6/18/97	PZ-16	1	1	1	3	6	52.7	450
7/16/97	PZ-16	1	1	1	3	6	37.6	437
8/18/97	PZ-16	1	1	1	3	6	NM	NM
9/19/97	PZ-16	1	1	1	3	6	42.6	456
10/16/97	PZ-16	1	1	1	3	6	NM	NM
11/17/97	PZ-16	1	1	1	3	б	NM	NM
12/16/97	PZ-16	1	1	1	3	6	NM	NM
1/19/98	PZ-16	1	1	1	3	6	52	440
3/3/98	PZ-16	1	1	1	3	6	. NM	NM
4/1/98	PZ-16	1	1	1	3	6	NM	NM
5/7/98	PZ-16	1	1	1	3	6	NM	NM
6/2/98	PZ-16	1	1	1	3	6	NM	NM
7/6/98	PZ-16	1	1	1	· 3	6	52.9	449
10/9/98	PZ-16	1	1	1	3	6	NM	NM
3/23/99	PZ-16	1	1	1	3	6	NM	NM
10/19/99	PZ-16	0.5	0.5	0.5	0.5	2	NM	NM
3/15/00	PZ-16	ND	ND	ND	ND	ND	57	550
10/25/00	PZ-16	0.8	0.7	ND	0.7	ND	2	1960
4/9/01	PZ-16	ND	ND	ND	ND	ND	57	430
								-
Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
Date Sampled 4/21/97	Well # PZ-21	Benzene 1	Toluene	Ethyl benzene	Total Xylenes 3	Total BTEX 6	Total Nitrate 22.3	Sulfate
Date Sampled 4/21/97 6/16/97	Well # PZ-21 PZ-21	Benzene	Toluene 1 1	Ethyl beazene	Total Xylenes	Total BTEX 6 6	Total Nitrate 22.3 NM	Sulfate 3780 NM
Date Sampled 4/21/97 6/16/97 7/15/97	Well # PZ-21 PZ-21 PZ-21	Beazene 1 1 1	Foluene 1 1 1	Ethyl beazene 1 1	Total Xylenes 3 3 3 3	Total BTEX 6 6 6	Total Nitrate 22.3 NM 27.5	Sulfate 3780 NM 4420
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97	Well # PZ-21 PZ-21 PZ-21 PZ-21	Beazene	Toluene 1 1 1 1	Ethyl benzene 1 1 1 1	Total Xylenes 3 3 3 3 3 3	Total BTEX 6 6 6 6	Total Nitrate 22.3 NM 27.5 NM	Sulfate 3780 NM 4420 NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97	Well # PZ-21 PZ-21 PZ-21 PZ-21 PZ-21	Benzene 1 1 1 1 1 1	Toluene 1 1 1 1 1 1	Ethyl benzene 1 1 1 1 1 1	Total Xylenes 3 3 3 3 3 3 3 3 3 3 3	Total BTEX 6 6 6 6 6 6	Total Nitrate 22.3 NM 27.5 NM 25.3	Sulfate 3780 NM 4420 NM 4270
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97	Well # PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21	Benzene 1 1 1 1 1 1 1 1 1	Toluene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ethyl benzene 1 1 1 1 1 1 1 1	Total Xylenes 3 3 3 3 3 3 3 3 3 3 3 3 3	Total BTEX 6 6 6 6 6 6 6 6	Total Nitrate 22.3 NM 27.5 NM 25.3 NM	Sulfate 3780 NM 4420 NM 4270 NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97	Well # PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21	Beazene 1 1 1 1 1 1 1.34	Toluene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1	Total 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Total BTEX 6 6 6 6 6 6 6 6	Total Nitrate 22.3 NM 27.5 NM 25.3 NM NM	Sulfate 3780 NM 4420 NM 4270 NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97	Well # PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21 PZ-21	Benzene 1 1 1 1 1 1 1.34 3.39	Toluenc 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1	Total 3	Total BTEX 6 6 6 6 6 6 6 6 8	Total Nitrate 22.3 NM 27.5 NM 25.3 NM NM NM NM	Sulfate 3780 NM 4420 NM 4270 NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1.34 3.39 5.04	Toluene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 3	Total BTEX 6 6 6 6 6 6 6 6 6 6 6 6 6 6 10	Total Nitrate 22.3 NM 27.5 NM 25.3 NM NM NM 21.2	Sulfate 3780 NM 4420 NM 4270 NM NM NM NM 4332
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 3.39 5.04 9.06	Toluene 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3	Total BIEX 6 6 6 6 6 6 6 6 8 8 10 14	Total Nitrate 22.3 NM 27.5 NM 25.3 NM	Sulfate 3780 NM 4420 NM 4270 NM 4232 NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3.39 5.04 9.06 11.3	Toluene	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3	Total BIEX 6 6 6 6 6 6 6 6 10 14 16	Total Nitrate 22.3 NM 27.5 NM 25.3 NM	Sulfate 3780 NM 4420 NM 4270 NM 4232 NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 3/3/98 4/1/98 5/7/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluenc 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 3	Total BTEX 6 6 6 6 6 6 6 8 10 14 16 20	Total Nitrate 22.3 NM 27.5 NM 25.3 NM NM	Sulfate 3780 NM 4420 NM 4270 NM NM NM 4332 NM NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluene 1	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 3	Total BTEX 6 6 6 6 6 6 6 6 6 10 14 16 20 26	Total Nitrate 22.3 NM 27.5 NM 25.3 NM NM 21.2 NM	Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM NM MM NM MM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluene 1	Ethyl beazene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3	Total BTEX 6 6 6 6 6 6 6 6 6 6 6 10 14 16 20 26 26	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM NM 15.9	Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM NM 4332 NM NM NM 4332 NM 4332 NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluene 1 </td <td>Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>Total Xylenes 3</td> <td>Total BTEX 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 20 26 26 54</td> <td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM NM 15.9 NM</td> <td>Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM NM 4332 NM 44332 NM 4434 NM NM NM NM NM NM NM NM</td>	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3	Total BTEX 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 20 26 26 54	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM NM 15.9 NM	Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM NM 4332 NM 44332 NM 4434 NM NM NM NM NM NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluene	Ethyl Beazene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 3	Total BTEX 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 20 26 26 54 39	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM NM 15.9 NM NM	Sulfate 3780 NM 4420 NM 4270 NM NM NM 4332 NM NM NM NM NM NM NM NM NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1.34 3.39 5.04 9.06 11.3 15.4 21 20.7 49.4 34.1 48	Toluenc 1.99	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total 3 <td>Total BTEX 6 7<</td> <td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 25.3 NM 21.2 NM NM NM 15.9 NM NM NM</td> <td>Sulfate 3780 NM 4420 NM 4270 NM 4232 NM NM 4332 NM NM 4434 NM NM</td>	Total BTEX 6 7<	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 25.3 NM 21.2 NM NM NM 15.9 NM NM NM	Sulfate 3780 NM 4420 NM 4270 NM 4232 NM NM 4332 NM NM 4434 NM NM
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00	Well # PZ-21 PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluenc 1 </td <td>Ethyl beazene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>Total Xylenes 3 <td< td=""><td>Total BTEX 6 7 10 14 16 20 26 54 39 53 39</td><td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM NM 0.6</td><td>Sulfate 3780 NM 4420 NM 4270 NM 4232 NM A332 NM 44332 NM 4434 NM NM NM NM N</td></td<></td>	Ethyl beazene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3 <td< td=""><td>Total BTEX 6 7 10 14 16 20 26 54 39 53 39</td><td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM NM 0.6</td><td>Sulfate 3780 NM 4420 NM 4270 NM 4232 NM A332 NM 44332 NM 4434 NM NM NM NM N</td></td<>	Total BTEX 6 7 10 14 16 20 26 54 39 53 39	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM NM 0.6	Sulfate 3780 NM 4420 NM 4270 NM 4232 NM A332 NM 44332 NM 4434 NM NM NM NM N
Date Sampled 4/21/97 6/16/97 7/15/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00 10/25/00	Well # PZ-21	Benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Toluene 1 </td <td>Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>Total Xylenes 3 <td< td=""><td>Total BTEX 6 7 70 26 26 54 39 53 39 56</td><td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM 0.6 0.2</td><td>Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM 4332 NM NM MM NM NM</td></td<></td>	Ethyl benzene 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Total Xylenes 3 <td< td=""><td>Total BTEX 6 7 70 26 26 54 39 53 39 56</td><td>Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM 0.6 0.2</td><td>Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM 4332 NM NM MM NM NM</td></td<>	Total BTEX 6 7 70 26 26 54 39 53 39 56	Total Nitrate 22.3 NM 27.5 NM 25.3 NM 21.2 NM NM 15.9 NM NM 0.6 0.2	Sulfate 3780 NM 4420 NM 4270 NM 4332 NM NM 4332 NM NM MM NM NM

BTEX constituent concentrations reported in micrograms per liter (ppb) Sulfate and nitrate concentrations reported in milligrams per liter (ppm)

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Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
4/23/97	PZ-22	361	1	4.11	28.4	408	ND	4040
5/20/97	PZ-22	156	1	1.12	13.1	171	NM	NM
5/30/97	PZ-22	180	1	3.05	27.7	212	NM	NM
6/15/97	PZ-22	374	1.34	4.25	26.1	406	NM	NM
7/15/97	PZ-22	299	2	3.24	33.9	338	ND	4570
8/18/97	PZ-22	152	1	1.82	30.9	1 86	NM	NM
9/19/97	PZ-22	105	1.19	2.66	56	165	ND	4780
10/16/97	PZ-22	80.3	0.62	6.03	54	141	NM	NM
11/17/97	PZ-22	120	1	1.88	12.5	135	NM	NM
12/16/97	PZ-22	168	1	1.71	10.6	181	NM	NM
1/19/98	PZ-22	79.7	1	1	7.96	90	ND	4410
3/3/98	PZ-22	65.8	1	1	3.9	72	NM	NM
4/1/98	PZ-22	56	1	1	3	61	NM	NM
5/7/98	PZ-22	35.4	1	1	3	40	NM	NM
6/2/98	PZ-22	24.1	1	1	3	29	NM	NM
7/6/98	PZ-22	61.5	1	1	3	67	2.4	4396
10/9/98	PZ-22	1	1	1	3	6	NM	NM
3/23/99	PZ-22	1	1	1	3	6	NM	NM
10/19/99	PZ-22	1.9	0.5	0.5	4.2	7	NM	NM
3/15/00	PZ-22	ND	ND	ND	ND	ND	20	3800
10/25/00	PZ-22	0.6	0.7	ND	0.5	1.8	1.2	67
4/9/01	PZ-22	0.7	ND	ND	ND	0.7	5.4	3840

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Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
4/23/97	PZ-23	1	1	1	3	6	1.2	167
5/20/97	PZ-23	1	1	1	3	6	37.4	4740
6/15/97	PZ-23	1	1	1	3	6	NM	NM
7/15/97	PZ-23	1	1	1	3	6	37.3	4450
8/18/97	PZ-23	1	1	1	3	6	NM	NM
9/19/97	PZ-23	1	1	1	3	6	42.6	4080
10/16/97	PZ-23	1	1	1	3	6	NM	NM
11/17/97	PZ-23	1	1	1	3	6	NM	NM
12/16/97	PZ-23	1	1	1	3	6	NM	NM
1/19/98	PZ-23	1	1	1	3	6	41	3888
3/3/98	PZ-23	1	1	1	3	6	NM	NM
4/1/98	PZ-23	1	1	1	3	6	NM	NM
5/7/98	PZ-23	1	1	1	3	6	NM	NM
6/2/98	PZ-23	1	1	1	3.29	6	NM	NM
7/6/98	PZ-23	1	1	1	3	6	44.9	3640
10/9/98	PZ-23	1	1	1	3	6	NM	NM
3/23/99	PZ-23	1	1	1	3	6	NM	NM
10/19/99	PZ-23	0.9	0.5	0.5	2.6	5	NM	NM
3/15/00	PZ-23	ND	ND	ND	ND	ND	34	3700
10/25/00	PZ-23	ND	ND	ND	ND	ND	8.4	162
4/9/01	PZ-23	ND	ND	ND	ND	ND	38	3220

NM - Not Measured ND - Not Detected BTEX constituent concentrations reported in micrograms per liter (ppb) Sulfate and nitrate concentrations reported in milligrams per liter (ppm)

Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nítrate	Sulfate
4/21/97	PZ-26	1	1	1	3	6	55.8	5190
6/15/97	PZ-26	1	1	1	3	6	NM	NM
7/15/97	PZ-26	1	1	1	3	6	127	4690
8/18/97	PZ-26	1	1	1	3	6	NM	NM
9/19/97	PZ-26	1	1	1	3	6	137	4770
10/16/97	PZ-26	1	1	1	3	6	NM	NM
11/17/97	PZ-26	1	1	1	3	6	NM	NM
12/16/97	PZ-26	1	1	1	3	6	NM	NM
1/19/98	PZ-26	1	1	1	3	6	160	4804
3/3/98	PZ-26	1	1	1	3	6	NM	NM
4/1/98	PZ-26	1	1	1	3	6	NM ,	NM
5/7/98	PZ-26	1	1	1	3	6	NM	NM
6/2/98	PZ-26	1	1	1	3	6	NM	NM
7/6/98	PZ-26	1	1	1	3	6	228	4629
10/9/98	PZ-26	1	1	1	3	6	NM	NM
3/23/99	PZ-26	1	1	1	3	6	NM	NM
10/19/99	PZ-26	<0.5	<0.5	<0.5	<0.5	<2.0	NM	NM
3/15/00	PZ-26	1.6	2.8	ND	3.1	7.5	120	5200
10/25/00	PZ-26	ND	ND	ND	ND	ND	2.2	124
4/9/01	PZ-26	ND	ND	ND	ND	ND	62	4400
Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
Date Sampled 5/20/97	Well # PZ-29	Benzene 8790	Toluene 4600	Ethyl benzene 318	Total Xylenes 2560	Total BTEX 16268	Total Nitrate	Sulfate
Date Sampled 5/20/97 6/16/97	Well # PZ-29 PZ-29	Венzепе 8790 11900	Toluene 4600 6630	Ethyl benzene 318 335	Total Xylenes 2560 2820	Total BTEX 16268 21685	Total Nitrate ND NM	Sulfate 188 NM
Date Sampled 5/20/97 6/16/97 7/16/97	Well # PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630	Toluene 4600 6630 7620	Ethyl benzene 318 335 210	Total Xylenes 2560 2820 2940	Total BTEX 16268 21685 20400	Total Nitrate ND NM ND	Sulfate 188 NM 34
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97	Well # PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300	Toluene 4600 6630 7620 14600	Ethyl benzene 318 335 210 429	Total Xylenes 2560 2820 2940 4780	Total BTEX 16268 21685 20400 35109	Total Nitrate ND NM ND NM	Sulfate 188 NM 34 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500	Toluene 4600 6630 7620 14600 13100	Ethyl benzene 318 335 210 429 396	Total Xylenes 2560 2820 2940 4780 4760	Total BTEX 16268 21685 20400 35109 31756	Total Nitrate ND NM ND NM ND	Sulfate 188 NM 34 NM 9.8
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800	Toluene 4600 6630 7620 14600 13100 14800	Ethyl benzene 318 335 210 429 396 554	Total Xylenes 2560 2820 2940 4780 4760 5040	Total BTEX 16268 21685 20400 35109 31756 35194	Total Nitrate ND NM ND NM ND NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700	Toluene 4600 6630 7620 14600 13100 14800 14800	Ethyl benzene 318 335 210 429 396 554 497	Total Xylencs 2560 2820 2940 4780 4760 5040 4680	Total BTEX 16268 21685 20400 35109 31756 35194 34677	Total Nitrate ND NM ND NM ND NM NM	Sulfate 188 NM 34 NM 9.8 NM NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100	Toluene 4600 6630 7620 14600 13100 14800 14800 15400	Ethyl benzene 318 335 210 429 396 554 497 550	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220	Total Nitrate ND NM ND NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM NM NM NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700	Toluene 4600 6630 7620 14600 13100 14800 14800 15400 13800	Ethyl benzene 318 335 210 429 396 554 497 550 515	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685	Total Nitrate ND NM ND NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM NM NM NM NM NM NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200	Toluene 4600 6630 7620 14600 13100 14800 14800 15400 13800 14000	Ethyl benzene 318 335 210 429 396 554 497 550 515 468	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688	Total Nitrate ND NM ND NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100	Foluene 4600 6630 7620 14600 13100 14800 14800 15400 13800 14000 13300	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485	Total Xylences 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98	Well # PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29 PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600	Toluene 4600 6630 7620 14600 13100 14800 14800 15400 13800 14000 13300 13500	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98	Well # PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900	Toluene 4600 6630 7620 14600 13100 14800 15400 13800 14000 13300 14100	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98	Well # PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900	Toluene 4600 6630 7620 14600 13100 14800 14800 15400 13800 14000 13300 14100 12700	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484 484	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4830	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM NM NM NM NM ND NM NM NM NM NM NM NM NM NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98	Well # PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15100 15600 14900 13300	Foluene 4600 6630 7620 14600 13100 14800 14800 14800 13800 13300 13300 13500 14100 12700 10800	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 485 460 484 484 508	Total Xylences 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4530	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914 29138	TotalNitrateNDNMNDNM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99	Well # PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900 13300 11000	Toluene 4600 6630 7620 14600 13100 14800 14800 14800 14800 13300 13300 14000 13300 14000 13300 14000 13800 14000 13800 6980	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484 485 460 484 484 508 454	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4830 4530 4000	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914 29138 22434	Total Nitrate ND NM ND NM NM NM NM NM NM NM NM NM NM NM NM NM	Sulfate 188 NM 34 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99	Well # PZ-29 PZ-29<	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900 13300 11000 7500	Toluene 4600 6630 7620 14600 13100 14800 14800 14800 14800 14800 14800 13100 14800 14800 14800 15400 13800 14000 13300 13500 14100 12700 10800 6980 2400	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484 485 460 484 484 508 454 440	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4830 4530 4000 2600	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914 29138 22434 12940	TotalNitrateNDNMNDNM	Sulfate 188 NM 34 NM 9.8 NM 9.8 NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00	Well # PZ-29	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900 13300 11000 7500 15000	Toluene 4600 6630 7620 14600 13100 14800 14800 15400 13800 14000 13300 13500 14100 12700 10800 6980 2400 9200	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484 485 460 484 484 508 454 440 700	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4820 530 4000 2600 5700	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914 29138 22434 12940 30600	TotalNitrateNDNMNDNMND	Sulfate 188 NM 34 NM 9.8 NM NM
Date Sampled 5/20/97 6/16/97 7/16/97 8/18/97 9/19/97 10/16/97 11/17/97 12/16/97 1/19/98 3/3/98 4/1/98 5/7/98 6/2/98 7/6/98 10/9/98 3/23/99 10/19/99 3/15/00 10/25/00	Well # PZ-29 PZ-29<	Benzene 8790 11900 9630 15300 13500 14800 14700 16100 14700 15200 15100 15600 14900 13300 11000 7500 5000	Toluene 4600 6630 7620 14600 13100 14800 14800 14800 14800 14800 14800 13100 14800 13800 14000 13300 14000 13500 14100 12700 10800 6980 2400 9200 2300	Ethyl benzene 318 335 210 429 396 554 497 550 515 468 485 460 484 485 460 484 484 508 454 440 700 350	Total Xylenes 2560 2820 2940 4780 4760 5040 4680 5170 4670 5020 4930 4820 4780 4830 4530 4000 2600 5700 1800	Total BTEX 16268 21685 20400 35109 31756 35194 34677 37220 33685 34688 33815 34380 34264 32914 29138 22434 12940 30600 9450	TotalNitrateNDNMNDNMND0.05	Sulfate 188 NM 34 NM 9.8 NM S22

NM - Not Measured ND - Not Detected

BTEX constituent concentrations reported in micrograms per liter (ppb) Sulfate and nitrate concentrations reported in milligrams per liter (ppm)

Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
12/7/00	PZ-32	2	1.1	1.4	3.5	8	10	4000
4/9/01	PZ-32	1.3	0.5	0.5	2.4	5	12	3020

Date Sampled	Well#	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
12/7/00	PZ-33	ND	ND	ND	ND	ND	18	4200
4/9/01	PZ-33	ND	ND	ND	ND	ND	13	5510

Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
12/7/00	PZ-34	7.6	ND	ND	ND	8	NM	NM

Date Sampled	Well #	Benzene	Tolaene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
5/1/01	PZ-35	19000	12000	800	6500	38300	0.34	100 ·

Date Sampled	Well #	Benzene	Toluene	Ethyl benzene	Total Xylenes	Total BTEX	Total Nitrate	Sulfate
5/1/01	PZ-36	18000	16000	630	5300	39930	0.23	540

BTEX constituent concentrations reported in micrograms per liter (ppb) Sulfate and nitrate concentrations reported in milligrams per liter (ppm)

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WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-04	06/15/97	1118	6018.06	7.16	7.16	0.00	6010.90
PZ-04	07/15/97	NM	6018.06	7.91	7.91	0.00	6010.15
PZ-04	08/18/97	NM	6018.06	7.23	7.23	0.00	6010.83
PZ-04	09/19/97	1734	6018.06	7.15	7.15	0.00	6010.91
PZ-04	10/16/97	1421	6018.06	7.58	7.58	0.00	6010.48
PZ-04	11/17/97	1450	6018.06	8.31	8.31	0.00	6009.75
PZ-04	12/16/97	1515	6018.06	8.60	8.60	0.00	6009.46
PZ-04	01/19/98	1715	6018.06	8.65	8.65	0.00	6009.41
PZ-04	03/03/98	1715	6018.06	8.89	8.89	0.00	6009.17
PZ-04	04/01/98	1456	6018.06	8.91	8.91	0.00	6009.15
PZ-04	05/07/98	1532	6018.06	8.92	8.92	0.00	6009.14
PZ-04	06/02/98	NM	6018.06	8.97	8.97	NM	6009.09
PZ-04	07/06/98	NM	6018.06	8.97	8.97	NM	6009.09
PZ-04	10/09/98	NM	6018.06	NM	NM	NM	NM
PZ-04	03/23/99	NM	6018.06	9.38	9.38	NM	6008.68
PZ-04	03/16/01	NM	6018.06	10.55	10.55	0.00	6007.51

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-05	05/03/97	NM	6023.65	15.65	15.65	0.00	6008.00
PZ-05	06/15/97	NM	6023.65	15.34	15.34	0.00	6008.31
PZ-05	07/15/97	1122	6023.65	15.32	15.32	0.00	6008.33
PZ-05	08/18/97	NM	6023.65	15.15	15.15	0.00	6008.50
PZ-05	09/19/97	1744	6023.65	14.97	14.97	0.00	6008.68
PZ-05	10/16/97	1430	6023.65	14.97	14.97	0.00	6008.68
PZ-05	11/17/97	1350	6023.65	15.11	15.11	0.00	6008.54
PZ-05	12/16/97	1417	6023.65	15.20	15.20	0.00	6008,45
PZ-05	01/19/98	1610	6023.65	15.18	15.18	0.00	6008.47
PZ-05	03/03/98	1600	6023.65	15.21	15.21	0.00	6008.44
PZ-05	04/01/98	1410	6023.65	15.18	15.18	0.00	6008.47
PZ-05	05/07/98	1440	6023.65	15.17	15.17	0.00	6008.48
PZ-05	06/02/98	1515	6023.65	15.30	15.30	0.00	6008.35
PZ-05	07/06/98	1222	6023.65	15.42	15.42	NM	6008.23
PZ-05	10/09/98	NM	6023.65	NM	NM	NM	NM
PZ-05	03/23/99	NM	6023.65	15.71	15.71	NM	6007.94
PZ-05	03/16/01	NM	6023.65	16.3	16.3	NM	6007.35

Table 2. Ground-Water Elevation Data

				AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL #	DATE	TIME	TOP OF PIPE ELEVATION	DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	DEPTH TO GROUND WATER (feet)	THICKNESS (feet)	ELEVATION OF GROUND WATER (feet)
PZ-08	05/03/97	11:16	6022	14.15	14.15	0.00	6007.85
PZ-08	06/15/97	NM	6022	13.97	13.97	0.00	6008.03
PZ-08	07/15/97	1124	6022	13.86	13.86	0.00	6008.14
PZ-08	08/18/97	NM	6022	13.66	13.66	0.00	6008.34
PZ-08	09/19/97	1751	6022	13.47	13.47	0.00	6008.53
PZ-08	10/16/97	1438	6022	13.54	13.54	0.00	6008.46
PZ-08	11/17/97	1400	6022	13.53	13.53	0.00	6008.47
PZ-08	12/16/97	1422	6022	13.57	13.57	0.00	6008.43
PZ-08	01/19/98	1615	6022	13.39	13.39	0.00	6008.61
PZ-08	03/03/98	1604	6022	13.38	13.38	0.00	6008.62
PZ-08	04/01/98	1415	6022	13.37	13.37	0.00	6008.63
PZ-08	05/07/98	1447	6022	13.38	13.38	0.00	6008.62
PZ-08	06/02/98	1518	6022	13.44	13.44	NM	6008.56
PZ-08	07/06/98	1227	6022	13.50	13.50	NM	6008.50
PZ-08	10/09/98	NM	6022	NM	NM	NM	NM
PZ-08	03/23/99	NM	6022	13.85	13.85	NM	6008.15
PZ-08	10/19/99	NM	6022	13.99	13.99	NM	6008.01
PZ-08	03/14/00	NM	6022	14.15	14.15	NM	6007.85
PZ-08	10/25/00	NM	6022	14.06	14.16	NM	6007.84
PZ-08	12/07/00	NM	6022	14.26	14.26	NM	6007.74
PZ-08	03/16/01	NM	6022	14.35	14.35	NM	6007.65

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-09	05/03/97	11:13	6021 51	13.88	13.88	0.00	6007.63
PZ-09	06/15/97	NM	6021.51	13.66	13.66	0.00	6007.85
PZ-09	07/15/97	1126	6021.51	13.61	13.61	0.00	6007.90
PZ-09	08/18/97	NM	6021.51	13.43	13.43	0.00	6008.08
PZ-09	09/19/97	1802	6021.51	13.29	13.29	0.00	6008.22
PZ-09	10/16/97	1445	6021.51	13.38	13.38	0.00	6008.13
PZ-09	11/17/97	1405	6021.51	13.34	13.34	0.00	6008.17
PZ-09	12/16/97	1427	6021.51	13.37	13.37	0.00	6008.14
PZ-09	01/19/98	1625	6021.51	13.23	13.23	0.00	6008.28
PZ-09	03/03/98	1610	6021.51	13.25	13.25	0.00	6008.26
PZ-09	04/01/98	1420	6021.51	13.27	13.27	0.00	6008.24
PZ-09	05/07/98	1453	6021.51	13.37	13.37	0.00	6008.14
PZ-09	06/02/98	1521	6021.51	13.45	13.45	NM	6008.06
PZ-09	07/06/98	1232	6021.51	13.50	13.50	NM	6008.01
PZ-09	10/09/98	NM	6021.51	NM	NM	NM	NM
PZ-09	03/23/99	NM	6021.51	13.72	13.72	NM	6007.79
PZ-09	10/19/99	NM	6021.51	13.81	13.81	NM	6007.70
PZ-09	03/14/00	NM	6021.51	13.98	13.98	NM	6007.53
PZ-09	10/25/00	1311	6021.51	13.9	13.9	NM	6007.61
PZ-09	12/07/00	NM	6021.51	14	14	NM	6007.51
PZ-09	03/16/01	NM	6021.51	14.14	14.14	NM	6007.37

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WELL #	DATE	TIMĘ	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-10	05/03/97	NM	NM	DRY	DRY	NM	DRY
PZ-10	06/15/97	NM	6025.40	18,19	18.19	0.00	6007.21
PZ-10	07/15/97	1049	6025.40	18.20	18.20	0.00	6007.20
PZ-10	08/18/97	NM	6025.40	18.02	18.02	0.00	6007.38
PZ-10	09/19/97	1657	6025.40	17.90	17.90	0.00	6007.50
PZ-10	10/16/97	1331	6025.40	18.50	18.50	0.00	6006.90
PZ-10	11/17/97	1245	6025.40	18.05	18.05	0.00	6007.35
PZ-10	12/16/97	1340	6025.40	18.07	18.07	0.00	6007.33
PZ-10	01/19/98	1520	6025.40	17.97	17.97	0.00	6007.43
PZ-10	03/03/98	1505	6025.40	17.98	17.98	0.00	6007.42
PZ-10	04/01/98	1330	6025.40	18.01	18.01	0.00	6007.39
PZ-10	05/07/98	1402	6025.40	18.16	18.16	0.00	6007.24
PZ-10	06/02/98	1445	6025.40	18.21	18.21	NM	6007.19
PZ-10	07/06/98	1125	6025.40	18.30	18.30	NM	6007.10
PZ-10	10/09/98	NM	6025.40	NM	NM	NM	NM
PZ-10	03/23/99	NM	6025.40	18.45	18.45	NM	6006.95
PZ-10	12/07/00	NM	6025.40	18.59	18.59	NM	6006.81
PZ-10	03/16/01	NM	6025.40	18.62	18.62	NM	6006.78

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-11	05/03/97	11:28	6023.94	16.84	16.84	0.00	6007.10
PZ-11	06/15/97	NM	6023.94	16.74	16.74	0.00	6007.20
PZ-11	07/15/97	1106	6023.94	16.69	16.69	0.00	6007.25
PZ-11	08/18/97	NM	6023.94	16.51	16.51	0.00	6007.43
PZ-11	09/19/97	1810	6023.94	16.39	16.39	0.00	6007.55
PZ-11	10/16/97	1455	6023.94	16.43	16.43	0.00	6007.51
PZ-11	11/17/97	1415	6023.94	16.48	16.48	0.00	6007.46
PZ-11	12/16/97	1435	6023.94	16.58	16.58	0.00	6007.36
PZ-11	01/19/98	1650	6023.94	16.53	16.53	0.00	6007.41
PZ-11	03/03/98	1615	6023.94	16.54	16.54	0.00	6007.40
PZ-11	04/01/98	1425	6023.94	16.51	16.51	#REF!	6007.43
PZ-11	05/07/98	1500	6023.94	16.57	16.57	0.00	6007.37
PZ-11	06/02/98	1525	6023.94	16.65	16.65	NM	6007.29
PZ-11	07/06/98	1255	6023.94	16.75	16.75	NM	6007.19
PZ-11	10/09/98	NM	6023.94	NM	NM	NM	NM
PZ-11	03/23/99	NM	6023.94	17.03	17.03	NM	6006.91
PZ-11	03/16/01	NM	6023.94	17.54	17.54	NM	6006.4

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			TOP OF PIPE	AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL #	DATE	TIME	ELEVATION	DEPTH TO (feet)	DEPTH TO (feet)	THICKNESS (feet)	ELEVATION OF (feet)
PZ-15	05/03/97	11:40	6024.87	17.54	17.54	0.00	6007.33
PZ-15	06/15/97	NM	6024.87	17.27	17.27	0.00	6007.60
PZ-15	07/15/97	1058	6024.87	17.14	17.14	0.00	6007.73
PZ-15	08/18/97	NM	6024.87	16.82	16.82	0.00	6008.05
PZ-15	09/19/97	1817	6024.87	16.62	16.63	0.01	6008.24
PZ-15	10/16/97	1504	6024.87	16.70	16.71	0.01	6008,16
PZ-15	11/17/97	1454	6024.87	16.80	16.81	0.01	6008.06
PZ-15	12/16/97	1520	6024.87	16.92	16.92	0.00	6007.95
PZ-15	01/19/98	1720	6024.87	16.89	16.89	0.00	6007.98
PZ-15	03/03/98	1717	6024.87	16.89	16.89	0.00	6007.98
PZ-15	04/01/98	1502	6024.87	16.82	16.82	0.00	6008.05
PZ-15	05/07/98	1537	6024.87	16.83	16.83	0.00	6008.04
PZ-15	06/02/98	1548	6024.87	16.95	16.95	NM	6007.92
PZ-15	07/0698	1310	6024.87	17.10	17.10	NM	6007.77
PZ-15	10/09/98	NM	6024.87	NM	NM	NM	NM
PZ-15	03/23/99	NM	6024.87	17.52	17.52	NM	6007.35
PZ-15	03/16/01	NM	6024.87	18.17	18.17	NM	6006.70

			TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW	WATER DEPTH TO	PRODUCT	WATER LEVEL
WELL#	DATE	TIME		OR FREE PRODUCT	GROUND WATER	THICKNESS	GROUND WATER
				(teet)	(feet)	(feet)	(teet)
PZ-16	08/18/97	NM	6024.59	14.24	14.24	0.00	6010.35
PZ-16	09/19/97	1826	6024.59	14.22	14.22	0.00	6010.37
PZ-16	10/16/97	1257	6024.59	14.60	14.60	0.00	6009.99
PZ-16	11/17/97	1215	6024.59	14.84	14.84	0.00	6009.75
PZ-16	12/16/97	1315	6024.59	<u>15.18</u>	15.18	0.00	6009.41
PZ-16	01/19/98	1455	6024.59	15.43	15.43	0.00	6009.16
PZ-16	03/03/98	1435	6024.59	15.80	15.80	0.00	6008.79
PZ-16	04/01/98	1302	6024.59	15.90	15.90	0.00	6008.69
PZ-16	05/07/98	1335	6024.59	15.99	15.99	0.00	6008.60
PZ-16	06/02/98	1312	6024.59	16.01	16.01	0.00	6008.58
PZ-16	07/06/98	1055	6024.59	15.98	15.98	0.00	6008.61
PZ-16	10/09/98	NM	6024.59	NM	NM	NM	NM
PZ-16	03/23/99	NM	6024.59	15.46	15.46	NM	6009.13
PZ-16	10/19/99	NM	6024.59	14.85	14.85	NM	6009.74
PZ-16	3/14/2000	NM	6024.59	15.89	15.89	NM	6008.7
PZ-16	10/25/00	NM	6024.59	15.62	15.62	NM	6008.97
PZ-16	12/7/2000	NM	6024.59	15.95	15.95	NM	6008.64
PZ-16	3/16/2001	NM	6024.59	16.07	16.07	NM	6008.52

WELL#	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-17	06/15/97	NM	6023.72	16.47	16.47	0.00	6007.25
PZ-17	07/15/97	1100	6023.72	16.37	16.37	0.00	6007.35
PZ-17	08/18/97	NM	6023.72	16.18	16.18	0.00	6007.54
PZ-17	09/19/97	1725	6023.72	16.08	16.08	0.00	6007.64
PZ-17	10/16/97	1512	6023.72	16.10	16.10	0.00	6007.62
PZ-17	11/17/97	1420	6023.72	16.15	16.15	0.00	6007.57
PZ-17	12/16/97	1440	6023.72	16.23	16.23	0.00	6007.49
PZ-17	01/19/98	1635	6023.72	16.32	16.32	0.00	6007.40
PZ-17	03/03/98	1620	6023.72	16.30	16.30	0.00	6007.42
PZ-17	04/01/98	1430	6023.72	16.25	16.25	0.00	6007.47
PZ-17	05/07/98	1505	6023.72	16.24	16.24	0.00	6007.48
PZ-17	06/02/98	1530	6023.72	16.34	16.34	NM	6007.38
PZ-17	07/06/98	1237	6023.72	16.43	16.43	NM	6007.29
PZ-17	10/09/98	NM	6023.72	NM	NM	NM	NM
PZ-17	03/23/99	NM	6023.72	16.74	16.74	NM	6006.98
PZ-17	12/07/00	NM	6023.72	17.20	17.20	NM	6006.52
PZ-17	03/16/01	NM	6023.72	17.28	17.28	NM	6006.44

WELL#	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-18	06/15/97	NM	6024.33	17.29	17.29	0.00	6007.04
PZ-18	07/15/97	1104	6024.33	17.28	17.28	0.00	6007.05
PZ-18	08/18/97	NM	6024.33	17.14	17.14	0.00	6007.19
PZ-18	09/19/97	1832	6024.33	17.07	17.07	0.00	6007.26
PZ-18	10/16/97	1520	6024.33	17.13	17.13	0.00	6007.20
PZ-18	11/17/97	1425	6024.33	17.15	17.15	0.00	6007.18
PZ-18	12/16/97	1446	6024.33	17.22	17.22	0.00	6007.11
PZ-18	01/19/98	1645	6024.33	17.19	17.19	0.00	6007.14
PZ-18	03/03/98	1625	6024.33	17.19	17.19	0.00	6007.14
PZ-18	04/01/98	1437	6024.33	17.17	17.17	0.00	6007.16
PZ-18	05/07/98	1515	6024.33	17.27	17.27	0.00	6007.06
PZ-18	06/02/98	1540	6024.33	17.32	17.32	NM	6007.01
PZ-18	07/06/98	1250	6024.33	17.40	17.40	NM	6006.93
PZ-18	10/09/98	NM	6024.33	NM	NM	NM	NM
PZ-18	03/23/99	NM	6024.33	17.65	17.65	NM	6006.68
PZ-18	12/07/00	NM	6024.33	18.14	18.14	NM	6006.19
PZ-18	03/16/01	NM	6024.33	18.17	18,17	NM	6006.16

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WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-19	06/15/97	NM	6024.19	16.80	16.80	0.00	6007.39
PZ-19	07/15/97	1114	6024.19	16.74	16.74	0.00	6007.45
PZ-19	08/18/97	NM	6024.19	16.56	16.56	0.00	6007.63
PZ-19	09/19/97	1840	6024.19	16.44	16.44	0.00	6007.75
PZ-19	10/16/97	1530	6024.19	16.44	16.44	0.00	6007.75
PZ-19	11/17/97	1436	6024.19	16.48	16.48	0.00	6007.71
PZ-19	12/16/97	1453	6024.19	16.58	16.58	0.00	6007.61
PZ-19	01/19/98	1652	6024.19	16.58	16.58	0.00	6007.61
PZ-19	03/03/98	1632	6024.19	16.61	16.61	0.00	6007.58
PZ-19	04/01/98	1442	6024.19	16.55	16.55	0.00	6007.64
PZ-19	05/07/98	1522	6024.19	16.58	16.58	0.00	6007.61
PZ-19	06/02/98	1542	6024.19	16.67	16.67	NM	6007.52
PZ-19	07/06/98	1300	6024.19	16.78	16.78	NM	6007.41
PZ-19	10/09/98	NM	6024.19	NM	NM	NM	NM
PZ-19	03/23/99	NM	6024.19	17.09	17.09	NM	6007.1
PZ-19	03/16/01	NM	6024.19	17.34	17.73	1.24	6006.46

WELL#	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-20	06/15/97	NM	6023.95	15.84	15.84	0.00	6008.11
PZ-20	07/15/97	1112	6023.95	15.79	15.79	0.00	6008.16
PZ-20	08/18/97	NM	6023.95	15.60	15.60	0.00	6008.35
PZ-20	09/19/97	1847	6023.95	15.49	15.49	0.00	6008.46
PZ-20	10/16/97	1535	6023.95	15.50	15.50	0.00	6008.45
PZ-20	11/17/97	1440	6023.95	15.67	15.67	0.00	6008.28
PZ-20	12/16/97	1500	6023.95	15.82	15.82	0.00	6008.13
PZ-20	01/19/98	1700	6023.95	15.85	15.85	0,00	6008.10
PZ-20	03/03/98	1638	6023.95	15.86	15.86	0.00	6008.09
PZ-20	04/01/98	1448	6023.95	15.78	15.78	0.00	6008.17
PZ-20	05/07/98	1527	6023.95	15.78	15.78	0.00	6008.17
PZ-20	06/02/98	1545	6023.95	15.93	15.93	0.00	6008.02
PZ-20	07/06/98	1305	6023.95	16.05	16.05	NM	6007.9
PZ-20	10/09/98	NM	6023.95	NM	NM	NM	NM
PZ-20	03/23/99	NM	6023.95	16.41	16.41	NM	6007.54
PZ-20	03/16/01	NM	6023.95	17.1	17.1	NM	6006.85

