

GW - 71-0

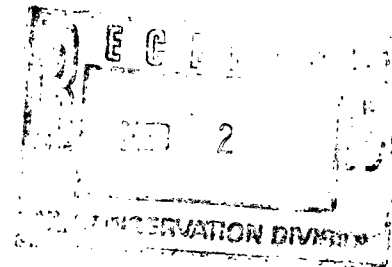
MONITORING REPORTS

DATE:

2000

January 31, 2001

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505



Dear Mr. Olson:

Please find enclosed reports on the following monitoring wells and waste water streams at the El Paso Field Services Co. (EPFS) Chaco Plant. These results are summarized on the attached tables.

Semi-Annual analyses for monitoring wells 1 and 8.

Quarterly analyses for monitoring wells 9 and 10.

Annual analysis for all other monitoring wells.

The analysis for monitoring wells 2, 3, 4, 6, and 7 did not indicate any abnormally high reading for any analyte. Monitoring well 5 tested higher for sulfate than in past sampling. Monitoring well 10, adjacent to the old flare pit which was closed in 1995, exceeds several water quality standards for organics.

If you need any additional information for this reporting period, please call me at (505) 599-2256.

Sincerely yours,



David Bays
Principal Environmental Scientist

cc: Denny Foust - NMOCD - Aztec
Mike Hansen
Don Hensley
Chaco Regulatory File

Chaco Plant Groundwater Monitoring Well Results 1999

All Results Expressed as Micrograms/Liter (ppb)

2080

Monitoring Well 1 (semi-annual)	3/30/00	7/13/00	9/12/00	12/8/99
Benzene	< 0.5		<0.5	
Toluene	< 0.5		<0.5	
Ethyl Benzene	< 0.5		<0.5	
Xylenes	< 0.5		<0.5	
Cadmium	< 0.005		ND	
Chromium	<0.005		ND	
Mercury	<0.0002		ND	
Total Naphthalenes	ND		ND	
Total Benzopyrenes	ND		ND	
Monitoring Well 8 (semi-annual)				
Benzene	< 0.5		<0.5	
Toluene	< 0.5		<0.5	
Ethyl Benzene	< 0.5		<0.5	
Xylenes	< 0.5		<0.5	
Cadmium	< 0.005		ND	
Chromium	<0.005		ND	
Mercury	<0.0002		ND	
Total Naphthalenes	0.92		ND	
Total Benzopyrenes	ND		ND	
Monitoring Well 9 (quarterly)				
Benzene	< 0.5	<0.5	<0.5	<0.5
Toluene	< 0.5	<0.5	<0.5	<0.5
Ethyl Benzene	< 0.5	<0.5	<0.5	<0.5
Xylenes	< 0.5	<0.5	<0.5	<0.5
Monitoring Well 10 (quarterly)				
Benzene	< 0.5	20	150	49
Toluene	10	4.6	6.0	<1.0
Ethyl Benzene	26	22	53	20
Xylenes	83	0.7	170	66

NA = Not Analyzed

ND = None Detected

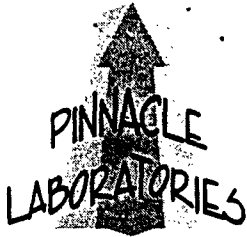
Chaco Plant Groundwater Monitoring Well Results 1999

All Chemical Results Expressed as Milligrams/Liter (ppm)
pH Expressed in Standard Units (0 - 14 Scale)
Conductivity Expressed as Micromhos/Centimeter

All samples listed on this table were collected on June 20, 2000

Test	Well 2	Well 3	Well 4	Well 5	Well 6	Well 7
pH	7.4	NS	7.0	7.0	8.1	7.3
Alkalinity - CO ₃	530	NS	410	220	390	370
Alkalinity - HCO ₃	0	NS	0	0	0	0
Calcium	110	NS	110	370	34	260
Magnesium	33	NS	81	68	5.8	53
Total Hardness	410	NS	1400	1200	110	880
Chloride	1400	NS	420	200	130	220
Sulfate as SO ₄	27	NS	2500	2200	630	1300
Fluoride	170	NS	1.4	0.8	6.3	2.7
Nitrate as NO ₃	<0.1	NS	2.5	0.8	1.1	<0.1
Nitrate as NO ₂	<0.1	NS	<0.1	<0.1	<0.1	<0.1
Ammonium as NH ₄	<0.05	NS	0.07	<0.05	<0.05	0.6
Phosphate	0.1	NS	0.1	0.2	0.2	0.1
Potassium	1.9	NS	20	13	2.4	7.3
Sodium	820	NS	930	670	610	620
TDS	2800	NS	4900	3900	1800	3000
Conductivity	4800	NS	5900	4700	2800	3900
Cadmium	<0.005	NS	<0.005	<0.005	<0.005	<0.005
Chromium	<0.005	NS	0.01	0.023	<0.005	0.012
Mercury	<0.0002	NS	<0.0002	<0.0002	<0.0002	<0.0002

MW-03 - Not Sampled, Insufficient Recoverable Liquid Volume



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

APR 24 RECD

Pinnacle Lab ID number 003102
April 19, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON

On 03/31/00 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.

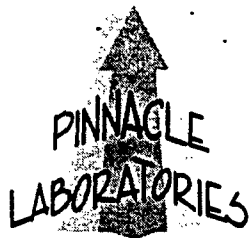
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

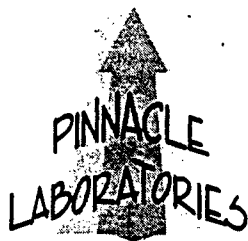


2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
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CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE ID : 003102
DATE RECEIVED : 03/31/00
REPORT DATE : 04/19/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA-0003-MW08	AQUEOUS	03/30/00
02	TRIP BLANK	AQUEOUS	03/30/00



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 003102

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA-0003-MW08	AQUEOUS	03/30/00	NA	04/03/00	1
02	TRIP BLANK	AQUEOUS	03/30/00	NA	04/03/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0003-MW08	TRIP BLANK
BENZENE	0.5	UG/L	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

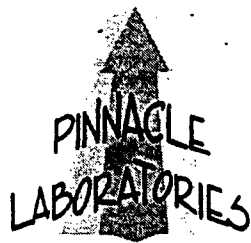
102

104

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



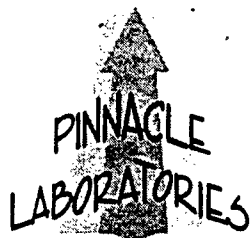
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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003102
BLANK I. D.	: 040300	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 04/03/00
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 (%) 94
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 003102-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 003102
DATE EXTRACTED : NA
DATE ANALYZED : 04/03/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.4	102	19.1	96	7	(80 - 120)	20
TOLUENE	<0.5	20.0	19.7	99	19.9	100	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.1	111	21.0	105	5	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	63.1	105	60.3	101	5	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

LOG NO: C0-04017
Received: 01 APR 00
Reported: 14 APR 00

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

Project: 003102, PHIL-EPFS QTRLY SAMPLING
Sampled By: Client
Code: 093400414
Page 1

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
04017-1	003102-01 Mw - 08	03-30-00/10:05
PARAMETER	04017-1	
Mercury (245.1), mg/l	<0.00020	
Analyst	JDE	
Prep Date	04.05.00	
Analysis Date	04.05.00	
Batch ID	HGW047	
Prep Method	245.1	
Dilution Factor	1	
Chromium (200.7), mg/l	<0.005	
Analyst	CH	
Prep Date	04.03.00	
Analysis Date	04.04.00	
Batch ID	PW102	
Prep Method	200.7	
Dilution Factor	1	
Cadmium (200.7), mg/l	<0.005	
Analyst	CH	
Prep Date	04.03.00	
Analysis Date	04.04.00	
Batch ID	PW102	
Prep Method	200.7	
Dilution Factor	1	



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Sampled By: Client
Code: 093400414
Page 2

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
04017-1	003102-01 <i>MW-08</i>	03-30-00/10:05
PARAMETER	04017-1	
Polynuclear Aromatic Hydrocarbons (8310)		
Acenaphthene, ug/l		<1.0
Acenaphthylene, ug/l		<1.0
Anthracene, ug/l		<1.0
Benzo(a)anthracene, ug/l		<1.0
Benzo(a)pyrene, ug/l		<1.0
Benzo(b)fluoranthene, ug/l		<1.0
Benzo(g,h,i)perylene, ug/l		<1.0
Benzo(k)fluoranthene, ug/l		<1.0
Chrysene, ug/l		<1.0
Dibenzo(a,h)anthracene, ug/l		<1.0
Fluoranthene, ug/l		<1.0
Fluorene, ug/l		<1.0
Indeno(1,2,3-cd)pyrene, ug/l		<1.0
Naphthalene, ug/l		<1.0
Phenanthrene, ug/l		<1.0
Pyrene, ug/l		<1.0
1-Methylnaphthalene, ug/l		<1.0
2-Methylnaphthalene, ug/l		<1.0
Surrogate - 2-Chloroanthracene		86 %
Analyst		SB
Prep Date		04.03.00
Analysis Date		04.05.00
Batch ID		PAW064
Prep Method		3520C
Dilution Factor		1



LOG NO: C0-04017
Received: 01 APR 00
Reported: 14 APR 00

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

Project: 003102, PHIL-EPFS QTRLY SAMPLING
Sampled By: Client
Code: 093400414
Page 3

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED			
04017-2	Method Blank				
04017-3	Lab Control Standard % Recovery				
04017-4	Matrix Spike % Recovery				
04017-5	Matrix Spike Duplicate % Recovery				
PARAMETER	04017-2	04017-3	04017-4	04017-5	
Mercury (245.1), mg/l	<0.00020	101 %	99 %	99 %	
Analyst	JDE	JDE	JDE	JDE	
Prep Date	04.05.00	04.05.00	04.05.00	04.05.00	
Analysis Date	04.05.00	04.05.00	04.05.00	04.05.00	
Batch ID	HGW047	HGW047	HGW047	HGW047	
Prep Method	245.1	245.1	245.1	245.1	
Dilution Factor	1	1	1	1	
Cadmium (200.7), mg/l	<0.005	101 %	102 %	102 %	
Analyst	CH	CH	CH	CH	
Prep Date	04.03.00	04.03.00	04.03.00	04.03.00	
Analysis Date	04.04.00	04.04.00	04.04.00	04.04.00	
Batch ID	PW102	PW102	PW102	PW102	
Prep Method	200.7	200.7	200.7	200.7	
Dilution Factor	1	1	1	1	
Chromium (200.7), mg/l	<0.005	102 %	102 %	103 %	
Analyst	CH	CH	CH	CH	
Prep Date	04.03.00	04.03.00	04.03.00	04.03.00	
Analysis Date	04.04.00	04.04.00	04.04.00	04.04.00	
Batch ID	PW102	PW102	PW102	PW102	
Prep Method	200.7	200.7	200.7	3010A	
Dilution Factor	1	1	1	1	