WELL #	DATE	ТІМЕ	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT	WATER DEPTH TO GROUND WATER	PRODUCT	WATER LEVEL ELEVATION OF GROUND WATER
				(feet)	(feet)	(feet)	(feet)
PZ-21	06/15/97	NM	6028.60	21.55	21.55	0.00	6007.05
PZ-21	07/15/97	1043	6028.60	21.68	21.68	0.00	6006.92
PZ-21	08/18/97	NM	6028.60	21.55	21.55	0.00	6007.05
PZ-21	09/19/97	1652	6028.60	21.44	21.44	0.00	6007.16
PZ-21	10/16/97	1337	6028.60	21.59	21.59	0.00	6007.01
PZ-21	11/17/97	1250	6028.60	21.58	21.58	0.00	6007.02
PZ-21	12/16/97	1352	6028.60	21.60	21.60	0.00	6007.00
PZ-21	01/19/98	1553	6028.60	21.40	21.40	0.00	6007.20
PZ-21	03/03/98	1515	6028.60	21.50	21.50	0.00	6007.10
PZ-21	04/01/98	1342	6028.60	21.57	21.57	0.00	6007.03
PZ-21	05/07/98	1415	6028.60	21.71	21.71	0.00	6006.89
PZ-21	06/02/98	1455	6028.60	21.72	21.72	0.00	6006.88
PZ-21	07/06/98	1135	6028.60	21.82	21.82	0.00	6006.78
PZ-21	10/09/98	NM	6028.60	NM	NM	NM	NM
PZ-21	03/23/99	NM	6028.60	21.89	21.89	0.00	6006.71
PZ-21	10/19/99	NM	6028.60	22.09	22.09	0.00	6006.51
PZ-21	03/14/00	NM	6028.60	22.12	22.12	0.00	6006.48
PZ-21	10/25/00	1019	6028.60	22.31	22.31	0.00	6006.29
PZ-21	12/07/00	NM	6028.60	22.41	22.41	0.00	6006.19
PZ-21	03/16/01	NM	6028.60	22.37	22.37	0.00	6006.23

			TOP OF PIPE ELEVATION	AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL#	DATE	TIME .		DEPTH TO TOP OF GW OR FREE PRODUCT	DEPTH TO GROUND WATER	THICKNESS	ELEVATION OF GROUND WATER
D7.00	07/45/07	4000	0007.40	(reet)	(reet)	(reet)	(reet)
PZ-22	07/15/97	1320	6027.13	19.78	19.78	0.00	6007.35
PZ-22	08/18/97	INM	6027.13	19.72	19.72	0.00	6007.41
PZ-22	09/19/97	1/13	6027.13	19.57	19.57	0.00	6007.56
PZ-22	10/16/97	1355	6027.13	19.74	19.74	0.00	6007.39
PZ-22	11/17/97	1301	6027.13	19.71	19.71	0.00	6007.42
PZ-22	12/16/97	1358	6027.13	19.73	19.73	0.00	6007.40
PZ-22	01/19/98	1540	6027.13	19.48	19.48	0.00	6007.65
PZ-22	03/03/98	1544	6027.13	19.58	19.58	0.00	6007.55
PZ-22	04/01/98	1348	6027.13	19.68	19.68	0.00	6007.45
PZ-22	05/07/98	1420	6027.13	19.83	19.83	0.00	6007.30
PZ-22	06/02/98	1458	6027.13	19.84	19.84	0.00	6007.29
PZ-22	07/06/98	1140	6027.13	19.97	19.97	0.00	6007.16
PZ-22	10/09/98	NM	6027.13	NM	NM	NM	NM
PZ-22	03/23/99	NM	6027.13	19.98	19.98	0.00	6007.15
PZ-22	10/19/99	NM	6027.13	20.18	20.18	0.00	6006.95
PZ-22	03/14/00	NM	6027.13	20.22	20.22	0.00	6006.91
PZ-22	10/25/00	NM	6027.13	20.29	20.29	0.00	6006.84
PZ-22	12/07/00	NM	6027.13	20.75	20.75	0.00	6006.38
PZ-22	03/16/01	NM	6027.13	24.02	24.02	0.00	6003.11

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			TOP OF				
	Maria di Kalendari Maria		PIPE	AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL #	DATE	TIME	ELEVATION	DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	DEPTH TO GROUND WATER (feet)	THICKNESS (feet)	ELEVATION OF GROUND WATER (feet)
PZ-23	07/15/97	1102	6024.71	16.74	16.74	0.00	6007.97
PZ-23	08/18/97	NM	6024.71	16.65	16.65	0.00	6008.06
PZ-23	09/19/97	1500	6024.71	16.58	16.58	0.00	6008.13
PZ-23	10/16/97	1324	6024.71	16.59	16.59	0.00	6008.12
PZ-23	11/17/97	1235	6024.71	16.55	16.55	0.00	6008.16
PZ-23	12/16/97	1332	6024.71	16.55	16.55	0.00	6008.16
PZ-23	01/19/98	1512	6024.71	16.54	16.54	0.00	6008.17
PZ-23	03/03/98	1500	6024.71	16.57	16.57	0.00	6008.14
PZ-23	04/01/98	1324	6024.71	16.58	16.58	0.00	6008.13
PZ-23	05/07/98	1355	6024.71	16.64	16.64	0.00	6008.07
PZ-23	06/02/98	1438	6024.71	16.70	16.70	0.00	6008.01
PZ-23	07/06/98	111	6024.71	16.75	16.75	0.00	6007.96
PZ-23	10/09/98	NM	6024.71	NM	NM	NM	NM
PZ-23	03/23/99	NM	6024.71	16.85	16.85	NM	6007.86
PZ-23	10/19/99	NM	6024.71	16.85	16.85	NM	6007.86
PZ-23	03/14/00	NM	6024.71	17.09	17.09	NM	6007.62
PZ-23	10/25/00	9:38	6024.71	17.03	17.03	NM	6007.68
PZ-23	12/07/00	NM	6024.71	17.10	17.10	NM	6007.61
PZ-23	03/16/01	NM	6024.71	17.26	17.26	NM	6007.45

			TOP OF PIPE ELEVATION	AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL#	DATE	TIME		DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	DEPTH TO GROUND WATER (feet)	THICKNESS (feet)	ELEVATION OF GROUND WATER (feet)
PZ-24	08/18/97	NM	6023.01	14.75	14.75	0.00	6008.26
PZ-24	09/19/97	1541	6023.01	14.61	14.61	0.00	6008.40
PZ-24	10/16/97	1407	6023.01	14.68	14.68	0.00	6008.33
PZ-24	11/17/97	1335	6023.01	14.63	14.63	0.00	6008.38
PZ-24	12/16/97	1405	6023.01	14.71	14.71	0.00	6008.30
PZ-24	01/19/98	1550	6023.01	14.48	14.48	0.00	6008.53
PZ-24	03/03/98	1550	6023.01	14.59	14.59	0.00	6008.42
PZ-24	04/01/98	1355	6023.01	14.65	14.65	0.00	6008.36
PZ-24	05/07/98	1425	6023.01	14.75	14.75	0.00	6008.26
PZ-24	06/02/98	1500	6023.01	14.79	14.79	0.00	6008.22
PZ-24	07/06/98	1147	6023.01	14.89	14.89	0.00	6008.12
PZ-24	10/09/98	NM	6023.01	NM	NM	NM	NM
PZ-24	03/23/99	NM	6023.01	14.91	14.91	NM	6008.1

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WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-25	08/18/97	NM	6021.35	12.92	12.92	0.00	6008.43
PZ-25	09/19/97	1548	6021.35	12.79	12.79	0.00	6008.56
PZ-25	10/16/97	1411	6021.35	12.85	12.85	0.00	6008.50
PZ-25	11/17/97	1345	_6021.35	12.82	12.82	0.00	6008.53
PZ-25	12/16/97	1410	6021.35	12.86	12.86	0.00	6008.49
PZ-25	01/19/98	1557	6021.35	12.70	12.70	0.00	6008.65
PZ-25	03/03/98	1554	6021.35	12.73	12.73	0.00	6008.62
PZ-25	04/01/98	1400	6021.35	12.76	12.76	0.00	6008.59
PZ-25	05/07/98	1431	6021.35	12.86	12.86	0.00	6008.49
PZ-25	06/02/98	1505	6021.35	12.91	12.91	NM	6008.44
PZ-25	07/06/98	1152	6021.35	13.02	13.02	NM	6008.33
PZ-25	10/09/98	NM	6021.35	NM	NM	NM	NM
PZ-25	03/23/99	NM	6021.35	13.11	13.11	NM	6008.24
PZ-25	03/16/01	NM	6021.35	13.5	13,5	NM	6007.85

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-26	06/15/97	NM	6021.00	12.57	12.57	0.00	6008.43
PZ-26	07/15/97	1028	6021.00	12.56	12.56	0.00	6008.44
PZ-26	08/18/97	NM	6021.00	12.48	12.48	0.00	6008.52
PZ-26	09/19/97	1535	6021.00	12.38	12.38	0.00	6008.62
PZ-26	10/16/97	1311	6021.00	12.40	12.40	0.00	6008.60
PZ-26	11/17/97	1225	6021.00	12.36	12.36	0.00	6008.64
PZ-26	12/16/97	1322	6021.00	12.37	12.37	0.00	6008.63
PZ-26	01/19/98	1500	6021.00	12.33	12.33	0.00	6008.67
PZ-26	03/03/98	1442	6021.00	12.40	12.40	0.00	6008.60
PZ-26	04/01/98	1310	6021.00	12.42	12.42	0.00	6008.58
PZ-26	05/07/98	1342	6021.00	12.50	12.50	0.00	6008.50
PZ-26	6/2/1998	1315	6021.00	12.55	12.55	0.00	6008.45
PZ-26	07/06/98	1104	6021.00	12.62	12.62	0.00	6008.38
PZ-26	10/09/98	NM	6021.00	NM	NM	NM	NM
PZ-26	03/23/99	NM	6021.00	12.67	12.67	0.00	6008.33
PZ-26	10/19/99	NM	6021.00	12.71	12.71	0.00	6008.29
PZ-26	10/25/00	10:53	6021.00	12.8	12.8	0.00	6008.20
PZ-26	12/07/00	NM	6021.00	12.85	12.85	0.00	6008.15
PZ-26	03/16/01	NM	6021.00	13.08	13.08	0.00	6007.92

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT (feet)	WATER DEPTH TO GROUND WATER (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION OF GROUND WATER (feet)
PZ-29	08/18/97	NM	6023.85	16.54	16.54	0.00	6007.31
PZ-29	09/19/97	1852	6023.85	16.45	16.45	0.00	6007.40
PZ-29	10/16/97	1544	6023.85	16.49	16.49	0.00	6007.36
PZ-29	11/17/97	1444	6023.85	16.53	16.53	0.00	6007.32
PZ-29	12/16/97	1509	6023.85	16.60	16.60	0.00	6007.25
PZ-29	01/19/98	1705	6023.85	16.64	16.64	0.00	6007.21
PZ-29	03/03/98	1643	6023.85	16.62	16.62	0.00	6007.23
PZ-29	04/01/98	1453	6023.85	16.58	16.58	0.00	6007.27
PZ-29	05/07/98	1510	6023.85	16.62	16.62	0.00	6007.23
PZ-29	06/02/98	1535	6023.85	16.70	16.70	0.00	6007.15
PZ-29	07/06/98	1244	6023.85	16.79	16.79	0.00	6007.06
PZ-29	10/09/98	NM	6023.85	NM	NM	NM	NM
PZ-29	03/23/99	NM	6023.85	17.09	17.09	0.00	6006.76
PZ-29	10/19/99	NM	6023.85	17.24	17.24	0.00	6006.61
PZ-29	03/14/00	NM	6023.85	17.37	17.37	0.00	6006.48
PZ-29	10/25/00	12:40	6023.85	17.54	17.54	0.00	6006.31
PZ-29	12/07/00	NM	6023.85	17.58	17.58	0.00	6006.27
PZ-29	03/16/01	NM	6023.85	17.66	17.66	0.00	6006.19

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL DEPTH TO TOP OF GW OR FREE PRODUCT	WATER DEPTH TO GROUND WATER	PRODUCT THICKNESS	WATER LEVEL ELEVATION OF GROUND WATER
		n je filozofie Literature		(feet)	(feet)	(feet)	(feet)
PZ-30	08/18/97	NM	6027.24	20.11	20.11	0.00	6007.13
PZ-30	09/19/97	1707	6027.24	20.03	20.03	0.00	6007.21
PZ-30	10/16/97	1344	6027.24	20.12	20.12	0.00	6007.12
PZ-30	11/17/97	1255	6027.24	20.13	20.13	0.00	6007.11
PZ-30	12/16/97	1345	6027.24	20.18	20.18	0.00	6007.06
PZ-30	01/19/98	1527	6027.24	20.15	20.15	0.00	6007.09
PZ-30	03/03/98	1510	6027.24	20.15	20.15	0.00	6007.09
PZ-30	04/01/98	1335	6027.24	20.13	20.13	0.00	6007.11
PZ-30	05/07/98	1407	6027.24	20.27	20.27	0.00	6006.97
PZ-30	06/02/98	1450	6027.24	20.31	20.31	0.00	6006.93
PZ-30	07/06/98	1130	6027.24	20.37	20.37	0.00	6006.87
PZ-30	10/09/98	NM	6027.24	NM	NM	NM	NM
PZ-30	03/23/99	NM	6027.24	20.58	20.58	0.00	6006.66
PZ-30	12/07/00	NM	6027.24	21.05	21.05	0.00	6006.19
PZ-30	03/16/01	NM	6027.24	21.1	21.1	0.00	6006.14

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			TOP OF PIPE FI EVATION	AIR/OIL	WATER	PRODUCT	WATER LEVEL
WELL #	DATE	TIME		DEPTH TO TOP OF GW OR FREE PRODUCT	DEPTH TO GROUND WATER	THICKNESS	ELEVATION OF GROUND WATER
				(feet)	(feet)	(feet)	(feet)
PZ-31	08/18/97	NM	6023.65	15.30	15.30	0.00	6008.35
PZ-31	09/19/97	1524	6023.65	15.22	15.22	0.00	6008.43
PZ-31	10/16/97	1355	6023.65	15.22	15.22	0.00	6008.43
PZ-31	11/17/97	1230	6023.65	15.16	15.16	0.00	6008.49
PZ-31	12/16/97	1327	6023.65	15.18	15.18	0.00	6008.47
PZ-31	01/19/98	1505	6023.65	15.13	15.13	0.00	6008.52
PZ-31	03/03/98	1450	6023.65	15.23	15.23	0.00	6008.42
PZ-31	04/01/98	1316	6023.65	15.26	15.26	0.00	6000.39
PZ-31	05/07/98	1350	6023.65	15.33	15.33		6008.32
PZ-31	05/02/98	1435	6023.65	15.3/	15.37	0.00	6008.28
PZ-31	07/06/98	NIM	6023.65	10.42	10.42	0.00	0000.23
PZ-31	10/09/98		6023.65	15.45	15.45		
P7 31	10/10/00		6023.65	15.45	15.45	0.00	6008.20
P7-31	03/16/01	Broken	0023.05	10.40	15.45	0.00	0000.20
12-31	03/10/01	DIOKEII					
						· · · · · · · · · · · · · · · · · · ·	
P7-32	12/07/00	NM	6025.42	18.5	18.5	NM	6006.92
P7-32	03/16/01	NM	6025.42	18 29	18.29	NM	6007.13
	00,10,01			10.20			
PZ-33	12/07/00	NM	6030.38	23.9	23.9	NM	6006.48
PZ-33	03/16/01	NM	6030.38	23.95	23.95	NM	6006.43
PZ-34	12/07/00	NM	6025.19	19.4	19.4	NM	6005.79
PZ-35	05/01/01	9:55	6025.79	25.17	25.17	NM	6000.62
PZ-36	5/1/2001	9:20	6025.78	24.71	24.71	NM	6001.07
J							
MALE	05/02/07	10.44	6020.67	0.00	0.00	0.00	6010 70
MIN/ 6	08/18/07	NM	6020.07	9.00	9.00	0.00	6011.05
MIN/ 6	00/10/97		6020.67	9.02	9.02	0.00	6011.03
M\A/_6	10/16/97	NM	6020.67	9 35	9.35	0.00	6011.32
M\A/_6	11/17/97	NM	6020.67	9.76	9.76	0.00	6010.91
MW-6	12/16/97	NM	6020.67	10 20	10 20	0.00	6010.47
MW-6	01/19/98	NM	6020.67	10.38	10.38	0.00	6010.29
MW-6	03/03/98	NM	6020.67	10.80	10.80	0.00	6009.87
MW-6	04/01/98		6020.67	11.02	11.02	0.00	6009.65
MW-6	05/07/98	-	6020.67	11.23	11.23	0.00	6009.44

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	Mell	Number	P2-01			L) Development L. Purging				PMENT	AND P	URGING DAT	
WINDEITAVE	Serial 1	No. <u>WDPD-</u>										Page 1 of 1	ļ
Project Name	EPPS QUA	אאגע י	SAMPLA	NG		Project <i>IV</i>	Aumigei	R. HH	MERON		Project	No. 62800107	ł
Client Comp	any EL PAS	so Fier	D SE	<u>eurces</u>							Phase.fe	ask No.	1
Sile Name_B	ISTI PLAR	E PIT	<i>¥</i> 1 (1	026		Sile Addi	ersRuE	AL SAN	JULAN	Co.			Ţ
Developmel A Ø to 5 Cas A Stabilizatic	nt Criteria sing Volumes of on of Indicator P	Water Rem arameters	oval	SEE	/ater Vol ilial Dept ilial Dept sight of M	ume Calcu h of Vralf (fe h to Vraler i 'ater Cofum	itation cet)20 (feet)14 in in Viell (15' 70 15' 70	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Instrumen A pl1 Me X D0 Mc	ls ler milor	Serial No. Il applicable <u>HYOAC</u> <u>OHEME75</u>	
Methods of Pump Centrituc U Submersi	Development Bailer Jal K Bottom ble 🗆 Double	i Valve Check Va	a A		Item Item off Cosing	nches): We <u>Woter Vo</u> <u>Cubic Feel</u> [. o. <u>4</u>	ell 2 ⁿ G	avel Pack Gallens Remo	10 be 73	X Condu X Tempe □ Other	clivity Met rature Met	er HYDAC er MYDAC	
🛛 Peristatti 🗆 Other	c 🛛 Stainles	ss-steel Ken	Imerer		lling Floids Tolo			3.1	2	Water Dis Kun	oosal Z S&2	GeATOR	
Water Remo	oval Data												,
Dale	Developm Developm Method Iime Pump Bailt	eni Removal Rate (gul/min) er	Inloke Depth	Ending Waler Depth [feet]	Water Volur (5)0 Increment	ne Remaved Lang Coordative	Product Volum Removed (gull noneron Comu	le Tempera Mi) [°C] Jivn	Pit Dit	Conductivity (immhos/cua)	Distolved Oxygen Imp/L}	Camments	
3/14/00	35 2 ×				.25	.25		12.	10.95	13460	7	CLEAR	
								1					
Circle the date or	nd lime that the dev	elopment crit	eria are met.		-						(
Comments _ 3/15	BAILED AR	10.	GAL. 1 COC	2# C	BAILED	DRY. 6	<u>)111 [5</u>	7 PECC	NER AI	UD SAN	¥5.	MPLEU ON	
Developer's S	ignature(s)	Q.J.	, A	with m	S		D ale	2/14/00	R.	eviewer R	T Date	3/14/00	
form A0101 Rev.	10/6/94			7 .				·			F.\NEV	VFORM\PE_A0101.DOI 1/31/94	
Well Number 22 -09	11 By voluginent WELL D)EVELOPMENT AND PURGING DA											
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Project Name EPPS QUARKELY SAMPLING	Project Manager R. Th	0MPS.oN Project No. 628.00107											
Client Company & PASO FILLD SERVICES		Phase.Task No.											
Sile Name BISTI FLARE PIT #1 (LD 267)	Sile Address Ruch SA	N JUAN CO.											
Development Criteria Moto 5 Casing Volumes of Water Removal Stabilization of Indicator Parameters D Other Other Height of	otume Calculation pth of V/ell (feet) <u>LS.44</u> , <u>7</u> pth to Water (feet) <u>J3,98</u> ,77 f Water Column in <u>V</u> /ell (feet)	OKInstrumentsSerial No. 4tf appliedOKDKNtelerHYOACOKCHEMETSCHEMETS											
Methods of Development Pump Bailer D Centrilugal X Bottom Valve D Submersible 11 Doubte Check Valve	r (inches): Welt 2^m Gravel Pac Water Volume in Well Gallar Cubic Feet Gallans Rem <u>9</u> · 2 4 · 3	A B Conductivity Meter HYDAC ns to be N Temperature Meter HYDAC *3 D Other											
Deristattic Other Other		Z Water Disposal											
Water Removal Data													
Date Removal Indoke Depth Ending V/oler/Vc Method Rate Reet Reet Voler/Vc Method (gol/min) (gol/min) (reet) reet Date Time Pump Baller freet	dume Removed Protect Volume Tempe (pollons) Removed Bollons) ("C Cumulative Incremon Cumulative 1	curdure pit Conductivity Dirokvad Ovgen Commanis											
3/14/00 1320 X 1320 ,10	, 10	4 7,25 4120 1.5 CLAUDY											
Comments BAILED APPEOX. , 10 GAL, WELL BAIL	, 50 DRY. WILL LET REI	COVER AND SAMPLE. SAMPLED ON											
1000 1 1000 - VISU 10 10 10 10													
Developer's Signature (s) Developer's Signature (s)	D ale 3/14/0	00 Reviewer KT Date 3/14/00											
form A0101 Rev. 10/6/94		F.NHEWFORMVPE_A0101.DOI 1/3											

		I Number	P2 - 16			CI Development K Purging				MENT		URGING	DATA
MININ	Serie	ol No. <u>WDPD-</u>			t							Page	1
Project Name	EPPS OU	IAPTERLY	(SAMPI	LING	****	Project Ac	1100ur	S. THON	APSON		Project 1	40. 62800	107
Client Compo	A 13 Vuc	150 Fis	LD SER	232103		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					Phase.To	nsk No.	
Sile Name 2	IST FLO	HEE PIN) # _	10207	$\overline{\langle}$	Sile Addre	S. Rue	IL SAN	JURA	ق			
Developmer MOVo 5 Cas K Stabilizatio	it Criteria ing Volumes o n of Indicator	of Water Re Parameters	srnoval	S = = = =	/ater Vo iitiol Dep iitiol Dep eight of A	tume Calcut It of Well (fee It to Woter (f Mater Cotum	rtion et) 23 eet) <u>15</u> in Well ((.03, 706 .89' 708		istrument M pH Met M DO Mor	s er ilor	Serial No. III a HYDAC CHEM	pplicable)
Methods of I Pump D Centrituc D Submersi D Peristatic	Developmen Bailer Jal K Bottor ble II Doubl	it m Valve le Check v ess-sleel Ke	/alve emmerer		Item Item Invet Pack Iting Fluids	(inches): Well WalerVok OrticFeel	Galense in Well		Mg Definition	R Conduc I Temper Other _ Vater Disp	ature Meta ature Meta os a l	ег <u>Нтоле</u>	
Water Remo	ival Data					5		0.5		Kutz	SEPER	YOLA	
Dale	Develop Develop Metho Fump Bc	ment Remova 2d (gal/min oiter	Inlote Depth	Ending Water Depth (feat)	Water Volu (go Increment	Inte Removed Blans) Cumulative Inc	Frader Polun ensed (galo numen Comolo	16 Temporatu ns) [°C) iiva	e Hg	Conductivity (numbor/cm)	Disolved Oxygen [mg/l]	Comment	
3/14/00	455				.25	, 25		16.1	8.31	3150	2	herewith the	THAT
Circle Ihe dale an	d lime lhot the de	evelopment c	niena ore mel.										
Comments f	AT 10 50	2 20X. 2	5 04 20 # C	L. WE	n BA	1620 DRY	ימיר	LETR	50046	AND S	AMPLE.	CAMPLED	M
L Developer's Si	gnature(s)	A Contraction	H	Vanna	Ś		0 ate_3	Du leo	Re	viewer	Z_ Date_	3/16/00	
form A0(01 Rev. 1	0/6/94										E New	FORMVPE_A0101.DOT	\$6/1E/1

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ell Number P2 - 21 KPurging WELL DEVELOPMENT AND PURGING DATA	ial No. WOPD. Page 1 of 1 IUAETRALY SIAMPLINE Fraject Manager R, THOMPSON Project No. 628 60 107	ARC PIT #1 (LOZ67) Sile Address RURAL SAN JUMN Co.	of Water Removal Initial Depth of Woter (feet) 25.57, 102 M pH Meter Yoluments Serial No. III applicable) Initial Depth to Woter (feet) 25.12, 702 M pH Meter YOAC Itely to Woter Column in Viell (feet) 3.45 M pH Meter CH EM CD Monitor CH EM CD M	International and the second s	less-steel Kemmerer Dritting Fluids Disposal Water Disposal Fuidal Nater Disposal EUTZ SERATOR		manual Removal Intoke Depth Ending Value Values Pradict Value Pradict Value Pradict Value Pradict Value Pradict Value Pradict Value Pradict Value Pradict Pradit Pradict Pradict <	X 25 , 25 16,7 7.51 10,290 3 Kelowish / CLEAR		development caleria are met.	POX. 1.5 GAL. WILL BAILED DRY. WILL UST RECOVER AND SAMAED. SAMPLED ON 3/15/00	Reviewer RT Date 3/14/00 Reviewer RT Date 3/16/00	
DFILD Well Number PZ - Z1	Project Name EPPS QUARTERLY SAMPLIN	Sile Name BISTI FLARE PIT #1 (102	Development Criteria	Methods of Development Pump Bailer Centrifugal X Bottom Valve	Deristatlic D Stainless-steet Kemmerer Other	Water Removal Data	Development Removal Indeke Depitit End Development Rule Rule Rule Method Rule Rule Rule Date Pump Solier Real/minit	3/14/00 1600 ×		Circle the date and lime that the development criteria are met.	Comments BAILER APPROX. I.S GAL. WILL AT 1130. P.D. # C2509	Developer's Signature(s)	

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	Well Numbe	- 2d	22		(1) Ebevelopment K Purging			ELOPI	MENT A		JRGING D	ATA
NEWNORTH	Serial No. WDPD										Puge of	_
Project Name_ <u>E</u>	PFS QUARTERI	Y SAMP	LING		Project M	amuque. R	- THOMPS	<u>on</u>		Project N	10. 6280010	2
Client Company	EL PASO FIG	erd Ser	230		100 11 11 11 11 11 11 11 11 11 11 11 11					Phase.Ta	sk No	
Sile Name B16	IT FLARE PI	T #1 (10261	\sum	Sile Addre	SS. Ruch	I SAN !	TUAN	Co.			
Development (K@to 5 Casing Kabilization o	Criteria Volumes of Water F I Indicator Paramete	Removal Irs		ater Vol iliol tept iliol Dept iliol Dept	ume Calcul b of Vtett (te b to Vtuter (t /ater Columi	ation el) 23.0 eet) 20.	03' TVR 22' TVR		struments A pH Mele XDO Moni	lor -	Serial No. 11 appli <u>1490AC</u> <u>CHEMETS</u>	cable)
Methods of Der Pump [] Centrifugal [] Submersible	velopment Bailer X Bottom Valve	Valve		Item Item Item	Muler Vol Outer Feel Outer Feel	Lune in Well	vel Pack Gullons lo b Ramoved . 46 × 3		K Conduct Fempera	livity Mete thre Mete	HYDAC HYDAC	
 Peristattic Other 	🗆 Stainless-steel I	Kernmerer	1	ling Fluids Toto			1, 38	<	ater Dispo Kur	sal Z SU	PERATOR	
Water Remova	I Data							,				
Dale	Development Remo. Development Remo. Method Igal/m Pump Sailer	val Intake Depit o (laet) un)	Maler Cepth (feet)	Water Volu (ga taramant	the Removed Hons)	Traduct Valume Kemoved (pullom Simnar Comutativ	Temperature	ž	ConductIVIIV [numhot/cm]	Distolved Oxygen Img/L]	Comments	
2/12/00/12:	30 X			.25	,25		17.6	7.36	0LSH1		LIGHT BROWN	
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Circle the date and til Comments RA	ILED APPRAX	' criteria ore me 1.5 GAL	nsu Msu	RAUS	N Dev	MILL 155	T RELOVE	r AND	JAMP	L. SAN	NO Q319V	
3 15 00	RT 1115.	(oc+	+ C2SC)8				2		Ż.		
Developer's Signa	ature(s)	H Ame	Am	Ŕ		D ate $3/2$	11/00-	Revi	ewer <u></u> ET	Date	3/16/00	
Form A0101 Rev. 10/6/	74				-					F. NHEWF	ORM\PE_A0101.DOT	96/18/

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IMPIGUIAWE		Seric	ol No. W	DPD-													Page	L of J	
Project Name	EPE	Ō	UARI	ERL	SAU	MPLIN	16		Proje	el Mar	idger	, Y	1HOM	PSON		Projec	cl No	428 00 10	Z
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LD 267 PZ 08 BISTI FLARE PIT #1



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CLIENT		: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003059
PROJECT #		: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAME		: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN		· ·		DATE
ID. #	;	CLIENT DESCRIPTION	MATRIX	COLLECTED
01		BIS-0003-PZ08	AQUEOUS	03/15/00

Printed: 03/28/00; 12:35 PM



GAS CHROMATOGRAPHY RESULTS

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TEST CLIENT PROJECT # PROJECT NAME	: EPA 8021 MOI : PHILIP ENVIR : 62800107 : EPFS QUARTE	DIFIED ONMENTAL ERLY SAMPLI	ING		PINNACLE I.D.	: 003059
SAMPLE			DATE	DATE	DATE	DIL.
ID. # CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01 BIS-0003-PZ08		AQUEOUS	03/15/00	NA	03/20/00	500
PARAMETER	DET. LIMIT		UNITS	BIS-0003-PZ08		
BENZENE	0.5		UG/L	27000		
TOLUENE	0.5		UG/L	16000		
ETHYLBENZENE	0.5		UG/L	520		
TOTAL XYLENES	0.5		UG/L	5400		
SURROGATE: BROMOFLUOROBENZENE SURROGATE LIMITS	(%) (80 - 120)			112		
CHEMIST NOTES: N/A						
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GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003059
BLANK I. D.	: 032000	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/20/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE:			
BROMOFLUOROBENZENE (%)		97	
SURROGATE LIMITS:	(80-120)		
CHEMIST NOTES:			
N/A			



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST MSMSD # CLIENT PROJECT # PROJECT NAME	: EPA 8021 MG : 003055-01 : PHILIP ENVI : 62800107 : EPFS QUAR	DDIFIED	AL IPLING		PINNACLE DATE EXTF DATE ANAL SAMPLE M, UNITS	I.D. RACTED YZED ATRIX	: : : : : : : : : : : : : : : : : : : :	003059 NA 03/20/00 AQUEOUS UG/L	
PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE		DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80 - 120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80-120)	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80-120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result)

ery = ----- X 100

Spike Concentration

(Sample Result - Duplicate Result)

--- X 100

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03613 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

LOG NO	SAMPLE DESCRIPTION	REPORT OF RESULTS , LIQUID SAMPLES	Project: 003059, EPFS Sampled By: Client Code: 151000324 Page 1 DATE/ TIME SAMPLED
03613-1	003059-01		03-15-00/10:10
PARAMETER		03613-1	
Nitrate-Nit: Nitrate + 1 Nitrate-N, Nitrite-N, Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	rite, Nitrogen (353.) Nitrite-N, mg/l mg/l mg/l ate d actor	2/354.1/4500-NO3) <0.1 <0.1 <0.1 WH 03.18.00 03.20.00 N3W20B 353.2 1	
Sulfate as S Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	04 (375.4), mg/l ate l actor	<5 BE 03.20.00 03.20.00 SEW031 375.4 1	



LOG NO: C0-03613 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

			Project: (Sampled Code	03059, EPFS By: Client 151000324
	REPORT OF RESULTS		DATE/	Page 2
LOG NO SAMPLE DESCRIPTION	, QC REPORT FOR LIQUI	D SAMPLES	TIME SAMPLE	D
03613-2 Method Blank 03613-3 Lab Control Standar 03613-4 Matrix Spike % Reco 03613-5 Matrix Spike Duplic	d % Recovery very ate % Recovery			
PARAMETER	03613-2	03613-3	03613-4	03613-5
Nitrate-Nitrite, Nitrogen (353.	2/354.1/4500-NO3)			
Nitrate + Nitrite-N, mg/l	<0.1	104 %	102 %	103 %
Nitrate-N, mg/l	<0.1	104 %	102 %	103 %
Nitrite-N, mg/l	<0.1	110 %	110 %	110 %
Analyst	WH	WH	WH	WH
Prep Date	03.18.00	03.18.00	03.18.00	03.18.00
Analysis Date	03.20.00	03.20.00	03.20.00	03.20.00
Batch ID	N3W20B	N3W20B	N3W20B	N3W20B
Prep Method	353.2	353.2	353.2	353.2
Dilution Factor	1	1	1	1
Sulfate as SO4 (375.4), mg/l	<5	95 %	130 %	130 %
Analyst	BE	BE	BE	BE
Prep Date	03.20.00	03.20.00	03.20.00	03.20.00
Analysis Date	03.20.00	03.20.00	03.20.00	03.20.00
Batch ID	SEW031	SEW031	SEW031	SEW031
Prep Method	375.4	375.4	375.4	375.4
Dilution Factor	1	1	1	1

Jance N Lance Larson, Project Manager

Final Page Of Report

Inc. Interlab Chain of Custody Date::::::::::::::::::::::::::::::::::::		PEQUIRED: YES NO	PECIAL CERTIFICATION	USH GURCHARGE:	UE DATE:		AT: STANDARD RUSHIN	C REQUIRED: M9 MSD	IC LEVEL: STD. IV	ROJ. NAME: EPFS	ROJECT #: 0030	PROJECT INFORMATION												10- 65 a 00	SAMPLE ID	109-D Pan American I Nbuquerque, New Mex 105) 344-3777 Fax (505) 344-441 DOSC PRODUCTION D	IVEIWORK Project M	Pinnacle Labora
Some TD, Mohani Interlab Chain of Custody Date: H(T) Page:					COMMENTS			BLANK I																3/6/	DATE	Inc. freeway dico 871(3	anager:	itories, In
Interfab Chain of Custody Date: H(7) Page:				2	016		AB NI	Receive	Receive	Shain o	otal N													0:10	TIME		Kim	
Anna Presidential Chain of Custody Date: H1/7 Page: of Validity Metals (8) RCRA RCRA TCLP METALS Metals (9) RCRA RCRA TCLP METALS Metals-13 PP List Metals-13 PP List Metals-17AL Metals-17AL Metals-17AL Metals-17AL <td< td=""><td></td><td></td><td></td><td></td><td>2 7 7</td><td></td><td>JMBER:</td><td>id Good Cond</td><td>d Intact?</td><td>f Custody Sea</td><td>umber of Cont</td><td>SAMPLE RE</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>45</td><td>MATRIX</td><td>QA-00</td><td>berly D. Mcl</td><td></td></td<>					2 7 7		JMBER:	id Good Cond	d Intact?	f Custody Sea	umber of Cont	SAMPLE RE												45	MATRIX	QA-00	berly D. Mcl	
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my Structure Oil and Grease MALYSIS RECUEST Mare Oil and Grease Volatile Organics GC/MS (8260) BOD BOD BOD BOD COD COD Name COD Name PESTICIDES/PCB (608/8080) B270 BY GC/MS B270 BY GC/MS Date B286/Neutral Acid Compounds GC/MS Gross Alpha/Beta Date Date Gross Alpha/Beta Date TO-14		Compa	Printec	6	Signat	REC	Pinna	H	Printed																			
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	PROJE(c - s/	AMP	LE	INS	PECTIC	FORM			
Lab Accession	#: <u><u> </u></u>	613				Date Rec	eived:	18-Ma	rch-	∞
1. Was there a C	Chain of Custody?	Yes	No⁺		8.	Were samples of preservative? ((requiring preservative except VOA vials that	checked for Check pH of all H2O (STL-PN SOP 917) Require zero	Yes	No⁴	N
2. Was Chain of filled out and r	Custody properly elinguished?	Yes	No ⁺		9.	headspace)* Is there sufficient analysis request	t volume for ed?	Yes	No⁺	N ((
3. Were samples (Criteria: 2° - 6	received cold? C: STL-SOP 1055)	Yes	No⁺	N/A	10.	Were samples re Holding Time? (P	ECEIVED within	Yes	No⁺	·
 Were all samp labeled and ide Did samples re 	les properly entified? equire splitting?	Yes Yes* (No⁴ No		11.	Is Headspace via diameter in VOA headspace is ev	sible > ¼* in vials?* If any ident, comment	Yes⁴	No	
6. Were samples containers for	received in proper analysis	Yes	No⁺		12.	If sent, were mat returned?	rix spike bottles	Yes	No⁺	N
requested? 7. Were all samp received intact	le containers ?	Yes	No⁺		13.	Was Project Mar problems? (initial	ager notified of	Yes	No⁺	
Airbill Number(s): 1287816844	444070	786		<u></u>	Shipped E	By: UPS	<u></u>		
Cooler Number Cooler Weight(s	(s): <u>Clinn Cl</u>	DOW				Shipping (Cooler Tei	Charges: <u>▶</u> mp(s) (°C):	A 3 C		
Out of Control E	Events and Insp	pection	Comm	ients	:		NUMBER(S) FOR VERIFIC	ATION)		
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Inspected By: (nia	Date	3/18/2	`		eu nv. /	Γí Date	///,	$\omega_{I} \cup 0$	-

ord (87401 (505) 326-2282 Phone (505) 326-2388 FAX COC Serial No. (505) 326-2388 FAX Total Number of Boltles The off off off off off off off off off of	Samples Iced: X Yes No Carrier: reservatives (ONLY for Water Samples) Shipping Shipping Cyanida Shipping Shipping X voistite Organic Analysis Hydrochloric acid (HRO3) Shipping Metaia Nitric acid (HRO3) Shipping Metaia Nitric acid (HRO3) Nitric acid (HRO3) X TPH (418.1) N 17R.A. K.S. Sulluric acid (H2S04) Other (Specify) Other (Specify) Shipping	Signature Date	olect Hame EPES QUITIETERLY SAMPLING olect Humber 62800107 Phase. Task . Implets R. THOMBON Aboratory Name PINNACLS LASS Location ALBUAUERQUE, NM Location ALBUAUERQUE, NM Sample Humber (and depth) Date Time Matrix 315 - 000 3 - PZ 08 3/15/00 1010 1+20	PHILP Chain (AUVILUITATION A000 Monroe R Farmington, NA
Istody Record (505) 326-2388 FAX COC Serial No. (The following of the	A REY and Lab	ba	C Total Number of Bottles	oad 1 87401
cord 2388 FAX 2388 FAX 3/24/bo !	Hound Notes: NEED	Time Re 1640 P	Type of Analysis and Bottle X X X A	1stody Rec (505) 326- (505) 326-
COC Serial No. Coc S	Resurs B	mulchur		2262 Phone 2388 FAX
Serial No. C	4 3/24/	C C		COC
	Airbill No.	3/17/		Serial No.

76 4/9

LD 267 PZ 09 BISTI FLARE PIT #1



Pinnacle Lab ID number March 28, 2000 003060

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

H. Mitchell Rubenstein, Ph. D. General Manager

MR: jt

Enclosure



CLIENT		: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003060
PROJECT #	¥	: 62800107	DATE RECEIVED	: 03/17/00
PROJECT	NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN			•	DATE
ID. #	;	CLIENT DESCRIPTION	MATRIX	COLLECTED
01		BIS-0003-PZ09	AQUEOUS	03/15/00



GAS CHROMATOGRAPHY RESULTS

TEST CLIENT PROJECT PROJECT	# NAME.	: EPA 8021 MOR : PHILIP ENVIR : 62800107 : EPFS QUARTE	DIFIED ONMENTAL ERLY SAMPL			PINNACLE I.D.	: 003060
SAMPLE				DATE	DATE	DATE	DIL.
<u>ID. #</u>	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	BIS-0003-PZ09)	AQUEOUS	03/15/00	NA	03/20/00	50
PARAMETE	ER	DET. LIMIT		UNITS	BIS-0003-PZ09		
BENZENE		0.5		UG/L	8300		
TOLUENE		0.5		UG/L	7300		
ETHYLBEN	IZENE	0.5		UG/L	330		
TOTAL XYI	ENES	0.5		UG/L	3400		
SURROGA BROMOFLU SURROGA	TE: JOROBENZENE TE LIMITS	(%) (80 - 120)			103		
CHEMIST N N/A	OTES:						



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST BLANK I. D. CLIENT PROJECT #	: EPA 8021 MODIFIED : 032000 : PHILIP ENVIRONMENTAL : 62800107	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	: 003060 : NA : 03/20/00 : AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		•
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE: BROMOFLUOROBENZENE (%) SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	97	



			MSM	ISD					
TEST	: EPA 8021 M	ODIFIED							
MSMSD #	: 003055-01				PINNACLE	I.D.	:	003060	
CLIENT	: PHILIP ENVI	RONMENT	AL		DATE EXTR	RACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	03/20/00	
PROJECT NAME	: EPFS QUAR	TERLY SAM	/PLING		SAMPLE M	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80 - 120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80-120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

----- X 100

! . .

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result)

Recovery =

Spike Concentration

(Sample Result - Duplicate Result)

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03614 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

REPORT OF RESULTS J , LIQUID SAMPLES	Project: 003060, EPFS Sampled By: Client Code: 151000324 Page 1 DATE/ TIME SAMPLED
	03-15-00/09:50
03614-1	
.2/354.1/4500-NO3)	
. <0.1	
<0.1	
<0.1	
WH OB 18 00	
03.18.00	
N3W20B	
353.2	
1	
<5	
BE	
03.20.00	
03.20.00	<i>,</i>
SEW031	
375.4	
±	
	REPORT OF RESULTS I, LIQUID SAMPLES 03614-1 (2/354.1/4500-NO3) (0.1) (0.1)



LOG NO: C0-03614 Received: 18 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

				Project: Sample	003060, EPFS ed By: Client
				Cod	le: 151000324
		REPORT OF RESULT	S		Page 2
				DATE/	
LOG NO	SAMPLE DESCRIPTION	, QC REPORT FOR LIQ	UID SAMPLES	TIME SAMPL	ED
03614-2	Method Blank				
03614-3	Lab Control Standard	1 % Recovery			
03614-4	Matrix Spike % Recov	very			
03614-5	Matrix Spike Duplica	ate % Recovery			
PARAMETER		03614-:	2 03614-3	03614-4	03614-5
Nitrato-Ni	trite Nitrogen (353 5	2/354 1/4500_NO3)			
Nitrate +	Nitrite-N mg/l	· 0>	104 %	102 8	102 8
Nitrate-N	ma/l	<0.1	104 %	102 %	103 %
Nitrite-N	, mg/1	<0.1	110 %	110 %	110 %
Analyst	/	WH	wh	WH	WH
Prep Date		03.18.00	03.18.00	03.18.00	03.18.00
Analysis i	Date	03.20.00	03.20.00	03.20.00	03.20.00
Batch ID		N3W20B	N3W20B	N3W20B	N3W20B
Prep Meth	od	353.2	353.2	353.2	353.2
Dilution	Factor	1	. 1	1	1
Sulfate as	SO4 (375.4), mg/l	<5	95 %	130 %	130 %
Analyst		BE	BE	BĒ	BE
Prep Date		03.20.00	03.20.00	03.20.00	03.20.00
Analysis I	Date	03.20.00	03.20.00	03.20.00	03.20.00
Batch ID		SEW031	SEW031	SEW031	SEW031
Prep Metho	od	375.4	375.4	375.4	375.4
Dilution 1	Factor	1	1	1	1

Û un Lance Harson, Project Manager

Final Page Of Report

ALS ALS ALS E(TVTAC) ANALYSIS REO SC/MS (8260)	ALS ALS ALS ANALYSIS REQUEST ANALYSIS REQUEST SC/MS (8260) (608/8080)	ALS ANALYSIS REQUEST ANALYSIS REQUEST ANALYSIS REQUEST SC/MS (8260) 608/8080)	ALS ANALYSIS REQUEST E ANALYSIS REQUEST SC/MS (8260) 608/8080) ZHE ZHE	TALS ANALYSIS REQUEST E TATC ANALYSIS REQUEST ANALYSIS REQUEST C/MS (8260) GOB/8080) C608/8080) ZHE 50) TOTUODS (SC/MS)	ALS ANALYSIS REQUEST E TAC ANALYSIS REQUEST ANALYSIS REQUEST C/MS (8260) GOB/8080) C/MS (8260) Compounds (3000) ZHE SO) SO) Normal Society	ALS ANALYSIS REQUEST E (TV TAC) ANALYSIS REQUEST SC/MS (8260) SC/MS (8260) I (608/8080) I (608/8080) ZHE 50) npounds (SC/MS) I (17)	TALS ANALYSIS REQUEST E TATC ANALYSIS REQUEST ANALYSIS REQUEST C/MS (8260) GOB/8080) I (608/8080) I (608/8080) ZHE 50) npcunds GC/MS	TALS ANALYSIS REQUEST E TATC ANALYSIS REQUEST ANALYSIS REQUEST C/MS (8260) SC/MS (8260) SC/MS (8260) COLEST
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		PRUJEV	וכ ו	41412	LC	1113				
	La	b Accession #:003	614				Date Received:	18-M:	arch-	∞
	1.	Was there a Chain of Custody?	Yes	No⁴		8.	Were samples checked for preservative? (Check pH of all H2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero	Yes	No⁴	N/A
	2.	Was Chain of Custody properly filled out and relinguished?	Yes	No⁺		9.	headspace)* Is there sufficient volume for analysis requested?	Yes	No⁺	N/A (Can
	3.	Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055)	Yes	No ⁺	N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	Yes	No⁴	
	4. 5.	Were all samples properly labeled and identified? Did samples require splitting? Reg By: PM Client Other*	Yes* (No⁴		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes⁴	No	N/A
	6.	Were samples received in proper containers for analysis	Yes	No⁺		12.	If sent, were matrix spike bottles returned?	Yes	No	(N/A)
	7.	requested? Were all sample containers received intact?	Yes	No⁺		13.	Was Project Manager notified of problems? (initials:)	Yes	No⁺	N/A
	Air	bill Number(s): <u>ובקאו והס</u> קנ	114070	786			Shipped By: <u> </u>			
	Cod	oler Number(s): <u>Chinth</u> Co	Dow				Shipping Charges: <u>N</u>	<u>I</u> A		
	Cod	oler Weight(s): <u>3</u> 11 <u>bc</u>					Cooler Temp(s) (°C): 	3 C		
	Out	t of Control Events and Insp	ection	Comr	nents	:	(UST THERMOMETER NUMBER(S) FOR VERIFIC	ITION)		
-		· · · · · · · · · · · · · · · · · · ·	<u>_</u>			<u> </u>	(USE BACK OF PSIFFOR ADDITIONAL N	OTES AND CO	MMENTS)	 G
	nsp	ected By: புட	Date:	3/18/2	٥	Logo	ged By:P&Date:	3/12	3/0C)
	- - -	Note all Out-of-Control and/or questionable Note who requested the splitting of sample All preservatives for the State of North Caro pH results (STL-SOP 938). According to EPA, %" of headspace is allow of-control (STL-SOP 938).	events on C s on the Con olina, the Sta ved in 40 mi	Comment S nment Sec ate of New vials requ	Section o ction of th York, an dring vola	f this for his form. d other r atlie anal	m. requested samples are to be recorded on the s lysis, however, STL makes it policy to record a	heet provide ny headspa	d to reco ce as out	urd -
N	ORD\	ELKINS\SAMPCTRL\PSIF2.DOC December 2	2, 1998							

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LD 267 PZ 16 BISTI FLARE PIT #1



Pinnacle Lab ID number March 28, 2000 003061

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project Name Project Number EPFS QUARTERLY SAMPLING 62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR: jt

Enclosure

H. Mitchell Rubenstein, Ph. D. General Manager

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CLIENT		: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003061
PROJECT #	ŧ	: 62800107	DATE RECEIVED	: 03/17/00
PROJECT N	NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN	- · · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		DATE
ID. #	÷	CLIENT DESCRIPTION	MATRIX	COLLECTED
01		BIS-0003-PZ16	AQUEOUS	03/15/00

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GAS CHROMATOGRAPHY RESULTS

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TEST		: EPA 8021 MOI	DIFIED				
CLIENT		: PHILIP ENVIR	ONMENTAL			PINNACLE I.D.	: 003061
PROJECT	- #	: 62800107					
PROJECT	NAME	: EPFS QUARTE	ERLY SAMPL	ING			
SAMPLE				DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	BIS-0003-PZ1	6	AQUEOUS	03/15/00	NA	03/20/00	1
PARAMET	TER	DET. LIMIT		UNITS	BIS-0003-PZ16		
BENZENE		0.5		UG/L	< 0.5		
TOLUENE		0.5		UG/L	< 0.5		
ETHYLBE	NZENE	0.5		UG/L	< 0.5		
TOTAL XY	LENES	0.5		UG/L	< 0.5		
SURROGA	ATE:						•
BROMOFL		Ξ(%)			96		
SURROGA	ATE LIMITS	(80 - 120)					
		. ,					
CHEMIST	NOTES:						

N/A



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

• *

TEST BLANK I. D.	: EPA 8021 MODIFIED : 032000	PINNACLE I.D. DATE EXTRACTED	: 003061 : NA
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE: BROMOFLUOROBENZENE (%) SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	97	



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GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M	ODIFIED			•				
MSMSD # : 003055-01			PINNACLE I.D.		:	003061			
CLIENT	: PHILIP ENVI	RONMENT	AL.		DATE EXTRACTED			NA	
PROJECT #	PROJECT # : 62800107			DATE ANALYZED		:	03/20/00		
PROJECT NAME	: EPFS QUARTERLY SAMPLING			SAMPLE MATRIX		:	AQUEOUS		
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80 - 120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result) ------ X 100

Spike Concentration

(Sample Result - Duplicate Result)

--- X 100

RPD (Relative Percent Difference) =

Average Result



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LOG NO: CO-03615 Received: 18 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

LOG NO	R SAMPLE DESCRIPTION , LI	EPORT OF RESULTS QUID SAMPLES	Project: 003061, EPFS Sampled By: Client Code: 151000324 Page 1 DATE/ TIME SAMPLED
03615-1	003061-01		03-15-00/10:50
PARAMETER		03615-1	
Nitrate-Nitr Nitrate + M Nitrate-N, Nitrite-N, Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	rite, Nitrogen (353.2/35 Nitrite-N, mg/l mg/l mg/l ate l actor	4.1/4500-NO3) 57 57 <0.1 R4 WH 03.18.00 03.22.00 N3W21A 353.2 20	
Sulfate as S Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	04 (375.4), mg/l te ctor	550 BE 03.20.00 03.20.00 SEW031 375.4 20	



LOG NO: C0-03615 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

·		PEDOPT OF PECILITS		Project: (Sampled Code	003061, EPFS By: Client 151000324
		REPORT OF RESOLUTE)	האתה /	Page 2
LOG NO	SAMPLE DESCRIPTION	, QC REPORT FOR LIQU	JID SAMPLES	TIME SAMPLE	D
03615-2 03615-3 03615-4 03615-5	Method Blank Lab Control Standar Matrix Spike % Reco Matrix Spike Duplica	d % Recovery very ate % Recovery			
PARAMETER		03615-2	03615-3	03615-4	03615-5
Nitrate-Ni	trite, Nitrogen (353.)	2/354.1/4500-NO3)			
Nitrate +	Nitrite-N, mg/l	<0.1	100 %	78 %	78 %
Nitrate-N	, mg/l	<0.1	100 %	78 %	78 %
Nitrite-N	. mg/l	<0.1	110 %	110 %	110 %
Analyst		WH	WH	WH	WH
Prep Date		03.18.00	03.18.00	03.18.00	03.18.00
Analysis I	Date	03.22.00	03.22.00	03.22.00	03.22.00
Batch ID		N3W21A	N3W21A	N3W21A	N3W21A
Prep Metho	bd	353.2	353.2	353.2	353.2
Dilution H	Factor	1	1	1	1
Sulfate as	SO4 (375.4), mg/l	<5	95 %	130 %	130 %
Analyst		BE	BE	BE	BE
Prep Date		03.20.00	03.20.00	03.20.00	03.20.00
Analysis I	Date	03.20.00	03.20.00	03.20.00	03.20.00
Batch ID	•	SEW031	SEW031	SEW031	SEW031
Prep Metho	bd	375.4	375.4	375.4	375.4
Dilution F	actor	1	1	1	1

~ v w In Lance Larson, Project Manager

Final Page Of Report
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	La	b Accession #:	COU3L	0.5				Date Received:	18-Ma	arch-	20
	1.	Was there a Chai	n of Custody?	Yes	No⁺		8.	Were samples checked for preservative? (Check pH of all H2O requiring preservative (STL-PN SOP 917) except VOA vials that require zero	Yes	No⁴	N/A
	2.	Was Chain of Cus filled out and relin	stody properly quished?	Yes	No⁺		9.	headspace)* Is there sufficient volume for analysis requested?	Yes	No⁴	N/A (Can)
	3.	Were samples rec (Criteria: 2° - 6°C:	STL-SOP 1055)	Yes	No-	N/A·	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040)	Yes	No*	
	4. 5.	Were all samples labeled and identi Did samples requi	properly fied? ire splitting?	Yes⁴	No⁴		11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section	Yes⁺	No	N/A)
	6.	Were samples rec containers for ana	eived in proper lysis	Yes	No⁺		12.	If sent, were matrix spike bottles returned?	Yes	No⁺	N/A
Î	7.	Were all sample c received intact?	ontainers	Yes	No⁴		13.	Was Project Manager notified of problems? (initials:)	Yes	No⁴	N/A
	Air	bill Number(s):	1287816844	144070	0786		<u></u> .	Shipped By: UPS			
	Co	oler Number(s):	Chinth Ca	Dole			 -	Shipping Charges: N	(A 297		
	Co	oler weight(s):	<u>31 105.</u>						<u> </u>		
	0		nto and Inco	47				(UST THERMOMETER NUMBER(S) FOR VERIFIC	ATION) -		
	Out	t of Control Eve	and insp	Jecuon	Com	nems					
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	4	Note all Out-of-Contro Note who convected t	and/or questionable	events on	Comment	:. Section of t	of this fo	m.			
	+	All preservatives for t	he State of North Can	olina, the S	tate of New	v York, an	nd other	requested samples are to be recorded on the s	sheet provid	ed to rec	ord
	*	According to EPA, %"	of headspace is allow 38).	wed in 40 m	i vials requ	uiring voi	atlie ena	lysis, however, STL makes it policy to record a	any headspa	ice as ou	t-
	WORD	ELKINS\SAMPCTRL\PSIF	2.DOC December 2	22, 1998			•				

BY $3/24/00$? RCUTS ON 14	Received By: Time 16 40 House	Date 3/11e/00 Carrier: GP2	Pelinquished by: Pelinquished by: Signature Solution Samples Iced: X Yes Solution Solution Solution Volatile Organic Analysis
coc serial No. C 2507	Type of Analysis and Bottle X X X X X X X X	DOO Monroe Road HING Hatrix H 20 H Total Number of Bottles	Project Hame EPFS BUARTERLY SAME Project Humber & 28 00107 Phase . Task Samplers R. THOM PSON Laboratory Name PINN ACLE LABS Sample Humber (and depth) Date Tim B15-0003 - PEIL 3/15/00 105

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LD 267 PZ 21 BISTI FLARE PIT #1

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Pinnacle Lah ID number March 28, 2000

003066

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLINC Project Number 62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Sevem Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR: jt

Enclosure

AM thell hat

H. Mitchell Rubenstein, Ph. D. General Manager

CLIENT PROJECT #	: PHILIP ENVIRONMENTAL : 62800107	PINNACLE ID DATE RECEIVED	: 003066 : 03/17/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN			DATE
1D. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	BIS-0003-PZ21	AQUEOUS	03/15/00

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Prinsmil: 03/28/00*2-21 PM

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Confidential

GAS CHROMATOGRAPHY RESULTS

TEST		: EPA 8021 MOD	DIFIED				
CLIENT		: PHILIP ENVIR	ONMENTAL			PINNACLE I.D.	: 003066
PROJECT #	Ŧ	: 62800107					
PROJECT	NAME	: EPFS QUARTE	ERLY SAMPL	ING			
SAMPLE	÷			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANAI YZED	FACTOR
01	BIS-0003-PZ21		AQUEOUS	03/15/00	NA	03/20/00	1
PARAMETE	R	DET. LIMIT		UNITS	BIS-0003-PZ21		
BENZENE		0.5		UG/L	39		
TOLUENE	·	0.5		UG/L	< 0.5		
ETHYLBEN	ZENE	Ú.5		UG/L	< 0.5		
TOTAL XYL	ENES	0.5		UG/L	< 0.5		
SURROGAT BROMOFLL SURROGAT	TE: JOROBENZENE TE LIMITS	(%) (80 - 120)			104		

CHEMIST NOTES: N/A

GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003066
BLANK I. D.	: 032000	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/29/00
PROJECT #	: 62800107	SAMPLE MAIRIX	: AQUEOUS
PROJECT NAME	: EPFS OUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	< 0.5	
SURROGATE:		97	
SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	31	

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GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M	ODIFIED							
MSMSD #	003055-01				PINNACLE	I.D.	:	003066	
CLIENT	PHILIP ENVI	RONMENT	AL		DATE EXTR	RACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	03/20/00	
PROJECT NAME	EPFS QUAR	TERLY SAM	APLING		SAMPLE M	ATRIX	:	AQUEOUS	
·					UNITS	_	:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RFD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
RENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80-120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80-120)	20
ETHYLBENZENE	∾0.5	20.0	21.2	106	21.7	100	2	(80 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result)

X 100

Spike Concentration

(Sample Result - Duplicate Result)

----- X 100

RPD (Relative Percent Difference) =

Average Résult



LOG NO: C0-C3620 Received: 13 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

log nc	REPORT OF R SAMPLE DESCRIPTION . LICUID SAMPL	RESULTS	Project: 003066, EPFS Sampled By: Client Code: 151200324 Page 1 DATE/ TIME SAMPLED
03620-1	003066-01		03-15-C0/11:30
Parameter	•••••	03620-1	
Nitrate-Ni	trite, Nitrogen (353.2/354.1/4500-N	(03)	
Nitrate +	Nitrite-N, mg/l	V. 6	
Nitrate-N	, mg/l	0.6	
Nitrite-N,	, mg/l	<0.1 R4	
Analyst		WH	
Frep Date	N	03.18.00	
Analysis I	Jace	U3.22.00 NGW912	
Bros Math		353.2	
Dilution H	Factor	1	
Sulfate as	SO4 (375.4), mg/l	5400	
Analyst		BE	
Prep Date		03.21.00	
Analysis I	Pate	03.21.00	
Batch ID		SEW03Z	
Prep Metho		2/2.4	
Difficion F	actor	200	
• • • • •			



LOG NO: CO-03620 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

			Project: Sample Cod	003066, EPFS d Dy: Client e: 151200324
REPO	RT OF RESULTS		DATE/	Page 2
LOG NO SAMPLE DESCRIPTION , QC RE	PORT FOR LIGHT	TE SAMPLES	TIME SAMPL	ED
03620-2 Method Blank 03620-3 Lab Control Standard & Rec 03620-4 Matrix Spike & Recovery 03620-5 Matrix Spike Duplicate & R	overy ecovery			
PARAMETER	03620-2	د-20620	U362U-4	U3620-5
Mitrate-Nitrite, Nitrouen (353,2/354.1	/4500-NO3)			
Nitrate + Nitrite-N, mg/l	<0.1	100 %	78 🕯	78 %
Nitrate N, mg/l	<0.1	100 %	78 %	78 *
Nitrite-N, mg/l	<0.1	110 %	110 %	110 %
Analyst	WH	WH	WH	WH
Prep Date	03.13.00	03.18.00	03.18.00	03.18.00
Analysis Date	03.22.00	03.22.00	03.22.00	03.22.00
Batch ID	N3W21A	N3W21A	N3W21A	N3W21A
Prep Method	353.2	353.2	353.2	353.2
Dilution Factor	1	1	. I	I
Sulfate as SO4 (375.4), mg/l	<5	S5 %	114 ¥	112 *
Analyst	BB	BE	BE	BE
Frep Date	03.21.00	03.21.00	03.21.00	03.21.00
Analysis Date	03.21.00	03.21.00	03.21.00	03.21.00
Batch ID	SEW032	SEW032	SEM032	EEW032
Prep Method	375.4	375.4	375.4	375.4
Dilution Factor	1	1	400	400

Larson, Project Manager Lance

Final Page Of Report

NUMBER NUMBER Obstrin Time Obstrin State Obstri State Obstri <th>NUME Content of the second s</th> <th>Image: Provide Construction Image: Provide Const</th> <th>DUE CATE: RUBHSURCIMROE: CLIENT DISCOUNT: SPECIAL CERTIFICATION REQUIRED: YES NO</th> <th>PROJECT 1, QU'SU PROJ.NAME: IZP FS VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N</th> <th>Pinnacle Laboratories, I 2709-D Pan American F Albuquerque, New Mexi 1509) 344-3777 Fax (505) 344-413 SAMPLE ID DO D 66 -01</th> <th>Network Project Man</th>	NUME Content of the second s	Image: Provide Construction Image: Provide Const	DUE CATE: RUBHSURCIMROE: CLIENT DISCOUNT: SPECIAL CERTIFICATION REQUIRED: YES NO	PROJECT 1, QU'SU PROJ.NAME: IZP FS VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N VCLEVEL: 8TD N	Pinnacle Laboratories, I 2709-D Pan American F Albuquerque, New Mexi 1509) 344-3777 Fax (505) 344-413 SAMPLE ID DO D 66 -01	Network Project Man
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Wetals (8) RCRA RCRA TCLP METALS RCRA	And And And And And	American Amer	es en	lumber of <u>Containen</u> of <u>Cuelody</u> Seale ed Infact? ed Good Cond./Cok UMBER:	AMPLE RECEI	baly D. McNeill
RECUCION SILL FRUSSION SILL PROPRILAND SILL FATS RECUCION SILL FATS RECUNITION SI	Image: Some property with the second seco	Image: Structure in the state in the structure in the str	46/		A A A Metais (8) RCRA B RCRA TCLP METALS	
SET IDX SET X SET <td>GE GE TOX GE GE MANATE (TUTAL) Gen Chemistry Gen Chemistry Online Manage Gen Chemistry Online Manage Cill and Grease Volatile Organics GC/MS (8250) BCD Volatile Organics GC/MS BCD <t< td=""><td>Structure Structure Struc</td><td>SEQUCIA</td><td>PENSACOLA - PORTLAND - E STL - CT STL - NEW JER STL - NEW JER N. CREEK BARRINGER</td><td>Metake-13 PP List Motake-TAL Motake-TAL Motake-TAL</td><td></td></t<></td>	GE GE TOX GE GE MANATE (TUTAL) Gen Chemistry Gen Chemistry Online Manage Gen Chemistry Online Manage Cill and Grease Volatile Organics GC/MS (8250) BCD Volatile Organics GC/MS BCD <t< td=""><td>Structure Structure Struc</td><td>SEQUCIA</td><td>PENSACOLA - PORTLAND - E STL - CT STL - NEW JER STL - NEW JER N. CREEK BARRINGER</td><td>Metake-13 PP List Motake-TAL Motake-TAL Motake-TAL</td><td></td></t<>	Structure Struc	SEQUCIA	PENSACOLA - PORTLAND - E STL - CT STL - NEW JER STL - NEW JER N. CREEK BARRINGER	Metake-13 PP List Motake-TAL Motake-TAL Motake-TAL	
ANALYSIS COD Cill and Grease Volatile Organics GC/MS (8250) CILLEN IN CILLEN IN CIL	Onmary Cil and Grease Innace Cil and Grease Innace Volatile Organics GC/MS (8260) BCD BCD Innace COD Innace BCD Innace COD Innace BCD Innace State I	Volatile Crganics GC/MS (8250) Volatile Crganics GC/MS (8250) BCD BCD <td></td> <td>SILFL X</td> <td>Gen Chemistry</td> <td></td>		SILFL X	Gen Chemistry	
Image: State of the state o	No. No. <td>Image: Solution of the second seco</td> <td>Conner St.</td> <td>THINK LAND</td> <td>Cill and Grease Oill and Grease Oill and Grease Oill and Grease Oill and Grease</td> <td>ANALYS</td>	Image: Solution of the second seco	Conner St.	THINK LAND	Cill and Grease Oill and Grease Oill and Grease Oill and Grease Oill and Grease	ANALYS
	2 1	X X <td>MAS JUNE</td> <td>altern Inc.</td> <td>BCD COD PESTICIDES/PCB (608/8080) BCD</td> <td>IS REQUEST</td>	MAS JUNE	altern Inc.	BCD COD PESTICIDES/PCB (608/8080) BCD	IS REQUEST

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	1	PROJEC	S	AMP	LE	INS	SPECTIO	FORM			
Lab A	Accession #:	(.0036	<u>-20</u>				Date Re	caived:	18-Ma	rch-a	∞
1. V	Vas there a Chair	of Custody?	Yes	No*		8.	Were samples preservative? requiring preservation except VOA visits that	checked for (Check pH of all H10 M (STL-PN SOF 91/) It require zero	Yes	No*	N/A
2. V fi	Vas Chain of Cus	tody properly uished?	Yer	No*		9.	headspace)* Is there sufficie analysis reque	ent volume for sted?	Yes	Nc*	N/A (Can)
3. V ((Vere samples rec Criteria: 2° - 6°C: 3	erved cold7 STL-SOP 1055)	للع	No ⁺	N/A	10.	Vvere samples Holding Time?	TECEIVED WITHIN	Yeg	Nat	
4. V la	Vere all samples p abeled and identifi and samples require	croperly ed? re splitting?	Yes Vec*	No*		11.	Is Headspace v diameter in VO headspace is e	visible > ½" in A vials?" If any vident comment	Yes⁺	No	ŃÀ
5. 5 R	leq By: PM Cli	ent Other*	A Constant	Not		12	in out-of-contro	I section.	Yos	No*	NUA
(). () C(ontainers for anal	ysis		NO		••	returned?	no a spare scales	1	INC	5
7, V. re	Vere all sample co acceived intact?	ontainers	Yes	No⁺		13.	Was Project Ma problems? (initi	anager notified of	Yes	Nc⁴	(N/Å)
Airbil	i Number(s):	1287816844	(44074	0786			Shipped	By: <u>UPS</u>			
Coole Coole	er Number(s): er Weight(s):	Chines CC 31 1bs.	<u>(110)</u>		······	·	Shipping Cooler To <u>C</u> CK9	Charges: emp(s) (°C):	1/1 392	···	
Out o	f Control Eve	nts and insp	oection	Comr	nents						
								•			
									- <u></u> -		
	<u></u>				- <u></u>		(USE SAC	K OF PSIFFOR ADDITIONAL	NOTES AND CO	DIMENTS	57
Inspec	cted By: <u>பு</u>	<u>1</u>	_Date:	3/18/0	6	Log	ged By:	ft Date:	3/,	1.810	20
• •	Note all Out-of-Control Note who requested th All preservetives for th pH results (STL-SOP 9 According to EPA, X**	i and/or questionable e splitting of sample le Stale of North Can 38). of hesdspace is allow	e events on as en the Co olina, the S wed in 40 m	Comment orament Se State of New ni visis requ	Section a oction of t v Yark, an wiring vol	ni this fo his form hid other iztlie eni	rm. 1. requested samples an slysis, however, STL m	a to be recorded on the takes it policy to record	sheet provid any headsp	ied to ret	cora 11-
- WORD/EL	of-control (STL-SOP 9: KINS\SAMPCTRL\PSIF2	H). .COC December 2	22, 1998								

	Chain of (Cust	ody Record	
	1000 Morroe Road Farmingtun, NM 8740	10	(505) 326-2262 Phone (505) 326-2388 FAX	cocseriat No. C 2509
Project Name EPFS GUAETCENY SA Project Number 62800107 Phase Task	WUTIN		as of alysis 1 Bottla	
Samplers R. TILOM PSON			and the first	
Laboratory Nome LININACLE LABS.	WI		at an are	
Samula Number (and depth) Date 11		70T	EN SU SU	Connervente
B15-0003-PZZ1 3/15/00 113	30 h20 4	×	XX	8651 MARE PATI
		4.		
Relinquished by:			Received By: 1	
Falley Character Stran	0010 3)114/00		4 40 GML Harden	S/17/08 13:07 D
Samples Iced: <u>X Yes</u> No Presevatives (ONLY for Water Semples)	Center: 629 Shindra and I	01123	UMD	Arthin No. 6.2 I 160 445 0661
Consider Internation Internation Provided International Internation Internatio Internation	((HCT) ((HCT) (2004)		NEED KESULTY BY	3/24/00! 120000010
			فبموط فالمرجوع المتخدمي والقابط بيزاري فالخراف المرجوع التكري والمتحر والمرجوع المراجع والمراجع والمعادي والمر	والمستخدمات والمتعادين والمتعادين والمتعادية المتعادين والمتعادين والمستخدين والمتعادين والمتعادين والمتعادين والمتعادين

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LD 267 PZ 22 BISTI FLARE PIT #1

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Pinnacle Lab ID number March 28, 2000 003062

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

A/Norhelfht

H. Mitchell Rubenstein, Ph. D. General Manager

MR: jt

Enclosure



CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003062
PROJECT #	: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	BIS-0003-PZ22	AQUEOUS	03/15/00



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2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

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TEST CLIENT PROJECT PROJECT	# NAME	: EPA 8021 MOI : PHILIP ENVIR : 62800107 : EPFS QUARTE	DIFIED ONMENTAL ERLY SAMPLI	ING		PINNACLE I.D.	: 003062
SAMPLE				DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	BIS-0003-PZ22		AQUEOUS	03/15/00	NA	03/20/00	1
PARAMETE	ER	DET. LIMIT		UNITS	BIS-0003-PZ22		
BENZENE	· · · · · · · · · · · · · · · · · · ·	0.5		UG/L	< 0.5		
TOLUENE		0.5		UG/L	< 0.5		
ETHYLBEN	IZENE	0.5		UG/L	< 0.5		
TOTAL XYL	ENES	0.5		UG/L	< 0.5		
SURROGA ⁻ BROMOFLU SURROGA ⁻	TE: JOROBENZENE TE LIMITS	(%) (80 - 120)			109		
CHEMIST N N/A	IOTES:						
	·						



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003062
BLANK I. D.	: 032000	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/20/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE: BROMOFLUOROBENZENE (%) SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	97	



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

	TEST	: EPA 8021 M	DIFIED							
	MSMSD #	: 003055-01 : PHILIP ENVIRONMENTAL				PINNACLE	:	003062		
	CLIENT					DATE EXTR	:	NA		
	PROJECT #	: 62800107	: 62800107				DATE ANALYZED			
Ì	PROJECT NAME	TERLY SAN	RLY SAMPLING			SAMPLE MATRIX		AQUEOUS		
						UNITS		:	UG/L	
		SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
	PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
ļ	BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80-120)	20
	TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80-120)	20
	ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
	TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80-120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result) ------ X 100

Spike Concentration

(Sample Result - Duplicate Result)

----- X 100

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03615 Received: 18 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

log no	SAMPLE DESCRIPTION	REPORT OF RESULTS , LIQUID SAMPLES	Project: 003062, EPFS Sampled By: Client Code: 151100324 Page 1 DATE/ TIME SAMPLED
03616-1	003062-01		03-15-00/11:15
PARAMETER		03616-1	
Nitrate-Nit: Nitrate + 1 Nitrate-N, Nitrite-N, Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	rite, Nitrogen (353.) Nitrite-N, mg/l mg/l mg/l ate d actor	2/354.1/4500-NO3) 20 19.7 0.3 R4 WH 03.18.00 03.22.00 N3W21A . 353.2 10	
Sulfate as S Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	504 (375.4), mg/l ate a l actor	3800 BE 03.21.00 03.21.00 SEW032 375.4 200	



LOG NO: C0-03616 Received: 18 MAR 00 Reported: 24 MAR 00

Project: 003062, EPFS

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

Sampled By: Client Code: 151100324 REPORT OF RESULTS Page 2 DATE/ LOG NO SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES TIME SAMPLED 03616-2 . Method Blank Lab Control Standard Matrix Spike % Recovery Matrix Spike Duplicate % Recovery 03616-3 Lab Control Standard % Recovery 03616-4 03616-5 -----------03616-2 03616-3 PARAMETER 03616-4 03616-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 100 % Nitrate + Nitrite-N, mg/l <0.1 78 % 78 % 100 % Nitrate-N, mg/l <0.1 78 % 78 % 110 % Nitrite-N, mg/l <0.1 110 % 110 % Analyst WH WH WH WH Prep Date 03.18.00 03.18.00 03.18.00 03.18.00 Analysis Date 03.22.00 03.22.00 03.22.00 03.22.00 N3W21A Batch ID N3W21A N3W21A N3W21A Prep Method 353.2 353.2 353.2 353.2 Dilution Factor 1 1 1 1 95 % 112 % Sulfate as SO4 (375.4), mg/l <5 114 % BE BE Analyst BE BE 03.21.00 03.21.00 03.21.00 03.21.00 Prep Date 03.21.00 03.21.00 03.21.00 03.21.00 Analysis Date Batch ID SEW032 SEW032 SEW032 SEW032 Prep Method 375.4 375.4 375.4 375.4 Dilution Factor 1 1 400 400 ----- ----- ----------

Lance Larson, Project Manager

Final Page Of Report

Kimberly D. McNeill
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La	o Accession #:	(1026	<u> </u>				Date Re	ceived:	18-Ma	arch-	<u>α</u>
1.	Was there a Chai	n of Custody?	Yes	No⁺		8.	Were samples preservative? requiring preservative except VOA vials that	checked for (Check pH of all H2O re (STL-PN SOP 917) t require zero	Yes	No⁴	
2.	Was Chain of Cus	tody properly quished?	Yes	No⁺		9.	headspace)* Is there sufficie analysis reques	nt volume for sted?	Yes	No⁴	
3.	Were samples rec (Criteria: 2° - 6°C:	eived cold? STL-SOP 1055)	Yes	No⁺	N/A	10.	Were samples Holding Time?	RECEIVED within	Yes	No⁴	
4. 5.	Were all samples labeled and identif Did samples requi	properly īed? re splitting? ient Other*	Yes Yes⁴	No⁺		11.	Is Headspace v diameter in VO headspace is e in out-of-control	risible > ¼" in A vials?* If any vident, comment section.	Yes⁺	No	(
6.	Were samples rec containers for ana	eived in proper lysis	Yes	No⁴		12.	If sent, were ma returned?	atrix spike bottles	Yes	No⁺	
7.	requested? Were all sample co received intact?	ontainers	Yes	No*	i	13. I	Was Project Ma problems? (initia	nager notified of als:)	Yes	No⁴	
Coc	oler Number(s):	Chines Ca)ole)				Shipping	Charges:N	A		
Coo	ler Weight(s):	<u>31 16c.</u>					Cooler Te CCK9		3 C		
			ection	Сот	nents						
Out	of Control Eve	nts and Insp								_	
Out	of Control Eve	nts and Insp					· · · · · · · · · · · · · · · · · · ·				
Out	of Control Eve	nts and Insp		······································							
Out	of Control Eve	nts and Insp					(Use back	OF PSIFFOR ADOMONAL N	OTES AND COM	MMENTS)	
nsp	ected By:	nts and Insp	Date:	3/18/0		Logge	(Use back ed By:	OF PSIFFOR ADOITIONAL N	otes and com 3/18	MMENTS)	G.
nsp	ected By: Unicontrol	nts and Insp	Date:	3/18/0	Section o		(Use back	OF PSIFFOR ADOITIONAL N	OTES AND COM 3/18	MMENTS)	(G

WORD\ELKINS\SAMPCTRL\PSIF2.DOC December 22, 1998

Press QUARCTER LY SAMPLE 226 CO107 Press Text THOM K201 100 Monore Read 226 CO107 Press Text THOM K201 Text ame PLINALA LK ADS ame PLINALA LK ADS ame Distance Read Time Matrix Total PFZ 23/IS/00 ITIS H2 00 ITIS H2

LD 267 PZ 23 BISTI FLARE PIT #1





Pinnacle Lab ID number March 28, 2000 003063

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR: jt

Enclosure

A Matul fit

H. Mitchell Rubenstein, Ph. D. General Manager



CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003063
PROJECT #	: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED

Confidential



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GAS CHROMATOGRAPHY RESULTS

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TEST		: EPA 8021 MOI	DIFIED				
CLIENT		: PHILIP ENVIR	ONMENTAL			PINNACLE I.D.	: 003063
PROJECT #	#	: 62800107					
PROJECT	NAME	: EPFS QUARTE	ERLY SAMPL	ING			
SAMPLE				DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	BIS-0003-PZ2	3	AQUEOUS	03/14/00	NA	03/20/00	1
PARAMETE	R	DET. LIMIT		UNITS	BIS-0003-PZ23		
BENZENE		0.5		UG/L	< 0.5	<u></u>	
TOLUENE		0.5		UG/L	< 0.5		
ETHYLBEN	ZENE	0.5		UG/L	< 0.5		
TOTAL XYL	ENES	0.5		UG/L	< 0.5		
SURROGAT BROMOFLU SURROGAT	TE: JOROBENZENE TE LIMITS	E (%) (80 - 120)			108		

CHEMIST NOTES: N/A



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003063
BLANK I. D.	: 032000	DATE EXTRACTED	: NA -
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/20/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	•
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE: BROMOFLUOROBENZENE (%) SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	97	



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M	ODIFIED							
MSMSD #	: 003055-01	: 003055-01				I.D.	:	003063	
CLIENT	: PHILIP ENVI	: PHILIP ENVIRONMENTAL				DATE EXTRACTED			
PROJECT #	: 62800107	: 62800107				DATE ANALYZED			
PROJECT NAME	: EPFS QUAR	: EPFS QUARTERLY SAMPLING				ATRIX	:	AQUEOUS	
· · · ·					UNITS			UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80-120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80 - 120 j	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result) ------ X 100

Spike Concentration

(Sample Result - Duplicate Result)

--- X 100

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03617 Received: 18 MAR 00 Reported: 24 MAR 00

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

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LOG NO	SAMPLE DESCRIPTION	REPORT OF RESULTS , LIQUID SAMPLES	Project: 003063, EPFS Sampled By: Client Code: 151100324 Page 1 DATE/ TIME SAMPLED
03617-1	003063-01		03-14-00/16:45
PARAMETER		03617-1	
Nitrate-Nitr Nitrate + N Nitrate-N, Nitrite-N, Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	tite, Nitrogen (353.) fitrite-N, mg/l mg/l mg/l te	2/354.1/4500-NO3) 34 33.8 0.2 R4 WH 03.18.00 03.22.00 N3W21A 353.2 10	
Sulfate as S Analyst Prep Date Analysis Da Batch ID Prep Method Dilution Fa	04 (375.4), mg/l te ctor	3700 BE 03.21.00 03.21.00 03.21.00 SEW032 375.4 100	