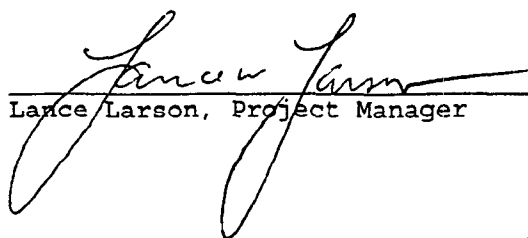
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Project: 003102, PHIL-EPFS QTRLY SAMPLING
Sampled By: Client
Code: 093400414
Page 4

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED			
04017-2	Method Blank				
04017-3	Lab Control Standard % Recovery				
04017-4	Matrix Spike % Recovery				
04017-5	Matrix Spike Duplicate % Recovery				
PARAMETER	04017-2	04017-3	04017-4	04017-5	
Polynuclear Aromatic Hydrocarbons (8310)					
Acenaphthene, ug/l	<1.0	---	---	---	
Acenaphthylene, ug/l	<1.0	81 %	67 %	69 %	
Anthracene, ug/l	<1.0	---	---	---	
Benzo(a)anthracene, ug/l	<1.0	---	---	---	
Benzo(a)pyrene, ug/l	<1.0	---	---	---	
Benzo(b)fluoranthene, ug/l	<1.0	---	---	---	
Benzo(g,h,i)perylene, ug/l	<1.0	---	---	---	
Benzo(k)fluoranthene, ug/l	<1.0	86 %	86 %	83 %	
Chrysene, ug/l	<1.0	86 %	91 %	84 %	
Dibenzo(a,h)anthracene, ug/l	<1.0	---	---	---	
Fluoranthene, ug/l	<1.0	---	---	---	
Fluorene, ug/l	<1.0	---	---	---	
Indeno(1,2,3-cd)pyrene, ug/l	<1.0	---	---	---	
Naphthalene, ug/l	<1.0	---	---	---	
Phenanthrene, ug/l	<1.0	83 %	89 %	85 %	
Pyrene, ug/l	<1.0	74 %	80 %	74 %	
1-Methylnaphthalene, ug/l	<1.0	---	---	---	
2-Methylnaphthalene, ug/l	<1.0	---	---	---	
Surrogate - 2-Chloroanthracene	99 %	94 %	99 %	91 %	
Analyst	SB	SB	SB	SB	
Prep Date	04.03.00	04.03.00	04.03.00	04.03.00	
Analysis Date	04.05.00	04.05.00	04.05.00	04.05.00	
Batch ID	PAW064	PAW064	PAW064	PAW064	
Prep Method	3520C	3520C	3520C	3520C	
Dilution Factor	1	1	1	1	



Lance Larson, Project Manager

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic

J4	(For positive results)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$)
J6	(For positive results)	LCS or Surrogate %R is $>$ upper control limit (UCL), results may be biased high
J9		LCS or Surrogate %R is $<$ lower control limit (LCL), results may be biased low
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).
J (description)		The analyte was positively identified, the quantitation is estimation
R1	(For nondetects)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$); 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 NDPEs compliance monitoring
R4		Holding time exceeded, non-reportable for NDPEs compliance monitoring.
R5		Collection requirements not met, improper container used for sample
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 initial calibration midpoint standard.
R8		Initial calibration or any calibration verification exceeds acceptance criteria.
R10		Headspace $> 1/4"$ in diameter in volatile vials, non-reportable for NDPEs compliance monitoring
R (description)		The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
F		The reported value is $<$ STL-Pensacola RL and $>$ the STL-Pensacola MDL; therefore, the quantitation is estimation (assume the STL-PN RL is at or above lowest calibration standard in the initial calibration curve).
U		The reported value is $\leq$ Laboratory MDL (value for result will be the MDL, never below the MDL)
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).
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.
@		Adjusted reporting limit due to sample matrix (dilution prior to digestion and/or analysis)
#		Elevated reporting limit due to insufficient sample size
M		A matrix effect was present (¹ 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 $> 4 \times$ spike added, ⁴ metals serial dilution was performed, or ⁵ metals post spike is $< 40\%$ R)
NoMS		Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
N/C*		Not Calculable; Sample spiked is $> 4 \times$ spike concentration (may also use this flag in place of negative numbers)
D		Diluted out
S		Incorrect sample amount was submitted to the laboratory for analysis
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.
E		Compound concentration exceeds the upper calibration range of the instrument.
FracB		Sample results were corrected due to contaminants in Fractionation Blank (a certification statement is required to be submitted with the final report for MA EPH and NC-Modified MA EPH)
S		This method is not designed for solids and the results may not be accepted by any regulator for such purposes.
Normally used for Inorganics Only		
R9		Improper preservation, sample not filtered in the field, non-reportable for NDPEs compliance monitoring
*(Metals & Wet Chem)		Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)
W		Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
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".
Q		The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
H		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"
NH		Sample and duplicate results are "out of control". The sample is nonhomogeneous.
J8		Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
S1		The Method of Standard Additions (MSA) has been performed on this sample.

**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. 81142 (Drinking Water), Laboratory ID No. E81010 (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. 98-25 (Drinking Water)

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 (Wastewater and Hazardous Waste)

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 (Hazardous Waste and Wastewater 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)

Tennessee Division of Underground Storage Tanks Approved Laboratory

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

Severn Trent Laboratories of Florida
PROJECT SAMPLE INSPECTION FORM

Lab Accession #: C004017

Date Received: 01 - APR - 00

- | | |
|---|--|
| <p>1. Was there a Chain of Custody? ☒ Yes No⁺</p> <p>2. Was Chain of Custody properly filled out and relinquished? ☒ Yes No⁺</p> <p>3. Were samples received cold? ☒ Yes No⁺ N/A
(Criteria: 2° - 6°C: STL-SOP 1055)</p> <p>4. Were all samples properly labeled and identified? ☒ Yes No⁺</p> <p>5. Did samples require splitting? Yes⁺ ☒ No
Req By: PM Client Other⁺</p> <p>6. Were samples received in proper containers for analysis requested? ☒ Yes No⁺</p> <p>7. Were all sample containers received intact? ☒ Yes No⁺</p> | <p>8. Were samples checked for preservative? ☒ Yes No⁺ N/A
<small>(Check pH of all H₂O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*</small></p> <p>9. Is there sufficient volume for analysis requested? ☒ Yes No⁺ N/A (Can)</p> <p>10. Were samples received within Holding Time? ☒ Yes No⁺
<small>(REFER TO STL-SOP 1040)</small></p> <p>11. Is Headspace visible > 1/4" in diameter in VOA vials? Yes⁺ No ☒ N/A
<small>If any headspace is evident, comment in out-of-control section.</small></p> <p>12. If sent, were matrix spike bottles returned? Yes No⁺ ☒ N/A</p> <p>13. Was Project Manager notified of problems? (initials: _____) Yes No⁺ ☒ N/A</p> |
|---|--|

Airbill Number(s): 1Z8781680143123131

Shipped By: Jedx

Cooler Number(s): CLIENT COOLER

Shipping Charges: N/A

Cooler Weight(s): 17 lbs

Cooler Temp(s) (°C): 2.0°C cckg

(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS.)

Inspected By: [Signature] Date: 4-2-00 Logged By: LLK Date: 02 - APR - 00

- * Note all Out-of-Control and/or questionable events on Comment Section of this form.
- * Note who requested the splitting of samples on the Comment Section of this form.
- * 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).
- * According to EPA, 1/4" 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).

ANALYSIS REQUEST

FAX (505) 344-4413

See attached sheet.

0004017

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Meta	RCP	Meta	Meta	TOX	TOC	Gen	Oil a	Vola	BOD	COD	PES	8270	PNA	8240	Herb	Base/ (625/6)	URA	RAD	Gros	TO-1	NUME
003102-01	3/30	1005	AQ						X									X								

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	08302	Total Number of Containers		PENSACOLA - STL-FL		Signature:	Time:	Signature:	Time:
PROJ. NAME:	PHL	Chain of Custody Seals		PORTLAND - ESL-OR		<i>Marlene Tomic</i>	1700		
QC LEVEL:	STD IV	Received Intact?		STL - CT		Printed Name:	Date:	Printed Name:	Date:
QC REQUIRED:	MS MSD BLANK	Received Good Cond./Cold		STL - NEW JERSEY		<i>Marlene Tomic</i>	3/31/00		
TAT:	STANDARD RUSH!!	LAB NUMBER:		N. CREEK		Pinnacle Laboratories, Inc.		Company	
DUE DATE:		COMMENTS:		BARRINGER		RECEIVED BY:	1.	RECEIVED BY:	2.
RUSH SURCHARGE:				SEQUOIA		Signature:	Time:	Signature:	Time:
CLIENT DISCOUNT:						<i>Quiana S. Pitt</i>	1000		
SPECIAL CERTIFICATION						Printed Name:	Date:	Printed Name:	Date:
REQUIRED: YES NO						<i>Quiana S. Pitt</i>	4/1/00		
						Company		Company	

003102

COC Serial No. C 2536

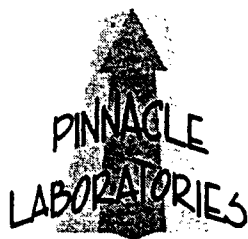
[illegible]

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
<i>[Signature]</i>	3/30/00	1525	<i>[Signature]</i>	3/31/00	1000

Samples Iced: ☒ Yes ☐ No	Carrier: GREY HOUND LINES
Preservatives (ONLY for Water Samples) ☐ Cyanide Sodium hydroxide (NaOH) ☒ Volatile Organic Analytes Hydrochloric acid (HCl) ☒ Metals Nitric acid (HNO ₃) ☐ TPH (418.1) Sulfuric acid (H ₂ SO ₄) ☐ Other (Specify) _____ ☐ Other (Specify) _____	Shipping and Lab Notes: SEND COPIES OF RESULTS TO PHILIP SERVICES AND EL PASO FIELD SERVICES. Reid @ b.c
	Airbill No.



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

Pinnacle Lab ID number 003103
April 05, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON

On 03/31/00 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.