LOG NO: C0-03617 Received: 18 MAR 00 Reported: 24 MAR 00

Project: 003063, EPFS

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

				Sample Cod	d By: Client e: 151100324
	RE	EPORT OF RESULTS			Page 2
				DATE/	
LOG NO SA	MPLE DESCRIPTION , QC	REPORT FOR LIQUI	D SAMPLES	TIME SAMPL	ED
03617-2 Me 03617-3 La 03617-4 Ma 03617-5 Ma	thod Blank b Control Standard % R trix Spike % Recovery trix Spike Duplicate %	ecovery Recovery			
PARAMETER		03617-2	03617-3	03617-4	03617-5
Nitrate-Nitrit	e. Nitrogen (353.2/354	.1/4500-NO3)			
Nitrate + Nit:	rite-N, mg/l	<0.1	100 %	78 %	78 %
Nitrate-N. mg	/1	<0.1	100 %	78 %	78 %
Nitrite-N, mg	/1	<0.1	110 %	110 %	110 %
Analvst	-	WH	WH	WH	WH
Prep Date		03.18.00	03.18.00	03.18.00	03.18.00
Analysis Date		03.22.00	03.22.00	03.22.00	03.22.00
Batch ID		N3W21A	N3W21A	N3W21A	N3W21A
Prep Method		353.2	353.2	353.2	353.2
Dilution Facto	pr	1	1	1	1
Sulfate as SO4	(375.4), mg/l	<5	. 95 5	114 %	112 %
Analyst		BE	BE	BE	BE
Prep Date		03.21.00	03.21.00	03.21.00	03.21.00
Analysis Date		03.21.00	03.21.00	03.21.00	03.21.00
Batch ID		SEW032	SEW032	SEW032	SEW032
Prep Method		375.4	375.4	375.4	375.4
Dilution Facto)r	1	1	400	400

2 w Lançe Harson, Project Manager

Final Page Of Report

REMARKED, TES NO	SPECIAL CERTIFICATION	CLIENT DISCOUNT:			IAT: STANDARD RUSHIN	UC REQUIRED: (M9 MSD	UC LEVEL: STD. IV	PROJ. NAME: EPFS	PROJECT #: 0030	PROJECT INFORMATION												10- 4 10 00	SAMPLE ID	Prinnacie Laboratories, 2709-D Pan American Albuquerque, New Me: (505) 344-3777 Fax (505) 344-44 (505) 344-3777 Fax (505) 344-44 PRODUCTION		Pinnacie Labor
		1				BLANK																2/14	DATE	Inc. Freewa xico 87 13	fallayer.	atories,
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		-	3/2			./Cold			alners	CEIPT													LAB ID		Veill	nterla
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PROJE	SAMPLE	INSPECTIC	^I FORM		
Lab Accession #:003	617	Date Re	ceived:	18-March-	<u></u>
1. Was there a Chain of Custody-?	Yes No*	8. Were samples preservative? requiring preservativ except VOA vials that	Checked for (Check pH of all H2O re (STL-PN SOP 917) It require zero	Yes No*	N/A
 Was Chain of Custody properly filled out and relinquished? Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055) 	Yes Not N/A	9. Is there sufficie analysis reque 10. Were samples Holding Time?	ent volume for sted? received within (REFER TO STL-SOP 1040)	Yes No*	N/A (Can)
 Were all samples properly labeled and identified? Did samples require splitting? Req By: PM Client Other* 	Yes No ⁺ Yes ⁺ No	11. Is Headspace diameter in VO headspace is e in out-of-contro	visible > ¼" in A vials?* If any evident, comment I section.	Yes⁺ No	N/A)
6. Were samples received in proper containers for analysis	Yes Not	12. If sent, were m returned?	atrix spike bottles	Yes No⁺	(N/A)
7. Were all sample containers received intact?	Yes No*	13. Was Project Ma problems? (initi	anager notified of als:)	Yes No⁺	N/A
Airbill Number(s): <u>। </u>	44670786	Shipped	ву: <u>UPS</u>		
Cooler Number(s): Chinth C	open	Shipping	Charges: N	A	
Cooler Weight(s): <u>3</u> 11 <u>bc</u> .		Cooler To CCK9	emp(s) (°C)	том)	
Out of Control Events and Ins	pection Comments	:			
<u> </u>					
]		(Use bac	K OF PSIFFOR ADDITIONAL NO	DTES AND COMMENTS) G
Inspected By: <u>Usc</u>	Date:3/18/00	Logged By:	للحDate:	<u>3/1\$/60</u>)
 Note all Out-of-Control and/or questionable Note who requested the splitting of sample All preservatives for the State of North CarpH results (STL-SOP 938). According to EPA, %" of headspace is allocation. 	le events on Comment Section of es on the Comment Section of t rolina, the State of New York, ar weed in 40 ml vials requiring vol	of this form. his form. nd other requested samples ar jatlie analysis, however, STL m	e to be recorded on the si akes It policy to record a	neet provided to re ny headspace as (cord out-
of-control (STL-SOP 938). WORD\ELKINS\SAMPCTRL\PSIF2.DOC December	22, 1998				

Samples Iced: X Yes INO Preservatives (ONLY for Water Samples) Cyanide	Signature	Samplers R. THOMPSON Laboratory Name PINNACLS LABS Sample Number (and depth) Date Time B 15 - 0003 - PZ 23 3/14/00 1645 1645	Project Name EPFS QUARTER LY SAMP
Carrier: GPC Shipping and La	Date 3/16/00	H Matrix B C Total Number of B	Thain of (
HOUND b Notes: NEED	тіте <i>1 la 40</i>		Ustody I (505 Type of Analysis
RESULTS BY	Received By:	X SC X XS SC I K XS XSS	Record 326-2262 Phone 326-2388 FAX
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AIRBIIL NO. GLI II CLUD DUI Z. 8°	3/17 /UU		Serial No. C
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LD 267 PZ 26 BISTI FLARE PIT #1



Pinnacle Lab ID number March 28, 2000 003064

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR: jt

Enclosure

tullhit

H. Mitchell Rubenstein, Ph. D. General Manager

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CLIENT		: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003064
PROJECT #		: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAME		: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN				DATE
ID. #	3	CLIENT DESCRIPTION	MATRIX	COLLECTED
01		BIS-0003-PZ26	AQUEOUS	03/15/00



GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8021 MOI	DIFIED				
CLIENT	: PHILIP ENVIR	ONMENTAL			PINNACLE I.D.	: 003064
PROJECT #	: 62800107					
PROJECT NAME	: EPFS QUARTE	ERLY SAMPL	ING			
SAMPLE			DATE	DATE	DATE	DIL.
ID. # CLIE	NT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01 BIS-C	0003-PZ26	AQUEOUS	03/15/00	NA	03/20/00	1
PARAMETER	DET. LIMIT		UNITS	BIS-0003-PZ26		
BENZENE	0.5		UG/L	1.6		
TOLUENE	0.5		UG/L	2.8		
ETHYLBENZENE	0.5		UG/L	< 0.5		
TOTAL XYLENES	0.5		UG/L	3.1		
SURROGATE: BROMOFLUOROE SURROGATE LIM	3ENZENE (%) ITS (80 - 120)			112		

CHEMIST NOTES: N/A



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

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TEST BLANK I. D. CLIENT PROJECT #	: EPA 8021 MODIFIED : 032000 : PHILIP ENVIRONMENTAL : 62800107	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	:	003064 NA 03/20/00 AQUEOUS	
PROJECT NAME	: EPFS QUARTERLY SAMPLING				
PARAMETER	UNITS		_		
BENZENE	UG/L	<0.5			
TOLUENE	UG/L	<0.5			
ETHYLBENZENE	UG/L	<0.5			
TOTAL XYLENES	UG/L	<0.5			
SURROGATE: BROMOFLUOROBENZENE (%) SURROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	97			



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GAS CHROMATOGRAPHY QUALITY	CONTROL
MSMSD	

TEST	: EPA 8021 M	ODIFIED							
MSMSD #	: 003055-01				PINNACLE	I.D.	:	003064	
CLIENT	: PHILIP ENVI	RONMENT	AL		DATE EXTR	RACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	03/20/00	
PROJECT NAME	: EPFS QUAR	TERLY SAN	IPLING	•	SAMPLE M	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80 - 120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

CHEMIST NOTES: N/A

% Recovery =

(Spike Sample Result - Sample Result) ------ X 100

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Spike Concentration

(Sample Result - Duplicate Result)

----- X 100

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03618 Received: 18 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

REPORT OF RESULTS	3	Project: 003064, EPFS Sampled By: Client Code: 151200324 Page 1 DATE/ TIME SAMPLED
03618-1 , 003064-01		03-15-00/09:30
PARAMETER	03618-1	
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/l Nitrate-N, mg/l Analyst Prep Date Analysis Date Batch ID Prep Method Dilution Factor	120 120 <0.1 R4 WH 03.18.00 03.22.00 N3W21A 353.2 50	
Sulfate as SO4 (375.4), mg/l Analyst Prep Date Analysis Date Batch ID Prep Method Dilution Factor	5200 BE 03.21.00 03.21.00 SEW032 375.4 200	



LOG NO: C0-03618 Received: 18 MAR 00 Reported: 24 MAR 00

Project: 003064, EPFS

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

Sampled By: Client Code: 151200324 REPORT OF RESULTS Page 2 DATE/ LOG NO SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES TIME SAMPLED ______ _____ 03618-2 . Method Blank 03618-3 Lab Control Standard & Recovery 03618-4 Matrix Spike % Recovery 03618-5 Matrix Spike Duplicate % Recovery 03618-2 PARAMETER 03618-3 03618-4 03618-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 100 5 78 % <0.1 78 % Nitrate + Nitrite-N, mg/l 100 % 78 % <0.1 78 % Nitrate-N, mg/l 110 % <0.1 110 % 110 % Nitrite-N, mg/1 WH WH WH WH Analyst 03.18.00 03.18.00 03.18.00 03.18.00 Prep Date 03.22.00 03.22.00 03.22.00 03.22.00 Analysis Date N3W21A N3W21A N3W21A N3W21A Batch ID 353.2 353.2 353.2 353.2 Prep Method Dilution Factor 1 1 1 1 95 5 <5 114 % 112 % Sulfate as SO4 (375.4), mg/1 BE BE BE BE Analyst 03.21.00 03.21.00 03.21.00 03.21.00 Prep Date 03.21.00 03.21.00 03.21.00 Analysis Date 03.21.00 SEW032 SEW032 SEW032 Batch ID SEW032 375.4 375.4 375.4 375.4 Prep Method 1 400 400 Dilution Factor 1 ----

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Lance Larson, Project Manager

Final Page Of Report

	REQUIRED: YES NO	SPECIAL CERTIFICATION	DUE DATE: COMME RUSH SURCHARGE:		TAT: STANDARD RUSHIN	OC REQUIRED: (M) MSD BLAN	OCLEVEL: STD. IV	PROJECT #: 00 50	PROJECT INFORMATION											00 30 lot -01 21	SAMPLE ID DATE	Albuquerque, New Mexico 87 (505) 344-3777 Fax (505) 344-4413	Pinnacle Laboratories, Inc.	Pinnacle Laboratories,
			NISVERSal on 3/	1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、1、	LAB NUMBER:	K Received Good Cond./Cold	Received Intact?	Chain of Custody Seals	SAMPLE RECEIPT											5 930 1976	TIME MATRIX LABID	7107 7107 3.24-00	Kimberly D. McNeill	Inc. Interla
			4																		Metai RCR	IS (8) RCRA A TCLP METALS		b Chair
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		me:		/ED			ne:		ISIN												Base/1 (625/8	Veutral Acid Compounds GC/MS 270)		_
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PROJE	C ⁻ SAMPLE	INSPECTIC" FORM	
Lab Accession #:003	618	Date Received:	18-March-00
1. Was there a Chain of Custody-?	Yes No*	8. Were samples checked for preservative? (Check pH of all H ₂ O requiring preservative (STL-PN SOP 917) except VOA vials that require zero	Yes No* N/A
 Was Chain of Custody properly filled out and relinquished? Were samples received cold? (Criteria: 2° - 6°C: STL-SOP 1055) 	Yer Not Yer Not N/A	 headspace)* 9. Is there sufficient volume for analysis requested? 10. Were samples received within Holding Time? (REFER TO STL-SOP 1040) 	Yes No [*] N/A (Can) Yes No [*]
 Were all samples properly labeled and identified? Did samples require splitting? Req By: PM Client Other* 	Yes No ⁺ Yes ⁺ No	11. Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.	Yes⁴ No (N/A)
6. Were samples received in proper containers for analysis	v ves No*	12. If sent, were matrix spike bottles returned?	; Yes No [*] N/A
7. Were all sample containers received intact?	Yes No*	13. Was Project Manager notified of problems? (initials:)	Yes No* N/A
Airbill Number(s): <u>128791694</u>	44670786	Shipped By: <u>UPS</u> Shipping Charges: ^N	
Cooler Weight(s): <u>3</u> <u>lbc</u> . Out of Control Events and Ins	Dection Comment	Cooler Temp(s) (°C): CCK9 (UST THERMOMETER NUMBER(S) FOR VERIFI	3 CATION)
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		· · · · · · · · · · · · · · · · · · ·	
	·····	(LISE BACK OF PSIFEOR ADDITIONAL	NOTES AND COMMENTS)
Inspected By:	Date: 3 18 00	Logged By: Mr. Date: this form.	3/18/00
 pH results (STL-SOP 938). According to EPA, %* of headspace is allo of-control (STL-SOP 938). WORD\ELKINS\SAMPCTRL\PSiF2.DOC December 	wed in 40 ml vials requiring vo 22, 1998	latile analysis, however, STL makes it policy to record	sneet provided to record I any headspace as out-

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Signature	shed by:						00/01/2 02 00 00 00 00 00 00 00 00 00 00 00 00	mple Number (and depth) Date	poratory Name PINNACUE	lect Name EPFS QUARTER LY lect Number 628 00 107 Phase.	AND FUNCTION &	PHILIP
							0 0 / 30	Time	ABS	SAMPLINI Task	4000 Farmi	Ch
Date S/L/2/00					/		0 21	Matrix			Monroe Road ngton, NM 87	ain of
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LD 267 PZ 29 BISTI FLARE PIT #1

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Pinnacle Lab ID number March 28, 2000 003065

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON

On 03/17/00 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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 8021 was performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other parameters were performed by Severn Trent (FL) Inc., Pensacola, FL.

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

Kimberly D. McNeill Project Manager

MR: jt

Enclosure

tetul his

H. Mitchell Rubenstein, Ph. D. General Manager



CLIENT		: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003065
PROJECT #		: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAM	ME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 03/28/00
PIN				DATE
PIN ID. #	ني	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED



GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8021 MC	DIFIED				
CLIENT	: PHILIP ENVIF	RONMENTAL			PINNACLE I.D.	: 003065
PROJECT #	: 62800107					
PROJECT NAM	IE, : EPFS QUART	ERLY SAMPL	ING			
SAMPLE			DATE	DATE	DATE	DIL.
ID. # CL	IENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01 BIS	S-0003-PZ29	AQUEOUS	03/15/00	NA	03/20/00	50
PARAMETER	DET. LIMIT		UNITS	BIS-0003-PZ29		
BENZENE	0.5		UG/L	15000		<u></u>
TOLUENE	0.5		UG/L	9200		
ETHYLBENZEN	IE 0.5		UG/L	700		
TOTAL XYLENE	ES 0.5		UG/L	5700		
SURROGATE: BROMOFLUOR SURROGATE LI	OBENZENE (%) IMITS (80 - 120)			115		

CHEMIST NOTES: N/A



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST BLANK L D	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003065
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 03/20/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTERLY SAMPLING	· .	
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TOLUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	< <u>0.5</u>	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE:			
BROMOFLUOROBENZENE (%)		97	
SURROGATE LIMITS: CHEMIST NOTES:	(80 - 120)	x	
N/A			



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M	ODIFIED							
MSMSD #	: 003055-01				PINNACLE	I.D.	:	003065	
CLIENT	: PHILIP ENVI	RONMENT	AL		DATE EXTR	RACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	03/20/00	
PROJECT NAME	: EPFS QUAR	TERLY SAN	APLING		SAMPLE M	:	AQUEOUS		
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	. SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
BENZENE	<0.5	20.0	21.3	107	20.4	102	4	(80-120)	20
TOLUENE	<0.5	20.0	20.7	104	19.3	97	7	(80-120)	20
ETHYLBENZENE	<0.5	20.0	21.2	106	21.7	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	61.4	102	62.6	104	2	(80 - 120)	20

----- X 100

CHEMIST NOTES: N/A

(Spike Sample Result - Sample Result)

% Recovery =

Spike Concentration

(Sample Result - Duplicate Result)

RPD (Relative Percent Difference) =

Average Result



LOG NO: C0-03619 Received: 18 MAR 00 Reported: 24 MAR 00

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Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

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03619-1 003065-01 03-15-00/10:30 PARAMETER 03619-1 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/l <0.1 Nitrate-N, mg/l <0.1 Nitrite-N, mg/l <0.1 Nitrite-N, mg/l <0.1 Nitrite-N, mg/l <0.1 Nitrite-N, mg/l <0.1 Analyst WH Prep Date 03.18.00 Analyst N3W21A Prep Method 353.2 Dilution Factor 1 Sulfate as SO4 (375.4), mg/l 15 Analyst BE Prep Date 03.21.00 Analysis Date 03.21.00 Batch ID SEW032 Prep Method 375.4 Dilution Factor 1	LOG NO SAMPLE I	REPORT OF RESU DESCRIPTION , LIQUID SAMPLES	īlts	Project: 003065, EPFS Sampled By: Client Code: 151200324 Page 1 DATE/ TIME SAMPLED
PARAMETER03619-1Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)<0.1Nitrate + Nitrite-N, mg/l<0.1Nitrate-N, mg/l<0.1Nitrite-N, mg/l<0.1 R4AnalystWHPrep Date03.18.00Analysis Date03.22.00Batch IDN3W21APrep Method353.2Dilution Factor1Sulfate as SO4 (375.4), mg/l15Analysis Date03.21.00Batch IDSEW032Prep Method375.4Dilution Factor1	03619-1 , 003065-0	1		03-15-00/10:30
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)Nitrate + Nitrite-N, mg/l<0.1	PARAMETER		03619-1	
Sulfate as SO4 (375.4), mg/l 15 Analyst BE Prep Date 03.21.00 Analysis Date 03.21.00 Batch ID SEW032 Prep Method 375.4 Dilution Factor 1	Nitrate-Nitrite, Nit Nitrate + Nitrite-N Nitrate-N, mg/l Nitrite-N, mg/l Analyst Prep Date Analysis Date Batch ID Prep Method Dilution Factor	rogen (353.2/354.1/4500-NO3) , mg/l	<0.1 <0.1 <0.1 R4 WH 03.18.00 03.22.00 N3W21A 353.2 1	
	Sulfate as SO4 (375. Analyst Prep Date Analysis Date Batch ID Prep Method Dilution Factor	4), mg/l	15 BE 03.21.00 03.21.00 SEW032 375.4 1	



LOG NO: C0-03619 Received: 18 MAR 00 Reported: 24 MAR 00

Project: 003065, EPFS

Ms. Kim McNeill Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

Sampled By: Client Code: 151200324 REPORT OF RESULTS Page 2 DATE/ LOG NO SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES TIME SAMPLED 03619-2 , Method Blank Lab Control Standard & Recovery 03619-3 03619-4 Matrix Spike & Recovery 03619-5 Matrix Spike Duplicate & Recovery 03619-2 03619-3 03619-4 03619-5 PARAMETER ______ _____ Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) <0.1 100 % 78 % 78 % Nitrate + Nitrite-N, mg/l 100 % <0.1 78 % 78 🕏 Nitrate-N, mg/l 110 % Nitrite-N, mg/l <0.1 110 % 110 % WH WH WH WH Analyst 03.18.00 03.18.00 03.18.00 03.18.00 Prep Date 03.22.00 03.22.00 03.22.00 03.22.00 Analysis Date N3W21A N3W21A N3W21A N3W21A Batch ID 353.2 353.2 353.2 353.2 Prep Method 1 1 Dilution Factor 1 1 95 % 114 % 112 % Sulfate as SO4 (375.4), mg/l <5 BE BE BE BE Analyst 03.21.00 03.21.00 03.21.00 03.21.00 Prep Date 03.21.00 03.21.00 03.21.00 03.21.00 Analysis Date SEW032 SEW032 SEW032 SEW032 Batch ID 375.4 375.4 375.4 375.4 Prep Method 1 400 1 400 Dilution Factor _____ _____

In Lance/Larson, Project Manager

Final Page Of Report

REQUIRED: TES NO	SPECIAL CERTIFICATION	CLIENT DISCOUNT:	RUSH SURCHARGE:	DUE DATE:		IAIL STANDARD (RUSHI)	INT. OTWINED: (M9 MSD	OC LEVEL: STD. IV	PROJ. NAME: EPF>	PROJECT #: 0030	PROJECT INFORMATION													10- 290 00	SAMPLE ID	PRODUCTIO	Pinnact: Laboratories 2709-D Pan American Albuquerque, New Me (505) 344-3777 Fax (505) 344-44		Network Project	יויוואניט במצטו
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PROJE	SAMPLE	NSPECTIC~1 FORM	1						
Lab Accession #:003614	7	Date Received:	18-March-00						
1. Was there a Chain of Custody? (Yes No*	8. Were samples checked for preservative? (Check pH of all H ₂ O requiring preservative (STL-PN SOP 917) except VOA vials that require zero	Yes No* N/A						
2. Was Chain of Custody properly filled out and relinquished?	Yes Not N/A	 headspace)* 9. Is there sufficient volume for analysis requested? 10. Were samples received within 	Yes No ⁴ N/A (Can)						
(Criteria: 2° - 6°C: STL-SOP 1055)		Holding Time? (REFER TO STL-SOP 104	ua)						
 Were all samples properly labeled and identified? Did samples require splitting? Reg By: PM Client Other* 	res Not rest No	 Is Headspace visible > ¼" in diameter in VOA vials?" If any headspace is evident, comment in out-of-control section. 	Yes⁴ No (N/A) nt						
 6. Were samples received in proper containers for analysis 	es No⁴	12. If sent, were matrix spike bottle returned?	es Yes No ⁺ N/A						
requested? 7. Were all sample containers received intact?	res No*	13. Was Project Manager notified problems? (initials:)	of Yes No ⁺ (N/A)						
Airbill Number(s): <u>เzราร เเงรนุนุน</u>	4070786	Shipped By:PS							
Cooler Number(s): <u>Clubra</u> <u>Coole</u> Shipping Charges: <u>N</u> A									
Cooler Weight(s): <u>31 Ibs</u> .	·····	Cooler Temp(s) (°C): 	32						
(UST THERMOMETER NUMBER(S) FOR VERIFICATION) Out of Control Events and Inspection Comments:									
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 Note all Out-of-Control and/or questionable evolution Note who requested the splitting of samples of All preservatives for the State of North Carolina pH results (STL-SOP 938). According to EPA, %" of headspace is allowed of-control (STL-SOP 938). 	ents on Comment Section of n the Comment Section of th a, the State of New York, and In 40 mi vials requiring volat	this form. Is form. I other requested samples are to be recorded on t Ule analysis, however, STL makes it policy to reco	he sheet provided to record and any headspace as out-						
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Pinnacle Lab ID number November 14, 2000 010104

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

EL PASO FIELD SERVICES 614 RIELLY STREET FARMINGTON, NM 87401

Project NameEPFS QUARTERLY SAMPLINGProject Number62800107

Attention: ROBERT THOMPSON/SCOTT POPE

On 10/26/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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 8021 analyses were performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other analyses were performed by Environmental Services Laboratory, Inc., Portland, OR.

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

MR: jt

Enclosure

L.



LIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 010104
PROJECT #	: 62800107	DATE RECEIVED	: 10/26/00
ROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 11/14/00
IN	;		DATE
D. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
1	BIS-0010-PZ 08	AQUEOUS	10/25/00
2	BIS-0010-PZ 09	AQUEOUS	10/25/00
J3	BIS-0010-PZ 16	AQUEOUS	10/25/00
04	BIS-0010-PZ 21	AQUEOUS	10/25/00
5	BIS-0010-PZ 22	AQUEOUS	10/25/00
56	BIS-0010-PZ 23	AQUEOUS	10/25/00
07	BIS-0010-PZ 26	AQUEOUS	10/25/00
8	BIS-0010-PZ 29	AQUEOUS	10/25/00
þ	TRIP BLANK	AQUEOUS	10/23/00



I.

GAS CHROMATOGRAPHY RESULTS

EST CLIENT ROJECT # ROJECT N	: IAME	EPA 8021 MOD PHILIP ENVIRC 62800107 EPFS QUARTE	DIFIED DNMENTAL RLÝ SAMPLI	NG		PINNACLE I.E	D.: 010104
SAMPLE				DATE	DATE	DATE	DIL.
D. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	BIS-0010-PZ 08		AQUEOUS	10/25/00	NA	10/30/00	250
<u>0</u> 2	BIS-0010-PZ 09		AQUEOUS	10/25/00	NA	10/30/00	200
3	BIS-0010-PZ 16		AQUEOUS	10/25/00	NA	10/30/00	1
PARAMETE	R	DET. LIMIT		UNITS	BIS-0010-PZ 08	BIS-0010-PZ 09	BIS-0010-PZ 16
ENZENE		0.5		UG/L	15000	2500	0.8
OLUENE		0.5		UG/L	6900	3300	0.7
ETHYLBEN	ZENE	0.5		UG/L	650	150	< 0.5
OTAL XYL	ENES	0.5		UG/L	17	2000	0.7
SURROGAT ROMOFLU SURROGAT	'E: IOROBENZENE ('E LIMITS	%) (80 - 120)			112	114	112

HEMIST NOTES:

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I.

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GAS CHROMATOGRAPHY RESULTS

TEST CLIENT ROJECT # PROJECT N	: : : (AME :	EPA 8021 MOD PHILIP ENVIRC 62800107 EPFS QUARTE	IFIED ONMENTAL RLY SAMPLII	NG		PINNACLE I.I	D.: 010104
SAMPLE				DATE	DATE	DATE	DIL.
D. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	BIS-0010-PZ 21		AQUEOUS	10/25/00	NA	10/30/00	1
05	BIS-0010-PZ 22		AQUEOUS	10/25/00	NA	10/30/00	1
6	BIS-0010-PZ 23		AQUEOUS	10/25/00	NA	10/30/00	1
<u>P</u> ARAMETEI	R	DET. LIMIT		UNITS	BIS-0010-PZ 21	BIS-0010-PZ 22	BIS-0010-PZ 23
ENZENE		0.5		UG/L	55	0.6	< 0.5
TOLUENE		0.5		UG/L	0.7	0.7	< 0.5
ETHYLBENZ	ZENE	0.5		UG/L	< 0.5	< 0.5	< 0.5
PTAL XYLI	ENES	0.5		UG/L	0.6	0.5	< 0.5
SURROGAT ROMOFLU SURROGAT	E: OROBENZENE (% E LIMITS	%) (80 - 120)			116	92	114

HEMIST NOTES: A
2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413



GAS CHROMATOGRAPHY RESULTS

TEST	:	EPA 8021 MOD	IFIED				
<u>C</u> LIENT	:	PHILIP ENVIRC	ONMENTAL			PINNACLE I.	D.: 010104
ROJECT #	ŧ j t	: 62800107					
PROJECT N	NAME :	EPFS QUARTE	RLY SAMPLI	NG			
SAMPLE				DATE	DATE	DATE	DIL.
). #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	BIS-0010-PZ 26		AQUEOUS	10/25/00	NA	10/30/00	1
08	BIS-0010-PZ 29		AQUEOUS	10/25/00	NA	10/30/00	200
<u> </u>	TRIP BLANK		AQUEOUS	10/23/00	NA	10/30/00	1
PARAMETE	R	DET. LIMIT		UNITS	BIS-0010-PZ 26	BIS-0010-PZ 29	TRIP BLANK
ENZENE		0.5		UG/L	< 0.5	5000	< 0.5
TOLUENE		0.5		UG/L	< 0.5	2300	< 0.5
ETHYLBEN	ZENE	0.5		UG/L	< 0.5	350	< 0.5
DTAL XYL	ENES	0.5		UG/L	< 0.5	1800	< 0.5
	ſE:						
ROMOFLU	JOROBENZENE ((%)			109	117	110
SURROGAT	TE LIMITS	(80 - 120)					

HEMIST NOTES:

2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST EANK I. D. GIENT PROJECT #	: EPA 8021 MODIFIED : 103000 : PHILIP ENVIRONMENTAL : 62800107	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	: 010104 : NA : 10/30/00 : AQUEOUS
	: EPFS QUARTERLY SAMPLING		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
LUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE:			
BROMOFLUOROBENZENE (%)		105	
S RROGATE LIMITS: CHEMIST NOTES:	(80 - 120)		
N/A			

- ---





GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M	DIFIED							
SMSD #	: 010100-01				PINNACLE	I.D.	:	010104	
LIENT	: PHILIP ENVI	RONMENT	AL .		DATE EXTR	ACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	10/30/00	
PROJECT NAME	: EPFS QUAR	TERLY SAN	IPLING		SAMPLE M	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
ENZENE	<0.5	20.0	19.9	100	17.6	88	12	(80-120)	20
TOLUENE	<0.5	20.0	19.9	100	19.9	100	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.3	107	21.5	108	1	(80 - 120)	20
DTAL XYLENES	<0.5	60.0	62.4	104	62.6	104	0	(80 - 120)	20

- X 100

CHEMIST NOTES:

A

(Spike Sample Result - Sample Result)
------X 100

% Recovery =

Spike Concentration

(Sample Result - Duplicate Result)

RPD (Relative Percent Difference) =

Average Result

Environmental Services Laboratory, Inc. E

17400 SW Upper Boones Ferry Road • Suite 270 • Portland, OR 97224 • (503) 670-8520 November 10, 2000

Jacinta A. Tenorio Pinnacle Laboratories 2709-D Pan American Fwy NE Albuquerque, NM 87107 TEL: 505-344-3777 FAX (505) 344-4413

RE: 010104/PHIL

Order No.: 0010172

Dear Jacinta A. Tenorio,

Environmental Services Laboratory received 8 samples on 10/27/00 for the analyses presented in the following report.

The Samples were analyzed for the following tests: Nitrate (EPA 353.3) Nitrite in DW (EPA 353.3) Sulfate (EPA 375.4)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval from the Laboratory.

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

Sincerely,

Nichsle Karl

Nichole Karl Project Manager

Keith Hunter

Technical Review

ANALYTICAL SERVICES FOR THE ENVIRONMENT

CLIENT:Pinnacle LaboratoriesLab Order:0010172Project:010104/PHILLab ID:0010172-01A

Date: 10-Nov-00

Client Sample ID: 010104-01 Tag Number: Collection Date: 10/25/00 Matrix: AQUEOUS

Analyses	Result	Limit (Qual Units	DF	Date Analyzed
NITRATE		EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	ND	0.0500	mg/L	1	11/9/00
NITRITE IN DW		EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	ND ND	0.0500	mg/L	1	10/27/00
SULFATE		EPA 375.4			Analyst: gvs
Sulfate	41.1	25.0	mg/L	5	11/7/00

PZ-08

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

E - Value above quantitation range

S - Spike Recovery outside accepted recovery limits

Date: 10-Nov-00

Analyses		Result	Limit Qual l	Units	DF	Date Analyzed
Lab ID:	0010172-02A			Matrix:	AQUE	COUS
Project:	010104/PHIL		C	Collection Date:	10/25/	00
Lab Order:	0010172			Tag Number:		
CLIENT:	Pinnacle Laboratories		Cli	ient Sample ID:	01010	4-02

Amaryses	Result				Dute Muly Zea
NITRATE	<u> </u>	EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	ND	0.0500	mg/L	1	11/9/00
NITRITE IN DW		EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	ND	0.0500	mg/L	1	10/27/00
SULFATE		EPA 375.4			Analyst: gvs
Sulfate	17.0	12.5	mg/L	2.5	11/7/00

PZ - 09

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:Pinnacle LaboratoriesLab Order:0010172Project:010104/PHILLab ID:0010172-03A

Date: -- 10-Nov-00

Client Sample ID: 010104-03 Tag Number: Collection Date: 10/25/00 Matrix: AQUEOUS

Analyses	Result	Limit Qu	ual Units	DF	Date Analyzed
NITRATE	E	PA 353.3			Analyst: gvs
Nitrogen, Nitrate	1.93	0.500	mg/L	10	11/9/00
NITRITE IN DW	E	PA 353.3			Analyst: gvs
Nitrogen, Nitrite	0.0900	0.0500	mg/L	1	10/27/00
SULFATE	E	PA 375.4			Analyst: gvs
Sulfate ,	1,960	600	mg/L	120	11/7/00

PZ-16

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 10-Nov-00

CLIENT:	Pinnacle Laboratories	Client Sample ID:			e ID: 0101	04-04
Lab Order:	0010172			Tag Nun	iber:	
Project:	010104/PHIL			Collection I	Date: 10/25	5/00
Lab ID:	0010172-04A			Ma	trix: AQU	EOUS
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
NITRATE		E	PA 353.3	<u> </u>		Analyst: gvs
Nitrogen, Nitrat	e	0.108	0.0500	mg/L	1	11/9/00

0.108 0.0500 mg/L 1 **NITRITE IN DW** EPA 353.3 Analyst: gvs Nitrogen, Nitrite 0.115 0.0500 mg/L 1 10/27/00 SULFATE EPA 375.4 Analyst: gvs 76.7 50.0 11/7/00 mg/L 10 ç

PZ-21

Qualifiers:

Sulfate

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

010104/PHIL

0010172-05A

CLIENT:

Project:

Lab ID:

Lab Order:

Pinnacle Laboratories 0010172 Date: 10-Nov-00

Client Sample ID: 010104-05 Tag Number: Collection Date: 10/25/00 Matrix: AQUEOUS

Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NITRATE		EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	1.20	0.400	mg/L	8	11/9/00
NITRITE IN DW	I	EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	0.0700	0.0500	mg/L	1	10/27/00
SULFATE	i	EPA 375.4			Analyst: gvs
Sulfate	67.1	50.0	mg/L	10	11/7/00

PZ-22

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:Pinnacle LaboratoriesLab Order:0010172Project:010104/PHILLab ID:0010172-06A

Date: 10-Nov-00

Client Sample ID: 010104-06 Tag Number: Collection Date: 10/25/00 Matrix: AQUEOUS

Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NITRATE	<u> </u>	EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	6.06	1.50	mg/L	30	11/9/00
NITRITE IN DW		EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	2.38	1.00	mg/L	20	10/27/00
SULFATE		EPA 375.4			Analyst: gvs
Sulfate ,	162	50.0	mg/L	10	11/7/00

PZ-23

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Date: 10-Nov-00

CLIENT:	Pinnacle Laboratories	Client Sample ID: 010104-07
Lab Order:	0010172	Tag Number:
Project:	010104/PHIL	Collection Date: 10/25/00
Lab ID:	0010172-07A	Matrix: AQUEOUS

Analyses	Result	Limit Q	Qual Units	DF	Date Analyzed
NITRATE		EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	2.22	1.00	mg/L	20	11/9/00
NITRITE IN DW		EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	ND	0.0500	mg/L	1	10/27/00
SULFATE		EPA 375.4			Analyst: gvs
Sulfate ,	124	50.0	mg/L	10	11/7/00

PZ-26

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Date: 10-Nov-00

CLIENT:	Pinnacle Laboratories	Client Sample ID: 010104-08
Lab Order:	0010172	Tag Number:
Project:	010104/PHIL	Collection Date: 10/25/00
Lab ID:	0010172-08A	Matrix: AQUEOUS

Analyses	Result	Limit	Qual Units	DF	Date Analyzed
NITRATE		EPA 353.3			Analyst: gvs
Nitrogen, Nitrate	0.050	0.0500	mg/L	1	11/9/00
NITRITE IN DW		EPA 353.3			Analyst: gvs
Nitrogen, Nitrite	ND	0.0500	mg/L	1	10/27/00
SULFATE		EPA 375.4			Analyst: gvs
Sulfate ,	322	100	mg/L	20	11/7/00

Pz-29

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT: Work Order:	Pinnacle Laboratories						QC SU	MMAR	Y REPC	RT
Project:	010104/PHIL						÷		Method B	llank
Sample ID: MBlan	ik Batch ID: 01 NITRATE-	Test Code:	EPA 353.3	Units: mg/L		Analysis	Date 11/9/00	Prep Da	ate:	
Client ID: Analyte	0010172 Result	Run ID: POI	HIT MAN_001	1098 SDK Ref Val	0 1 1 0 70	SeqNo:	57882 Hinhl imit DDD Def Val		tui iUda	
Nitrogen, Nitrate	QN	0.05			%KEC			%KFU		Crai
Sample ID: MBlan	IK Batch ID: 01 NITRITE-1	Test Code:	EPA 353.3	Units: ma/L		Analvsis	Date 10/27/00	Prep D	ate:	
Client ID:	0010172	Run ID:	HIT MAN_001	027B		SeqNo:	56741			
Analyte	Result	Ραι	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Vitrogen, Nitrite	QN	0.05								
Sample ID: MBlan	hk Batch ID: 01 SULFATE	Test Code:	EPA 375.4	Units: mg/L		Analysis	Date 11/7/00	Prep D	ate:	
Client ID:	0010172	Run ID:	HIT MAN_001	1078		SeqNo:	57623			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	Đ	κη								
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Quantices:	NU - NOT DETECTED AT THE REPORTING LATING. J - Analyte detected below quantitation lim	nits	qe-e IR-R	ike kecovery outside	e accepted recorrect	svery limits	B - Analyte detecte	ed in the assoc	iated Method E	Slank I o,
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Pinnacle : 0010172 010104/P	Laboratories HIL						ý	QC SUM	IMARY Samj	REPO	RT cate
10176-09B DUP	Batch ID: 01 SULFATE 0010172	Test Code: Run ID:	EPA 375.4 HIT MAN_001	Units: mg/L 107B		Analysis SeqNo:	Date 11/7/00 57641		Prep Date		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RP	D Ref Val	%RPD F	RPDLimit	Qual
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ND - Not De J - Analyte d	tected at the Reporting Limit etected below quantitation lim	its	S - Sp R - RI	ike Recovery outs D outside accept	side accepted rec ed recovery limi	overy limits is	B-/	Inalyte detected	in the associat	ed Method Bl	ank 1 of

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Work Order: 00104/07H1. Sample Matrix Spi Project: 010164/PH1. Sample Matrix Spi Sample Matrix Spi Sample ID: 010164/PH1. Sample Matrix Spi Sample Matrix Spi Sample ID: 010164/PH1. Sample Matrix Spi Sample Matrix Spi Claim ID: Read: POL Frt MAJ 201407B Sample Matrix Spi Pol Sample Matrix Spi Amalysis Data Sample Matrix Spi Sample Matrix Spi Sample Matrix Spi Sample Matrix Spi Amalysis District ID Read: POL Shr Maj 201407B Sample Matrix Spi Sample Matrix Spi Sample Matrix Spi 0 9.4% 7.5 1.25 0 Pol ID Sample Matrix Spi 0 9.4% 7.5 1.25 0 Pol ID Sample Matrix Spi 0 9.4% 7.5 1.25 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15	CLIENT: Pinnacle 1	Laboratories			n de Regeleration de la constant de					d y M M	V DFD	
Sample ID: OFOT78-06B MS Bach ID: OF SULFATE Test Code: EPA 375.4 Units: mgL Analysis Date 117/00 Perp Date: Client ID: 0010172 Run D: HT MAU_001107B Saqvis: 574.42 VRPD RPDLinit Analysis Data POL SRY value SRY value Saqvis: 574.42 VRPD RPDLinit Suffat, Diss 7.23 5 6 0 0.44 75 125 0 7 Suffat, Diss 7.23 5 6 0 0.44 75 125 0 74 20 Suffat, Diss 7.01 5 8 0 8.762 LowLinit HighLunit RPD Ref Val %RPD RPDLinit C Suffat, Diss 7.01 5 8 0 8.762 LowLinit HighLunit RPD Ref Val %RPD RPDLinit C 215 215 215 215 215 215 215 215 215 215 215 215 215 215 215 215 </th <th>Work Order: 0010172 Project: 010104/P</th> <th>HIL</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>÷</th> <th></th> <th>Sampl</th> <th>le Matrix</th> <th>Spil</th>	Work Order: 0010172 Project: 010104/P	HIL						÷		Sampl	le Matrix	Spil
Outline Dots Strate Strat Strat Strat	Sample ID: 0010176-09B MS	Batch ID: 01 SULFATE	Test Code: EPA	375.4	Units: mg/L		Analysis	Date 11/7/	8	Prep D	ate:	
Suffate, Diss 7.23 5 8 0 90.4% 75 125 0 Sample ID: 0010174-058 MSD Batch ID: 11 Eat Code: EA 375.4 Units: mg/L Anaysis Date 117700 Pep Date: Client ID: 0010172 Run ID: HT MAN_001107B SeqNo: 574.3 SeqNo: 574.3 SeqNo: 574.3 Analyte Result PQL. SYK value SYK Rel Val SREC LowILmit: RPD Ref Val SRP ID: RPD Limit Analyte Result PQL. SYK value SYK Rel Val SREC 125 7.23 3.1% 20 Sulfate, Diss 7.01 5 8 0 87.6% 7.23 3.1% 20 Sulfate, Diss 7.01 5 8 0 87.6% 7.23 3.1% 20	Analyte	Result	POL SPI	K value	sPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Ŭ
Sample ID: Or10175-018 MSD Batch ID: O1 SULFATE Test Code: EPA 375.4 Units: mg/L Analysis Date 117100 Prep Date: Clent ID: 001012 Run ID: HT MAN_001107B SeqNo: 57643 SeqNo: 57643 Analyte Result PQL SPK value SPK Ret Val %REC Low/Imit PRID RPD Imit Analyte Result PQL SPK Ret Val %REC Low/Imit PRD 20 Sulfate, Diss 7.01 5 8 0 87.6% 75 7.23 3.1% 20	Sulfate, Diss	7.23	5	ø	0	90.4%	75	125	o			
Analyte Result PQL SPK Raf Value	Sample ID: 0010176-09B MSD Client ID:	Batch ID: 01 SULFATE 0010172	Test Code: EPA : Run ID: HIT M	375.4 IAN_001	Units: mg/L 107B		Analysis SeqNo:	Date 11/7/ 57643	00 _	Prep D	ate:	
Sulfate. Diss 7.01 5 8 0 87.6% 75 7.23 3.1% 20 Aniliter: ND. Not Detected at the Reporting Limit S. Shale Recover unitide account recover limits B. Anilyte affected in the recoverant limit in the rec	Analyte	Result	PQL SPI	K value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	0
Omalifiers: ND - Not Detected at the Reporting Limit S - Snike Recovery outside accented recovery limits B - Analyte detected in the acconted for the acconted for the acconted for the acconted for the accontent Method Relation	Sulfate, Diss	7.01	μ	ω	0	87.6%	75	125	7.23	3.1%	3	
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Environme	ntal Services Laboratory								Ď	ate: 10-Nov-	00
CLIENT: Work Order: Project:	Pinnacle Laboratories 0010172 010104/PHIL						j j	QC SU Laboratory	MMAR Control	Y REPC Spike - ger	IRT neric
Sample ID: LCS Slient ID: Analyte	Batch ID: 01 NITRATE- 0010172 Result	Test Code: Run ID: PQL	EPA 353.3 HIT MAN_001 SPK value	Units: mg/L 109B SPK Ref Val	%REC	Analysis SeqNo: LowLimit	Date 11/9/00 57883 HighLimit F) RD Ref Val	Prep D: %RPD	ate: RPDLimit	Qual
Vitrogen, Nitrate	.304	0.05	0.3	0	101.3%	85	115	0			
sample ID: LCSI Slient ID:	Batch ID: 01 NITRATE- 0010172	Test Code Run ID:	EPA 353.3 HIT MAN_001	Units: mg/L 109B		Analysis SeqNo:	Date 11/9/00 57884		Prep D	ate:	
naiyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RD Ref Val	%RPD	RPDLimit	Qual
litrogen, Nitrate	.303	0.05	0.3	o	101.0%	85	115	o			
Sample ID: LCS Client ID:	Batch ID: 01 NITRITE-1 0010172	Test Code Run ID:	EPA 353.3 HIT MAN_001	Units: mg/L 1027B		Analysis SeqNo:	Date 10/27/0 56742	0	Prep D	ate:	
inalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	Ref Val	%RPD	RPDLimit	Qual
litrogen, Nitrite	.187	0.05	0.2	0	93.5%	85	115	0			
Sample ID: LCSE	Deatch ID: 01 NITRITE-1	Test Code	EPA 353.3	Units: mg/L	i.	Analysis	Date 10/27/(0	Prep D	late:	
Analyte	Result	PQL	SPK value	SPK Ref Vai	%REC	Jequo: LowLimit	30/43 HighLimit F	<pre>PD Ref Val</pre>	%RPD	RPDLimit	Qual
litrogen, Nitrite	.192	0.05	0.2	0	96.0%	85	115	0.187	2.6%	20	
sample ID: LCS Stient ID:	Batch ID: 01 SULFATE 0010172	Test Code Run ID:	: EPA 375.4 HIT MAN_001	Units: mg/L 1107B		Analysis SeqNo:	Date 11/7/0(57624		Prep D	ate:	
nalyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	Ref Val	%RPD	RPDLimit	Qual
ulfate	12.98	ى ك	12	o	108.2%	85	115	0			
Onalifiers:	ND - Not Detected at the Renorting Limit		2			:					

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ELL DEVELOPMENT AND PURGING DATA Page 1 of 1 Project No. 62800373 Phase Jack No. 0301	3.33 3.33 Instruments Serial No. III applicable] 8.33 Contuctive Nater Hydac 1.01 DO Monitor Hydac 1.01 Conductivity Meter Hydac 1.01 Mater Disposal Hydac 2.35 A.22 Conductivity Meter Hydac	Internation District District District 17.1 1.1 Contractivity District District 12.0 6.55 13550 5%0.0 5%0.0 12.1 7.49 13190 7 1 12.5 7.49 13190 7 1 12.5 7.49 13190 7 1 12.5 7.49 13190 7 1 12.5 7.49 13190 7 1 12.5 7.37 13540 7 1 12.5 7.37 13540 7 1 12.6 7.37 13540 7 1 12.6 7.37 13540 7 1 12.6 7.37 13550 7 1 12.6 7.37 13550 7 1 12.6 7.37 13550 7 1 12.6 7.37 13550 7 1 12.6 7.37 13550 7 1 12.6 7.37 100 1 1 12.6 7.37 1 1 1 12.6 7 7 1 1 12.6
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rial Services Group Region Monroe Road gton, NM 87401 Project Name	Serial N Serial N Serial N	1 Obs	servat	ion D	ata		Project Phase.1	Page No. <u>() 81</u> ask No. <u>()</u>	_/_of/ 00373	-
Client Company Site Name <u>2</u>	<u>EL</u> F 57, F ment Inst	Daso F Tare p	5;e1d a; F # ne 0;//	servic L L	es D26 infert		Date <u>h</u> Orobe	ednesd	y 12-06-	
Wall or Piezometer	Time	Reason Not Measured	Depth to Floating Product (feet)	Depth to Water (faet)	Depth to Sinking Product (feet)	Total Well Depth (feet)	Floating Product Thickness (fast)	SinRifig Product Thickness (feet)	Comments	G 10 10
02 29	0945			17.58					1,20 1.0.K. To ground	1/6
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n2 21	10.29			22.41					2,877OK	
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Reason Not Measured: D = Dry; O = Obstructed; N = Not Accessible

Comments Column Hiled "Depth to Water" - measurements include the well Casing above ground surface. The "comments" column is the measurement from Signature ______ Date 12-06-00 Reviewer Allium Date 12/7/00

Form A0102 Rev. 02/24/94 Conforms to ASTM D 4750

top of riser (TOR) to ground surface in feet. The "Ground to Water" next to comments column, is the Depth to water from ground surface for prezometers specified by EPFS.



Industrial Services Group Well Observation Data Central Region 4000 Montoe Road Farmington, NM 87401 Serial No. WOD. Project Name Bisti Flare Pit Monitoring Well Inst. Project Manager Lisa Winn Client Company EPF5 Site Name Bisti Flare Pit Site

Page of
Project No. <u>62800373</u>
Phase.Task No
Date 120800

Depth Measurement Instrument Type Dil/Water Interface Probe

$PZ - 32$ $I/30$ $I8.5 (tor)$ 23.35 $PZ - 33$ $I/45$ $23.9 (tor)$ $\overline{33.5}$ $PZ - 34$ $I200$ $I/9.4 (tor)$ $\overline{3}4.7$ $IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII$	Well or Piezometer	Time	Reason Not Measured	Depth to Floating Product (feet)	Depth to Water (feet)	Depth to Sinking Product (feet)	Total Weil Depth (feet)	Floating Product Thickness (feet)	Sinking Product Thickness (feet)	Comments
Pz - 33 1145 23.9 (t) R) 33.5 PZ - 34 1200 19.4 (t) 2) 34.7 Image: State St	P2-32	1130			18.5 (7	DR)	23:35			
PZ - 34 1200 19.4(trie) 34.7 Image: Strategy of the strategy of	Pz-33	1145			23.9 (1	ur)	33.5			
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Reason Not Measured: D = Dry; O = Obstructed; N = Not Accessible	Reason Not Measure	ed: D = D	ry; O = Obstr	ucted; N = N	lot Accessible	1			<u> </u>	

Signature

____ Date 12 8 07

Reviewer _____ Date _____

DHILIP C	hain of	Custody	Record			
	00 Monroe Hoad rmington, NM 87	401	505) 326-2262 Phone 505) 326-2388 FAX	COC Serial No. C	2806	
Project Name $E_{D}E_{S} = D_{r_{1}} / / m_{s}$ Project Number 63 900 373 Phase . Task 03 $\overline{3}$. / c	Type of Analysis and Bottle				
Samplers C · M.c.92		êr of	all			
Laboratory Name DI A/WA CLE		iquni.	A WAY			
Location AK/3 Q ////M .		1 1630				
Sample Number (and depth) Date Time	Matrix	1			Comments	
BIS-00/2-MW 01 12-06-00 1407	H2O	$x x \lambda$	7		3,571, Flace pit#1 (61) 367)	
BIS-0012-MW 02 B-07-09 1237	$\sum _{1}() $	X X F	X		11 1/	
BIS-00/2-T.W. A.O. w/ 3C	9 W, O	$\frac{\chi \times h}{h}$				
Tris Blank B-02-00 13413	5 4,0	× -				
				and the second se		
Relinquished by:			Received By:			
Signature	Date	Time	Signature	Date	Time	
Chine A - Mars	<u>-02-6</u>	08410				
Samples Iced: 📝 Yes 🗆 No	Carrier: (5	personal AS		Alrbill No.	1 160691 9985	
Preservatives (ONLY for Water Samples) Cyanide Sodium hyroxide (NaOH) Votatile Organic Analysis Hydrochloric acid (HCI) Metals Mirite acid (HUO3) TPH (418.1) Sulfuric acid (H2O4) Other (Specify) Other (Specify)	Shipping and	Lab Notes:				

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PE-176 4/95

2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413

Pinnacle Lab ID number December 26, 2000

012037

PHILIP ENVIRONMENTAL 4000 MONROE ROAD FARMINGTON, NM 87401

EL PASO FIELD SERVICES 614 RIELLY STREET FARMINGTON, NM 87401

Project NameEPFS DRILLINGProject Number62800373

Attention: ROBERT THOMPSON/SCOTT POPE

On 12/08/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

Benzene was confirmed at 8.2 ug/L by EPA method 8260 B.

EPA method 8021 analyses were performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

All other analyses were performed by Severn Trent Laboratories, Inc., Pensacola, 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

MR: jt

Enclosure



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PININGLE	
LABORATORIES	

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LIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 012037
PROJECT #	: 62800373	DATE RECEIVED	: 12/08/00
ROJECT NAME : EPFS DRILLING		REPORT DATE	: 12/26/00
NNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
12037 - 01	BIS-0012-MW01	AQUEOUS	12/06/00
2037 - 02	BIS-0012-MW02	AQUEOUS	12/07/00
12037 - 03	BIS-0012-TW	AQUEOUS	12/07/00
012037 - 04	TRIP BLANK	AQUEOUS	12/07/00

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GAS CHROMATOGRAPHY RESULTS

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TEST CLIENT ROJECT #		: EPA 8021 MOD : PHILIP ENVIRC : 62800373 : EPES DRILLING	DIFIED DNMENTAL	· ·		PINNACLE I.D).: 012037	
SAMPLE				DATE	DATE	DATE	DIL.	-
. #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR	
01	BIS-0012-MW01		AQUEOUS	12/06/00	NA	12/12/00	1	-
62	BIS-0012-MW02	2	AQUEOUS	12/07/00	NA	12/12/00	1	
	BIS-0012-TW		AQUEOUS	12/07/00	NA	12/12/00	1	_
PARAMETE	R	DET. LIMIT		UNITS	BIS-0012-MW01	BIS-0012-MW02	BIS-0012-TW	
ENZENE		0.5		UG/L	2.0	< 0.5	7.6	
TOLUENE		0.5		UG/L	1.1	< 0.5	< 0.5	
ETHYLBEN	ZENE	0.5		UG/L	1.4	< 0.5	< 0.5	
TAL XYL	ENES	0.5		UG/L	3.5	< 0.5	< 0.5	
SURROGAT ROMOFLL SURROGAT	"E: JOROBENZENE ("E LIMITS	(%) (80 - 120)			155*	100	96	

HEMIST NOTES: High surrogate due to matrix interference.

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IEMIST NOTES:

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2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST	: EPA 8021 MOD	IFIED				
CLIENT	: PHILIP ENVIRO	ONMENTAL			PINNACLE I.D.	: 012037
ROJECT #	: 62800373					
PROJECT NAME	: EPFS DRILLING	G				
SAMPLE			DATE	DATE	DATE	DIL.
I # CLIENT I	D	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04 TRIP BLA	NK	AQUEOUS	12/07/00	NA	12/12/00	1
BARAMETER	DET. LIMIT		UNITS	TRIP BLANK		
INZENE	0.5		UG/L	< 0.5		
TOLUENE	0.5		UG/L	< 0.5		
HYLBENZENE	0.5		UG/L	< 0.5		
TAL XYLENES	0.5		UG/L	< 0.5		
SURROGATE:	ZENE (%)			95		
SURROGATE LIMITS	(80 - 120)					



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GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST E ANK I. D. CUENT PROJECT #	: EPA 8021 MODIFIED : 121200 : PHILIP ENVIRONMENTAL : 62800373 : EPES DRILLING	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	: 012037 : NA : 12/12/00 : AQUEOUS
RAMETER	UNITS		
BENZENE	UG/L	<0.5	
	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE:			
BROMOFLUOROBENZENE (%) RROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	96	

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E.

GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 M0	DDIFIED							
MSD #	: 012033-01				PINNACLE	.D.	:	012037	
IENT	: PHILIP ENVI	RONMENTA	4L		DATE EXTR	ACTED	:	NA	
PROJECT #	: 62800373				DATE ANAL	YZED	:	12/12/00	
PROJECT NAME	: EPFS DRILLI	NG			SAMPLE M	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
INZENE	<0.5	20.0	19.7	99	19.9	100	1	(80 - 120)	20
TOLUENE	<0.5	20.0	19.2	96	19.4	97	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.7	104	20.9	105	1	(80 - 120)	20
TAL XYLENES	<0.5	60.0	60.5	101	61.1	102	1	(80 - 120)	20

----- X 100

CHEMIST NOTES:

(Spike Sample Result - Sample Result)

Recovery = ------ X 100

Spike Concentration

(Sample Result - Duplicate Result)

RPD (Relative Percent Difference) =

Average Result



STL Pensacola LOG NO: C0-12229 Received: 09 DEC 00 Reported: 18 DEC 00

Ms. JACINTA TENORIO Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

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	REPORT OF 1	Project: 0120 RESULTS	37, PHIL-EP Sampled Code	FS DRILLING By: Client : 134001218 Page 1
	CANDLE DECOLETION (LOUID CANDI)		DATE/	
LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPL	15	IME SAMPLED	
12229-1 12229-2 12229-3	012037-01 PZ-32 012037-02 PZ-33 012037-03 PZ-34	1. 1. 1.	2-06-00/14: 2-07-00/12: 2-07-00/11:	07 32 39
PARAMETER		12229-1	12229-2	12229-3
Nitrate-Ni Nitrate + Nitrate-N Nitrite-N Dilution Prep Date Analysis Batch ID Prep Meth Analyst	trite, Nitrogen (353.2/354.1/4500-1 Nitrite-N, mg/l , mg/l , mg/l Factor Date od	NO3) 10 5.4 4.6 R4 20 12.09.00 12.13.00 N3W84A 4500-NO3 CR	18 18 <0.1 R4 5 12.09.00 12.13.00 N3W84A 4500-NO3 CR	13 9.2 3.8 R4 20 12.09.00 12.13.00 N3W84A 4500-NO3 CR
Sulfate as Dilution : Prep Date Analysis : Batch ID Prep Metho Analyst	SO4 (375.4), mg/l Factor Date od	4000 200 12.13.00 12.13.00 SEW140 375.4 BE	4200 200 12.13.00 12.13.00 SEW140 375.4 BE	2900 100 12.13.00 12.13.00 SEW140 375.4 BE



STL Pensacola LOG NO: C0-12229 Received: 09 DEC 00 Reported: 18 DEC 00

Ms. JACINTA TENORIO Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

		P: REPORT OF RESULTS	coject: 0120	037, PHIL-E Sampled Code	PFS DRILLING d By: Client e: 134001218 Page 2
				DATE/	
LOG NO	SAMPLE DESCRIPTION , QO	C REPORT FOR LIQUII	SAMPLES 7	TIME SAMPLEI)
12229-4 12229-5 12229-6 12229-7	Method Blank Lab Control Standard % Matrix Spike % Recovery Matrix Spike Duplicate	Recovery 7 % Recovery			
PARAMETER		12229-4	12229-5	12229-6	12229-7
Nitrate-Ni	trite, Nitrogen (353.2/3	54.1/4500-NO3)			
Nitrate +	Nitrite-N, mg/l	<0.1	95 %	96 %	94 %
Nitrite-N	, mg/l	<0.1	105 %	110 %	110 %
Dilution	Factor	1	1	1	1
Prep Date		12.09.00	12.09.00	12.09.00	12.09.00
Analysis	Date	12.13.00	12.13.00	12.13.00	12.13.00
Batch ID	_	N3W84A	N3W84A	N3W84A	N3W84A
Prep Meth	od	4500-NO3	4500-NO3	4500-NO3	4500-NO3
Analyst		CR	CR	CR	CR
Sulfate as	SO4 (375.4), mg/l	<5.0	91 %	69 %	87 %
Dilution	Factor	1	1	400	400
Prep Date		12.13.00	12.13.00	12.13.00	12.13.00
Analysis	Date	12.13.00	12.13.00	12.13.00	12.13.00
Batch ID		SEW140	SEW140	SEW140	SEW140
Prep Meth	od	375.4	375.4	375.4	375.4
Analyst		BE	BE	BE	BE

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

ance W an Lance Larson, Project Manager

Final Page Of Report

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0/2037 oc serial No. C 2806	Comments Comments (50 257) 1 1 1	Date Time 12<800	У, С
stody Record (505) 326-2262 Phone (505) 326-2388 FAX	Type of Analysis and Bottle X X X X X X 001 X X 002 X X 003 03 04 04 04	Hand And And And And And And And And And A	Rec'1 (2) 4.
hain of Cu 00 Monroe Road mington, NM 87401	→ C C T Total Number of Bottles	Date Date Date Date Date Date Date Date	
C C C	Project Name E ρ ESDr. // in SProject Number 62,800 373 Phase. Task 033SamplersC - Mc. GLaboratoryName ρ L // // A C LELaboratoryName ρ L // // A C LELaboratoryName ρ L // // A C LESample Number (and depth)DateBT S - 00/2 - MW 0//2-07-00BT S - 00/2 - MW 0//2-07-00BT S - 00/2 - MW 0//2-07-00BT S - 00/2 - T.W.D2-07-00D L S - 00/2 - T	Relinquished by: Relinquished by: Relinquished by: Relinquished by: Samples loed: Ves 00000000000000000000000000000000000	Cyanide Cyanide Noxide (NaOH) Voiatile Organic Analysis Hydrochloric acid (HCI) Metals Nitric acid (HNO3) TPH (418.1) Sulfuric acid (H2SO4) Other (Specify) Other (Specify)

PE-176 4/95

Data Qualifiers for Final Report

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STL-Pensacola Inorganic/Organic			
B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).		
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were		
	extruded; however, this analyte was not detected in the blank analyzed with the samples.		
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, notto		
	the blank).		
84	Sample results were corrected due to contaminants in Fractionation Blank		
D	Diluted out (surrogate or spike due to sample dilution)		
E	Compound concentration exceeds the upper calibration range of the instrument.		
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (The		
	STL-PN RL is at or above lowest calibration standard in the initial calibration curve).		
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the		
	sample and duplicate result is at or below the STL reporting limit; therefore, the results are "in control".		
H1	Sample and/or duplicate is below 5 X (times) the STL Reporting Limit and the absolute difference between the results		
	exceeds the STL Reporting Limit; therefore, the results are "out of control"		
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.		
J (description)	The analyte was positively identified, the quantitation may be an estimation		
J4	(For positive results)Temperature limits exceeded (\leq^2 °C or \geq 6°C), non-reportable for NDPES compliance monitoring.		
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high		
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this		
	qualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).		
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.		
19	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low		
M1	A matrix effect was present ('sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, ² sample and		
	MS/MSD chromatogram(s) had interfering peaks, *sample result was > 4 X spike added, *metals serial dilution was		
_	performed, or ^s metals post spike is < 40% R)		
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.		
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)		
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.		
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)		
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-		
	digestion) spike.		
R (description)	The data may be unusable due to deticiencies in the ability to analyze the sample and meet QC criteria		
R1	(For nondetects) Temperature limits exceeded (\leq^{2} C or $\geq 6^{\circ}$ C); non-reportable for NDPES compliance monitoring		
RZ	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable		
82	tor NUPES compliance monitoring		
RJ D4	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance		
R4	noiding time exceeded, non-reportable for NUPES compliance monitoring.		
	Consource of the section of the sect		
	Los of sunoyate π is < Lot and analyte is not detected of sunoyate π is < 10% for detects/nondetects.		
	initernal standard area outside -50 % to + 100 % or calibration vehilication standard.		
	Not files d and pressourced at time to collection		
P10	Not intered and preserved at unite of concentration.		
R11	Samples were filtered and reserved within a hours of collection		
R12	Analysis performed outside the 12-hour tune or not within tune criteria		
S1	The Method of Standard Additions (MSA) has been performed on this sample		
S2	Incorrect sample amount was submitted to the laboratory for analysis		
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.		
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound		
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified		
	Compound.		
U	The reported value is < Laboratory MDL (value for result will be the MDL never below the MDL)		
Ŵ	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike		
	absorbance.		
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).		
<u> </u> #	Elevated reporting limit due to insufficient sample size		
1 pt	The compound has been quantitated against a one point calibration.		
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)		
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Revised. 11/21/00

SEVERN TRENT LABORATORIES, INC. – PENSACOLA, FLORIDA STATE CERTIFICATIONS

Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL) Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater) Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental) State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater) State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater) Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL) Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater) Florida, Radioactive Materials License No. G0733-1 Foreign Soil Permit, Permit No. S-37599 Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste) Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water) State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water) Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental -Accreditation Pending) State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida) Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater) State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida) New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater) State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster) New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste) North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater) North Dakota DH& Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida) State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater) Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water) South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA) Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water) Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL) State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater) West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater

Reciprocity with FL)

American Industrial Hygiene Association (AIIIA) Accredited Laboratory, Laboratory ID No. 100704 Iword/certlist/condcert.lst revised 08/25/00

	STL Pensacola PROJECT SAMPLE INSPECTIO	N FORM															
	Lab Order #: $CO12 229$ Date Receive	d: 12-9-00 SERVICES															
	1. Was there a Chain of Custody? (es) No*	8. Were samples checked for Yes No ⁺ N/A ⁺ preservative? (Check pH of all H ₂ O requiring preservative (STL-PN SOP 917) except VOA vials that require															
	2. Was Chain of Custody properly (es) No* filled out and relinquished?	9. Is there sufficient volume for analysis requested?															
	3. Were samples received cold? Yes? No* N/A (Criteria: 2° - 6°C: STL-SOP	10. Were samples received within Hest (10*) Holding Time? (REFER TO STL-SOP 1040)															
	4. Were all samples properly (Yes No ⁺	11. Is Headspace visible > ¼" in Yes* No															
	 5. Did samples require splitting or Yes* No compositing*? 	any headspace is evident, comment in out-of-control															
	 Req By: PM Client Other* 6. Were samples received in proper containers for analysis 	section. 12. If sent, were matrix spike Yes No* N/A bottles returned?															
	requested? 7. Were all sample containers received intact?	13. Was Project Manager notified Yes No* (A) of problems? (initials:)															
	Airbill Number(s): 128781684443823483 Shipped By: UPS																
-	Cooler Number(s): CLIENT	Shipping Charges: <u>N/A</u>															
	Cooler Weight(s): 28 16≤	COLEY															
	Out of Control Events and Inspection Comments: 																
• p),	D) - SAMPLE 012037-1 WAS RECEIVED OUT OF FIOLD TIME.																
	SAMPLES 012037-2 + - 3 WERE RECEIVED WITH MINIMAL																
	HOLD TIME. JA 12-9-00																
		(Use back of PSIFFOR additional notes and comments)															
	Inspected By: AL Date: 12-9-00	Logged By: 14 Date: 12/9/00															
	Note all Out-of-Control and/or questionable events on Comment Section	n of this form. For holding times, the analytici department will flag immediate hold															
	time samples(pH, Dissolved O ₂ , Residual CL) as out of hold time, therefore, these samples will not be documented on this PSIF.																
	Composited must be done in the Volatile Lab. Document: <u>"Volatile sample values may be compromised due to sample splitting (compositing)"</u>																
	+ All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).																
	* According to EPA, ¼ [*] of headspace is allowed in 40 ml vials requiring volatile analysis, however, STL makes it policy to record any headspace as out-of- control (STL-SOP 938, section 2.2.12).																
Date: 12/8 Page: 1 of 1	S REQUEST	СОD Herbicides (615/8151) Herbicides (615/8151) Вазей/Neutral Acid Compounds GC/MS (655/8270) URANIUM (ICP-MS) Вазей/Neutral Acid Compounds GC/MS (655/8270) Солся Alpha/Beta Вазей/Neutral Acid Compounds GC/MS (655/8270) Вазей/Neutral Acid Compounds GC/MS (655/8570) Вазей/Neutral Acid Compounds Compounds							BY: 1. RELINQUISED BY: 2	C Time:	77MM01130	The VID 28/04 Printed Name: Date:	ies, Inc. Company	1. RECEIVED BY: 2	N.S. Time: Signature: Time:	Date: Printed Name: Date:	Company
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Custody	ANALYS	Volatile Organics GC/MS (8260)							 RELINQUISEL	Signature:	JUMONE	Printed Name:	Pinnacle Laborate	RECEIVED BY	Signature: STC-	Plinted Name:	Company
Interlab Chain of (RCRA TCLP METALS Metals-13 PP List TOX TOC Gen Chemistry: //////2_2_5//							SAMPLES SENT TO:	PENSACOLA - STL-FL X	ESL - OR	STL - CT ATFI - A7	ATEL - MARION	ATEL - MELMORE	BARRINGER ENVIRO TEST LABS	WCAS	
Jc.	Jacinta A. Tenorio	NU3 (Speciated) MU3 (Speciated) CO12 22 9 (8) RCRA TIME MATRIX LABID	1407 140 1	1232 2	1139 1 3				SAMPLE RECEIPT	Total Number of Containers	Chain of Custody Seals	Received Intact? Received Good Cond /Cold	LAB NUMBER:				
Pinnacle Laboratories, Ir	Network Project Manager:	Pinnacle Laboratories, Inc. 2709-D Pan American Freeway Albuquerque, New Mexico 871((505) 3443777 Fax (505) 344413 Run all Samples as IN/ even if out of hold - sample in Date SAMPLE ID DATE	012037-01 12/6	-12 12/7	-03 1				PROJECT INFORMATION	PROJECT#: 012037	PROJ. NAME: PHIL	OC LEVEL: (STD) IV OC REOULIRED: MS MSD BLANK	TAT: (STANDARD) RUSH!!		DUE DATE: 12/22 COMMENTS: RUSH SURCHARGE:	CLIENT DISCOUNT:	

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HILFLIN R. Third Sold Profect Ho. 62300/07 Physe. Lask Ho. 0301	$\frac{1}{2} = \frac{1}{2} = \frac{1}$	63 0.10x3 .30	$\begin{array}{ c c c c c c } \hline 0 &		Suiled well Dry Could NoT get water level . Let Recover got water Loval Sanged for Mitcher . Let Recover got water Et Date 4/9/01	F.N.EWFORMAPE_ADID1.DOF 1/31/94
Project Name <u>Eny FS quarterly Sampling</u> Client Company <u>EL Dasty Field String</u> Sile NameBist, Flance Dit (LD 267)	Development Criteria E 3 0 5 Casing Voltmes of Water Removal held of the termination of Indicator Parameters held of the termination of Indicator Parameters held to the termination of termination o	Methods of Development Pump & Bajler D Centritugal & Battom Valve D Stutmersible T Double Check Valve D Peristallic I Stainless-steel Kerminerel D-Other	Water Removal Data Dote Inne Time Removal India fuerte treate india india fuerte treate india definition definited foot/multiple fuerte foot india fuerte foot india		Circle the dale and line that the development calena one met. Comments Bailed hoppreximentely 10 gal R Bailer in Bottom & well 06 Structurs prote Sultites BTEX 1623 A M	Form A0101 Rev. 10/6/74

	Rundson Moleci No. (2900107) Muse lask 110. 0301 Rune I Sen Jawn Co	$\frac{1}{10} = \frac{1}{10} = \frac{1}{10} = \frac{1}{10} = \frac{1}{100} = \frac{1}{100$	1, 10×3 3.30 (Transperulue Meter Hybert 1, 10×3 3.30 (Transperulue Meter Hybert 7, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	gal Bailed well Dry Let Rewer Collected 1.11 4-9-01 Reviewer RT Date 4/9/01	FiltEWFORMARE_A0101.DOT 1/31/94
BENNISTIAL Seriel No. WUPD-	Project Name E p FS ci warterly Scruplins Client CompanyEL pasa Field Scrutces Site Name Bisti Flare pit (LD 362)	Development Criteria Light o 5 Casing Volumes of Water Removal Industriation of Indicator Parameters India 1 and 1	Methods of Development Pump Bajler 13 Centritugat & Bojler 13 Submersible 13 Bouthe Check Valve 13 Peristathic 13 Stainless-steel Kerninteren 13-Other	Water Removal Data Dote line $\frac{Development}{rum}$ $\frac{Removol}{Role}$	Circle the date and time that the development caterin are met. Comments AFTEV Bailing Approximmetely 1.75 Semples BTEX, NITRATES, S. (Fates 1613 Developer's signature (s) M. M.	Form A0101 Rov. 10/6/74

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	Project Ho. CAR A SUL Project Ho. CASUNUL	Rucel Sen Jan CO.	the truth of the	10 05/X3 1, 53 1, 10 thet Disposal Meter Ryders	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
EAUTING AND A Seried Ho. WOPD-	Project Name <u>EpES quarterly</u> Sampling	Client Company <u>EL Peso Field Services</u> Stle Hame B.ST : Flere of CLO 267)	Development Criteria Development Criteria Di 5 Casing Volumes of Water Removal Di Stabilization of Indicator Parameters Di Other Di Other	Methods of Development Pump Bajler La Centrilugat 12 Bottom Valve La Submersible 13 Doubte Check Valve La Peristattic 13 Stainless-steel Kemmeter La Other	Water Removal Data Water Removal Data Dole filme from filme from from tech filmen Poole filme from filme from from tech filmen Poole filme from from from from from from from from

Page of Levenser Project Ho.62802/07	The advised of the second of t	0.40×3 1.2 Uraller Lisposal Lander All and Maler Hudan Control 1.2 Uraller Lisposal Linghosal Li	$\begin{bmatrix} 1 \\ 1 \\ 1 \\ 3 \\ 1 \\ 3 \\ 3 \\ 1 \\ 3 \\ 3 \\$	Liled well Dry Let Recelet Sempled For 1.11 4 -9 - 01 Reviewar RT Date 4/9/01 FANEWERRANDE ADDIDOT 113100
Project Name Sors que Field Services	Sile Name [Si ST, Flare p. L. O. O. 6.7 J Development Criteria K(3) to 5 Casing Volumes of Water Removal to the transmission of Indicator Parameters to the transmission of transmission of the transmission of transmissi	Methods of Development Pump Botien II Centitugal & Bottom Valve II Submersible II Bouble Check Valve II Peristatic II Stainless-steel Kemmeter II-Other	Water Removal Data Dole lime runo failer lime (Lather Lingth Line (Lather Lingth Line (Lather Lather)) Line from failer (Lather) (Lather	Circle the date and time that the development criteria ore met. Comments Baled Approx the rely 87.5 gal B. Brex NITRATES Sulfates 1720 Developer's signature (s) 20 mm

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11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Phase Task No. 0 301	thethinkents Seriel No. II applicable		0.71 0.11×3 33 LEADER ALCORATION Meter ALCORATION AND ALCORATION A	.33 Kurte September BloomFreld N.M.		Lanchuchkilty Dirolocal Commanda	10 1/2 1/4C C420 5.5 210 200		Builed Well Dry Let Recover Sampled for	11.11 4 - 9 - 01 REVIEWAR RT Date 4/9/01	F.N.EWFURINNE_ADIOLOGF 1/31/74
Project Name EpFS quarterly Sampling	Client Company EL pres Field Services	Development Criteria	A Stabilization of Indicator Parameters	Methods of Development Pump Bailer El Centrilugat Tybottom Valve El Submersible El Double Check Valve		Water Removal Data	Dole Ittle Fund Retrieved Motor a trapil Lash Dole Ittle Fund Rate Haad Rate	01.		Circle the date and time that the development cuterio are met. Comments Dart 10 & Approximentely 10 gal	BICX NZTRATES S-Ite.TCS 1203 Developer's Signature(s) R. K. M.	Farm A0101 Rev. 10/6/94

	$\frac{1}{10000000000000000000000000000000000$	11 D. A. Martines Second Martines Second Martines Second Martines Second Martines Ma	3 0.45 1.35 Letter Disposal During Mater Aburtield NiM.	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Bailed well Day Let Reaver Sampled	11 4 -9-01 Reviewer RT Date 4/9 bi	F.N.R.WFORMACPE_ADIGI.CICI 1/31/96
EARLY FOR WHEN AND A CONTRACT OF	Project Name <u>EDTS quenter ly Suppling</u> Client Company EL pasa Field Services	Sile trame $D_{1}ST_{1}$ E/a a $p_{1}T \pm l$ $(LD \ge 6.2)$ Bevelopment Criteria Development Criteria Development Criteria $D_{1}O(0 \le Casing Volumes of Water Hernoval transition of hubble of Water Parameters transition of the transition of	Methods of Development Pump Bgiler D Centrilugat & Bottom Valve B submersible (Check Valve D Peristaltic (D Stainless-steet Kemmerer D-Other D-Other	Water Removal Data Dote fine $\frac{\text{Development}}{\text{fine}}$ $\frac{\text{Removal barbar keept}}{\text{fine}}$ $\text{Remov$	Circle the date and line that the development calena are arei. Comments AFTCr Bailin, bepriox imentery, 5 gal	For KITTRATES SwifterTes 13 Tex 15 50 Developer's Signature (states A M.	Fam A0101 Rav. 10/6/94

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	Rinse Lando Son Project 110. 22 50102 Mase Lask 110.0301	$\frac{1}{2} = \frac{1}{2} = \frac{1}$	65 0.79×3 2.37 Literiperature Meter Reduction	$S_{-1}^{(1)} = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = $	FAREWFORMARE ADIOLIDOF 1/31/94
ANVIEDNMENTIC Sector Ho. WOPD.	Project NameEpES questerly Sampoling Client CompanyEL Deso Field Services Sile NameBisT: Fleve p. [(LD 267)	Development Criteria Development Criteria Labilization of Indicator Parameters D Other D Other	Methods of Development Pump Boiler I Centritugal E Bottom Valve I Submersible II Boubte Check Valve II Peristallic II Stainless-steet Kernuneter II-Other	Water Removal Data Dote Inne reveal at a family from the function of the func	Farm A0101 Rev. 10/6/74

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Right L M. Robert Nobert Nobert No. 6350013 Plinse last No. 0301	$\frac{1}{10} = \frac{1}{10}	0.73×3 2.19 Linder Disposal Busheld Mu	$\begin{bmatrix} 13.9 \\ 13.9 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.4 \\ 13.5 \\ 13.4 \\ 13.5 $	Tex $(1, 1, 2, -9, -0)$ Reviewed <u>ET</u> Date $\frac{4}{9}/\frac{9}{6}$
Project Mame EDES Que Zterly Sarphirs Client CompanyEL Deso Field Scruces Sile Hume B.St i Flare of (LD 267)	Development Criteria M. 3 to 5 Casing Volumes of Water Removal Induction of Inducator Parameters Induced Induc	Methods of Development Pump Builer II Centritugat & Bottern Valve II Submersible II Double Check Valve II Peristattic II Stainless-steet Kermineter II-Other	Water Removal Data Water Removal Data Dole line two formed and the formed and	Comments SAM ples 1354 tor NITrates, Fulfales B Developer's Signature(s) Mr M M

	Project Ho. 628 00101	Revel Sun Jann CO.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8.59 1.40×3 4.2 Literation Meter Kyder Christian Restar Kyder Christian Restar	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
AUVIEDUMENTIE Secol Ho. WOPD	Project NameEpES que Terly Semplies	Sile Hame Bistic Flace pit (LD 227)	Development Criteria MO 5 Casing Volumes of Water Removal Mitigation of Indicator Parameters	Methods of Development Pump Bailer 11 Cenhilvgal GVBottom Valve 11 Submerstble (11 Staintess-steel Kerninere) 12 Peristallic (11 Staintess-steel Kerninere) 11-Other	Water Removal Data Removal Mote Livel Removal Mote Livel Removal Mote Livel Dole filme Dole Mathod Rout Removal Route Dole filme method Rout Route Removal Route Dole filme method X National Route Route Propole filme rump Mole X National Route Propole film X X National Route Propole film X X National National Propole film X X National Propole film X X National Crede the data and fine final fin	

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Project Name	SPPS L	aid No. WDP 31577 FU	0. LAPE	PITI	# /		Pto -	joct Ma	`iaɓou	R. 7	Hame	NOS		Projec	Puge	1 of 1 800433	. (
Client Compo	M EL PN	ASO FIE	un Se	PUICE	Ś	.1								Phase	Task No.	35	1
site Name <u>B</u>	IST FLA	HE PIT	#				ો	s Addres	38	HIND	CHA	co Pri	ANT				,
Developmen X3 to 5 Casi X Stabilization D Other	It Criteria Ing Volumes In of Indicato	of Water or Paramet	Remova ers	_	>-==:	Vater V nittot De nittot De teight o	olume phi of V phi to V (V/ater	Calcula Vell (fee Voter (fe Column	in Velt	9.14 , [[eel]	702 702 3.43	_	nstrumen X pl1 Me D DO Mo	ls Iei nilor	Serial Na	o. (Il applicable) 20AC	
Methods of [Pump [] Cenhilug [] Submersit	Developme Baller al XBotto ble [] Dout	ent om Valve ble Check	k Valve		- <u>[510</u>	Internetie		43. Ven Vuler Volu	rne in Wi Gallo		lock Mons to to ernoved		Ky Condu Ky Tempe LI Other	clivily Me ralure Me	ater H	OAC DAC	
 Peristattic Other 	a Statr	less-steel	Kemme	lei	<u>101 </u>	Hing Flui	olal				. (8		Vater Dis	oosal z SEPA	RATOR		
Water Remo	val Data																
Dale	Develc Develc Mel Tirrite ^{Pump}	Remo Spinent Rut Hiod (gal/r Bolter	oval Intake Te (16	Dapti ell we	Ending Jer Doplin (feel)	Valer Vo (gallons) Curruk	noved Re all a	moved for moved for moved for	itme Itons iditive	nperature (°C)	Ħ	ConductIvIIy [nmhos/cm]	Ditsolved Oxygen Ditsolved Ditsolved	С ^а	ments	
5/1/01 6	120	X				ବ	Q				8.7	6.83	5970		Louoy		
5/1/01 6	930	×									2.8	7.03	5940		LIGHT BRO	WW-SILT	
5/1/01 6	0440	×				/					4.1	7.25	6140		LIGHT SRO	1712-NC00	
Circle the date and Comments	VIELL BAI	developmen LED DR	n criteria o LA AT	re met	eox.	3 GA	۲. Si	M PLED	47	c0/	ما						
Developer's Sig	jnature(s)	al al	Ð		3	ş) ale 🤙	11/0		Ke	iewer	Date	C		
forni A0101 Rev. 11	F6/9/(-									FNNE	WFORM\PE_A010	84/16/1 10Q.10	

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Pinnacle Lab ID number June 07, 2001

104046

PHILIP SERVICE CORPORATION 4000 MONROE ROAD FARMINGTON, NM 87401

EL PASO FIELD SERVICES 614 RIELLY STREET FARMINGTON, NM 87401

Project Name EF Project Number 62

EPFS QUARTERLY SAMPLING 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

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On 04/10/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

Supporting analytical data is attached in Appendix A. For futher discussion see attached letter dated June 7, 2001.