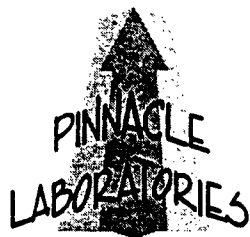
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

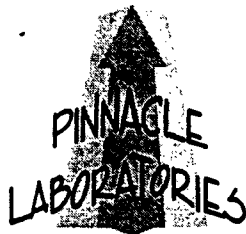
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003103
PROJECT #	: 62800107	DATE RECEIVED	: 03/31/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 04/05/00
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA-0003-MW09	AQUEOUS	03/30/00



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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

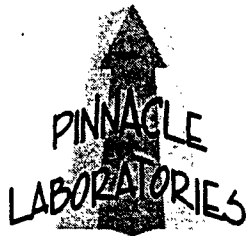
PINNACLE I.D.: 003103

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA-0003-MW09	AQUEOUS	03/30/00	NA	04/03/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0003-MW09
BENZENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 105
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003103
BLANK I. D.	: 040300	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 04/03/00
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:

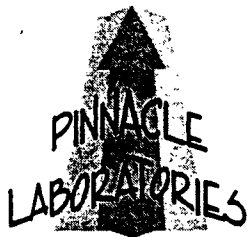
BROMOFLUOROBENZENE (%)

94

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 003102-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 003103
DATE EXTRACTED : NA
DATE ANALYZED : 04/03/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.4	102	19.1	96	7	(80 - 120)	20
TOLUENE	<0.5	20.0	19.7	99	19.9	100	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.1	111	21.0	105	5	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	63.1	105	60.3	101	5	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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



4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2537

PHILIP

Chain of Custody Record

003103

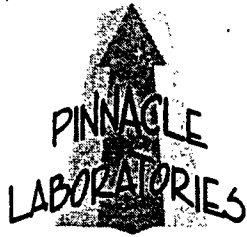
[illegible]

Relinquished by:

Received By:

Signature	Date	Time	Signature	Date	Time
Robert Thompson	3/30/00	1525	Jamaine Juicio	3/31/00	1000

Samples Iced: ☒ Yes ☐ No Preservatives (ONLY for Water Samples) ☐ Cyanide Sodium hydroxide (NaOH) ☒ Volatile Organic Analysis Hydrochloric acid (HCl) ☐ Metals Nitric acid (HNO ₃) ☐ TPH (418.1) Sulfuric acid (H ₂ SO ₄) ☐ Other (Specify) _____ ☐ Other (Specify) _____	Carrier: GREYHOUND LINES Shipping and Lab Notes: SEND COPIES OF RESULTS TO PHILIP SERVICES AND EL PASO FIELD SERVICES. Reid @ W's	Airbill No. BLI/606650683
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2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number 003104
April 05, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON

On 03/31/00 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.

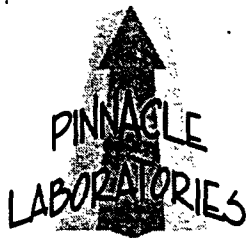
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003104
PROJECT #	: 62800107	DATE RECEIVED	: 03/31/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 04/05/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA-0003-MW10	AQUEOUS	03/30/00



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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 003104

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA-0003-MW10	AQUEOUS	03/30/00	NA	04/03/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0003-MW10
BENZENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	10
ETHYLBENZENE	0.5	UG/L	26
TOTAL XYLENES	0.5	UG/L	83

SURROGATE:
BROMOFLUOROBENZENE (%) 95
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003104
BLANK I. D.	: 040300	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 04/03/00
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:

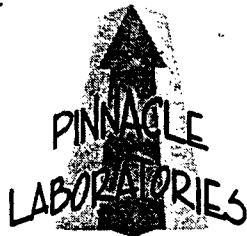
BROMOFLUOROBENZENE (%)

94

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 003102-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 003104
DATE EXTRACTED : NA
DATE ANALYZED : 04/03/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.4	102	19.1	96	7	(80 - 120)	20
TOLUENE	<0.5	20.0	19.7	99	19.9	100	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	22.1	111	21.0	105	5	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	63.1	105	60.3	101	5	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

PHILIP

Chain of Custody Record

003104

ENVIRONMENTAL

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2538

Project Name **EPFS QUARTERLY SAMPLING**

Project Number **628 00107** Phase Task **0301**

Samplers **R. THOMPSON**

Laboratory Name **Pinnacle Labs**

Location **Albuquerque, NM**

Sample Number (and depth) **CHA-0003-MW10** Date **3/30/00** Time **1310** Matrix **H₂O**

Total Number of Bottles

2

Type of Analysis and Bottle

BTEX 802

LAB ID #

01

Comments

CHA00 PLANT

Relinquished by:

Signature

Reed Thompson

Date

3/30/00

Time

1525

Received By:

Signature

Shumone Juino

Date

3/31/00

Time

1000

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

☐ Cyanide Sodium hydroxide (NaOH)

☒ Volatile Organic Analysis Hydrochloric acid (HCl)

☐ Metals Nitric acid (HNO₃)

☐ TPH (418.1) Sulfuric acid (H₂SO₄)

☐ Other (Specify)

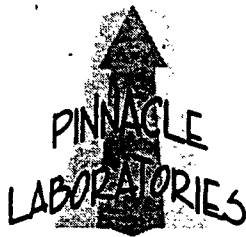
☐ Other (Specify)

Carrier: **GREYHOUND LINES**

Shipping and Lab Notes: **SEND COPIES OF RESULTS TO PHILIP SERVICES AND EL PASO FIELD SERVICES.**

Airbill No. **BLI 160 665 0683**

Reed@b.c



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

Pinnacle Lab ID number 003055
April 03, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
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 Severn Trent (FL) Inc., Pensacola, FL.

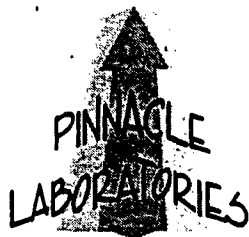
If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill
Project Manager

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

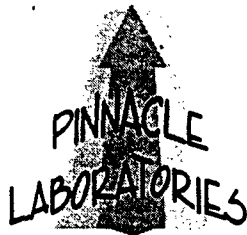
Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 003055
PROJECT #	: 62800107	DATE RECEIVED	: 03/17/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 04/03/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA-0003-MW01	AQUEOUS	03/15/00



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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

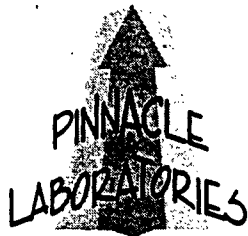
PINNACLE I.D.: 003055

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA-0003-MW01	AQUEOUS	03/15/00	NA	03/20/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0003-MW01
BENZENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 100
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



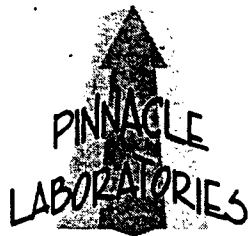
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 003055
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



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

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 003055-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 003055
DATE EXTRACTED : NA
DATE ANALYZED : 03/20/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	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

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

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



LOG NO: C0-03629
Received: 18 MAR 00
Reported: 31 MAR 00

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

Project: 003055, EPFS-CHACO
Sampled By: Client
Code: 084900331
Page 1

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
03629-1	003055-01 MW-D1	03-15-00/16:15
PARAMETER	03629-1	
Cadmium (200.7), mg/l	<0.005	
Analyst	GSP	
Prep Date	03.24.00	
Analysis Date	03.28.00	
Batch ID	PW092	
Dilution Factor	1	
Chromium (200.7), mg/l	<0.005	
Analyst	GSP	
Prep Date	03.24.00	
Analysis Date	03.28.00	
Batch ID	PW092	
Prep Method		
Dilution Factor	1	
Mercury (245.1), mg/l	<0.00020	
Analyst	JDE	
Prep Date	03.22.00	
Analysis Date	03.23.00	
Batch ID	HGW041	
Prep Method	245.1	
Dilution Factor	1	



LOG NO: C0-03629
Received: 18 MAR 00
Reported: 31 MAR 00

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

Project: 003055, EPFS-CHACO
Sampled By: Client
Code: 084900331
Page 2

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED
03629-1	003055-01 <i>MW-01</i>	03-15-00/16:15
PARAMETER	03629-1	
Polynuclear Aromatic Hydrocarbons (8310)		
Acenaphthene, ug/l		<1.0
Acenaphthylene, ug/l		<1.0
Anthracene, ug/l		<1.0
Benzo(a)anthracene, ug/l		<1.0
Benzo(a)pyrene, ug/l		<0.2
Benzo(b)fluoranthene, ug/l		<1.0
Benzo(g,h,i)perylene, ug/l		<1.0
Benzo(k)fluoranthene, ug/l		<1.0
Chrysene, ug/l		<1.0
Dibenzo(a,h)anthracene, ug/l		<1.0
Fluoranthene, ug/l		<1.0
Fluorene, ug/l		<1.0
Indeno(1,2,3-cd)pyrene, ug/l		<1.0
Naphthalene, ug/l		<1.0
Phenanthrene, ug/l		<1.0
Pyrene, ug/l		<1.0
1-Methylnaphthalene, ug/l		<1.0
2-Methylnaphthalene, ug/l		<1.0
Surrogate - 2-Chloroanthracene		110 %
Analyst		SB
Prep Date		03.21.00
Analysis Date		03.26.00
Batch ID		PAW050
Prep Method		3520C
Dilution Factor		1

LOG NO: C0-03629
Received: 18 MAR 00
Reported: 31 MAR 00

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

Project: 003055, EPFS-CHACO
Sampled By: Client
Code: 084900331

REPORT OF RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED		
03629-2	Method Blank			
03629-3	Lab Control Standard % Recovery			
03629-4	Matrix Spike % Recovery			
03629-5	Matrix Spike Duplicate % Recovery			
PARAMETER	03629-2	03629-3	03629-4	03629-5
Cadmium (200.7), mg/l	<0.005	105 %	105 %	102 %
Analyst	GSP	GSP	GSP	GSP
Prep Date	03.24.00	03.24.00	03.24.00	03.24.00
Analysis Date	03.28.00	03.28.00	03.28.00	03.28.00
Batch ID	PW092	PW092	PW092	PW092
Dilution Factor	1	1	1	1
Chromium (200.7), mg/l	<0.005	105 %	107 %	104 %
Analyst	GSP	GSP	GSP	GSP
Prep Date	03.24.00	03.24.00	03.24.00	03.24.00
Analysis Date	03.28.00	03.28.00	03.28.00	03.28.00
Batch ID	PW092	PW092	PW092	PW092
Prep Method				
Dilution Factor	1	1	1	1
Mercury (245.1), mg/l	<0.00020	102 %	100 %	99 %
Analyst	JDE	JDE	JDE	JDE
Prep Date	03.22.00	03.22.00	03.22.00	03.22.00
Analysis Date	03.23.00	03.23.00	03.23.00	03.23.00
Batch ID	HGW041	HGW041	HGW041	HGW041
Prep Method	245.1	245.1	245.1	245.1
Dilution Factor	1	1	1	1