Primary Sulfate data was submitted by Environmental Services Laboratory, Inc. Portland, OR.

EPA method 8021 analyses were performed by Pinnacle Laboratories, Inc. Albuquerque, NM.

Nitrate analyses were performed by Severn Trent Laboratories, Inc. Pensacola, FL.

Additional supporting information is provided by ATEL, Tucson, AZ and Severn Trent Laboratories, Pensacola, 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



JE IENT	: PHILIP SERVICE CORPORATION	PINNACLE ID	: 104046
PROJECT #	: 62800107	DATE RECEIVED	: 04/10/01
OJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 06/07/01
INACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
1 4046 - 01	267-0104-MW 9	AQUEOUS	04/09/01
1 1046 - 02	267-0104-MW 16	AQUEOUS	04/09/01
104046 - 03	267-0104-MW 21	AQUEOUS	04/09/01
164046 - 04	267-0104-MW 22	AQUEOUS	04/09/01
1046 - 05	267-0104-MW 23	AQUEOUS	04/09/01
104046 - 06	267-0104-MW 26	AQUEOUS	04/09/01
<u>10</u> 4046 - 07	267-0104-MW 29	AQUEOUS	04/09/01
4046 - 08	267-0104-MW 32	AQUEOUS	04/09/01
4046 - 09	267-0104-MW 33	AQUEOUS	04/09/01
104046 - 10	TRIP BLANK	AQUEOUS	03/12/01



GAS CHROMATOGRAPHY RESULTS

TEST		: EPA 8021 MOD	IFIED										
CLIENT		: PHILIP SERVIC	E CORPORA	TION	PINNACLE I.D.: 104046								
F OJECT #	ŧ	: 62800107											
PROJECT	NAME	: EPFS QUARTE	RLY SAMPLI	NG									
SAMPLE		7		DATE	DATE	DATE	DIL.						
11 #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR						
01	267-0104-MW	9	AQUEOUS	04/09/01	NA	04/12/01	5						
02	267-0104-MW	16	AQUEOUS	04/09/01	NA	04/12/01	1						
0	267-0104-MW 2	21	AQUEOUS	04/09/01	NA	04/12/01	1						
PARAMETE	R	DET. LIMIT		UNITS	267-0104-MW 9	267-0104-MW 16	267-0104-MW 21						
NZENE		0.5		UG/L	6000(D100)	< 0.5	49						
TOLUENE		0.5		UG/L	4700(D100)	< 0.5	< 0.5						
E HYLBEN	ZENE	0.5		UG/L	150	< 0.5	< 0.5						
	ENES	0.5		UG/L	1800	< 0.5	1.4						
SHRROGA	re:												
EOMOFLU	JOROBENZENE	(%)			109	98	141*						
	TE LIMITS	(80 - 120)											

EMIST NOTES: (1900) = 100x dilution analyzed on 4/12/01. * = High surrogate recovery due to matrix interference.



GAS CHROMATOGRAPHY RESULTS

TEST		: EPA 8021 MOD	IFIED				
ÇLIENT		: PHILIP SERVIC	E CORPORA	TION		PINNACLE I.	D.: 104046
FOJECT #	#	: 62800107					
PROJECT	NAME	: EPFS QUARTE	RLY SAMPLI	NG			
SAMPLE		Ŷ		DATE	DATE	DATE	DIL.
1 #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	267-0104-MW 2	2	AQUEOUS	04/09/01	NA	04/12/01	1
0.5.	267-0104-MW 2	3	AQUEOUS	04/09/01	NA	04/12/01	1
0	267-0104-MW 2	6	AQUEOUS	04/09/01	NA	04/12/01	1
PARAMETE	ER	DET. LIMIT		UNITS	267-0104-MW 22	267-0104-MW 23	267-0104-MW 26
ENZENE		0.5		UG/L	0.7	< 0.5	< 0.5
TOLUENE		0.5		UG/L	< 0.5	< 0.5	< 0.5
ETHYLBEN	IZENE	0.5		UG/L	< 0.5	< 0.5	< 0.5
	ENES	0.5		UG/L	< 0.5	< 0.5	< 0.5
SURROGA ELOMOFLI SURROGA	TE: UOROBENZENE TE LIMITS	(%) (80 - 120)			99	97	97

CLIEMIST NOTES:

NA



GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 104046
3 11 NK I. D.	: 041201	DATE EXTRACTED	: NA
ENT	: PHILIP SERVICE CORPORATION	DATE ANALYZED	: 04/12/01
'ROJECT #	: 62800,107	SAMPLE MATRIX	: AQUEOUS
	: EPFS QUARTERLY SAMPLING		
RAMETER	UNITS		
JENZENE	UG/L	<0.5	
UENE	UG/L	<0.5	
	UG/L	<0.5	
OTAL XYLENES	UG/L	<0.5	
SERROGATE:			
3ROMOFLUOROBENZENE (%)		102	
STROGATE LIMITS:	(80 - 120)		



GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 MC	DIFIED				_			
MSD #	: 104046-06				PINNACLE I	D.	:	104046	
	: PHILIP SERV	ICE CORP	ORATION		DATE EXTR	ACTED	:	NA	
PROJECT #	: 62800107				DATE ANAL	YZED	:	04/06/01	
PROJECT NAME	: EPFS QUAR	TERLY SAN	IPLING		SAMPLE MA	ATRIX	:	AQUEOUS	
					UNITS		:	UG/L	
	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
NZENE	<0.5	20.0	19.5	98	18.9	95	3	(80 - 120)	20
UENE	<0.5	20.0	19.7	99	19.3	97	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.6	103	20.2	101	2	(80 - 120)	20
TAL XYLENES	<0.5	60.0	56.0	93	55.1	92	2	(80 - 120)	20

CHEMIST NOTES:

(Spike Sample Result - Sample Result)

7 Recovery =

Spike Concentration

(Sample Result - Duplicate Result)

--- X 100

-- X 100

RPD (Relative Percent Difference) =

Average Result



STL Pensacola LOG NO: C1-04280 Received: 11 APR 01 Reported: 24 APR 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

Sampled By: Client Code: 100910424 REPORT OF RESULTS Page 1 DATE/ DATE/ LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES TIME SAMPLED 04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW2/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/1 0.34 57 0.68 5.4 38
Code: 100910424 REPORT OF RESULTS DATE/ LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES TIME SAMPLED 04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
REPORT OF RESULTS Page 1 LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES TIME SAMPLED 04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/1 0.34 57 0.68 5.4 38
LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES DATE/ 04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 04280-5 267-0104-MW23/104046-05 04280-2 04280-5 267-0104-MW23/104046-05 04280-3 04280-5 267-0104-MW23/104046-05 04280-3 04280-5 267-0104-MW23/104046-05 04280-2 04280-5 267-0104-MW23/104046-05 04280-3 04280-5 267-0104-MW23/104046-05 04280-2 04280-5 267-0104-MW23/104046-05 04280-2 04280-5 04280-1 04280-2 04280-3 Vitrate-Nitrite, Nitrogen 3053.2/354.1/4500-NO3) 316 Nitrate + Nitrite-N, mg/1 0.34 57 0.68 5.4 38
LOG NO SAMPLE DESCRIPTION , LIQUID SAMPLES TIME SAMPLED 04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/1 0.34 57 0.68 5.4 38
04280-1 267-0104-MW9/104046-01 04-09-01/16:43 04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/1 0.34 57 0.68 5.4 38
04280-2 267-0104-MW16/104046-02 04-09-01/16:13 04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/1 0.34 57 0.68 5.4 38 Nitrate-N, mg/1 0.34 57 0.68 5.4 38
04280-3 267-0104-MW21/104046-03 04-09-01/17:30 04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
04280-4 267-0104-MW22/104046-04 04-09-01/17:20 04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
04280-5 267-0104-MW23/104046-05 04-09-01/17:03 PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
PARAMETER 04280-1 04280-2 04280-3 04280-4 04280-5 Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3) Nitrate + Nitrite-N, mg/l 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
Nitrate + Nitrite-N, mg/l 0.34 57 0.68 5.4 38 Nitrate-N, mg/l 0.34 57 0.68 5.4 38
Nitrate-N, mg/l 0.34 57 0.68 5.4 38
Nitrite-N, mg/1 <0.1 <0.1 <0.1 <0.1 <0.1
Dilution Factor 1 20 1 5 10
Prep Date 04.11.01 04.11.01 04.11.01 04.11.01 04.11.01
Analysis Date 04.17.01 04.17.01 04.17.01 04.17.01 04.17.01
Batch 1D N3W22A N3W22A N3W22A N3W22A N3W22A
Prep method N/A N/A N/A N/A N/A
Analyst CR CR CR CR CR CR
Sulfate as SO4 (375.4), mg/l <5.0 430 960 2900 2800
Dilution Factor 1 20 25 100 100
Prep Date 04.20.01 04.20.01 04.20.01 04.20.01 04.20.01
Analysis Date 04.20.01 04.20.01 04.20.01 04.20.01 04.20.01
Batch ID SEW044 SEW044 SEW044 SEW044 SEW044
Prep Method N/A N/A N/A N/A N/A
Analyst BE BE BE BE BE BE



STL Pensacola LOG NO: C1-04280 Received: 11 APR 01 Reported: 24 APR 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

	REPORT	Project: 104 OF RESULTS	046, PHIL-E	PFS QUARTE Sample Code	RLY SAMPLING d By: Client e: 100910424 Page 2
			-	DATE/	_
LOG NO	SAMPLE DESCRIPTION , LIQUID SA	AMPLES 		IME SAMPLE	/
04280-6	267-0104-MW26/104046-06		0	4-09-01/11	:47
04280-7	267-0104-MW29/104046-07		0	4-09-01/15	:50
04280-8	267-0104-MW32/104046-08		0	4-09-01/13	:34
04280-9	267-0104-MW33/104046-09		0	4-09-01/14	:30
PARAMETER		04280-6	04280-7	04280-8	04280-9
	Nitres /252 2/254 1/4/				
Nitrate-Ni	Nitrite_N mg/l	500-NO3/	-0 1	10	1 2
Nitrate-N	ma/l	62	<0.1	10	12
Nitrite-N	$m_{\alpha}/1$	<01	<0.1	1 8	
Dilution	, mg/1 Factor	20	1	±.0	5
Prep Date		04.11.01	04.11.01	04.11.01	04.11.01
Analysis	Date	04.17.01	04.17.01	04.17.01	04.17.01
Batch ID		N3W22A	N3W22A	N3W22A	N3W22A
Prep Meth	od	N/A	N/A	N/A	N/A
Analyst		CR	CR	CR	CR
Sulfate as	SO4 (375.4), mg/l	3700	31	2600	3800
Dilution	Factor	100	1	100	100
Prep Date		04.20.01	04.20.01	04.20.01	04.20.01
Analysis	Date	04.20.01	04.20.01	04.20.01	04.20.01
Batch ID		SEW044	SEW044	SEW044	SEW044
Prep Meth	od	N/A	N/A	N/A	N/A
Analyst		BE	BE	BE	BE



STL Pensacola LOG NO: C1-04280 Received: 11 APR 01 Reported: 24 APR 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Albuquerque, NM 87107	Northeast		Reported	1: 24 APR 01
RI	Project: 104	046, PHIL-	EPFS QUARTER Sampled Code DATE/	LY SAMPLING By: Client : 100910424 Page 3
LOG NO SAMPLE DESCRIPTION , QC H	REPORT FOR LIQUID	SAMPLES	TIME SAMPLED	
04280-10 Method Blank 04280-11 Lab Control Standard % Re 04280-12 Matrix Spike % Recovery 04280-13 Matrix Spike Duplicate %	ecovery Recovery			
PARAMETER	04280-10	04280-11	. 04280-12	04280-13
Nitrate-Nitrite, Nitrogen (353.2/354 Nitrate + Nitrite-N, mg/l Nitrate-N, mg/l Dilution Factor Prep Date Analysis Date Batch ID Prep Method Analyst	4.1/4500-NO3) <0.1 N/A <0.1 1 04.11.01 04.17.01 N3W22A N/A CR	103 % N/A 100 % 1 04.11.01 04.17.01 N3W22A N/A CR	91 % N/A 95 % 04.11.01 04.17.01 N3W22A N/A CR	92 % N/A 100 % 1 04.11.01 04.17.01 N3W22A N/A CR
Sulfate as SO4 (375.4), mg/l Dilution Factor Prep Date Analysis Date Batch ID Prep Method Analyst	<5.0 1 04.20.01 04.20.01 SEW044 N/A BE	91 % 1 04.20.01 04.20.01 SEW044 N/A BE	58 % 25 04.20.01 04.20.01 SEW044 N/A BE	71 % 25 04.20.01 04.20.01 SEW044 N/A BE

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

anso ω c 7 Lance Larson, Project Manager Final Page Of Report

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STL Pensacola

Data Qualifiers for Final Report

STL-Pensacola Inorganic/C	Drganic
STL4 clisacola morgamore	The analyte was detected in the associated method black (sample itself is flagged even they be comple is ND).
BI	The analyte was detected in the associated method blank (sample itself is hagged even inough sample is ND).
82	The analyte was detected in the sample(s) and in the associated method with the engritude of the day samples were
	extruded, nowever, uns analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not
	to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
E	Compound concentration exceeds the upper calibration range of the instrument.
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (The
•	STL-PN RL is at or above lowest calibration standard in the initial calibration curve)
G	Sample and/or duplicate result is at or below 5 X (times) the STL Reporting Limit and the absolute difference between the
0	sample and unlighter result is at or below the STL reporting limit; therefore, the results are "in control"
114	Sample and ouplicate result is at or below the or the reputing mining interesting the results are in control in the same
HI	Sample ana/or depindate is below 5 x (unles) the 5 x (bound guild and a boolde difference between the results
	exceeds the STL Reporting Limit, therefore, the results are out of control
H2	Sample and duplicate (or MS and MSD) RPD is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded ($\leq 2^{\circ}C$ or $\geq 6^{\circ}C$), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this
	gualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration)
18	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form
10	(For positive results) (CS or Surrogate %B is < lower control limit ((CL)) results may be biased low
55 NA1	A matrix effect was present ("sample MS or MSD was analyzed byte to confirm surrocate/entre failure "comple and/or
1711	A mark elect was present (sample, we of mob was alayzed wice to commission gatespike failure, sample alig/of
	monormal of mathematical mathematical and mathematical and the second se
	performed, or metals post spike is < 40% k)
M2	The MS and/or MSD %K of RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-
	digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For nondetects) Temperature limits exceeded (<2°C or > 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt non-reportable
	for NDPES compliance monitoring
D3	Improver preservation incorrect preservative present in sample upon receipt non-reportable for NPDES compliance
	Holding time avoided, anon-reportable for NDPES compliance monitoring
R4	Samela collection requirements at met see mes applique
RD	Sample whether requirements normal, see case hardwe.
Rb	Los or surrogate % R is < LoL and analyte is not delected or surrogate % R is < 10% for detects/nondetects.
R/	internal standard area outside -50% to +100% or calionation venitication standard.
R8	Initial calibration or any calibration venneation exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound.
TIC	The compound is not within the initial calibration curve. It is searched for gualitatively or as a Tentatively Identified
no	Compound
	The regarded value is ≤ 1 aboratory MDL (value for result will be the MDL never below the MDL)
0	The reported value is 2 calculatory interview of result while de the function of the whole in whole in the whole is the sector and the formation of the sector and the formation of the sector and the se
vv	e basedor spike for Fundee AA is out of control links (05-115%), while sample absorbance is less than 50% spike
0	ausorial expertise limit due to comple composition, pot due to success (dilution extends to stand the stand to stand
Q	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
#	Elevated reporting limit due to insumclent sample size
1 pt	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion ind/or analysis)

QCSHARE\FLAGS&QUALIFIERS\STL PENSACOLA\QUALIFIERPAGE

Revised 12/20/00

STL PENSACOLA

STATE CERTIFICATIONS	
Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)	
Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)	
Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)	
State of California, Department of Health Services, Laboratory ID No. 2338 (Hazardous Waste and Wastewater)	
State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewa	ter)
Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)	
Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)	
Florida, Radioactive Materials License No. G0733-1	
Foreign Soil Permit, Permit No. S-37599	
Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)	
Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)	
State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)	
Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)	
State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)	
Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)	
State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)	
New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater)	
State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)	
New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)	
North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)	
North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)	
State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)	
Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)	
South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)	
Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)	
Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)	
State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)	
West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastev Reciprocity with FL)	vater b

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704 \word\certlist\condcert.lst revised 01/16/01

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	rder #:	104 280	2 Date	Received	1: <u>4</u> ,	11.01	SERVIO	CES
1. W	as there a Chair	of Custody?	(res) I	No*	8.	Were samples checked for preservative? (Check pH of all Hz requiring preservative (STL-PN SOP 917) except VOA vials that require	oYes	No⁺
2. Wa	as Chain of Cus led out and relin	tody properly auished?	Yes I	No⁺	9.	zero headspace)* Is there sufficient volume for analysis requested?	Yes	No⁺
3. W	ere samples rec riteria: 2º - 6ºC:	eived cold? STL-SOP	Yes	No ⁺ N/A	10.	Were samples received within Holding Time? (REFER TO STL-SOP 1040	Yes	No⁴
4. W lat 5. Die	ere all samples p beled and identif d samples requi	properly Tied? re splitting or	Yes I	vo ⁺	11.	Is Headspace visible > ¼" in diameter in VOA vials?* If any headspace is evident,	Yes⁺	No (
co Re 6. W	ompositing"? eq By: PM Cl ere samples rec oper containers	ient Other* eived in for analysis	(Yes)	No⁺	12.	section. lf sent, were matrix spike bottles returned?	Yes	No* (
7. W	quested? ere all sample c ceived intact?	ontainers	Yes I	No ⁺	13.	Was Project Manager notified of problems? (initials:	Yes	No* (
Airbill	Number(s):	17 878 1 4358 99	68 Ol 71			Shipped By: <u>\$P</u>	11/14	
Cooler	r Number(s):	chent		<u> </u>		Shipping Charges:	<u></u>	
Cooler	r Weight(s):	19#				Cooler Temp(s) (°C): (CCKI)	<u>ð</u> "	
Out of	f Control Eve	nts and Insp	ection C	omments:	ŗ	LUST THERMOMETER NUMBER(S) FO	ir verification	-
	<u></u>							
						USE BACK OF PSIFFOR ADDITIONA	L NOTES AND C	OMMENTS)#
	cted By: Dn		Date:신			USE BACK OF PSIFFOR ADDITIONA	L NOTES AND C	
Inspec	cted By: Dr	DH	Date: <u>4</u>	[].O]	L((USE BACK OF PSIFFOR ADDITIONA Dogged By: <u>P4</u> Date	IL NOTES AND C	DMMENTS)
Inspec	cted By: Dr Note all Out-of-Contr time samples(pH, Dis	DH ol and/or questionable solved Oz, Residual	Date: <u>4</u> le events on C CL) as out of I	II.OI	Lo of this fo	(USE BACK OF PSIFFOR ADDITIONA Dgged By: <u>PH</u> Date orm. For holding times, the analyticl departm samples will not be documented on this PSI	IL NOTES AND C : ent will flag in IF.	DMMENTS)

L

Interlab Chain of Custody	A. Tenorio I	Piqe @CVW2 = = = = = = = = = = = = =	2СRA метъц5 ур List (соитек5) 3/Bet3 26+228 93/Bet3 3/Bet3 26+228 60 (сСР-М5) 7/6 726+228 720 726+228 720 726+228 720 726+228 720 726+228 720 726 726 726 726 726 726 726 726 726 726	7 7 7 7 7 7 7 7 7 7 7 7 7 7	ATRIX LABID & R R & M ID C R A R R R R R R R R R R R R R R R R R	40 N N N N N N N N N N N N N N N N N N N									PLE RECEIPT SAMPLES SENT TO: RELINQUISED BY: 1. RELINQUISED BY: 2	of Containers PENSACOLA - STL-FL X Solution: 1, Time: 1745 Insture: Time:	Indy Seals ESL-OR VIUNUUNUUNU IFI	Cond Cond Cold ATE: _ A7 Date: _ Date:	R: ATEL - MARION Pinnacle Laboratories, Inc. Company	ATEL-MELMORE RECEIVED BY: 1. RECEIVED BY: 2	BARRINGER Signature: Time: Signature: Time:	WCAS Printed Name: Date: Printed Name: Date: Date:	
Interlab Chain	ta A. Tenorio	(:	SCRA METALS PP List (23 METALS	C/04 280 1385 (8) Fr 1385 (8)	MATRIX LABID & RC & A	A0 1 1		3	5	<u> </u>	9		7		SAMPLE RECEIPT SAMPLES SENT TO	nber of Containers PENSACOLA - STL-F	Custody Seals ESL - OR	Intact? STL-CT Cond Cond Cold ATEL - A7	ABER: ATEL - MARION	ATEL - MELMORE	BARRINGER	WCAS	
Pinnacle Laboratories, Inc.	Network Project Manager: Jacin	Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, New Mexico 87107 (506) 344-3777 Fax (505) 344-4413	WATCH HOLD TIMES!		SAMPLE ID DATE TIME	267-0104-MW9/104040-01 49 1643	1-1-MW16/104046-02 1613	MW 21/104046-03 1730	02211 \$0-940401/22MW	= - mw23/100/046 05 1703	F411 MW26/10/00/6/6-76	MW 29 104046-07 1550	mw32/104046-08 1334	1-1-1-MWB3/104046-04 1 1/130		РКОЈЕСТ #: 104040 Тоtal Nui	PROJ. NAME: DIff. Chain of	QC LEVEL: (STD) IV Received	TAT. STANDARD RUSHI		DUE DATE: 4/24 COMMENTS:		

Environmental Services Laboratory, Inc.

17400 SW Upper Boones Ferry Road, Suite 270 • Portland, OR 97224 • (503) 670-8520 May 02, 2001

Jacinta A. Tenorio Pinnacle Laboratories 2709-D Pan American Fwy NE Albuquerque, NM 87107 TEL: 505-344-3777 FAX (505) 344-4413

RE: 104046/PHIL

Order No.: 0104046

Dear Jacinta A. Tenorio,

Environmental Services Laboratory received 8 samples on 4/12/01 for the analyses presented in the following report.

The Samples were analyzed for the following tests: Sulfate (EPA 375.4)

There were no analytical problems encountered, and all data met laboratory QC criteria, unless noted in a Case Narrative. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety, without the written approval of the Laboratory. The following checked data sections are included in this report, and numbered to indicate total pages within each report section.

__Base Sample Report __Method Blank Report __Sample Duplicate Report __Matrix Spike/Matrix Spike Duplicate Report __Laboratory Control Spike/Spike Duplicate Report __Continuing Calibration Verification Report __Initial Calibration Verification Report

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

Sincerely,

Nichsle Karl

Nichole Karl Project Manager

Technical Review

ANALYTICAL SERVICES FOR THE ENVIRONMENT

Environmental Services Laboratory

1

Date: 02-May-01

25

4/16/01

SULFATE		E	PA 375.4			Analyst: gvs
Analyses		Result	Limit Qual	Units	DF	Date Analyzed
Lab ID:	0104046-01A			Matrix	AQUE	EOUS
Project:	104046/PHIL			Collection Date:	: 4/9/01	
Lab Order:	0104046			Tag Number:	:	
CLIENT:	Pinnacle Laboratories		C	Client Sample ID:	: 267-0	104-MW16/104046-02

125

mg/L

536

Qualifiers:

Sulfate

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory				Date:			02-May-01		
CLIENT:	Pinnacle Laboratories			. C	lient Sampl	e ID:	267-0	104-MW21/104046-03	
Lab Order:	0104046				Tag Nun	iber:			
Project:	104046/PHIL				Collection I	Date:	4/9/01		
Lab ID:	0104046-02A				Ma	trix:	AQUI	EOUS	
Analyses	······································	Result	Limit	Qual	Units		DF	Date Analyzed	
SULFATE			EPA 375.4					Analyst: gvs	
Sulfate		5,160	1,250		mg/L		250	4/16/01	

Qualifiers:

ND - Not Detected at the Reporting Limit

1

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Environmental Services Laboratory				Date:			02-May-01		
CLIENT:	Pinnacle Laboratories		<u> </u>		lient Sample ID:	267-0	104-MW22/104046-04		
Lab Order:	0104046				Tag Number:				
Project:	104046/PHIL				Collection Date:	4/9/01			
Lab ID:	0104046-03A				Matrix:	AQUI	EOUS		
Analyses		Result	Limit	Qual	Units	DF	Date Analyzed		
SULFATE		E	PA 375.4				Analyst: gvs		
Sulfate		3,840	1,250		ma/L	250	4/16/01		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

1

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

			<u> </u>				•
CLIENT:	Pinnacle Laboratories			C	lient Sample II	D: 267-0	104-MW24/104046-06
Lab Order:	0104046				Tag Numbe	r:	
Project:	104046/PHIL				Collection Dat	e: 4/9/01	
Lab ID:	0104046-05A				Matri	x: AQUI	EOUS
Analyses	<u>.</u>	Result	Limit	Qual	Units	DF	Date Analyzed
SULFATE		E	PA 375.4				Analyst: gvs
Sulfate		4,400	1,250		mg/L	250	4/16/01

Environmental Services Laboratory

!

Date: 02-May-01

. _ . Qualifiers:

.

----ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

.

Pinnacle Laboratories	· · · · · · · · · ·	<u> </u>	Client Sa	mple ID:	267-0	104-MW29/104046	-07	8
0104046			Tag	Number:				
104046/PHIL			Collect	ion Date:	4/9/01			
0104046-06A				Matrix:	AQUI	EOUS		
	Result I	Limit Qu	al Units		DF	Date Analyzed		
	EPA 3	375.4				Analyst:	gvs	'S
	6.30	5.00	mg/L		1	4/16/01		
	1							
							·	
ID - Not Detected at the Repo	rting Limit		S - Spike R	ecovery outs	ide acce	pted recovery limits		
- Analyte detected below qua	ntitation limits		R - RPD ou	itside accepte	ed recove	ery limits		

PHLIP Amendana Fa	hain of C 00 Monroe Road rmington, NM 87401	ustody R	ecord 326-2262 Phone 326-2388 FAX	/0404し oc serial No. C 259C	
Project Name Ept5 Guarterly Samp Project Number 62800107 Phase. Task 030 Samplers C. Marez		Type of Analysis and Bottle			
Laboratory Name Di DAGC 18 Location ALB Q ///M.	dmUN lefo	Ct &	A A A A A A A A A A A A A A A A A A A		
Sample Number (and depth) Date Time	Aatrix To			Comr Comr	nents a. T. H. I
262-0104-MW 49-9-01 164 267-0104-MW 16 4-9-01 1613	5 H2U 4 5 H2O S	×	02		62) 11
867-0104-MW 21 4-9-01 173	O H O S	× × ×	03	-	=
267-0104 -MW 22 4-9-01 170	S Dello	× × × × × ×	04	= =	= =
267-0104-MW 26 4-9-01 114-	C HAO S	· × · × · ×	0 V	-	=
267-0/04-MW 29 4-9-01 155	C HAUS	× × × ×	() () ()		==
267-0104-MW 33 4-9-01 1430	$\frac{1}{2}$	× × × × × ×	0d		=
TRip Bhank 3-12-01 1510	1 0-04	×.	01		
Relinquished by:			Received By:		
Ra A Mature	Date 4 - 70 - 01	OG 3O	MIMMAN L MANN	A 10 01 6	Time 530
Samples Iced:	Shipping and Lab	Notes: Notes:) - Dlie. Te 267-0104	AITBIII NAGLT/60691	9920
 Volatile Organic Analysis	- nell-	2/ Case	sent more trip !	slanks 4.4°C	

PE-176 4/95

APPENDIX A

1



LOG NO: C1-05092 Received: 03 MAY 01 Reported: 14 MAY 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

	Project: 104	4046, PHIL/EPF	'S QUARTEF	RLY SAMPLING
			Sampled	l By: Client
			Code	: 145210514
	REPORT OF RESULTS			Page 1
		DA	TE/	
LOG NO S	AMPLE DESCRIPTION , LIQUID SAMPLES	TIM	E SAMPLED)
05092-1 20	67-0104-MW21-A/104046-03	04-	09-01/17:	30
05092-2 2	67-0104-MW21'B/104046-03	04-	09-01/17:	30
PARAMETER		05092-1	05092-2	
Sulfate as S	04 (375.4), mg/l	1100	1200	
Dilution Fac	ctor	50	50	
Prep Date		05.04.01	05.04.01	
Analysis Dat	te	05.04.01	05.04.01	
Batch ID		SEW051	SEW051	
Analyst		BE ·	BE	

				SER	RVICES
				STL Pens	acola
				LOG NO	: C1-05092
				Received	: 03 MAY 01
				Reported	: 14 MAY 01
Ms Pi 27 Al	. Jacinta Tenorio nnacle Laboratories 09-D Pan American Free buquerque, NM 87107	eway Northeast			
		Project: 1040	046, PHIL/EP	PFS QUARTERI Sampled Code:	LY SAMPLING By: Client : 145210514
		REPORT OF RESULTS			Page 2
			D	ATE/	-
LOG NO	SAMPLE DESCRIPTION ,	QC REPORT FOR LIQUID	SAMPLES TI	ME SAMPLED	
05092-3 05092-4 05092-5 05092-6	Method Blank Lab Control Standard Matrix Spike % Recove Matrix Spike Duplicat	<pre>% Recovery ery te % Recovery</pre>			
PARAMETER		05092-3	05092-4	05092-5	05092-6
Sulfate as	SO4 (375.4), mg/l	<5.0	۔ ۔۔۔۔ 99 ۶	113 %	115 %
Dilution	Factor	1			
Prep Date		05.04.01			
Analysis	Date	05.04.01			
Batch ID		SEW051			
Analyst		BE			
The co					

SEVERN

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report.

M Lance Larson, Project Manager

Final Page Of Report



STL Pensacola

Data Qualifiers for Final Report

- - - - - -

STL-Pensacola Inorganic/C	Drganic
81	The analyte was detected in the associated method blank (sample itself is flagged even though sample is ND).
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were
	extruded; however, this analyte was not detected in the blank analyzed with the samples,
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample not
	to the blank).
B4	Sample results were corrected due to contaminants in Fractionation Blank
D	Diluted out (surrogate or spike due to sample dilution)
F	Compound concentration exceeds the upper calibration range of the instrument
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL: therefore, the quantitation is estimation (The
•	STL-PN RL is at or above lowest calibration standard in the initial calibration curve)
G	sample and/or dunlicate result is at or below 5 X (times) the STI Benorting Limit and the absolute difference between the
8	sample and duplicate result is at or below the STL renorting limit: therefore, the results are "in control"
L1	Sample and/or duplicate is below 5X (times) the STI Reporting Limit and the besolute difference between the sec. It
	Sample and uping the second se
L12	Example and during the first of the Share and the first of the first o
TL2	Sample and depicate (or Mis and Misb) (or bis above control mint).
J (description)	The analyse was positively identified, the quantitation may be an estimation
J4	(For positive results) i emperature limits exceeded (<2-0 cl), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %K is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this
	qualitier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
19	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ('sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, 'sample and/or
	MS/MSD chromatogram(s) had interfering peaks, "sample result was > 4 X spike added, "metals serial dilution was
	performed, or ^a metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-
	digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For nondetects) Temperature limits exceeded ($\leq 2^{\circ}$ C or $\geq 6^{\circ}$ C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable
	for NDPES compliance monitoring
R3	Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met, see case narrative.
R6	LCS or surrogate %R is < LCL and analyte is not detected or surrogate %R is < 10% for detects/nondetects.
R7	Internal standard area outside -50% to +100% of calibration verification standard.
R8	Initial calibration or any calibration verification exceeds acceptance criteria.
R9	Not filtered and preserved at time of collection.
R10	Headspace >1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R11	Samples were filtered and preserved within 4 hours of collection.
R12	Analysis performed outside the 12-hour tune or not within tune criteria.
S1	The Method of Standard Additions (MSA) has been performed on this sample.
S2	Incorrect sample amount was submitted to the laboratory for analysis
S3 (Elashaoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes
T	Second-column or detector confirmation exceeded the SW-846 criteria of 40% RPD for this compound
TIC	The compound is not within the initial calibration curve. It is searched for qualitatively or as a Tentatively Identified
ne	Compound
11	The reported value is < Laboratory MDL (value for result will be the MDL, never below the MDL)
W/	Post-digestion spike for Eurage AA is out of control limits (85-115%), while sample absorbance is less than 50% spike
••	absorbance.
0	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis)
۳ #	Elevated reporting limit due to insufficient sample size
	The compound has been quantitated against a one point calibration.
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)
Inicials of their Orienty	

Revised 12/20/00
STL PENSACOLA STATE CERTIFICATIONS

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Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)
Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)
Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)
State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater)
State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)
Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)
Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)
Florida, Radioactive Materials License No. G0733-1
Foreign Soil Permit, Permit No. S-37599 ⁴
Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)
Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)
State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)
Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)
State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)
Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)
State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)
New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater)
State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)
New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)
North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)
North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)
State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)
Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)
South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)
Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)
Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)
State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)
West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704 \word\certlist\condcert.lst revised 04/10/01

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		۰		SERVI	CES	
1.	Was there a Chain of Custody? (Yes) No*	8.	Were samples checked for preservative? (Check pH of al requiring preservative (STL-PN SO 917) except VOA vials that requir	Yes 17 H2O 19 e	No ⁴	
2.	Was Chain of Custody properly (Yes) No [▲]	9.	Is there sufficient volume f analysis requested?	or Yes	No ⁺	N K
3.	Were samples received cold? (Yes) No ⁺ N/A (Criteria: 2° - 6°C: STL-SOP	10.	Were samples received wit Holding Time? (REFER TO STL-SOP	hin Yes)	No ⁺	
4.	Were all samples properly (Yes) No ⁺ labeled and identified?	11.	Is Headspace visible > ¼" diameter in VOA vials?* If	in Yes⁴	No	0
5.	Did samples require splitting or Yes [*] No		any headspace is evident, comment in out-of-control			
6.	Req By: PM Client Other* Were samples received in proper containers for analysis	12.	section. If sent, were matrix spike bottles returned?	Yes	No⁴ (N
7.	requested? Were all sample containers (Yes) No* received intact?	13.	Was Project Manager notifi of problems? (initials:	ed Yes	No⁴ (
Cod	oler Weight(s): <u>67# 29</u> #	-	Cooler Temp(s) (°C)		<u> </u>	
Out	t of Control Events and Inspection Comments.					
	Multiple project/cooler stupment					
	Watch Hold Times!					
	· · · · · · · · · · · · · · · · · · ·					
					<u> </u>	
			(USE BACK OF PSIFFOR ADD	NONAL NOTES AND	COMMENTS }	G
_	pected By: MHS Date: 5/3/0/	Lo	ogged By: <u>////</u> Da	ate: <u>03-/</u>	UAY-	- (
Ins			_	•		hai
Ins +	Note all Out-of-Control and/or questionable events on Comment Section	n of this fo fore these	rm. For holding times, the ensiyticl dep semples will not be documented on this	ertment will fleg • BSIE	immediate i	

WORDVELKINGVAANPCTINLVINF.DOC November 29, 20

Interlab Chain of Custody		qe GC/W2 3/8085) 12 (8560) 2) 2)	TALS List 23 METALS 23 METALS 270 SIMS 5/8151) 270 SIMS 6608 6/8151) 270 SIMS 6608 6/8151) 270 SIMS 6/608 6/608 6/608 6/608 6/608 6/608 6/608 7/0 7/0 7/0 7/0 7/0 7/0 7/0 7/0 7/0 7/0	-14 tals-13 PP tals-13 PP tals-13 PP A Grease A (6310)/62 bicides (61 bicides (61 bicides (61 c) c) c) c) c) c) c) c) c) c) c) c) c)	Ц							SAMPLES SENT TO RELINCTINED BY: 1 DELINCTINED DV.	PENSACOLA - STL-FL X Sidvature - / Time Simature - Time	ESL-OR JUNNUM JUNN 1700	STL-CT Printed Name: Date: Dat	ATEL - AL TUMUUNU IV IV VU / VU	ATEL - MELMORE RECEIVED BY: 1. RECEIVED BY:	BARRINGER Signature: Time: Signature: Time: Time: Enviro TEST LABS //(LL/C Sw 2/1020) 0945	WCAS Printed Name: UV Date: Printed Name: Date: MUCAS MOHI Struct Flored State:	Company SR PINS Company
Pinnacle Laboratories, Inc.	Network Project Manager: Jacinta A. Tenorio	Piunacle Laboratories, Inc. 2709-D Pan American Freeway, NE Alluquerque, New Mexico 87107 (500) 3443777 Fax (500) 344413	Mied verbuls ASAP!!	(B) elet		267-0104-MW21-A 49 1730 AQ	104046-03	21 1-0104-MWZ1-B/ 4/9 1730 AQ	104046-03 ' '			ROJECT INFORMATION SAMPLE RECEIPT	PRO #CT #: 104046 Total Number of Containers	PRC+1, NAME: PHIL Chain of Custody Seals	QC I VELX STD IV Received Intact?	DICHOURD MS MSU BLANK REGINED GOOD CONSTCOID		DUE LATE: 5/10 UV ASAP COMMENTS: RUSH SURCHARGE:		REQUIRED: YES NO



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- CERTIFICATE OF ANALYSIS -

Client #:	T0608					Repo	ort Date:	17-May-01	!
	Pinnacle Lab	oratories, Inc.							
	2709-D Pan	American Freeway,	NE						
	Albuquerque	, NM 87107-			Phone:	(505) 344	-3777 E	xt:	
Attr	: Mitch Ruben	stein			FAX:	(505) 344	-4413		
0	Г.Ъ. <i>Н.</i> Оболоти	012 /	N	1. TD. 267 0104 N	G ¥0/10404	C 01			
Ourl		012 '	Your Samp	ie 1D: 207-0104-iv	1W9/104040 Geod	D-01			
Date Logg	ed-in: 5/4/01		Sample So	hert #	nneu DO#.	104046			
Dma	iact #. PHII	Date	Submitted to	Lah: 5/4/2001	10#.	104040			
F10	jett#. IIIL	Duic							
		- COI	LECIIO	N INFORMAT	ION -				
		Date/Time/By:	4/9/01	4:43 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
							2410		
								•	
SO4-IC	300.0	Sulfate, SO4			7	mg/L	5/15/01	JMN	2972
							End e	of Report	
			_		U	Om	,		
			Re	port Approved By	: <u> </u>	7110	shu		
	•								
			rizona I ah I	icense No A7000	9				
		r	LILVIN LAU		-		Lab Number (050401012:P	age I