LOG NO: C0-03629
Received: 18 MAR 00
Reported: 31 MAR 00

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

Project: 003055, EPFS-CHACO
Sampled By: Client
Code: 084900331

REPORT OF RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED		
03629-2	Method Blank			
03629-3	Lab Control Standard % Recovery			
03629-4	Matrix Spike % Recovery			
03629-5	Matrix Spike Duplicate % Recovery			
PARAMETER	03629-2	03629-3	03629-4	03629-5
Polynuclear Aromatic Hydrocarbons (8310)				
Acenaphthene, ug/l	<1.0	---	---	---
Acenaphthylene, ug/l	<1.0	80 %	59 %	101 %
Anthracene, ug/l	<1.0	---	---	---
Benzo(a)anthracene, ug/l	<1.0	---	---	---
Benzo(a)pyrene, ug/l	<0.2	---	---	---
Benzo(b)fluoranthene, ug/l	<1.0	---	---	---
Benzo(g,h,i)perylene, ug/l	<1.0	---	---	---
Benzo(k)fluoranthene, ug/l	<1.0	106 %	113 %	117 %
Chrysene, ug/l	<1.0	103 %	117 %	121 %
Dibenzo(a,h)anthracene, ug/l	<1.0	---	---	---
Fluoranthene, ug/l	<1.0	---	---	---
Fluorene, ug/l	<1.0	---	---	---
Indeno(1,2,3-cd)pyrene, ug/l	<1.0	---	---	---
Naphthalene, ug/l	<1.0	---	---	---
Phenanthrene, ug/l	<1.0	108 %	101 %	123 %
Pyrene, ug/l	<1.0	107 %	116 %	113 %
1-Methylnaphthalene, ug/l	<1.0	---	---	---
2-Methylnaphthalene, ug/l	<1.0	---	---	---
Surrogate - 2-Chloroanthracene	113 %	100 %	110 %	122 %
Analyst	SB	SB	SB	SB
Prep Date	03.21.00	03.21.00	03.21.00	03.21.00
Analysis Date	03.26.00	03.26.00	03.26.00	03.26.00
Batch ID	PAW050	PAW050	PAW050	PAW050
Prep Method	3520C	3520C	3520C	3520C
Dilution Factor	1	1	1	1


Lance Larson, Project Manager

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic

J4	(For positive results)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$)
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL) or < lower control limit (LCL)
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).
J (description)		The analyte was positively identified, the quantitation is estimation
R1	(For nondetects)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$); non-reportable for NPDES compliance monitoring
R2		Improper preservation, no preservative present or insufficient amounts of preservative in sample upon receipt, non-reportable for NPDES compliance monitoring
R3		Improper preservation, incorrect preservative present in sample upon receipt, non-reportable for NPDES compliance
R4		Holding time exceeded, non-reportable for NPDES compliance monitoring.
R5		Collection requirements not met, improper container used for sample
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 initial calibration midpoint standard.
R8		Initial calibration or any calibration verification exceeds acceptance criteria.
R10		Headspace > 1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring
R (description)		The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria
F		The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (assume the STL-PN RL is at or above lowest calibration standard in the initial calibration curve).
F (description)		The analyte was positively identified but the associated numerical value is below the STL-Pensacola RL
U2		The reported value is $\leq$ Laboratory MDL (value for result will be the MDL, never below the MDL)
U (description)		The analyte was analyzed for but not detected. The associated numerical value is at or below the MDL
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).
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.
+		Elevated reporting limit due to dilution into calibration range
#		Elevated reporting limit due to insufficient sample size
M		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, or sample result was > 4 X spike added)
NoMS		Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)
C		MS/MSD not performed on this order # (this client's sample was not the sample that was spiked)
N/C+		Not Calculable
N/C*		Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)
D		Diluted out
S		Incorrect sample amount was submitted to the laboratory for analysis
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.
E		Compound concentration exceeds the upper calibration range of the instrument.
FracB		Sample results were corrected due to contaminants in Fractionation Blank (a certification statement is required to be submitted with the final report for MA EPH and NC-Modified MA EPH)
Normally used for Inorganics Only		
R9		Improper preservation, sample not filtered in the field, non-reportable for NPDES compliance monitoring
* (Metals & Wet Chem)		Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)
N/C		Sample and duplicate results are at or below the STL Reporting Limit; therefore, the RPD is "Not Calculable" and no control limits apply.
W		Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.
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".
Q		The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.
H		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"
NH		Sample and/or duplicate result 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". Sample is nonhomogeneous.
A		Sample and duplicate results are "out of control". The sample is nonhomogeneous.
J8		Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.
Z		The sample result for the spike is below the STL Reporting Limit. It is reported for accurate QC calculations.
S1		The Method of Standard Additions (MSA) has been performed on this sample.
P		Analytical (post-digestion) spike
I		Duplicate Injection

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. 81142 (Drinking Water), Laboratory ID No. E81010 (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. 98-25 (Drinking Water)

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 (Wastewater and Hazardous Waste)

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 (Hazardous Waste and Wastewater 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)

Tennessee Division of Underground Storage Tanks Approved Laboratory

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

ANALYSIS REQUEST

[illegible]

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	003055	Total Number of Containers		PENSACOLA - STL-FL	☒	Signature:	Time:	Signature:	Time:
PROJECT NAME:	EEPS - CHACO	Chain of Custody Seals		PORTLAND - ESL-OR		<i>Matthew H.</i>	15:40		
QC LEVEL:	STD. IV	Received Intact?		STL - CT		Printed Name:	Date:	Printed Name:	Date:
QC REQUIRED:	MS MSD BLANK	Received Good Cond/Cold		STL - NEW JERSEY		<i>Matthew H.</i>	3/12		
TAT:	STANDARD RUSH!!	LAB NUMBER:		N. CREEK		Pinacole Laboratories, Inc.		Company	
				BARRINGER		RECEIVED BY:	1:	RECEIVED BY:	2:
DUE DATE:		COMMENTS:		SEQUOIA		Signature:	Time:	Signature:	Time:
RUSH SURCHARGE:						<i>Matthew H.</i>	0955		
CLIENT DISCOUNT:						Printed Name:	Date:	Printed Name:	Date:
SPECIAL CERTIFICATION						<i>Matthew H.</i>	3-18-00		
REQUIRED: YES NO						Company	Stl-PNS	Company	

Severn Trent Laboratories of Florida

PROJECT SAMPLE INSPECTION FORM

Lab Accession #: C003629

Date Received: 18-March-00

1. Was there a Chain of Custody? ☒ Yes No*
2. Was Chain of Custody properly filled out and relinquished? ☒ Yes No*
3. Were samples received cold? ☒ Yes No* N/A
(Criteria: 2° - 6°C: STL-SOP 1055)
4. Were all samples properly labeled and identified? ☒ Yes No*
5. Did samples require splitting? Yes* ☒ No
Req By: PM Client Other*
6. Were samples received in proper containers for analysis requested? ☒ Yes No*
7. Were all sample containers received intact? ☒ Yes No*

8. Were samples checked for preservative? ☒ Yes No* N/A
(Check pH of all H₂O requiring preservative (STL-PN SOP 917) except VOA vials that require zero headspace)*
9. Is there sufficient volume for analysis requested? ☒ Yes No* N/A
(Can)
10. Were samples received within Holding Time? ☒ Yes No*
(REFER TO STL-SOP 1040)
11. Is Headspace visible > 1/4" in diameter in VOA vials?* If any headspace is evident, comment in out-of-control section. Yes* No ☒ N/A
12. If sent, were matrix spike bottles returned? Yes No* ☒ N/A
13. Was Project Manager notified of problems? (initials: _____) Yes No* ☒ N/A

Airbill Number(s): 12878168444070786

Shipped By: UPS

Cooler Number(s): Chiller Cooler

Shipping Charges: N/A

Cooler Weight(s): 31 lbs.

Cooler Temp(s) (°C): 3°C

CCK9
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: UNE Date: 3/18/00 Logged By: UK Date: 19-MAR-00

- * Note all Out-of-Control and/or questionable events on Comment Section of this form.
- * Note who requested the splitting of samples on the Comment Section of this form.
- * 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).
- * According to EPA, 1/4" 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).

PHILIP

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

COC Serial No. C 2511

W5055

ENVIRONMENTAL

Project Name **EPFS QUARTERLY SAMPLING**

Project Number **62800107** Phase, Task

Samplers **R. THOMPSON**

Laboratory Name **PINNACLE LABS**

Location **Albuquerque, NM**

Sample Number (and depth) **CHA-0003-Mud01** Date **3/15/00** Time **1615** Matrix **H₂O**

Total Number of Bottles

5

Type of Analysis and Bottle

BTEX 8021
Cd, Cr, H₂S
PAH's

Comments
CHACO PLANT

Relinquished by:

Signature

R. Thompson

Date

3/16/00

Time

1640

Received By:

Signature

M. Mitchell

Date

3/17/00

Time

12:30p

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

☐ Cyanide Sodium hydroxide (NaOH)

☒ Volatile Organic Analysis Hydrochloric acid (HCl)

☒ Metals Nitric acid (HNO₃)

☐ TPH (418.1) Sulfuric acid (H₂SO₄)

☐ Other (Specify)

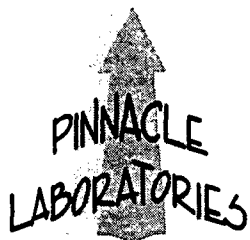
☐ Other (Specify)

Carrier: **GREYHOUND**

Shipping and Lab Notes:

RECD on 3.89

Airbill No. **61E1606650661**



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

Pinnacle Lab ID number 006082
July 13, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTLEY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/LEAUDRA STANLEY

On 06/22/00 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 analyses were performed by Pinnacle Laboratories, Inc., Albuquerque, NM.

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

pH was flagged as out of hold-time by Severn Trent while performing alkalinity analyses. The results are not affected. While pH should be analyzed immediately, alkalinity has a fourteen day hold-time.

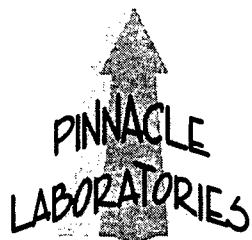
Samples for speciated nitrogen (nitrate and nitrite were received too late for analysis within hold-time (48 hours). However, the total values are within hold-time (28 days).

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

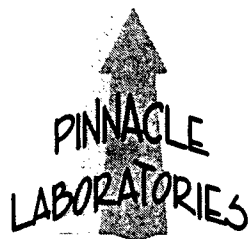
Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 006082
PROJECT #	: 62800107	DATE RECEIVED	: 06/22/00
PROJECT NAME	: EPFS QUARTLEY SAMPLING	REPORT DATE	: 07/13/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA-0006-MW08	AQUEOUS	06/20/00
02	CHA-0006-MW10	AQUEOUS	06/20/00
03	CHA-0006-MW04	AQUEOUS	06/20/00
04	CHA-0006-MW02	AQUEOUS	06/20/00
05	CHA-0006-MW05	AQUEOUS	06/21/00
06	CHA-0006-MW07	AQUEOUS	06/21/00
07	CHA-0006-MW09	AQUEOUS	06/21/00



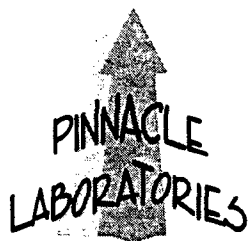
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GENERAL CHEMISTRY RESULTS

CLIENT : PHILIP ENVIRONMENTAL PINNACLE I.D. : 006082
PROJECT # : 62800107 DATE RECEIVED : 06/22/00
PROJECT NAME : EPFS QUARTLEY SAMPLING

SAMPLE			DATE	DATE
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
01	CHA-0006-MW06	AQUEOUS	06/20/00	06/26/00
03	CHA-0006-MW04	AQUEOUS	06/20/00	06/26/00
PARAMETER		UNITS	CHA-0006-MW06	CHA-0006-MW04
PH (150.1)		UNITS	8.13	7.00

CHEMIST NOTES:
N/A



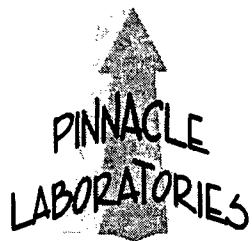
2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GENERAL CHEMISTRY RESULTS

CLIENT : PHILIP ENVIRONMENTAL PINNACLE I.D. : 006082
PROJECT # : 62800107 DATE RECEIVED : 06/22/00
PROJECT NAME : EPFS QUARTLEY SAMPLING

SAMPLE			DATE	DATE	
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED	
04	CHA-0006-MW02	AQUEOUS	06/20/00	06/26/00	
05	CHA-0006-MW05	AQUEOUS	06/21/00	06/26/00	
06	CHA-0006-MW07	AQUEOUS	06/21/00	06/26/00	
PARAMETER		UNITS	CHA-0006-MW02	CHA-0006-MW05	CHA-0006-MW07
PH (150.1)		UNITS	7.43	7.02	7.32

CHEMIST NOTES:
N/A



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

GENERAL CHEMISTRY - QUALITY CONTROL

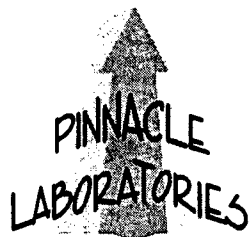
CLIENT : PHILIP ENVIRONMENTAL PINNACLE I.D. : 006082
PROJECT # : 62800107 SAMPLE MATRIX : AQUEOUS
PROJECT NAME : EPFS QUARTLEY SAMPLING

PARAMETER	UNITS	PINNACLE I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH	UNITS	006082-06	7.32	7.35	0.41

CHEMIST NOTES:
N/A

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

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



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTLEY SAMPLING

PINNACLE I.D.: 006082

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	CHA-0006-MW06	AQUEOUS	06/20/00	NA	06/26/00	1
02	CHA-0006-MW10	AQUEOUS	06/20/00	NA	06/26/00	1
03	CHA-0006-MW04	AQUEOUS	06/20/00	NA	06/26/00	1

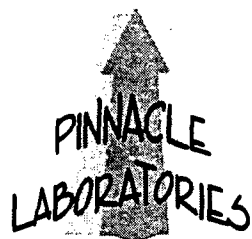
PARAMETER	DET. LIMIT	UNITS	CHA-0006-MW06	CHA-0006-MW10	CHA-0006-MW04
BENZENE	0.5	UG/L	< 0.5	20	< 0.5
TOLUENE	0.5	UG/L	1.4	4.6	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	22	< 0.5
TOTAL XYLENES	0.5	UG/L	0.7	54	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)	114	134*	108
SURROGATE LIMITS (80 - 120)			

CHEMIST NOTES:

* = HIGH SURROGATE DUE TO MATRIX INTERFERENCE.



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTLEY SAMPLING

PINNACLE I.D.: 006082

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	CHA-0006-MW02	AQUEOUS	06/20/00	NA	06/26/00	1
05	CHA-0006-MW05	AQUEOUS	06/21/00	NA	06/26/00	1
06	CHA-0006-MW07	AQUEOUS	06/21/00	NA	06/26/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0006-MW02	CHA-0006-MW05	CHA-0006-MW07
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	0.5	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

100

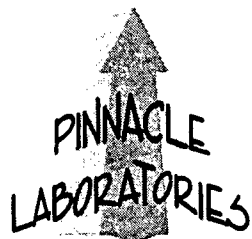
103

102

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTLEY SAMPLING

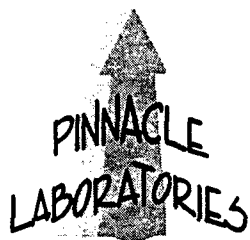
PINNACLE I.D.: 006082

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
07	CHA-0006-MW09	AQUEOUS	06/21/00	NA	06/26/00	1

PARAMETER	DET. LIMIT	UNITS	CHA-0006-MW09
BENZENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 105
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



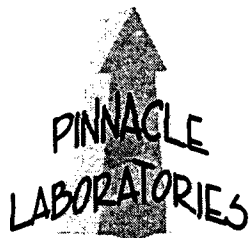
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Albuquerque, New Mexico 87107
Phone (505) 344-3777
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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 006082
BLANK I. D.	: 062600	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 06/26/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QUARTLEY 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 (%) 106
SURROGATE LIMITS: (80 - 120)
CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 006082-03
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTLEY SAMPLING

PINNACLE I.D. : 006082
DATE EXTRACTED : NA
DATE ANALYZED : 06/26/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	17.7	89	18.2	91	3	(80 - 120)	20
TOLUENE	<0.5	20.0	20.2	101	20.6	103	2	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	21.3	107	21.8	109	2	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	65.0	108	66.1	110	2	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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



Mr. MITCH RUBENSTEIN
Pinnacle Laboratories
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Albuquerque, NM 87107

LOG NO: C0-06664
Received: 24 JUN 00
Reported: 07 JUL 00
Revised: 11 JUL 00 (1)

Project: 006082-EPFS/CHACO
Sampled By: Client
Code: 162100711

REPORT OF RESULTS

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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES					DATE/ TIME SAMPLED
06664-1	006082-01					06-20-00/14:13
06664-2	006082-03					06-20-00/12:16
06664-3	006082-04					06-20-00/11:15
06664-4	006082-05					06-21-00/11:10
06664-5	006082-06					06-21-00/10:00
PARAMETER	06664-1 MW-01 MW-06	06664-2 MW-02 MW-04	06664-3 MW-03 MW-02	06664-4 MW-04 MW-05	06664-5 MW-05 MW-08	
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)						
Nitrate + Nitrite-N, mg/l	1.1	2.5	<0.1	0.81	<0.1	
Nitrate-N, mg/l	1.1	2.5	<0.1	0.81	<0.1	
Nitrite-N, mg/l	<0.1 R4	<0.1 R4	<0.1 R4	<0.1 R4	<0.1 R4	
Dilution Factor	1	1	1	1	1	
Prep Date	06.24.00	06.24.00	06.24.00	06.24.00	06.24.00	
Analysis Date	06.28.00	06.28.00	06.28.00	06.28.00	06.28.00	
Batch ID	N3W44A	N3W44A	N3W44A	N3W44A	N3W44A	
Prep Method	4500-NO3	4500-NO3	4500-NO3	4500-NO3	4500-NO3	
Analyst	WG	WG	WG	WG	WG	
Specific Conductance (120.1), umhos/cm	2800	5900	4800	4700	3900	
Dilution Factor	1	1	1	1	1	
Prep Date	07.06.00	07.06.00	07.06.00	07.06.00	07.06.00	
Analysis Date	07.06.00	07.06.00	07.06.00	07.06.00	07.06.00	
Batch ID	CDW014	CDW014	CDW014	CDW014	CDW014	
Prep Method	120.1	120.1	120.1	120.1	120.1	
Analyst	ED	ED	ED	ED	ED	



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06664-2	006082-03					06-20-00/12:16
06664-3	006082-04					06-20-00/11:15
06664-4	006082-05					06-21-00/11:10
06664-5	006082-06					06-21-00/10:00
	MW-01	MW-04	MW-02	MW-05	MW-07	
PARAMETER	06664-1	06664-2	06664-3	06664-4	06664-5	
Sulfate as SO ₄ (E375.4), mg/l	630	2500	27	2200	1300	
Dilution Factor	25	100	1	100	50	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Batch ID	SEW074	SEW074	SEW074	SEW074	SEW074	
Prep Method	375.4	375.4	375.4	375.4	375.4	
Analyst	BE	BE	BE	BE	BE	
Total Dissolved Solids (160.1), mg/l	1800	4900	2800	3900	3000	
Dilution Factor	1	1	1	1	1	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.28.00	06.28.00	06.28.00	06.28.00	06.28.00	
Batch ID	TDW043	TDW043	TDW043	TDW043	TDW043	
Prep Method	160.1	160.1	160.1	160.1	160.1	
Analyst	ED	ED	ED	ED	ED	
Quantitation Factor	1	1	1	1	1	



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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES					DATE/ TIME SAMPLED
06664-1	006082-01					06-20-00/14:13
06664-2	006082-03					06-20-00/12:16
06664-3	006082-04					06-20-00/11:15
06664-4	006082-05					06-21-00/11:10
06664-5	006082-06					06-21-00/10:00
	mw-06	mw-04	mw-02	mw-05	mw-07	
PARAMETER	06664-1	06664-2	06664-3	06664-4	06664-5	
Alkalinity Series						
Alkalinity (to pH 4.5) as CaCO ₃ , mg/l	390	410	530	220	370	
Bicarbonate (2320/4500), mg/l	3	<1.0	1.0	<1.0	1.0	
Carbon Dioxide, mg/l	10	160	53	88	47	
pH, mg/l	7.9 R4	6.7 R4	7.3 R4	6.7 R4	7.2 R4	
Dilution Factor	1	1	1	1	1	
Prep Date	06.29.00	06.29.00	06.29.00	06.29.00	06.29.00	
Analysis Date	06.29.00	06.29.00	06.29.00	06.29.00	06.29.00	
Batch ID	AEW052	AEW052	AEW052	AEW052	AEW052	
Prep Method	310.1	310.1	310.1	310.1	310.1	
Analyst	BE	BE	BE	BE	BE	
Fluoride (300.0), mg/l	6.3	1.4	170	0.81	2.7	
Dilution Factor	10	10	100	5	10	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Batch ID	N:62700	N:62700	N:62700	N:62700	N:62700	
Prep Method	300.0	300.0	300.0	300.0	300.0	
Analyst	ED	ED	ED	ED	ED	