	10008					Rep	ort Date:	29-Мау-О	I
	Pinnacle Lab	oratories, Inc.							
	2709-D Pan	American Freeway	, NE						
	Albuquerque	, NM 87107-			Phone:	(505) 344	-3777 E	Cart:	
Attn:	Mitch Ruben	stein			FAX:	(505) 344	-4413		
Our L a	ab #: 050401(013 /	Your Sampl	e ID: 267-0104-1	MW16/1040)46-02			
Date Logge	d-In: 5/4/01		Sample So	urce: Other/Und	cfined				
Ma	atrix: Water		Client Proj	ect #:	PO#	: 104046			
Proje	ect #: PHIL	Date	Submitted to	Lab: 5/4/2001					
		- CO	LLECTION	N INFORMAT	FION -				
		Date/Time/By:	4/9/01	4:13 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
SO4-IC	300.0	Sulfate, SO4			464	mg/L	5/15/01	JMN	2972
			_			Rm	Ena	oj kepori	
			Ke	port Approved B	y:	Λ		-	

Arizona Lab License No. AZ0009

Lab Number 050401013:Page 1



Client #: T0608 Report Date: 17-May-01 Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, NM 87107-**Phone:** (505) 344-3777 Ext: Attn: Mitch Rubenstein FAX: (505) 344-4413 Your Sample ID: 267-0104-MW21/104046-03 **Our Lab #:** 050401014 / Date Logged-In: 5/4/01 Sample Source: Other/Undefined Matrix: Water **Client Project #: PO#:** 104046 Date Submitted to Lab: 5/4/2001 Project #: PHIL - COLLECTION INFORMATION -4/9/01 5:30 PM Date/Time/By: Analysis Test Group EPA Method Test Result Units Analyst WS# Date Sulfate, SO4 mg/L 5/15/01 SO4-IC 300.0 5100 JMN 2972 End of Report Mosher **Report Approved By:**

Arizona Lab License No. AZ0009

Lab Number 050401014:Page 1



Client #:	T0608					Rep	ort Date:	17-May-01	
	Pinnacle Lab	oratories, Inc.							
	2709-D Pan	American Freeway	, NE						
	Albuquerque	, NM 87107-			Phone:	(505) 344	-3777	lart:	
Attr	: Mitch Ruben	istein			FAX:	(505) 344	-4413	~~~	
Our]	Lab #: 050401	015 /	Your Samp	le ID: 267-0104-	MW21DUP	/104046-03			
Date Logg	ed-In: 5/4/01		Sample So	wrce: Other/Und	efined				
M	[atrix: Water	_	Client Proj	ect #:	PO#	: 104046			
Pro	ject #: PHIL	Date	Submitted to	Lab: 5/4/2001					
		- CO]	LLECTIO	N INFORMAT	TION -				
		Date/Time/By:	4/9/01	5:30 PM					
_		_			_		Analysis		
Test Group	EPA Method	Test		· · · · · ·	Result	Units	Date	Analyst	WS#
SO4-IC	300.0	Sulfate, SO4			5350	mg/L	5/16/01	JMN	2973
							End	of Report	
						2m			
			Ke	port Approved B	<u>y: 4</u>	< Ma	the		
					·	•			
			Arizona Lab I	License No. AZ00	09				_
							Lab Number	050401015:Pd	age I
		2700 F BILBY	ROAD • BU	ILDING A • TUC	SON AZ 85	706			

PHONE 520-573-6565 • 1-800-879-2835 • FAX 520-573-6550



Client #: T0608 Report Date: 17-May-01 Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, NM 87107-**Phone: (505) 344-3777** Ext: Attn: Mitch Rubenstein **FAX: (505) 344-4413** Your Sample ID: 267-0104-MW22/104046-04 Our Lab #: 050401016 / Sample Source: Other/Undefined Date Logged-In: 5/4/01 Matrix: Water **Client Project #: PO#:** 104046 Date Submitted to Lab: 5/4/2001 Project #: PHIL - COLLECTION INFORMATION -Date/Time/By: 4/9/01 5:20 PM Analysis Test Group EPA Method Test Result Units Analyst WS# Date SO4-IC Sulfate, SO4 4790 300.0 mg/L 5/15/01 JMN 2972 End of Report Mosher **Report Approved By:**

Arizona Lab License No. AZ0009

Lab Number 050401016:Page 1



Report Date: 17-May-01

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

Attn: Mitch Rubenstein

T0608

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Client #:

Phone: (505) 344-3777 Ext: **FAX: (505) 344-4413**

Our Lab #: 050401017 ' Your Sample ID: 267-0104-MW23/104046-05 Date Logged-In: 5/4/01 Sample Source: Other/Undefined Matrix: Water **Client Project #:** Project #: PHIL Date Submitted to Lab: 5/4/2001

PO#: 104046

- COLLECTION INFORMATION -

		Date/Time/By:	4/9/01	5:03 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
SO4-IC	300.0	Sulfate, SO4			3790	mg/L	5/15/01	JMN	2972
							End a	f Report	
			Rep	ort Approved B	y:	RM	ostur		<u> </u>

Arizona Lab License No. AZ0009

Lab Number 050401017:Page 1



Client #:	T0608					Repo	ort Date:	17-May-01	1
	Pinnacle Lab	oratories, Inc.							
	2709-D Pan	American Freeway,	NE						
	Albuquerque	, NM 87107-			Phone:	(505) 344	-3777 B	Cxt:	
Atti	n: Mitch Ruber	nstein			FAX:	(505) 344	-4413		
		/	_						
Our	Lab #: 050401	018	Your Samp	le ID: 267-0104-	MW26/1040	46-06			
Date Logg	ed-In: 5/4/01		Sample Se	ource: Other/Und	efined DO#	104046			
IV:		Date	Client Proj	ect #:	ru#	: 104040			
Pro									
		- COI	LECTIO	N INFORMA	110N -				
		Date/Time/By:	4/9/01	11:47 AM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
							Duit		
SO4-IC	300.0	Sulfate SO4			4560	mg/L	5/15/01	IMN	2072
50110	500.0	Dunito, DO I				8	JIJJUI Fnd	of Report	2712
					. /	2m	i Ena	οј περοπ	
			Re	port Approved B	y: Ť	< 116.	shur		
			rizona Lab I	License No. AZ00	09				

Lab Number 050401018:Page 1



Client #:	T0608					Repo	ort Date:	17-May-01	•
	Pinnacle Lab	oratories, Inc.							
	2709-D Pan	American Freeway,	NE						
	Albuquerque	, NM 87107-			Phone:	(505) 344	-3777 E	xt:	
Attn	: Mitch Ruben	stein			FAX:	(505) 344	-4413		
Our l Date Logg	Lab #: 0504010	019 [′]	Your Sample Sample So	e ID: 267-0104-N urce: Other/Unde	MW29/10404 efined	104046			
Proj	ject #: PHIL	Date	Submitted to	Lab: 5/4/2001	PU#:	104040			
		- COI	LECTION	I INFORMAT	TON -				
		Date/Time/By:	4/9/01	3:50 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
SO4-IC	300.0	Sulfate, SO4			43	mg/L	5/16/01	JMN Report	2973
			Rej	oort Approved B	y:K	mos	hu		

Arizona Lab License No. AZ0009

Lab Number 050401019:Page 1



Client #: T0608 Report Date: 17-May-01 Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, NM 87107-**Phone:** (505) 344-3777 Ext: Attn: Mitch Rubenstein FAX: (505) 344-4413 Our Lab #: 050401020 Your Sample ID: 267-0104-MW32/104046-08 Sample Source: Other/Undefined Date Logged-In: 5/4/01 Matrix: Water **PO#:** 104046 **Client Project #:** Date Submitted to Lab: 5/4/2001 Project #: PHIL - COLLECTION INFORMATION -4/9/01 1:34 PM Date/Time/By: Analysis Test Group EPA Method Test Result Units Analyst WS# Date Sulfate, SO4 3630 SO4-IC 300.0 mg/L 5/16/01 JMN 2973 End of Report Mosher **Report Approved By:** Arizona Lab License No. AZ0009 Lab Number 050401020:Page 1



Report Date: 29-May-01

Client #: T0608 Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, NM 87107-

Attn: Mitch Rubenstein

Phone: (505) 344-3777 Ext: FAX: (505) 344-4413

Our Lab #: 050401021 ' Date Logged-In: 5/4/01 Matrix: Water Project #: PHIL Date

Your Sample ID: 267-0104-MW33/104046-09 Sample Source: Other/Undefined Client Project #: PO#: 104046 Date Submitted to Lab: 5/4/2001

- COLLECTION INFORMATION -

		Date/Time/By:	4/9/01	2:30 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
					_				
SO4-IC	300.0	Sulfate, SO4			4460	mg/L	5/18/01	JMN	2973
							End a	of Report	
			Re	port Approved By	: R	'Mos	her		

Arizona Lab License No. AZ0009

Lab Number 050401021:Page 1



Report Date: 29-May-01

#: T0608
 Pinnacle Laboratories, Inc.
 2709-D Pan American Freeway, NE
 Albuquerque, NM 87107-

Attn: Mitch Rubenstein

Client #:

Phone: (505) 344-3777 Ext: FAX: (505) 344-4413

Our Lab #: 050401022 ' Date Logged-In: 5/4/01 Matrix: Water Project #: PHIL

Your Sample ID: 267-0104-MW33DUP/104046-09 Sample Source: Other/Undefined Client Project #: PO#: 104046 Date Submitted to Lab: 5/4/2001

- COLLECTION INFORMATION -

		Date/Time/By:	4/9/01	2:30 PM					
Test Group	EPA Method	Test			Result	Units	Analysis Date	Analyst	WS#
SO4-IC	300.0	Sulfate, SO4			4610	mg/L	5/18/01	JMN	2973
							End a	of Report	
			Re	port Approved By	: K	mos	hur_		

Lab Number 050401022:Page 1



Aqua Tech Environmental Laboratories, Inc.

- QUALITY CONTROL REPORT -

		- V	UALII	IU	UNIN		J NEI UN	L − Pri	nted: 5/2	9/2001
Lab#	Test ID	QC Code	Result	Units	True Added	Q	C Calculations QC1	- QC Calculations - QC2	Lower Limit	Upper Limit
050301022D	SO4	D	68	mg/L	0	2	%D			20
050301022S	SO4	S	96	mg/L	25	106	%R: *		0	
050401019D	SO4	D	43	mg/L	0	1	%D			20
050401019S	SO4	S	97	mg/L	50	107	%R: *		0	
Blank	SO4	В	0	mg/L	0					
Blank	SO4	В	0	mg/L	0					
Calib Check	SO4	ĸ	2	mg/L	2.5	97	%R: *		0	
Calib Check	SO4	κ	2	mg/L	2.5	98	%R: *		0	
Calib Check	SO4	к	2	mg/L	2.5	98	%R: *		0	
Calib Check	SO4	к	2	mg/L	2.5	98	%R: *		0	
Calib Check	SO4	к	3	mg/L	2.5	100	%R: *		0	
Calib Check	SO4	к	3	mg/L	2.5	100	%R: *		0	
	Lab# 050301022D 050301022S 050401019D 050401019S Blank Blank Calib Check Calib Check Calib Check Calib Check Calib Check Calib Check	Lab# Test ID 050301022D SO4 050301022S SO4 050401019D SO4 050401019D SO4 050401019S SO4 Blank SO4 Calib Check SO4	Lab#Test IDQC Code050301022DSO4D050301022SSO4S050401019DSO4D050401019SSO4SBlankSO4BBlankSO4BCalib CheckSO4KCalib CheckSO4K	CC Code Result 050301022D SO4 D 68 050301022S SO4 S 96 050301022S SO4 D 43 050401019D SO4 D 43 050401019S SO4 S 97 Blank SO4 B 0 Blank SO4 B 0 Calib Check SO4 K 2 Calib Check SO4 K 2 Calib Check SO4 K 3 Calib Check SO4 K 3	CALLIECodeResultUnits050301022DSO4D68mg/L050301022SSO4S96mg/L050301022SSO4D43mg/L050401019DSO4D43mg/L050401019SSO4S97mg/LBlankSO4B0mg/LBlankSO4B0mg/LCalib CheckSO4K2mg/LCalib CheckSO4K2mg/LCalib CheckSO4K2mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/LCalib CheckSO4K3mg/L	Lab# Test ID QC Code Result Units True Added 050301022D SO4 D 68 mg/L 0 050301022S SO4 S 96 mg/L 25 050301022S SO4 D 43 mg/L 0 050301022S SO4 S 96 mg/L 25 050401019D SO4 D 43 mg/L 0 0503010102S SO4 S 97 mg/L 0 050401019D SO4 B 0 mg/L 00 050401019S SO4 S 97 mg/L 00 Blank SO4 B 0 mg/L 0 Blank SO4 K 2 mg/L 2.5 Calib Check SO4 K 2 mg/L 2.5 Calib Check SO4 K 2 mg/L 2.5 Calib Check SO4 K 3	QC True Added - Q 050301022D SO4 D 68 mg/L 0 2 050301022S SO4 S 96 mg/L 255 106 050301022S SO4 D 43 mg/L 0 1 050401019D SO4 D 43 mg/L 0 107 Blank SO4 B 0 mg/L 0 0 Blank SO4 B 0 mg/L 0 0 Calib Check SO4 K 2 mg/L 2.5 98 Calib Check SO4 K 2 mg/L 2.5 98 Calib Check SO4 K 3 mg/L 2.5 98 Calib Check SO4 K 3 mg/L 2.5 98 Calib Check SO4 K 3 mg/L 2.5 98 Calib Check SO4 K 3 </td <td>Lab# Test ID Code Code Result Units True Added -QC Calculations QC1 050301022D SO4 D 68 mg/L 0 2 %D 050301022S SO4 S 96 mg/L 25 106 %R: * 050301022S SO4 D 43 mg/L 0 1 %D 050301019D SO4 D 43 mg/L 0 1 %D 050401019D SO4 S 97 mg/L 50 107 %R: * Blank SO4 B 0 mg/L 0 0 Calib Check SO4 K 2 mg/L 2.5 97 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 <td< td=""><td>Lab# Test ID QC Code Result Units Added -QC Calculations QC1 -QC Calculations QC2 050301022D SO4 D 68 mg/L 0 2 %D - QC2 - - QC2 - - QC2 - - QC2 - - - QC2 - - - QC2 - - - - QC2 - <</td><td>Lab# Test ID QC Result Units True Added -QC Calculations - QC1 -QC Calculations - QC2 Lower Limit 050301022D SO4 D 68 mg/L 0 2 %D - QC Calculations - QC2 Lower Limit Lower - QC Calculations - QC2 Lower Limit - QC Calculations - QC2 Lower Lower 050301022S SO4 S 96 mg/L 0 1 %D - 0</td></td<></td>	Lab# Test ID Code Code Result Units True Added -QC Calculations QC1 050301022D SO4 D 68 mg/L 0 2 %D 050301022S SO4 S 96 mg/L 25 106 %R: * 050301022S SO4 D 43 mg/L 0 1 %D 050301019D SO4 D 43 mg/L 0 1 %D 050401019D SO4 S 97 mg/L 50 107 %R: * Blank SO4 B 0 mg/L 0 0 Calib Check SO4 K 2 mg/L 2.5 97 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 mg/L 2.5 98 %R: * Calib Check SO4 K 2 <td< td=""><td>Lab# Test ID QC Code Result Units Added -QC Calculations QC1 -QC Calculations QC2 050301022D SO4 D 68 mg/L 0 2 %D - QC2 - - QC2 - - QC2 - - QC2 - - - QC2 - - - QC2 - - - - QC2 - <</td><td>Lab# Test ID QC Result Units True Added -QC Calculations - QC1 -QC Calculations - QC2 Lower Limit 050301022D SO4 D 68 mg/L 0 2 %D - QC Calculations - QC2 Lower Limit Lower - QC Calculations - QC2 Lower Limit - QC Calculations - QC2 Lower Lower 050301022S SO4 S 96 mg/L 0 1 %D - 0</td></td<>	Lab# Test ID QC Code Result Units Added -QC Calculations QC1 -QC Calculations QC2 050301022D SO4 D 68 mg/L 0 2 %D - QC2 - - QC2 - - QC2 - - QC2 - - - QC2 - - - QC2 - - - - QC2 - <	Lab# Test ID QC Result Units True Added -QC Calculations - QC1 -QC Calculations - QC2 Lower Limit 050301022D SO4 D 68 mg/L 0 2 %D - QC Calculations - QC2 Lower Limit Lower - QC Calculations - QC2 Lower Limit - QC Calculations - QC2 Lower Lower 050301022S SO4 S 96 mg/L 0 1 %D - 0

Q	C Code Legend				
B	Blanks	ĸ	Calibration Checks	S	Spikes
C	Control Samples	М	Matrix Spike Duplicates		•
D	Duplicates	R	Surrogates		_

Interlab Chain of Custody	ANALYSISIREQUEST	32 (8260) (1) (1) (2) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	TCLP METALS 5-13 PP List 5-13 PP List 5-TAL (23 METALS 5-TAL (23 METALS 5-TAL (23 METALS 6 Organics GC/M 6 Organics GC/M 10M (ICP-MS) 70) 70) 70) 70) 70) 71 726+228 70) 70 70 70 70 70 70 70 70 70 70	RCRA Metals Metals		X	5 DUEDATE	1 X X X X X X X X X X X X X X X X X X X					SAMPLES SENTITO: RELINQUISED BY: 1. RELINQUISED BY:	PENSACOLA - STL-FL Signature: - / Time: Signature: / / Time	ESL-OR NUMPLINE MMAD +00 JANN V. JAKET 12"	STL-CT Printed Name: Date: Date: Date: G/	ATEL-AZ X////W/U/WW////W/W/////////////////////	ATEL-MELMORE RECEIVED BY: 110. 1. RECEIVED BY:	BARRINGER Signature: 7/7 // Ime; 60 Signature: Time:	WCAS Detrived Name Date: 1 1 Date: 1 1	WOHL LANIV ULETT 5/4/11 TIME NAME.	Company ATE2- Company
Pinnacle Laboratories, Inc. 70608	Network Project Manager: Jacinta A. Tenorio	Pinnacle Laboratories, Inc. 2709-D Pan American Freeway, NE Albuquerque, New Mexico 87107 (505) 3443777 Fax (505) 344.413	WATCH HOLD TIMES! NEED QC !! (8) RCRA	· SAMPLE ID DATE TIME MATRIX LABID №	2627-0104-MW9/104026-01 499 1603 AW 890461/-	[- -MWIU /104040-02 1613 -	 		mw23/104046-05 1703 -	 mw29/1040246-07 1550	mw32/104046 08 1334 -	マンサーMW33/104646-01 V 114-30 V 114-30 1	PROJECT INFORMATION	PROJECT #: /04046 Total Number of Containers	PROJ. NAME: PHIL Chain of Custody Seals	QC LEVEL: STD IV Received Intact?	QCAEQUIREDS MS MSU BLANK Received Good Cond./Cold TAT ATANDARD RUSHII		DUE DATE: 5150x151P COMMENTS:	RUSH SURCHARGE:	SPECIAL CERTIFICATION	REQUIRED: YES (NO)

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		se s	Number	- 29	36		📕 Develoj 🔲 Purging	une a	WEI.	L DE/	/ELOF	MENT	AND F	URGING DATH	
Project Nar	ne <i>FP</i> 1	Serial Serial	No. WDPD.	P1 39	7#1		Projec	ct Mana	ger	MOHL	SON		Project	No. 1,2800433	1 1
Client Com	pany £	L PASE	2 Aur) SERI	VICES								Phase.1	ask No. 35	1
Sile Name_	Bism	ELMRE	PIT :	#			- Sile A	ddress	BEHIN	JD CHI	teo Pu	ANT			I
Developm X3 to 5 C X Stabilization D Other	ent Crite asing Vol tion of Inc	eria umes of dicator Pi	Water Re arameters	moval		Water / Initial De Initial De Height o	Johnme Ca epth of Wel epth to Wa of Vlater Cb	Inculation I (feet) Jer (feet)	7 28.1 24.1	4' TOR 11' TOR 11 3.43	_	Istrument: X pH Met D D Mor	s eı nitor	Serial No. (Il applicable) HYØAC	
Methods o Pump Centriti D Submer	f Develc ^{Br} sible D	opment aller Bottom Double	Valve Check V	alve		Diamete Item Well Casir Gravel Pa	el (inches): Wule Cubic 3.43	Well Z	Gtav In Well Galloris	el Pack Gallons lo I Retnovec , S6 × 3	eq T	図 Conduc X Temper ゴ Other	ctivity Me ature Me	ter HYDAC ter HYDAC	
D Peristal		Stainles	s-steel Ke	mmerer		Dritting Flu	lds Iolal			1.68	~	Vater Disp	osal SEPAI	2 ATTLE	
Water Ren	ioval Da	ita .													
		Developme Melfiod	Removal Rate (gal/min)	iniake Dap feei	oth Ending Woler Dep (feel)	Water V	olume Remov (gallons)	ed Produ Remov	ct Volume ed Igallonsf	Temperature (°C)	hiq	Conduc/WIY (inmhos/cm)	Dissolved Oxygen (mg/l}	Comments	
Dale	Time	Pump Baile	-			lacremen	I Cumulative	- horemen	Cumulativa						
5/1/01	0920	× >				0-	0-			1.81	6.83	5970		CLOUDY SUM	
5/1/01	0440	< ×					70			1.61	1.25	0710		HEHT SCOW-SILT	
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Circle Ihe date a	wh lime line	ol the deve	Jopment cn	lería ore n	let.										
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Developer's	ignature		Let C	A A	d	S		Date	عرار ک	101	Ker	riewer	Date		
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Project Name 5	PPS BIS	10. WDPD.	19 39	1 # 	ļ	Proje	sel Mane	iger A	VOHL	NOSAL		Project	Page No. 628	01 0
Client Company	EL PASE	PIELD	SERI	11055								Phase.1	lask No	ŝŝ
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Methods of De Pump El Centrifugal El Submersible	velopment Bailer X Bottom	Valve Check Vo	lve		Diamete Item Well Cash	er (inches): Val Cubic ck	er Volum Feel	e In Well Gallons '43	<pre>/el Pack Gallons to Remove , 43 ★</pre>	S	A Condu Tempe	ictivity Me rature Me	ter <u>HK</u> ler <u>HK</u>	0AC
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5/1/01 85	×				0	0	- !) . 	20.7	7.24	3660		LIGHT BROUN	- PROPUCT
5/1/01 100	X				-				21.5	7.30	6830		LIGHT BROWN	- SILTY
Circle the date and lin Comments	ie Ihal Ihe deve. Du CT REA	lopment cri	ena ore m. 25.15	, Joe,	BAIL	-ED DR1		APPEOX	2.5	GAL.	SAM PLED	AT 110	0	
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Developer's Signa	Iure(s)	2 tr	Now	No.		на – на толото има на ми	р () —	te_S/L	101	Re	viewer	Date		
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Atriu athlighter (and Thanking)	10564 Project No. 628 02107 Phase lask No. 0301	Instruments serial No. III applicable	Konductivity Meter Kytec Kiemperature Meter Kytec Outher Water Disposal Vater Disposal	Cardinellityly Conductivityly Dinosead Commanda 1,900 7.550 1,900 0.000 1.900 1,14 7530 1.900 1.900 1.1 1,17 7620 2.55 1.1 1.1 1,17 7620 2.55 1.1 1.1 1,23 7800 2.55 7.00 1.1 1.1		Reviewer RT Date 4/9/01
	S The R-rel S	Find the set of the set $33,61$ and $6,59$.	2.9 2.9 2.9 2.9 2.9 2.9	- 9627 ~ 2,50 ~ 2,60	1705, SLIFIES, 1430	10-6-6
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	Project No. 7 Warpson Project No. 6280101	Phase losk the. 0301	The number of the second of t	6-76 1,10×3 3.30 CI other Disposal	1) NU KUTZ Scoenton AND ALM.	-SO -SO -SO -SO -SO		1.75 gal Bailed well Dry Let Rewer Collected	1.1.1 4, -9-01 Reviewer RT Date 4/9/01	F.AFEWFORMARE ADIDL D.D.F. 1131/94
ANTEDNMENT IN MARKET AND A MORE Sented No. WORD.	Project Name LAFS Guerterly Scurplins	sile Name Bisti Flare pit (LD 367)	Development Criteria 2030 5 Casing Volumes of Water Removal Distabilization of Indicator Parameters Di Other House	Methods of Development Pump Bojler Centitugal d'Bojlom Valve D'Submersible D'Double Check Valve Peristattic D Stainless-steel Kemmerer D-Other	Water Removal Data	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Circle the date and line that the development citiena are and	Comments AFTEr Bailing Approximentely Semples BTER, UTTRATES, S. Hates 1613	Developer's Signature [s] Mr. A. "III ~	Form A0101 Rev. 10/6/91

Run R. Third Solution James Inder Mo. 62 300/07 Project Mo. 62 300/07 Phose Lask Mo. 630 1	The $12.5.521$ historicates seried No. 11 applicable 1.12.521 historicates $1.122.521$ historicates $1.122.521$ historicates $1.122.521$ historication $1.122.521$ historication $1.122.521$	0.10x3 30 11 Alter Disposal	$\left \begin{array}{c c} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 &$
HINTERTIMENTIE HINTERTIMENTE Project NameEntry Scimpting Client CompanyEL Dart (LD 262) Sile NameBisti Flave pit (LD 262)	Development Criteria 23 o 5 Casing Volumes of Water Removal Full 11 - 1 - 1 2 Stabilization of Indicator Parameters Hull 11 - 1 - 1 - 1 1 Other	Methods of Development Bailer Pump Bailer D Centribugat Bailer D Centribugat Battom Valve D Submersible D Double Check Valve D Peristallic D Stainless-steet Kemmerei D-Other D Stainless-steet Kemmerei	Water Removal Data Dote IIme Renoval Mathe (Left) (alter) (al



Pinnacle Lab ID number May 22, 2001 105013

PHILIP SERVICE CORPORATION 4000 MONROE ROAD FARMINGTON, NM 87401

EL PASO FIELD SERVICES 614 RIELLY STREET FARMINGTON, NM 87401

Project NameEPFS BISTI FLARE PIT #1Project Number62800433

Attention: ROBERT THOMPSON/SCOTT POPE

On 05/02/01 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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 8021 analyses were performed by Pinnacle Laboratories, Inc. Albuquerque, NM.

All other analyses were performed by Severn Trent Laboratories, Inc. Pensacola, 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

MR: jt

Enclosure



LIENT	: PHILIP SERVICE CORPORATION	PINNACLE ID	: 105013
ROJECT #	: 62800433	DATE RECEIVED	: 05/02/01
ROJECT NAME	: EPFS BISTI FLARE PIT #1	REPORT DATE	: 05/22/01
NNACLE			DATE
1D #	CLIENT DESCRIPTION	MATRIX	COLLECTED
5013 - 01	BIS-0501-P236	AQUEOUS	05/01/01
5013 - 02	BIS-0501-P235	AQUEOUS	05/01/01
05013 - 03	TRIP BLANK	AQUEOUS	04/16/01

PINNACLE LABORATORIES

GAS CHROMATOGRAPHY RESULTS

TEST		: EPA 8021 MOD	IFIED					
		: PHILIP SERVIC	E CORPORA	TION		PINNACLE I.	D.: 105013	
FOJECT #		: 62800433						
PROJECT N	IAME	: EPFS BISTI FL	ARE PIT #1					_
SMPLE				DATE	DATE	DATE	DIL.	
l #	CLIENT I.D.		MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR	
01	BIS-0501-P236		AQUEOUS	05/01/01	NA	05/03/01	20	
Q	BIS-0501-P235		AQUEOUS	05/01/01	NA	05/03/01	50	
d	TRIP BLANK		AQUEOUS	04/16/01	NA	05/03/01	1	
PARAMETE	R	DET. LIMIT		UNITS	BIS-0501-P236	BIS-0501-P235	TRIP BLANK	
ENZENE		0.5		UG/L	18000(D200)	19000(D200)	< 0.5	
		0.5		UG/L	16000(D200)	12000(D200)	< 0.5	
ETHYLBEN	ZENE	0.5		UG/L	630	800	< 0.5	
TAL XYL	ENES	0.5		UG/L	5300	6500	< 0.5	
SURROGAT	E: OROBENZENE E LIMITS	(%) (80 - 120)			101	115	95	

CHEMIST NOTES:

(200) = 200X dilution analyzed on 5/3/01.

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GAS CHROMATOGRAPHY RESULTS REAGENT BLANK

PINN

TEST BONK I. D. CLIENT PROJECT #	: EPA 8021 MODIFIED : 050301 : PHILIP SERVICE CORPORATION : 62800433	PINNACLE I.D. DATE EXTRACTED DATE ANALYZED SAMPLE MATRIX	: 105013 : NA : 05/03/01 : AQUEOUS
P DJECT NAME	: EPFS BISTI FLARE PIT #1		
PARAMETER	UNITS		
BENZENE	UG/L	<0.5	
TUENE	UG/L	<0.5	
ETHYLBENZENE	UG/L	<0.5	
TOTAL XYLENES	UG/L	<0.5	
SURROGATE:			
BEOMOFLUOROBENZENE (%) SERROGATE LIMITS: CHEMIST NOTES: N/A	(80 - 120)	98	

PINNACLE LABORATORIES

GAS CHROMATOGRAPHY QUALITY CONTROL MSMSD

TEST	: EPA 8021 MC	DDIFIED							
MSD #	: 050301				PINNACLE I	.D.	:	105013	
CHENT: PHILIP SERVICE CORPORATIONPROJECT #: 62800433					DATE EXTR	ACTED	:	NA	
					DATE ANALYZED			05/03/01	
DJECT NAME : EPFS BISTI FLARE PIT #1				SAMPLE MATRIX			AQUEOUS		
					UNITS		:	UG/L	
_	SAMPLE	CONC	SPIKED	%	DUP	DUP		REC	RPD
PARAMETER	RESULT	SPIKE	SAMPLE	REC	SPIKE	% REC	RPD	LIMITS	LIMITS
ENZENE	<0.5	20.0	19.5	98	17.8	89	9	(80 - 120)	20
TOLUENE	<0.5	20.0	20.0	100	18.3	92	9	(80 - 120)	20
HYLBENZENE	<0.5	20.0	20.8	104	19.0	95	9	(80 - 120)	20
TAL XYLENES	<0.5	60.0	61.8	103	56.8	95	8	(80 - 120)	20

CHEMIST NOTES:

(Spike Sample Result - Sample Result)

% Recovery =

Spike Concentration

(Sample Result - Duplicate Result)

--- X 100

- X 100

Relative Percent Difference) =

Average Result



STL Pensacola LOG NO: C1-05094 Received: 03 MAY 01 Reported: 15 MAY 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

- - - -

	Project:	105013, PHIL-EP	FS BISTI F Sampled Code	LARE PIT #1 By: Client
	REPORT OF RESUL	LTS	0040	Page 1
		D	ATE/	y =
LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	TI	ME SAMPLED)
05094-1	BIS-05010-P236/105013-01	05	-01-01/10:	35
05094-2	BIS-05010-P235/105013-02	05	-01-01/11:	00
PARAMETER		05094-1	05094-2	
Sulfate a	s SO4 (375.4), mg/l	540	100	****
Dilution	Factor	25	5	
Prep Date	e	05.04.01	05.04.01	
Analysis	Date	05.04.01	05.04.01	
Batch ID		SEW051	SEW051	
Analyst		BE	BE	
Nitrate-N:	itrite, Nitrogen (353.2/354.1/4500-NO3)			
Nitrate ·	+ Nitrite-N, mg/l	0.23	0.34	
Nitrate-l	N, mg/l	0.23R4	0.34R4	
Nitrite-I	N, mg/l	<0.1R4	<0.1R4	
Dilution	Factor	1	1	
Prep Date	e	05.03.01	05.03.01	
Analysis	Date	05.04.01	05.04.01	
Batch ID		N3W25A	N3W25A	
Analyst		CR	CR	



STL Pensacola LOG NO: C1-05094 Received: 03 MAY 01 Reported: 15 MAY 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

	Proj	ject: 105013, PHIL-EP	FS BISTI FLARE PIT Sampled By: Clie Code: 0756105	#1 nt 515
	REPORT OF	RESULTS	Page	2
		D	ATE/	
LOG NO	SAMPLE DESCRIPTION , QC REPORT FO	DR LIQUID SAMPLES TI	ME SAMPLED	
05094-3 05094-4	Method Blank Lab Control Standard % Recovery			
PARAMETER		05094-3	05094-4	
Sulfate as	s SO4 (375.4), mg/l	<5.0	99 %	-
Dilution	Factor	1		
Prep Date	2	05.04.01		
Analysis	Date	05.04.01		
Batch ID		SEW051		
Analyst		BE		
Nitrate-Ni	trite, Nitrogen (353.2/354.1/4500-	-NO3)		
Nitrate +	Nitrite-N, mg/l	<0.1	100 %	
Nitrite-N	1, mg/l	<0.1	100 %	
Dilution	Factor	1		
Prep Date		05.03.01		
Analysis	Date	05.04.01		
Batch ID		N3W25A		
Analyst		CR		
				-



STL Pensacola LOG NO: C1-05094 Received: 03 MAY 01 Reported: 15 MAY 01

Ms. Jacinta Tenorio Pinnacle Laboratories 2709-D Pan American Freeway Northeast Albuquerque, NM 87107

	Project:	105013, PHI	L-EPFS	BISTI F Sampled Code	LARE PIT #1 By: Client : 075610515
	KEIOKI OF KEDDE	15	DAT	E/	rage 5
LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQ	UID SAMPLES	TIME	SAMPLED	
05094-5 05094-6	Matrix Spike % Recovery Matrix Spike Duplicate % Recovery				
PARAMETER		05094	-5 (05094-6	
Sulfate as	SO4 (375.4), mg/l	113	* *	115 %	
Nitrate-Ni	trite, Nitrogen (353.2/354.1/4500-NO3)				
Nitrate +	Nitrite-N, mg/l	89	¥	92 %	
Nitrite-N	, mg/l	105	\$	105 %	
These regar who s	test results meet all the requirements ding this test report should be directed igned this test report.	of NELAC. d to the ST	All qu L Proje	lestions ect Manag	ger

ū Lance Karson, Project Manager

Final Page Of Report


STL Pensacola

Data Qualifiers for Final Report

· ·- ---

STL-Pensacola Inorganic/	Organic
B1	The analyte was detected in the associated method blank (sample itself is flagged even though sample is NO)
B2	The analyte was detected in the sample(s) and in the associated method blank analyzed on the day samples were
	extruded: however, this analyte was not detected in the blank analyzed with the samples.
B3	The analyte was found in the associated blank as well as in the associated sample(s) (qualifier is applied to the sample, not
20	to the blank)
B4	Sample results were corrected due to contaminants in Fractionation Blank
D D	Diluted out (surroate or spike due to sample dilution)
	Compound concentration exceeds the unner calibration range of the instrument
	The reported value is < STI Penesarola PI and > the STI Penesarola MOL therefore, the guantitation is actimatical (The
F	TE reported value is so re-t chaodia ne and so the stream and and an increase where the quantitation is estimation (the
0	Since in the is a of above lowest calibration standard in the initial calibration during the shoeth to difference between the standard standard in the initial calibration during the shoeth to difference between the standard standa
6	sample and divisions result is at the bow the ST (arrespine ST Actional State and a sector)
	sample and outplicate result is at or below the STL reporting limit, therefore, the results are in control".
HI	Sample and/or duplicate is below 5.4 (unles) the 5.12 Reporting Limit and the absolute difference between the results
	exceeds the STL Reporting Limit, therefore, the results are out of control
H2	Sample and duplicate (or MS and MSD) RPU is above control limit.
J (description)	The analyte was positively identified, the quantitation may be an estimation
J4	(For positive results)Temperature limits exceeded ($\leq 2^{\circ}$ C or $\geq 6^{\circ}$ C), non-reportable for NDPES compliance monitoring.
J6	(For positive results) LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J7	The reported value is > the laboratory MDL and < lowest calibration standard; therefore, the quantitation is an estimation (this
	qualifier should only be used when the STL-PN RL is below the lowest calibration standard in the initial calibration).
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
J9	(For positive results) LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
M1	A matrix effect was present ('sample, MS or MSD was analyzed twice to confirm surrogate/spike failure, ² sample and/or
	MS/MSD chromatogram(s) had interfering peaks, ³ sample result was > 4 X spike added, ⁴ metals serial dilution was
	performed, or ⁵ metals post spike is < 40% R)
M2	The MS and/or MSD %R or RPD was outside upper or lower control limits; not necessarily due to matrix effect.
N/C	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
0	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-
_	digestion) spike.
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
R1	(For pondetects) Temperature limits exceeded ($<2^{\circ}$ C or > 6°C); non-reportable for NDPES compliance monitoring
R2	Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable
	for NDPES compliance monitoring
83	Improver preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4	Holding time exceeded, non-reportable for NDPES compliance monitoring.
R5	Sample collection requirements not met see case narrative.
R6	$L \cap S$ or surrogate $\Re B$ is < 1 Cl and analyte is not detected or surrogate $\Re B$ is < 10% for detects/nondetects
R7	Internal standard area outside -50% to +100% of calibration verification standard
R8	Initial calibration or any calibration verification exceeds accentance criteria
RO	Not filtered and in reserved at time of collection
P10	Hardshare sing prosented at more solution of the solution of t
D11	Samples were filtered and preserved within a hours of collection
D12	Analysis performed outside the 12-bourt time or not within time criteria
R12	Analysis performed outside the restore which has been performed on this sample
51	The Method of Standard Adultors (Mory has been performed on this sample.
52 62 (Electronici)	This method is not decigned for colids and the results may not be accepted by any regulator for such auropsor
53 (Flashpoint)	This method is not designed to solids and the results into the accepted by any regulator for solid purposes.
	Second-country of detector commination exceeded the Sweet of there of 40% AFC for this compound.
1C	The compound is not within the initial calibration curve. It is searched for qualitatively of as a Tenatively identified
	Compound.
0	The reported value is < Laboratory MDL (value for result will be the MDL, never below the MDL)
w	Post-orgestion spike for Purnace AA is out of control limits (05-115%), while sample absorbance is less than 50% spike
-	apsorbance.
Q	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).
Ŧ	Leverage reporting infit due to insufficient sample size
	i ne compound has been quantitateu against a une point caribration.
 (Metals & wet Chem) 	clevated reporting limit due to mainx intenerence (dilotion profilio digestion and/or analysis)

Revised 12/20/00

STL PENSACOLA STATE CERTIFICATIONS

I.