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LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES					DATE/ TIME SAMPLED
06664-1	006082-01					06-20-00/14:13
06664-2	006082-03					06-20-00/12:16
06664-3	006082-04					06-20-00/11:15
06664-4	006082-05					06-21-00/11:10
06664-5	006082-06					06-21-00/10:00
	MW-06	MW-04	MW-02	MW-05	MW-07	
PARAMETER	06664-1 MW-06	06664-2 MW-04	06664-3 MW-02	06664-4 MW-05	06664-5 MW-07	
Total Phosphorus (365.4), mg/l	0.21	0.11	0.09	0.19	0.09	
Dilution Factor	1	1	1	1	1	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.30.00	06.30.00	06.30.00	06.30.00	06.30.00	
Batch ID	TPW28U	TPW28U	TPW28U	TPW28U	TPW28U	
Prep Method	365.4	365.4	365.4	365.4	365.4	
Analyst	CR	CR	CR	CR	CR	
Quantitation Factor	1	1	1	1	1	
Ammonia-N (350.1), mg/l	<0.05	0.07	<0.05	<0.05	0.57	
Dilution Factor	1	1	1	1	1	
Prep Date	06.30.00	06.30.00	06.30.00	06.30.00	06.30.00	
Analysis Date	06.30.00	06.30.00	06.30.00	06.30.00	06.30.00	
Batch ID	AAW23A	AAW23A	AAW23A	AAW23A	AAW23A	
Prep Method	350.1	350.1	350.1	350.1	350.1	
Analyst	WG	WG	WG	WG	WG	
Quantitation Factor	1	1	1	1	1	
Chloride (SM4500E), mg/l	130	420	1400	200	220	
Dilution Factor	2	10	20	5	5	
Prep Date	06.29.00	06.29.00	06.29.00	06.29.00	06.29.00	
Analysis Date	06.29.00	06.29.00	06.29.00	06.29.00	06.29.00	
Batch ID	CKW37A	CKW37A	CKW37A	CKW37A	CKW37A	
Prep Method	4500E	4500E	4500E	4500E	4500E	
Analyst	CR	CR	CR	CR	CR	



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REPORT OF RESULTS

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06664-1	006082-01					06-20-00/14:13
06664-2	006082-03					06-20-00/12:16
06664-3	006082-04					06-20-00/11:15
06664-4	006082-05					06-21-00/11:10
06664-5	006082-06					06-21-00/10:00
	<i>mw-06</i>	<i>mw-04</i>	<i>mw-02</i>	<i>mw-05</i>	<i>mw-07</i>	
PARAMETER	06664-1	06664-2	06664-3	06664-4	06664-5	
Hardness by calculation						
Hardness as CaCO ₃ , mg/l	110	1400	410	1200	880	
Dilution Factor	3010A	3010A	3010A	3010A	3010A	
Analysis Date	06.26.00	06.26.00	06.26.00	06.26.00	06.26.00	
Batch ID	6.26	6.26	6.26	6.26	6.26	
Prep Method	PW212	PW212	PW212	PW212	PW212	
Analyst	GSP	GSP	GSP	GSP	GSP	
Quantitation Factor	1	1	1	1	1	
Metals (6010)						
Cadmium, mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	
Calcium, mg/l	34	480	110	370	260	
Chromium, mg/l	<0.005	0.010	<0.005	0.023	0.012	
Magnesium, mg/l	5.8	81	33	68	53	
Potassium, mg/l	2.4	20	1.9	13	7.3	
Sodium, mg/l	610	930	820	670	620	
Dilution Factor	1,20	1,50	1,50	1,50	1,20	
Prep Date	06.26.00	06.26.00	06.26.00	06.26.00	06.26.00	
Analysis Date	06.26.00	06.26.00	06.26.00	06.26.00	06.26.00	
Batch ID	PW212	PW212	PW212	PW212	PW212	
Prep Method	3010A	3010A	3010A	3010A	3010A	
Analyst	GSP	GSP	GSP	GSP	GSP	



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REPORT OF RESULTS

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06664-1	006082-01	06-20-00/14:13				
06664-2	006082-03	06-20-00/12:16				
06664-3	006082-04	06-20-00/11:15				
06664-4	006082-05	06-21-00/11:10				
06664-5	006082-06	06-21-00/10:00				
		MW-06	MW-04	MW-02	MW-05	MW-07
PARAMETER	06664-1	06664-2	06664-3	06664-4	06664-5	
	MW-06	MW-04	MW-02	MW-05	MW-07	
Mercury (7470), mg/l	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Dilution Factor	1	7470A	7470A	7470A	7470A	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.28.00	06.28.00	06.28.00	06.28.00	06.28.00	
Batch ID	HGW081	HGW081	HGW081	HGW081	HGW081	
Prep Method	7470A	HGW081	HGW081	HGW081	HGW081	
Analyst	JDE	JDE	JDE	JDE	JDE	
Quantitation Factor	---	1	1	1	1	

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.



Mr. MITCH RUBENSTEIN
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Project: 006082-EPFS/CHACO
Sampled By: Client
Code: 162100711
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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED			
06664-6	Method Blank				
06664-7	Lab Control Standard % Recovery				
06664-8	Matrix Spike % Recovery				
06664-9	Matrix Spike Duplicate % Recovery				
PARAMETER	06664-6	06664-7	06664-8	06664-9	
Nitrate-Nitrite, Nitrogen (353.2/354.1/4500-NO3)					
Nitrate + Nitrite-N, mg/l	<0.1	105 %	107 %	106 %	
Nitrate-N, mg/l	<0.1	105 %	107 %	106 %	
Nitrite-N, mg/l	<0.1	95 %	95 %	100 %	
Dilution Factor	1	1	1	1	
Prep Date	06.24.00	06.24.00	06.24.00	06.24.00	
Analysis Date	06.28.00	06.28.00	06.28.00	06.28.00	
Batch ID	N3W44A	N3W44A	N3W44A	N3W44A	
Prep Method	4500-NO3	4500-NO3	4500-NO3	4500-NO3	
Analyst	WG	WG	WG	WG	
Alkalinity Series					
Alkalinity (to pH 4.5) as CaCO ₃ , mg/l	<1.0	99 %	96 %	120 %	
Bicarbonate (2320/4500), mg/l	<1.0	N/A	N/A	N/A	
Carbon Dioxide, mg/l	<1.0	N/A	N/A	N/A	
pH, mg/l	N/A	N/A	N/A	N/A	
Dilution Factor	1	1	1	1	
Prep Date	06.29.00	06.29.00	06.29.00	06.29.00	
Analysis Date	06.29.00	06.29.00	06.29.00	06.29.00	
Batch ID	AEW052	AEW052	AEW052	AEW052	
Prep Method	310.1	310.1	310.1	310.1	
Analyst	BE	BE	BE	BE	



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REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED			
06664-6	Method Blank				
06664-7	Lab Control Standard % Recovery				
06664-8	Matrix Spike % Recovery				
06664-9	Matrix Spike Duplicate % Recovery				
PARAMETER	06664-6	06664-7	06664-8	06664-9	
Sulfate as SO ₄ (E375.4), mg/l	<5.0	95 %	75 %	68 %	
Dilution Factor	1	1	4	4	
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00	
Analysis Date	06.27.00	06.27.00	06.27.00	06.27.00	
Batch ID	SEW074	SEW074	SEW074	SEW074	
Prep Method	375.4	375.4	375.4	375.4	
Analyst	BE	BE	BE	BE	
Specific Conductance (120.1), umhos/cm	<1	102 %	N/A	N/A	
Dilution Factor	1	1	1	1	
Prep Date	07.06.00	07.06.00	07.06.00	07.06.00	
Analysis Date	07.06.00	07.06.00	07.06.00	07.06.00	
Batch ID	CDW014	CDW014	CDW014	CDW014	
Prep Method	120.1	120.1	120.1	120.1	
Analyst	ED	ED	ED	ED	
Ammonia-N (350.1), mg/l	<0.05	105 %	95 %	95 %	
Dilution Factor	1	1	1	1	
Prep Date	06.30.00	06.30.00	06.30.00	06.30.00	
Analysis Date	06.30.00	06.30.00	06.30.00	06.30.00	
Batch ID	AAW23A	AAW23A	AAW23A	AAW23A	
Prep Method	350.1	350.1	350.1	350.1	
Analyst	WG	WG	WG	WG	
Quantitation Factor	1	1	1	1	



Mr. MITCH RUBENSTEIN
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

LOG NO: C0-06664
Received: 24 JUN 00
Reported: 07 JUL 00
Revised: 11 JUL 00 (1)

Project: 006082-EPFS/CHACO
Sampled By: Client
Code: 162100711
Page 9

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED		
06664-6	Method Blank			
06664-7	Lab Control Standard % Recovery			
06664-8	Matrix Spike % Recovery			
06664-9	Matrix Spike Duplicate % Recovery			
PARAMETER	06664-6	06664-7	06664-8	06664-9
Total Phosphorus (365.4), mg/l	<0.05	98 %	N/C *	N/C *
Dilution Factor	1	1	1	1
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00
Analysis Date	06.30.00	06.30.00	06.30.00	06.30.00
Batch ID	TPW28U	TPW28U	TPW28U	TPW28U
Prep Method	365.4	365.4	365.4	365.4
Analyst	CR	CR	CR	CR
Quantitation Factor	1	1	1	1
Fluoride (300.0), mg/l	<0.02	103 %	101 %	100 %
Dilution Factor	1	1	10	10
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00
Analysis Date	06.27.00	06.27.00	06.27.00	06.27.00
Batch ID	N:62700	N:62700	N:62700	N:62700
Prep Method	300.0	300.0	300.0	300.0
Analyst	ED	ED	ED	ED
Total Dissolved Solids (160.1), mg/l	<5	78 %	N/A	N/A
Dilution Factor	1	1	---	---
Prep Date	06.27.00	06.27.00	---	---
Analysis Date	06.28.00	06.28.00	---	---
Batch ID	TDW043	TDW043	---	---
Prep Method	160.1	160.1	---	---
Analyst	ED	ED	---	---
Quantitation Factor	1	1	---	---



Mr. MITCH RUBENSTEIN
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

LOG NO: C0-06664
Received: 24 JUN 00
Reported: 07 JUL 00
Revised: 11 JUL 00 (1)

Project: 006082-EPFS/CHACO
Sampled By: Client
Code: 162100711
Page 10

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED			
06664-6	Method Blank				
06664-7	Lab Control Standard % Recovery				
06664-8	Matrix Spike % Recovery				
06664-9	Matrix Spike Duplicate % Recovery				
PARAMETER	06664-6	06664-7	06664-8	06664-9	
Chloride (SM4500E), mg/l	<2.0	102 %	110 %	99 %	
Dilution Factor	1	1	1	1	
Prep Date	06.29.00	06.29.00	06.29.00	06.29.00	
Analysis Date	06.29.00	06.29.00	06.29.00	06.29.00	
Batch ID	CKW37A	CKW37A	CKW37A	CKW37A	
Prep Method	4500E	4500E	4500E	4500E	
Analyst	CR	CR	CR	CR	
Metals (6010)					
Cadmium, mg/l	<0.005	104 %	102 %	102 %	
Calcium, mg/l	<0.5	103 %	100 %	106 %	
Chromium, mg/l	<0.005	104 %	102 %	103 %	
Magnesium, mg/l	<0.5	102 %	105 %	106 %	
Potassium, mg/l	<1.0	103 %	122 %	123 %	
Sodium, mg/l	<1.0	99 %	143 % M3	143 % M3	
Dilution Factor	1	1	1	1	
Prep Date	06.26.00	06.26.00	06.26.00	06.26.00	
Analysis Date	06.26.00	06.26.00	06.26.00	06.26.00	
Batch ID	PW212	PW212	PW212	PW212	
Prep Method	3010A	3010A	3010A	3010A	
Analyst	GSP	GSP	GSP	GSP	