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	STL PENSACOLA STATE CERTIFICATIONS
	Alabama Department of Environmental Management, Laboratory ID No. 40150 (Drinking Water by Reciprocity with FL)
	Arizona Department of Health Services, Lab ID No. AZ0589 (Hazardous Waste & Wastewater)
	Arkansas Department of Pollution Control and Ecology, (No Laboratory ID No. assigned by state) (Environmental)
	State of California, Department of Health Services, Laboratory ID No. 01128CA (Hazardous Waste and Wastewater)
	State of Connecticut, Department of Health Services, Connecticut Lab Approval No. PH-0697 (Drinking Water, Hazardous Waste and Wastewater)
	Delaware Health & Social Services, Division of Public Health, Laboratory ID No. FL094 (Drinking Water by Reciprocity with FL)
	Florida DOH Laboratory ID No. E81010 (Drinking Water, Hazardous Waste and Wastewater)
	Florida, Radioactive Materials License No. G0733-1
	Foreign Soil Permit, Permit No. S-37599
	Kansas Department of Health & Environment, Laboratory ID No. E10253 (Wastewater and Hazardous Waste)
	Commonwealth of Kentucky, Natural Resources and Environmental Protection Cabinet, Laboratory ID No. 90043 (Drinking Water)
	State of Louisiana, DHH, Office of Public Health Division of Laboratories, Laboratory ID No. LA000017 (Drinking Water)
	Louisiana Department of Environmental Quality, Environmental Laboratory Accreditation Program, Agency Interest ID 30748 (Environmental - Accreditation Pending)
	State of Maryland, DH&MH Laboratory ID No. 233 (Drinking Water by Reciprocity with Florida)
	Commonwealth of Massachusetts, DEP, Laboratory ID No. M-FL094 (Hazardous Waste and Wastewater)
	State of Michigan, Bureau of E&OccH, Laboratory ID No.9912 (Drinking Water by Reciprocity with Florida)
	New Hampshire DES ELAP, Laboratory ID No. 250599A (Wastewater)
	State of New Jersey, Department of Environmental Protection & Energy, Laboratory ID No. 49006 (Wastewate and Hazardous Waster)
	New York State, Department of Health, Laboratory ID No. 11503 (Wastewater and Solids/Hazardous Waste)
•	North Carolina Department of Environment & Natural Resources, Laboratory ID No. 314 (Hazardous Waste and Wastewater)
	North Dakota DH&Consol Labs, Laboratory ID No. R-108 (Drinking Water, Wastewater and Hazardous Waste by Reciprocity with Florida)
	State of Oklahoma, Oklahoma Department of Environmental Quality, Laboratory ID No. 9810 (Hazardous Waste and Wastewater)
	Commonwealth of Pennsylvania, Department of Environmental Resources, Laboratory ID No. 68-467 (Drinking Water)
	South Carolina DH&EC, Laboratory ID No. 96026 (Wastewater by Reciprocity with FL and Solids/Hazardous Waste by Reciprocity with CA)
	Tennessee Department of Health & Environment, Laboratory ID No. 02907 (Drinking Water)
	Virginia Department of General Services, Laboratory ID No. 00008 (Drinking Water by Reciprocity with FL)
	State of Washington, Department of Ecology, Laboratory ID No. C282 (Hazardous Waste and Wastewater)
	West Virginia Division of Environmental Protection, Office of Water Resources, Laboratory ID No. 136 (Hazardous Waste and Wastewater by Reciprocity with FL)

American Industrial Hygiene Association (AIHA) Accredited Laboratory, Laboratory ID No. 100704 \word\certlist\condcert.lst revised 04/10/01

	ROJECT SA	MPLE	INSP	PECT	ΓΙΟΙ	V F	ORM				
	\cap	in a de	/ / .	_			1 7		I RE	N]	
Lat	o Order #:	0509		te Rec	eived	:	513101		SERVI	CES	
1.	Was there a Chain	of Custody?	Ves	No⁴		8.	Were samples checke preservative? (Check p requiring preservative (STL 917) except VOA vials that	d for H of ell H2 PN SOP Frequire	o Yes	No⁴	٢
2.	Was Chain of Cust filled out and reline	ody properly juished?	Yres	No⁴		9.	Is there sufficient volu analysis requested?	ime for	(Yes)	No⁴	N ()
3.	Were samples rece (Criteria: 2° - 6°C: 3	ived cold? STL-SOP	Yes	No⁺	N/A	10.	Were samples receive Holding Time? (REFER TO S	d within TL-SOP 1040	Yes	No⁴	
4. 5 <i>.</i>	Were all samples p labeled and identifi Did samples require compositing [†] ?	roperly ed? e splitting or	(Yes) Yes [*] (No ⁴		11.	Is Headspace visible 2 diameter in VOA vials any headspace is evid comment in out-of-con section	> ¼" in ?* If ent, ntrol	Yes⁴	No	
6.	Were samples rece proper containers f	ived in for analysis	Yes	No⁺		12.	If sent, were matrix s bottles returned?	pike	Yes	No⁺	
7.	Were all sample co received intact?	ontainers	Yes	No⁴		13.	Was Project Manager of problems? (initials:	notified	Yes	No*	6
Co	oler Number(s):	Client	<u>ب</u>	а	int A°		Shipping Charg	es:	Nh	4	_
Co	oler Weight(s):	67 <u>#</u>		7	9#		Cooler Temp(s)	(°C):	5°C	<i>U°</i> (-
							LIST THERMOMETER	NUMBER(S) FO	CCK 9	}	-
0.	nt of Control Even Multiple pr	its and Insp 9 cit / Cool	ection Er S	Comn Twpm	nents:	, 		·	·		
							<i></i>				
		<u></u>									
 										· ^	
							(Use back of PSIFF	OR ADDITIONA	L NOTES AND C	OMMENT	s)@
	enected By:	MHs		5/21			(Use BACK OF PSIFF		L NOTES AND C	OMMENT	s)@
	spected By:	MHs	Date:	5/31	0,	La	(Use BACK OF PSIFF	OR ADDITIONA	L NOTES AND C	omment MA	s)@

+ All preservatives for the State of North Caroline, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (STL-SOP 938, section 2.2.9).

* According to EPA, %" of heedspace is allowed in 40 ml viels requiring voletile analysis, however, STL makes it policy to record any headspace as out-ofcontrol (STL-SOP 938, section 2.2.12).

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WORDIGLEBINGAMPCTILLYOF DOC Neverbar 28, 2000

. 5 2 Page: 1 of		SMAD 20	А (6310)/6270 SIM3 40 (TCLP 1311) ZHI 40 (TCLP 1311) ZHI 56270) 58270) 58270) 58270) 58270) 58270) 58270) 58270) 58270) 5910 7010 702 7010 702 702 702 702 702 702 702 702 702 70								1. RELINQUISED BY: 2	A Signature: Time:		Printed Name: Date.	Company	1. RECEIVED BY: 2	Signature: Time:	Printed Name: Date:		Company
Custody Date:	ANALYSIS REQUEST	(0928) SI	h Chemisuy: Hu NO3, 504 and Grease D D STICIDES/PCB (60 STICIDES/PCB (60 Composition of the state STICIDES/PCB (60 STICIDES/PCB (· · · · · · · · · · · · · · · · · · ·							RELINQUISED BY:	Stoffature: - 1, Time: M	JUNICIPUL SAULO 170	Wild Name: Date/	Pinnacle Laboratories, Inc.	RECEIVED BY:	Signature: SwarMor Jime:	Printed Name: Date:	Mat Swatter 51310	
Interlab Chain of		(5	tals (8) ЯСRA RA TCLP METALS stals-13 PP List tals-TAL (23 METALS У С	Me Me Me							SAMPLES SENT TO:	PENSACOLA - STL-FL	ESL - OR	STL-CI ATEL-AZ	ATEL - MARION	ATEL - MELMORE	BARRINGER ENVIRO TEST I ABS	WCAS	WOHL	
atories, Inc.	Aanager: Jacinta A. Tenorio	Inc. Freeway, NE xico 87107 3	105094	DATE TIME MATRIX LABID	1 5/1 1035 AQ	1 10011 1 1					and a second second second as a second second second second second second second second second second second se	Total Number of Containers	Chain of Custody Seals	Received Intact? BLANK Received Good Cond /Cold	LAB NUMBER:		COMMENTS			
Pinnacle Labor	Vetwork Project N	Pinnacle Laboratories, 2709-D Pan American Albuquerque, New Me (506) 344-3777 Fax (506) 344-441	\bigcirc	SAMPLE ID	0-210501-2236/102013-0	BIS-0501-P235/105013-02				•	PROJECT INFORMATION	PROJECT #: 105013	PROJ. NAME: THIL	OC LEVEL: STD: IV	TAT: STANDARD RUSHII		DUE DATE: 5/16	CLIENT DISCOUNT:	SPECIAL CERTIFICATION	REQUIRED: TEA INY

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/0 <i>5013</i> coc serial No. C 2527	Comments	$\frac{1}{(\sqrt{2})} = \frac{1}{5} \frac{1}{2} \frac{1}{$	AITDIII NO. GLE 160 691 9590 S DIRECTLY. SEND LAB RESULTS S AND ROBERT THOMPSON W/ PSC. D.2 2
Custody Record (505) 326-2388 FAX (505) 326-2388 FAX	Type of Analysis and Bottle and Bottle and Bottle Analysis Analysi	Time Received By: 1525 MULINUL MUL	YHBUNJO LINES ab Notes: BILL SCOTT POPE W/ EPF TO SLOTT POPE W/ EPP NOUN ()
Chain of 4000 Monroe Road Farmington, NM 874	P17 #1 B17 #1 B17 #1 B15 C1035 H20 1035 H20 1000 H20 1000 H20 1000 H20	$\begin{array}{c c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	Carrier: CR xide (NaOH) Shipping and L ic acid (HIO3) acid (H2SO4)
BHLD	Project Name EPFS & ISTT FLARE 1 Project Number 62800433 Phase . Ta Samplers R. THOMPSON Laboratory Name PLNNACLE LA Laboratory Name PLNNACLE LA Laboratory Location AL&UQUE/QO Sample Number (and depth) Date BIS - OSDI - P236 S/1 OI BIS - OSDI - P235 S/1 OI RIS - OSDI - P235 S/1 OI RIS - OSDI - P235 S/1 OI RIS - OSDI - P235 S/1 OI	Relinguished by: Relead Manue	Samples Iced: X Yes No Preservatives (ONLY for Water Samples) Sodium hyro: Cyanide Sodium hyro: Volatile Organic Analysis Hydrochlori Metals Mithe i Motatile Streethy Hg(L) I other (Specify) Hg(L)

PE-176 4/95



Industrial Services Group Central Region

December 18, 2000

Project 62800373

Mr. Scott Pope El Paso Field Services Company 614 Reilly Avenue Farmington, NM 87499

RE: Transmittal of Bisti Flare Pit Monitoring Well Installation/ Soil Boring Records

Dear Mr. Pope:

PSC is pleased to submit to El Paso Field Services Company (EPFS) the following documents for monitoring well installations and a soil boring at the Bisti Flare Pit on December 5, 2000 through December 8, 2000:

- Records of Subsurface Exploration and Monitor Well Installation Records for PZ-32, PZ-33, and PZ-34.
- Monitor Well Abandonment Form for the temporary well numbered PZ-34. This well was abandoned in accordance with Navajo Agricultural Products Industry construction release guidelines.
- Record of Subsurface Exploration for a soil boring to 29 feet below ground surface.
- Well Development and Purging Data form for PZ-32, PZ-33, and PZ-34.
- Water level measurements for PZ-29, PZ-16, PZ-18, PZ-17, PZ-30, PZ-21, PZ-10, PZ-22, PZ-23, PZ-08, PZ-09, PZ-26.
- Chain of Custody record for samples taken from PZ-32, PZ-33, and PZ-34.

Combining the Strengths of Philip Services Corp., Allwaste and Serv-Tech

J:\628\62800373\transmittal-doguments.doc Road • Farmington, NM 87401 • (505) 326-2262 • Fax (505) 326-2388

PSC appreciates the opportunity to provide EPFS with the above referenced work. If you have any questions, please feel free to contact me at 326-2262.

Sincerely,

PSC

Lisa Uma

Lisa Winn Project Manager

Cc: file

Enclosures

12/8/00 WATER Level TW-26.7 TD 19.4 TOR



RECORD OF SUBSURFACE EXPLORATION

Borehole #	3 -	1	
Well #	PE	- 31	2
Page <u>/</u>	of	1	

4000 Monroe Road
Farmington, New Mexico 87401
(505) 326-2262 FAX (505) 326-2388

PSC

Elevation	
Borehole Location	PZ-32
GWL Depth	v12 pas
Logged By	Don Fernald
Drilled By	Danny Padilla
Date/Time Starte	d 12-5-00 / 12:30
Date/Time Comp	leted 12-5-00 / 1:05

Project Name	EPFS Bisti		
Project Number	62800373	Cost Code	
Project Location	S. of Chaco	Plant	
Mell Logged By	Don Fernal	Ч	

wen Logged by	Don't emaid	
Personnel On-Site	Danny Padilla,	
Contractors On-Sit	e NONE	-
Client Personnel O	n-Site Gilbert Huntsman	
Bill Freeme	n-Nevejo EPA	
Drilling Method	Hollow Stem Auger	
	BID	

Air Monitoring Method PID

Depth	Sample	Sample	Sample Type &	Sample Description	uscs	Depth Lithology	Air	r Monitor	ring	Drilling Conditions
(Feet)	Number	Interval	Recovery (inches)	Classification System: USCS	Symbol	Change (feet)	l L BZ	Jnits: PI BH	ID S	& Blow Counts
			(<u> </u>		·····
			'	1						
			'	1						
				- Thin 53 layer @~ 3.5						
		X	!5"	Find grained orange-yellant			3.2			
				4 · · · · · · · · · · · · · · · · · · ·						
10			[]							
		X	16"	Very find around			2.3			
				OTANge - VE land Sidey						
15				sound. (moist)						
		X		MEdium to dark brown			1-8			
				clay (moist)						
20										
				Boring terminated						
				@ 20 BGS						
- 25										
╏┝╼										
30										
 -										
35										
1										
			!							
⊢ ₄0										
		į – 1	1 '	i '	1	1 7				

Comments: Water @ applox 12 bgs

Geologist Signature

MONITORING WELL INSTALL Philip Services Corporation 4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388 Elevation Well Location GWL Depth $rac{12}{-14}$ b5	T: R:		Project Nat Project Num Project Locati On-Site Geolog Personnel On-S Contractors On-S	32 $me EPFS$ $ber 620037$ $ion 5. of C$ $sist Don Fer$ $iite D Fe Jille$ $VONE$	Borehole # Well # T3: st; B Cost C haco r nald R LeFp	PZ-32 <u>B-1</u> <u>PZ-32</u> (11) of <u>1</u> ode Plant bre bre
Date/Time Started 12.5-00 Date/Time Completed 12-5-00	1:05 2:00			Bill Freen	an - Na	TAJO EDA
Depths in Reference to	Ground Surface	Depth		Top of Prot	ective Casin	19 3.1°
		(feet)			e 240M	21
Top of Protective Casing				Top of Rise	r	<u>3.1</u>
Bottom of Protective Casing Top of Permanent Borehole Casing Bottom of Permanent Borehole Casing				Ground Sur	lace	<u> </u>
Top of Concrete						
Bottom of Concrete						
Top of Grout						
Bottom of Grout						
Top of Well Riser						
Bottom of Well Riser						
Top of Well Screen	1.010 scleen	i	000 000	Top of Seal		5.3
Bottom of Well Screen	. DID SCIEEN					
Top of Peltonite Seal 🐬	6 bent chips	5.3'				
Bottom of Peltonite Seal	, '	5 3'		Top of Grav	el Pack	7.5
Top of Gravel Pack /	10-20 sond	7.5'		Top of Scre	en	10'
Bottom of Gravel Pack	i i					
Top of Natural Cave-In						
Bottom of Natural Cave-In						
Top of Groundwater				Bottom of S	creen	
		DUE	an ann an thailtean an thairtean an thairtean an thairtean an thairtean an thairtean an thairtean an thairtean Thairtean an thairtean	Bottom of E	lorehole	205

Geologist Signature

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2

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Jen

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					Well #	2 P	PZ-33
PSC				,	Page	_/_	of _/
1000 Monroe Road			_				
Farmington, New Mexico 87401	Project	Name	EPF	S Bisti	- 4		
505) 326-2262 FAX (505) 326-2388	Project	Number	6280	<u>10373</u>		Cost	Code
	Project I	Location	5.	0-1'	Ch	aco	Mant
Elevation	Well Log	gged By		Don	Fema	ld	
Borehole Location P2-33	Personn	el On-Site	•	Danr	iy Pad	illa.	
GWL Depth ~ 22 bs s	Contrac	tars On-S	te	<u>×01</u>	and in		
Logged By Don Fernald	Client P	ersonnei (On-Site	NO	NE		
Drilled By Danny Padilla	المعنالين	dathod	والملط				
Date/Time Completed /2./ ap /	Air Moni	itorina Me	bod	PID	ni Aug		
		ioning into					<u></u>
Sample	T	Depth	1			1	
Depth Sample Sample Type & Sample Description	USCS	Lithology	` A	ir Monito	ring	ł	Drilling Conditions
(Feet) Number Interval Recovery Classification System: USCS	Symbol	(fael)	87	Units: P RL	ບ	1	& Blow Counts
0 (incres)	+	(:ee()	1 02			†	
Boring moved ~	[ļ	1	[[[
- 3.1/MW.2	1	1	1			1	
- initiated @	1.	1	1	1		1	
- 5 201 2	1	ł		1			
	+			+		+	
E Cillere Suconsa	1	1			{	ł	
	1	}	1	1			
- Sample m		}	1				
10	_	<u> </u>	<u> </u>		<u> </u>	[
				1			
	1	1	1		}	}	
	1						,
15							
1720-25 Suting	T			1			
L . silty sand, yettow	-						
orange vory wet?	1					}	
	1						
Matarota vellassorance		[1	1		Jul.t	
silty cond utsome clay.	N	{				TWA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Stades to chay (grey i yellow)	V		[1			
- 25 (orange) then to silty sono	1	}				$ \rangle$	
	4		100			++-	
	1]	0.8			v	
	1		1		1	ł	
E Terminated bacing	1					1	
30	∔			<u> </u>			• <u></u>
- 0 30.65 bas	1		1	1	1	ĺ	
Converted to	1		1	ł	1	ł	
MW-2B	1			1			
35	<u> </u>			<u> </u>	ļ		
				1			
	1	1	1	1	{		
40	1	}		1			
	<u> </u>			<u> </u>	1	<u> </u>	
Comments: D is use wat a maleal a							
Boring was not sampled the							
25' bgs. Driller did not			/		γ	$\overline{}$	
ations somple Aucer		,	[[/	/	/	
(ETTEVE Jon pro. Harter			-			-	

Philip Services Corporation					Page 1	of I
4000 Monroe Road Farmington, New Mexico 87401			Proi	ect Nam	e EPFS Bisti .	
(505) 326-2262 FAX (505) 326-2388			Projec	t Numbe	Cost Cost Co	de
	,		Project	: Locatio	n 5. of Chaco	plant.
Elevation			On-Site	Geologi	st Ion Fernald	•
Well Location L: S:	T: R:		Personne	el On-Sit	e D. Ped: 11. R. Le Febre,	Aleric Ray
Installed By $\rightarrow 22$ bg.	3	Clier	Contractor it Personne	rs On-Sit el On-Sit	e NONE	
	······································					
Date/Time Started 12/6/00	-					
Date Time Completed 127970	, -	•				
Depths in Reference	to Ground Surface					
Item	Material	Depth			Top of Protective Casing	g <u>2.55</u>
Ton of Drotosting Coning	<u>i</u>	(leet)		ן ך	Top of Riser	2.55'
Top of Protective Casing					Ground Surface	0
Top of Permanent Borehole	<u> </u>					
Casing						
Casing			\Box			
Top of Concrete						
Bottom of Concrete						
Top of Grout						
Bottom of Grout						
Top of Well Riser	2" sch 40 pvc					
Bottom of Well Riser	11					
Top of Well Screen	0.010 SCREEN		000	\sim	Top of Seal	9.25
Bottom of Well Screen	j.,.					
Top of Peltonite Seal	3/4" bent. chips			cod -		
Bottom of Peltonite Seal	٠,				Top of Gravel Pack	12.5'
Top of Gravel Pack	10-20 sand				Top of Screen	15.65
Bottom of Gravel Pack	. /			in the second se		
Top of Natural Cave-In						
Bottom of Natural Cave-In						
Top of Groundwater					Bottom of Screen	30.65
Total Depth of Borehole					Bottom of Borehole	30.65
Comments: Driving 110	11 MI.1.2 :	set@	20'ha	5 5	creened from	
the state of the s			<u> </u>	- ,	1 to gille dont	
10-20 bas. Well	was dry - d	11ecTed	to le	-arill	10 50 bgs & SET	WEIT

RECORD OF SUBSURFACE EXPLORATION

P2-34

Don Fernald

Danny Padilla

D	C	^
r	Э	L

Elevation

GWL Depth

Logged By Drilled By

Borehole Location

4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Date/Time Started 12-6-00/ Date/Time Completed 12-6-00

		vveii # Page	_/_	TE of		
Project Name	EPFS Bisti		Cast	Code		
Project Number Project Location	5. of	Cha	Cost	Pla	n-	

Borehole #

B-3 B

Don Fernald	
Danny Padilla.	
NONE	
NONE	
	Don Fernald Danny Padilla. NONE NONE

Drilling Method	Hollow Stem Auge
Air Monitoring Met	nod PID

Depth (Feet)	Sample Number	Sample Interval	Sample Type & Recovery	Sample Description Classification System: USCS	USCS Symbol	Depth Lithology Change	Air	Monitor Units: Pl	ring D	Drilling Conditions & Blow Counts
			(inches)	Boring moved ~ "		(feet)	BZ	BH	s	
				from 13-3/TW-1 Sempling initiated						
5				© 20' bgs						
										٥
15										
20										
25		X	9"	Moderate Dusky brown silly-clay wysome moderate red streaks			1.1			moist
- 30		X	Æ"	Light grey-brown silty Sand. Fairly hard			1.8			Moist
- 35				Auger refusal @ ~ 27 brs						
40										

0

Comments: Boring/Well did not reveal water in borrhole @ time well was installed.

Geologist Signature

Philip Services Corporation 4000 Monroe Road					Page 1	of 1
Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388			Pro Proje Projec	oject Nar ect Numbert et Locatio	$\frac{EPF5}{2800373} \frac{F5}{Cost} C$ $\frac{5}{5} \frac{F}{Cha} F$	ode Plant
Elevation Well Location L: S: GWL Depth who ground Installed By D. Podif	T: R: Joi-r plesent @ la of insta	- Tianf Tiation Clier -	On-Site Personr Contracto it Personr	e Geologi nel On-Si ors On-Si nel On-Si	st Don Fernald te <u>D. Padilla</u> , R. Le Febru te <u>NONE</u> te <u>NONE</u>	e, R. Aler
Date/Time Completed $\frac{12/6}{12/6}$	/00 -					
Depths in Reference	e to Ground Surface				·	
Item	Material	Depth (feet)	—		Top of Protective Casi	ng
Top of Protective Casing	all A.	(Teet)			Top of Riser	
Bottom of Protective Casing	w/A				Ground Surface	
Top of Permanent Borehole Casing	n/A	/				
Bottom of Permanent Borehole Casing	n/A					
Top of Concrete						
Bottom of Concrete						
Top of Grout Sa	- 18 50 W					
Bottom of Grout Lov /	- per sow					
Top of Well Riser	2" sch 40 pvc					
Bottom of Well Riser	,,	N.6				
Top of Well Screen	0.013 SCREEN	11.6	\sim	000	Top of Seal	6.5
Bottom of Well Screen		26.6				
Top of Peltonite Seal	34" bent. Chips	6.5'				
Bottom of Peltonite Seal	٠;	8.9'			Top of Gravel Pack	8.9
Top of Gravel Pack	10-20 sond	8.9'			Top of Screen	11.6
Bottom of Gravel Pack	λ.Ε	266				
Top of Natural Cave-In		<u> </u>				
Bottom of Natural Cave-In						0111
Top of Groundwater	unknown	<u> </u>			Bottom of Screen	26.6
Total Depth of Borehole	sitty sand	26.6	a la solo de la Cale		Bottom of Borehole	46.6
Comments: Original We	11 TW-1 set	@ 20' bo	15, 50	creene	d from 10-20'	gs
Well was dry - dicert	ed to redrill	to 30'	has c	at	ell screen froi	- m 15-30

I.

MONITOR WELL ABANDONMENT FORM

#HILIP SERVICES CORP.

4000 Monroe Rd.

· Farmington, NM 87401

(505) 326-2262 FAX (505) 326-2388

Project Name Project Number/Phase Driller Date/Time Started	Bisti Flur: 628000373 D. Padille 8-12-00	P.F Well # PZ- Well Location Site Location	- <u>34 (Tw)</u> 34 <u>Bisti F</u> urcePit
			·
	WELL DIAGRAM		
	•		
Sloping Surface Ground Surface		Ground Surface	~0_
		Top of Grout	4. le
		Top of Riser	-0-
Annular Space (Grout)			
Well Casing			
Cement/Bentanite Grou (5%Bentonite)	rt		
Bentonite Seal			
Well Screen			
·			
Filter Back		Bottom of Grout	9.10
		Bettern of Mail	21.1.
	的现在,这些时间的问题,这些时间的问题。		<u></u>
Comments: Pulled	All well moten	al and provided of	Approx. 5
Below gro	und and Buck Fill	with Soit	R. 1. 11.
	Drivers Si	grature	V GIMEY.

·											
RECORE	OFS	SUBS	SURFA	CE EXPLORATION				Boreh	ole # 🚄	5.3	
								Well #	NA	1/4	
PSC								Page		of	
000 Monroe	Road										
armington, N	ew Mexic	co 8740	91		Project	Name	EPFS Bi	sti			
505) 326-2262	2 FAX (5	505) 326	5-2388		Project	Number	6280037	3	Cost Co	de	
					Project	Location	5.01	'Ch	GCO F	Van+	
Elevation					Well Lo	gged By	Do	n Fernal	id		
Borehole La	ocation	Nul	ati	Flace R=	Person	nel On-Site	, Da	nny Pad	illa, Ryar	· le Febre Ale	ric lars
GWL Dept	n 7	~ 17)' ha	<u> </u>	Contrac	tors On-Si	ite 📈	NE			
ogaed By	, –	Don F	ernald		Client P	ersonnei (Dn-Site 🗲	off I	DF -	EDFS	
Drilled By	-	Danny	/ Padilla				Bill	FER	man -	NAVA DEP	A
Date/Time	Started	t t	12/5/0	4 - 8.50	Drilling	Method	Hollow S	tem Aug	ier / e	solit soon	
ate/Time	Compl	eted	12/1/	m - 12	Air Mon	itonng Met	thod PI	5			
			700			-				· · · · · · · · · · · · · · · · · · ·	
1	1		Sample			Depth	T		1		7
Depth	Sample	Samole	Type &	Sample Description	uscs	Lithology	Air Mor	nitoring	1 0	Drilling Conditions	
(Feet)	Number	Interval	Recovery	Classification System: USCS	Symbol	Change	Units	PID		& Blow Counts	
			(inches)	-		(feet)	BZ B	H S			
0				Moderate yellow-orange silly sand	1				1		
⊢ I		λT		Grades to fine med grained					1		
		Y	-40"	Silty sandi-607. Sand) w/some			1.8				
		Λ	1	clay moderate vellow-brown	,						
اء ا		Γ	1						Slier	the amount !!	
			<u> </u>		-		+		<u> </u>		-
⊢ i		∇f	-	Fine silty sandy clay - 107, so	rn d						
F		V	-40	Dark to moderate yeiow poor			2.6				
- 1		A		Www.ite wolles. ordates	1.			1			
		Λ	}	16 5111 54000 -7575	nt .				Conc		
		<u>.</u>	+	The the wellowish are bleve	1				1		
		1/		Aira siltreand with little	1				Water	Q al D'har	
		V	~ 1/2	Alay The clay lever 3" 00	1		-0.5		Vince		1
		Å		13" has very wist					Cian	·	
15		((4219	May St. J	
		V	117	Earth Veliouish-orange siltyse	7	1.	1.1		Wet		7
		~	<u> </u>			{			GI ala	i waint	
		X	20"	-Linky pround Erry			+1.0		Esugar.	ig porse j	
		<u> </u>									
20		V	12" -	Dishy brown clay w/ dark			9.2				
		$\overline{\mathcal{A}}$	0"	orange-veilow mattes	1				VERY Shi	SAL MOISINIC	1
		<u>X</u>	7	Justy Drown-yellow- Honne Mottles	- Jay	1	74.7		1.	. I.a.	1
L 1		\mathbf{V}	/7"	Moderate velizo-prange clay	r		8.7		- TAIT	y ary	1
ا _{مہ} ا		X	1	w/motorate red views-streats	I					-	
		í V	110	Maderair vr Stavas - T.	1 des	1	3.9		10 10	de	
	┝∔	Ą_		Maderate rod Elav It non that	ally he	1		1	farry	ary	1
⊢		X	18"	in the second se		Ϊ'	+18.1		1		
F		V	19.	Dark Yellow brown to pale 1	at cons		1.4				
30		Δ_{-}	1.0	yeriow-brown Entry CIAY ~ 10 % T	<u> </u>						
				LAmer satural @ na E'	+	i				····	-1
⊢				It draw burne estru cand							
⊢				". grey-prown silly sava		}					
			}		1	1					1
35			.								
			1	······································	1	1	+		1		-
F 40			1			1			1		
<u> </u>					1				1		

comments: Boring terminated at 29'bgs. Attempted to retrieve sample @ 29'+ bgs. Encounted Geologist Signature complet silty samed with little 3.4" of retrieval.

Jan Terrad

J:\Z Misc folders\Drilling\1-40ft

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RECORD OF S	SUBSUF	RFACE	EXPLORATION		Borehole # Well #	PP-3
Philip Environmer	ital Servic	es Corp.			Page	of
4000 Monroe Road				e:-+·	Elica	BI COC-
Farmington, New Mex	kico 87401		Project Name	215TI	TRIE	TH · ETFS
(505) 326-2262 FAX	. (505) 326-	-2388	Project Number 62 Project Location	57: FI	are P	+ Choco Plan
Elevation			Well Loaged By	Te	Fern	.1.
Borehole Location	P	2-3	S Personnel On-Site	Pal: 11a	Killior	2. Farnald
GWL Depth			Agency Contractors On-Site Fi	teman	- Noviju	EPA/Waker-EPA R
Logged By	Lon	E F	Client Personnel On-Site		Scott	Pope
Drilled By Date/Time Starti	1 day	ry p	A 15 Delling Mathed	CA		•
Date/Time Comr	leted 4/	26/0	Air Monitoring Method	<u>-71</u> P1	D	
	4					
		Sample		P	D	
Depth	Sample	Type &	Sample Description	Ariante	mitoring -	Drilling Conditions
(FBEL)	merval	(inches)	Classification pystem; ODC2	Benzene	H2S	& blow Counts
				1		
<u>├</u>				1		
<u>├</u>				1		
<u>⊢ 5</u>						
		211	/ auisin- DIGNAF ai in soil w/ some	26.6-		- moisture
	21"	21"	Cately 150 - Charge St dayt welland	20.0	7	inter foring
			time form Graner to a Marth Verout.	1		WITH PIDY?
			prown capital	1		
10			Madaxade to light or 12	201		
	22	22"	hour have it light from h	78.6		
	1		very fine silty sana			
15	<u> </u>		All and Aller accord 11	-		He to increase
\vdash	21"	4''	Moderate to dark gievism - black	1856		The dark you
 	+	· · · ·	M.C. ODOTS. root sample recovery			Curings
			Very Moist			
20			/	+		
	22"	21"	Light to medium gray silty clay w	1490		
<u>├</u>		<u>~'</u>	VELIDUASH-ORANGE MOTION (MOIST)			1 - 11.
⊢ ∣			Stades to all light to medium gray		-	irand Drilling ,
25			(very tight clay) (slight H.C. Odors)	-	[- VEVY hard
	22"	13"	3" . f moderate brownish grey	2032		al al and
 			silty clay. Godes to a fine to moderate			Intusai ende
⊢ ∣			silly sand, that is light to moderate	1		
30			arey. HCodors are more			
			assuration tin sands			
			Terminated bring @ 25 bgs.			
35			in the second has			
			Last sample @ 25-26 093,			
	1		Well may recover slow or be dry			
E				1	!	
				1	1 1	
40						
40						

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Geologist Signature

Dou Jern

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hilin Environme	ntol Sami	ees Corn			Well #	72.36
000 Monroe Boad	intal Servi	ces Corp.			Page	
armington, New M	exico 87401	I	Project Name	Bist; F	Tara	7:1 - EPFS
505) 326-2262 FA	X (505) 326	-2388	Project Number	1,2800433	Phase	35
			Project Location	Bist.	Flare	Pit
levation			Well Logged By	Don	Fer	nald
Borehole Locatio	n N. of	Pi+	A Sen Y Personnel On-Site	Bill	Freem	on- Nevero EP
GWL Depth			Contractors On-Site	1100	1E	
.ogged By	Don	Ter	Client Personnel On	-Site	Scot	t Pope
Drilled By	Padil	le K	illion	110		·
Date/Time Star	ted <u>4/</u>	26/01	Drilling Method	ITSA		
late/lime_Com	pieted	126/0	<u>1 - 1.35</u> Air Monitoring Meth	hod	>	
1		Sample				
Depth	Sample	Type &	Sample Description	Air M	onitoring	Drilling Conditions
(Feet)	Interval	(inches)	Classification System: USCS	Benzen	s: NDU e H2S	& Blow Counts
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5						
	22'	11."	Moderate Velipwish-Down silty	18.7	· ·	+
	122	01	fine sand bisome day			
			and successful and succes			
10	_	L				
⊢ I	2	22"	Light yellowish-orange fine silty		.	
	~~	<i>∞</i> ≺	I Charlist	-258		
\vdash 1			Sina Calata IV Olan	1		
H 15			(Signi in Carry)	1		
		1				
<u>├</u> ──	22"	4	Medium dark grev fine silty sin	a - 1900		+
			HC. Odors			
			Tark AFF. place fine silfy send. H.C. (Very w	RT) LOOC		(Jerv Wet)
20	22	14	Grades to a version orange - argy site, sand	1706		
	200	17"	Medium arou to velinitich prime clay	·		Clay
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20		ļ			1	Mean Haral
┝-			Light Olive-grey silty sound.	- 1906	1	+ ving range
			Very hard 50 binute - 2' MC Odors		1	drilling.
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MONITORING WELL INSTALLATION RECORD)		Borehold Well # Page	$\frac{p_{\overline{z}-\overline{z}}}{p_{\overline{z}-\overline{z}}}$
4000 Monroe Road Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388		Project Name Project Number Project Location	Bisti Flare 62800433 Cos Bisti Flare f	<u>Pit - EP</u> t Code <u>35</u> <u>it / E. of Cha</u>
Elevation Well Location <u>N. of Pit</u> GWL Depth Installed By <u>Padillo Killion</u>	Ager Clies	On-Site Geologist Personnel-On-Site Contractors On-Site nt Personnel On-Site	Don Ferna Bill Freeman Scott Poff	1 1643;0 EN
Date/Time Started $\frac{4/26/p}{4/26/01} - \frac{1.35}{3:45}$ Date/Time Completed $\frac{4/26/01}{4/26/01} - \frac{3:45}{3:45}$	-			
Depths in Reference to Ground Surface Item Material	Depth (feet)		Top of Protective C	asing $2, \varepsilon'$
Top of Protective Casing Metal . ~	2.5'		Top of Riser	~ + 2.5'
Bottom of Protective Casing	- 8"		Ground Surface	0
Top of Permanent Borehole)" sin 40 fvcCasing1Bottom of Permanent Borehole1Casing1	2.5' - 256'			
Top of Concrete Quickcrete A	+3.5"			
Bottom of Concrete	0			
Top of Grout Quickigel, benjonitie	0			
Bottom of Grout	5.3			
Top of Well Riser 2" = ch 40 PVC	0			
Bottom of Well Riser	10.6			
Top of Well Screen 2" sch 40 PVC,	10.6	local local	Top of Seal	53
Bottom of Well Screen 0.010 slotled	25.6			
Top of Peltonite Seal 35" bentonite .	5.3'			
Bottom of Peltonite Seal	7.8'	kod kod	Top of Gravel Pack	7.8
Top of Gravel Pack 10-20 Silica 4	7.8		Top of Screen	10.6
Top of Gravel Pack10 - 20 silica 4Bottom of Gravel PackSand	7.8 25.6		Top of Screen	10.6
Top of Gravel Pack10 - 20 silica 4Bottom of Gravel PackSandTop of Natural Cave-In	7.8		Top of Screen	1 <u>0.6</u>
Top of Gravel Pack10 - 20 silica qBottom of Gravel PackSandTop of Natural Cave-In	7.8		Top of Screen	1 <u>0.6</u>
Top of Gravel Pack10 - 20 silica qBottom of Gravel PackSandTop of Natural Cave-InBottom of Natural Cave-InTop of GroundwaterTop of Groundwater	7.8		Top of Screen Bottom of Screen	10.6

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Certified Mail # 7099 3400 0018 9756 8505

October 17, 2000

EL PASO FIELD SERVICES

OCT 2 4 2000

Charmaine Hosteen Navajo Environmental Protection Agency P.O. Box 1979 Shiprock, New Mexico 87420

RE: Scope of Work for the Removal of Hydrocarbon Impacted Soil at the Bisti #1 Former Flare Pit Site

Dear Ms. Hosteen:

El Paso Field Services (EPFS) hereby requests approval of the following Scope of Work for the excavation of contaminated soils at the above-mentioned site. As discussed in the March 2000 "Annual Report Bisti Flare Pit #1", EPFS has been evaluating excavation of the remaining contaminated soils versus additional in situ treatment. The use of in situ bioremediation technologies has reduced hydrocarbon contamination dramatically; however, concentrations still remain above clean-up standards. EPFS has concluded it would be faster and possibly more cost effective to excavate the core contamination remaining in the pit than continue with in situ treatment.

SCOPE OF WORK

EPFS proposes to excavate 20 feet outside the berms on the north and south sides of the former flare pit. Based on work completed in the past a sandstone shelf exists to the east and the contamination pinches out the west. The proposed excavation dimensions of the former flare pit will be approximately 90' x 90' x 18' compared to the current 90' x 50' x 8'. All excavated contaminated soils will be transported by truck to Envirotech's landfarm for disposal. It is estimated the excavation will extend approximately 2 feet into saturated zone. Provisions will be made to collect and properly dispose of any liquids that may accumulate in the excavation.

Once excavation is complete EPFS intends to collect 2 composite samples to evaluate the soil quality of the excavation floor and walls. These samples will be analyzed for BTEX and TPH by methods 8021 and 8015 modified.

EPFS feels once the majority of the source material has been removed groundwater contaminate levels will begin to decline at a much faster rate. Also excavating, backfilling and capping the pit area will remove a potential groundwater recharge source Page 2 Ms. Charmaine Hosteen Navajo Environmental Protection Agency

area. Water received at the surface will no longer have a preferential pathway for migration through source material to groundwater.

The contractor chosen for the project will generate a short letter report. This report will detail on site activities, number of cubic yards trucked to the landfarm for disposal, number of cubic yards of clean back fill received at the site, number of cubic yards of overburden excavated, sample collection points and sample results. The Navajo Environmental Protection Agency will be notified 72 hours prior to any site activities.

Please notify EPFS of approval of the proposed Scope of Work with in 30 days of receipt of this letter. EPFS estimates it will take approximately 30 additional days once the Scope of Work is approved to solicit bids and schedule the work.

If you have any questions or require additional information please call me at 599-2124.

Sincerely,

Scott T. Pope P.G. Senior Environmental Scientist Environmental Remediation Department

cc: James Walker - USEPA Region IX - Certified Mail # 7099 3400 0018 9756 8512

bc: Bisti Flare Pit File Navajo EPA file Scott Pope Bob Sterrett - HCI











2709-D Pan American Freeway NE Albuquerque, New Mexico 87107 Phone (505) 344-3777 Fax (505) 344-4413



June 7, 2001

Mr. Scott Pope El Paso Field Services 614 Rielly Street Farmington, NM 87401

Dear Scott,

I have had some time to acquire data over several quarters and split the sulfate samples among three laboratories. The attached spread sheet compares the data.

Laboratories 1 and 2 use co-precipitation and Laboratory 3 uses Ion Chromatography for sulfate analysis.

After observation of the data it is clear that the data generated by Laboratory 2 in the October, 2001 round for sulfate should be discarded.

The data for the last round (April, 2001) is interesting in that all three laboratories give comparable results. The key exception is Lab 1's results for Mw-21. While they got three similar results they are an outlier from the historical results and the other two laboratories.

Since Lab 2's data is in hold time, Pinnacle will be submitting their data for this round.

We believe that the matrix contributes to the unusual irregularities with your data. For future rounds, we would suggest that we use ion chromatography on the assumption that the chromatographic equipment can negate the matrix effects.

I apologize for the long delay on submitting the data for this round, but felt it was important for both your records and our commitment to provide you with an answer to this confusing data.

Sincerely, 17

Mitch Rubenstein, Ph.D. President

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October,2000	LAB 2	QN	QN	2	0.2	1.2	8.4	2.2	0.05			
March,2000	LAB1	QN	QN	57	0.0	20	34	120	QN			

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		SULFATE				APR	lL, 2001	
March,2000	October,2000		Apr	ii,2001		Dup	olicates	
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Monitoring well MW-8 MW-9 MW-26 MW-22 MW-22 MW-23 MW-23 MW-23 MW-21 MW-21 MW-21 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-23 MW-22 MW-22 MW-23 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-22 MW-23 MW-33 MW-3











Water Levels Well PZ-11

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Water Levels Well PZ-22

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