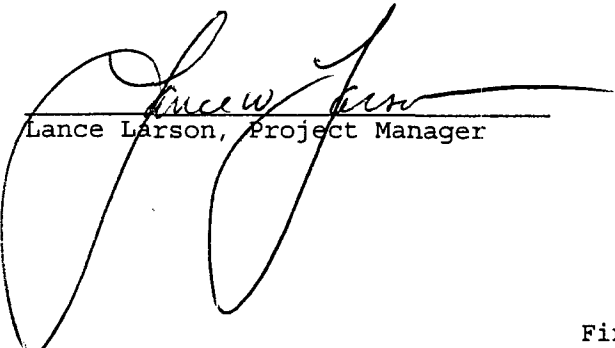
Mr. MITCH RUBENSTEIN
Pinnacle Laboratories
2709-D Pan American Freeway Northeast
Albuquerque, NM 87107

LOG NO: C0-06664
Received: 24 JUN 00
Reported: 07 JUL 00
Revised: 11 JUL 00 (1)

Project: 006082-EPFS/CHACO
Sampled By: Client
Code: 162100711
Page 11

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED		
06664-6	Method Blank			
06664-7	Lab Control Standard % Recovery			
06664-8	Matrix Spike % Recovery			
06664-9	Matrix Spike Duplicate % Recovery			
PARAMETER	06664-6	06664-7	06664-8	06664-9
Mercury (7470), mg/l	<0.00020	99 %	99 %	100 %
Dilution Factor	7470A	7470A	7470A	7470A
Prep Date	06.27.00	06.27.00	06.27.00	06.27.00
Analysis Date	06.28.00	06.28.00	06.28.00	06.28.00
Batch ID	HGW081	HGW081	HGW081	HGW081
Prep Method	HGW081	HGW081	HGW081	HGW081
Analyst	JDE	JDE	JDE	JDE
Quantitation Factor	1	1	1	1
Hardness by calculation				
Hardness as CaCO ₃ , mg/l	<3.2	N/A	N/A	N/A
Dilution Factor	3010A	3010A	3010A	1
Prep Date	---	---	---	06.26.00
Analysis Date	06.26.00	06.26.00	06.26.00	06.26.00
Batch ID	6.26	6.26	6.26	PW212
Prep Method	PW212	PW212	PW212	3010A
Analyst	GSP	GSP	GSP	GSP
Quantitation Factor	1	1	1	---


Lance Larson, Project Manager

Final Page Of Report

Data Qualifiers for Final Report

STL-Pensacola Inorganic/Organic

J4	(For positive results)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$), non-reportable for NDPES compliance monitoring.
J6	(For positive results)	LCS or Surrogate %R is > upper control limit (UCL), results may be biased high
J9	(For positive results)	LCS or Surrogate %R is < lower control limit (LCL), results may be biased low
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).	
J (description)	The analyte was positively identified, the quantitation may be an estimation	
R1	(For nondetects)	Temperature limits exceeded ($\leq 2^{\circ}\text{C}$ or $\geq 6^{\circ}\text{C}$); 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	Collection requirements not met, improper container used for sample	
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.	
R10	Headspace > 1/4" in diameter in volatile vials, non-reportable for NPDES compliance monitoring	
R12	Analysis performed outside the 12-hour tune or not within tune criteria.	
R (description)	The data may be unusable due to deficiencies in the ability to analyze the sample and meet QC criteria	
F	The reported value is < STL-Pensacola RL and > the STL-Pensacola MDL; therefore, the quantitation is estimation (assume the STL-PN RL is at or above lowest calibration standard in the initial calibration curve).	
U	The reported value is < Laboratory MDL (value for result will be the MDL, never below the MDL)	
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).	
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.	
B4	Sample results were corrected due to contaminants in Fractionation Blank	
@	Adjusted reporting limit due to sample composition, not due to overcal (dilution prior to digestion and/or analysis).	
#	Elevated reporting limit due to insufficient sample size	
M	A matrix effect was present (¹ 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)	
NoMS	Not enough sample provided to prepare and/or analyze a method-required matrix spike (MS) and/or duplicate (MSD)	
N/C*	Not Calculable; Sample spiked is > 4X spike concentration (may also use this flag in place of negative numbers)	
D	Diluted out (surrogate or spike due to sample dilution)	
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.	
1 pt	The compound has been quantitated against a one point calibration.	
E	Compound concentration exceeds the upper calibration range of the instrument.	
S2	Incorrect sample amount was submitted to the laboratory for analysis	
Normally used for Inorganics Only		
S3 (Flashpoint)	This method is not designed for solids and the results may not be accepted by any regulator for such purposes.	
R9	Not filtered and preserved at time of collection.	
R11	Samples were filtered and preserved within 4 hours of collection.	
* (Metals & Wet Chem)	Elevated reporting limit due to matrix interference (dilution prior to digestion and/or analysis)	
W	Post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is less than 50% spike absorbance.	
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".	
Q	The analytical (post digestion) spike is reported due to the percent recovery being outside limits on the matrix (pre-digestion) spike.	
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.	
NH	Sample and duplicate results are "out of control". The sample is nonhomogeneous.	
J8	Matrix spike and post spike recoveries are outside control limits. See out of Control Events/Corrective Action Form.	
S1	The Method of Standard Additions (MSA) has been performed on this sample.	

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. 81142 (Drinking Water), Laboratory ID No. E81010 (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)

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 (Wastewater and Hazardous Waste)

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 (Hazardous Waste and Wastewater 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)

Tennessee Division of Underground Storage Tanks Approved Laboratory

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 04/25/00

Network Project Manager: Jacinta A. Tenorio

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

006082-01

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Metals (8) RCRA	Metals - TAL	Metals - List	Metals - TAL	ALKALINITY, Ammonia	TOX Phosphate	TOC	Gen Chemistry CHLORIDE, SO ₄	Oil and Grease	Volatile Organics GC/MS (8260)	BOD	COD	PESTICIDES/PCB (608/8082)	Herbicides (615/8151)	PNA (8310)	8240 (TCLP 1311) ZHE	Base/Neutral Acid Compounds GC/MS (625/8270)	URANIUM (ICP-MS)	RADIUM 226+228	Gross Alpha/Beta	TO-14	NUMBER OF CONTAINERS
006082-01	6/20	1413	AO		X	X	X	X	X	X	X	X	X	X												4
03	6/20	1216			X	X	X	X	X	X	X	X	X	X												4
04	6/20	1115			X	X	X	X	X	X	X	X	X	X												4
05	6/21	1110			X	X	X	X	X	X	X	X	X	X												4
06	6/21	1000	V		X	X	X	X	X	X	X	X	X	X												4

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY:		RELINQUISHED BY:	
PROJECT #:	006082	Total Number of Containers		Signature:	Signature:	Signature:	Signature:
PROJ. NAME:	CHACO	Chain of Custody Seals		Date:	Date:	Date:	Date:
QC LEVEL:	STD. IV	Received Intact?		Printed Name:	Printed Name:	Printed Name:	Printed Name:
QC REQUIRED:	MSD (BLANK)	Received Good Cond./Cold		Company:	Company:	Company:	Company:
TAT:	STANDARD RUSH!!	LAB NUMBER:		RECEIVED BY:			
DUE DATE:		COMMENTS:		RECEIVED BY:			
RUSH SURCHARGE:				RECEIVED BY:			
CLIENT DISCOUNT:				RECEIVED BY:			
SPECIAL CERTIFICATION				RECEIVED BY:			
REQUIRED: YES NO				RECEIVED BY:			

ENVIRONMENTAL

4000 Monroe Road
Farmington, NM 87401
(505) 326-2262 Phone
(505) 326-2388 FAX

COC Serial No. C 2560

[illegible]

Received By:

Signature	Date	Time
<i>[Signature]</i>	6/22/20	0900

NES
ies @ 4'c

1/31/96

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPD.

Page 1 of 1Project Name EPES QUARTERLY SAMPLING

Project Manager R. Thompson

Project No. 62800107

Client Company: EPFS

Phase.Task No. 0301

Site Name CHIACO PLANT

Site Address RURAL SAN JUAN CO.

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 19.51 TOR
Initial Depth to Water (feet) 12.97 TOR
Height of Water Column in Well (feet) 16.54
Diameter (inches): Well 4 Grave Pack

Instruments

- ☒ pH Meter
- ☐ DO Monitor
- ☒ Conductivity Meter
- ☒ Temperature Meter
- ☐ Other
- HYDAC

Water Disposal

KUTZ SEPARATOR BLOCK FIELD NM

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Comments Well bailed dry at 12 gal. Let recharge and sampled for BrEx, metals-hardness, TDS pH, gen chem and $\text{NO}_3^-/\text{NH}_3^-$ /Phos. at 1000

Developer's Signature(s) Jenn Wagner Date 6/21/00 Reviewer RT Date 6/21/00

Page 1 of 1Project Name EPFS QUARTERLY SAMPLING

Project Manager R. Thompson

Project No. 62800107

Client Company: EAFS

Phase.Task No. 0301

Site Name CHIACO PLANT

Site Address RURAL SAN JUAN CO.

Development Criteria

- ☒ ③ to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters

☐ Other

Methods of Development

- Pump**
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☐ Other
- Bailer**
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kemmerer

Water Volume Calculation

Initial Depth of Well (feet) 2142 top

Initial Depth to Water (feet) 11.57 TOR

Height of Water Column in Well (feet) 9.85

Diameter (inches): Well

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	9.85	6.43 x 3	19.3
Gravel Pack			
Drilling Fluids			
Total			19.3

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Comments	Sampled for BTEX at 1232

Developer's Signature(s) J. A. Wagner

Date 4/21/00

Reviewer RT Date 6/24/00

Well Number MW-04Serial No. WDPD-☐ Development
☒ Purging

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1Project Name EPFS QUARTERLY SAMPLINGProject Manager R. ThompsonProject No. 62800107Client Company EPFSPhase/Task No. 0301Site Name CIACO PLANTSite Address RURAL SAN JUAN CO.

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 30.61 TOR
Initial Depth to Water (feet) 22.11 TOR
Height of Water Column in Well (feet) 8.50
Diameter (inches): Well 4" Gravel Pack

Methods of Development

- Pump ☐ Centrifugal ☒ Bottom Valve
☐ Submersible ☐ Double Check Valve
☐ Peristaltic ☐ Stainless-steel Kemmerer
☐ Other

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other

Serial No. (if applicable)

HYDAC

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	8.50	5.55 x 3	16.6
Gravel Pack			
Drilling Fluids			
Total			16.6

Water Disposal

KUTZ SEPARATOR, BLOOMFIELD, NM

Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Initial Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/l)	Comments
						Increment	Cumulative					
6/20/00	1153	X				3	3	23.4	6.82	6162		CLEAR, NO ODOOR
"	1158	X				3	6	22.5	6.76	6016		"
"	1202	X				3	9	22.5	6.71	6060		SLIGHTLY CLEAR
"	1206	X				3	12	19.6	6.73	5760		"
"	1210	X				3	15	18.9	6.74	5710		"
"	1213	X				2	17	18.3	6.78	5660		"

Circle the date and time that the development criteria are met.

Comments Sampled for BTEX and TDS, Gen chem, pH, Phos, metals, hardness, at 1816.

NO3, NH3,Developer's Signature(s) Jean WagnerDate 6/20/00Reviewer RTDate 6/21/00

WELL DEVELOPMENT AND PURGING DATA

Project Name EPFS QUARTERLY SAMPLING

Project Manager R. Thompson

Project No. 62800107

Client Company: EPFS

Phase.Task No. 0301

Site Name CHACO PLANT

Site Address RURAL SAN JUAN CO.

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Methods of Development

- Pump**
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☐ Other
- Bailer**
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kemmerer

Water Volume Calculation

Initial Depth of Well (feet) 22.26 TOR
Initial Depth to Water (feet) 11.51 TOR
Height of Water Column in Well (feet) 10.75
Diameter (inches): Well 4 Gravel Pack

Item	Water Volume In Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	10.75	7.02 x 3	21.1
Gravel Pack			
Drilling Fluids			
Total			21.1

Instruments

- ☒ pH Meter HYDAC
- ☐ DO Monitor _____
- ☒ Conductivity Meter HYDAC
- ☒ Temperature Meter HYDAC
- ☐ Other _____

Water Disposal

KUTZ SEPA RATOR BLOOM FIELD NM

Water Removal Data

[illegible]

Circle the date and time that the development criteria are met.

Comments PRODUCT FROM 11.49-11.51, PRODUCT PRESENT: NO PARAMETERS TAKEN. WATER IS

GREY WITH SIGNIFICANT SHEEN. SAMPLED FOR BTEX AT 1531

Developer's Signature(s) James Wagner

Date 10/20/20.

Reviewer RT Date 6/21/00

WELL DEVELOPMENT AND PURGING DATA

☐ Developing
☒ Purging

Page 1 of 1

Serial No. WDPD.

Project Name EPFS QUARTERLY SAMPLING

Project Manager R. Thompson

Project No. 62800107

Client Company: EPFS

Phase, Task No. 0301

Site Name CHIACO PLANT Site Address RURAL SAN JUAN CO.

Development Criteria

☒ ③ to 5 Casing Volumes of Water Removal

☒ Stabilization of Indicator Parameters

☐ Other

Methods of Development

Pump
Bailer

☐ Centrifugal ☒ Bottom Valve

☐ Submersible ☐ Double Check Valve

☐ Peristaltic ☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 24.48 TOR

Initial Depth to Water (feet) 10.00738

Height of Water Column in Well (feet) 14.48

Diameter (inches): Well 4" Gravel Pack _____

Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	14.48	9.45 x 3	28.4
Gravel Pack			
Drilling Fluids			
Total			28.4

Instruments

☒ pH Meter☐ DO Monitor☒ Conductivity Meter

卷之四

☒ Temperature Meter HYDA C☐ Other

Water Disposal

KUTZ SEPARATOR BLOOMFIELD NM

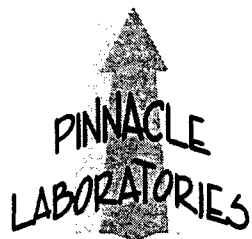
Water Removal Data

[illegible]

Circle the dose and time that the development criteria are met.

Comments	at	1413
Sampled for metals/hardness, TDS, NO_3NH_3 , Phos, gen chem, pH, and GTEX		

Developer's Signature(s) Jana Wagner Date 6/20/00 Reviewer RT Date 6/21/00



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

Pinnacle Lab ID number **009063**
September 28, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELY STREET
FARMINGTON, NM 87401

Project Name EPFS QTRLY SAMP.
Project Number 62800107

Attention: ROBERT THOMPSON/LEAUDRA STANLEY

On 09/12/00 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.

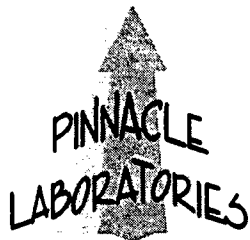
All other analyses were performed by Environmental Services Laboratory, Inc., Portland, OR.

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

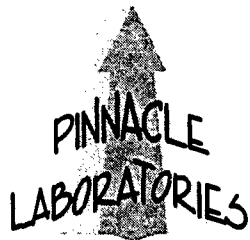
Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 009063
PROJECT #	: 62800107	DATE RECEIVED	: 09/12/00
PROJECT NAME	: EPFS QTRLY SAMP.	REPORT DATE	: 09/28/00

PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	CHA 0009-MW01	AQUEOUS	09/11/00
02	CHA 0009-MW08	AQUEOUS	09/11/00
03	CHA 0009-MW09	AQUEOUS	09/11/00
04	CHA 0009-MW10	AQUEOUS	09/11/00
05	TRIP BLANK	AQUEOUS	09/11/00



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QTRLY SAMP.

PINNACLE I.D.: 009063

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA 0009-MW01	AQUEOUS	09/11/00	NA	09/12/00	1
02	CHA 0009-MW08	AQUEOUS	09/11/00	NA	09/12/00	1
03	CHA 0009-MW09	AQUEOUS	09/11/00	NA	09/12/00	1

PARAMETER	DET. LIMIT	UNITS	CHA 0009-MW01	CHA 0009-MW08	CHA 0009-MW09
BENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5	< 0.5	< 0.5

SURROGATE:

BROMOFLUOROBENZENE (%)

107

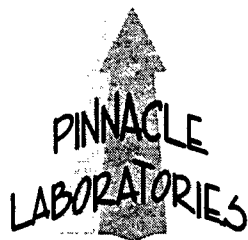
110

106

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QTRLY SAMP.

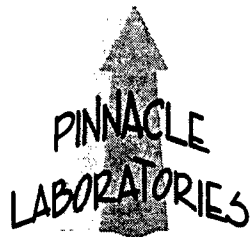
PINNACLE I.D.: 009063

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	CHA 0009-MW10	AQUEOUS	09/11/00	NA	09/12/00	10
05	TRIP BLANK	AQUEOUS	09/11/00	NA	09/12/00	1

PARAMETER	DET. LIMIT	UNITS	CHA 0009-MW10	TRIP BLANK
BENZENE	0.5	UG/L	150	< 0.5
TOLUENE	0.5	UG/L	6.0	< 0.5
ETHYLBENZENE	0.5	UG/L	53	< 0.5
TOTAL XYLENES	0.5	UG/L	170	< 0.5

SURROGATE:
BROMOFLUOROBENZENE (%) 104 103
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 009063
BLANK I. D.	: 091200	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 09/12/00
PROJECT #	: 62800107	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: EPFS QTRLY SAMP.		

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

SURROGATE:

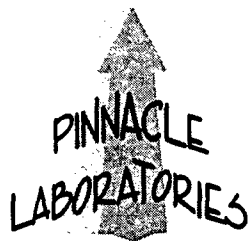
BROMOFLUOROBENZENE (%)

103

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 009065-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QTRLY SAMP.

PINNACLE I.D. : 009063
DATE EXTRACTED : NA
DATE ANALYZED : 09/12/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	140	20.0	159	95	156	80	2	(80 - 120)	20
TOLUENE	18	20.0	40.5	113	39.6	108	2	(80 - 120)	20
ETHYLBENZENE	0.8	20.0	23.3	113	23.2	112	0	(80 - 120)	20
TOTAL XYLENES	7.6	60.0	74.8	112	75.0	112	0	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

Environmental Services Laboratory, Inc.

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

September 21, 2000

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

RE: 009063/PHIL

Order No.: 0009051

Dear Jacinta A. Tenorio,

Environmental Services Laboratory received 2 samples on 9/13/00 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

ICP Metals (EPA 6010B)
Mercury (EPA 7470A)
PAH BY SIM, Aqueous (8270-SIM)

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,

Nichole Karl

Nichole Karl
Project Manager

Kith Hunter
Technical Review

ANALYTICAL SERVICES FOR THE ENVIRONMENT

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
Lab Order: 0009051
Project: 009063/PHIL
Lab ID: 0009051-01A

Client Sample ID: 009063-01 MW-01
Tag Number:
Collection Date: 9/11/00
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY		EPA 7470A				Analyst: lmc
Mercury	ND	0.000200		mg/L	1	9/14/00
ICP METALS		EPA 6010B				Analyst: lmc
Cadmium	ND	0.00200		mg/L	1	9/15/00
Chromium	0.00800	0.00500		mg/L	1	9/15/00
PAH BY SIM, AQUEOUS		8270-SIM				Analyst: ams
1-Methylnaphthalene	ND	0.400		µg/L	1	9/19/00
2-Methylnaphthalene	ND	0.400		µg/L	1	9/19/00
Acenaphthene	ND	0.400		µg/L	1	9/19/00
Acenaphthylene	ND	0.400		µg/L	1	9/19/00
Anthracene	ND	0.400		µg/L	1	9/19/00
Benz(a)anthracene	ND	0.400		µg/L	1	9/19/00
Benzo(a)pyrene	ND	0.400		µg/L	1	9/19/00
Benzo(b)fluoranthene	ND	0.400		µg/L	1	9/19/00
Benzo(g,h,i)perylene	ND	0.400		µg/L	1	9/19/00
Benzo(k)fluoranthene	ND	0.400		µg/L	1	9/19/00
Chrysene	ND	0.400		µg/L	1	9/19/00
Dibenz(a,h)anthracene	ND	0.400		µg/L	1	9/19/00
Fluoranthene	ND	0.400		µg/L	1	9/19/00
Fluorene	ND	0.400		µg/L	1	9/19/00
Indeno(1,2,3-cd)pyrene	ND	0.400		µg/L	1	9/19/00
Naphthalene	ND	0.400		µg/L	1	9/19/00
Phenanthrene	ND	0.400		µg/L	1	9/19/00
Pyrene	ND	0.400		µg/L	1	9/19/00
Surr: 2-Fluorobiphenyl	65.0	43-116		%REC	1	9/19/00
Surr: 4-Terphenyl-d14	92.0	33-141		%REC	1	9/19/00
Surr: Nitrobenzene-d5	45.0	35-114		%REC	1	9/19/00

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

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
Lab Order: 0009051
Project: 009063/PHIL
Lab ID: 0009051-02A

Client Sample ID: 009063-02 MW - 08
Tag Number:
Collection Date: 9/11/00
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
MERCURY		EPA 7470A				Analyst: lmc
Mercury	ND	0.000200		mg/L	1	9/14/00
ICP METALS		EPA 6010B				Analyst: lmc
Cadmium	ND	0.00200		mg/L	1	9/15/00
Chromium	0.00520	0.00500		mg/L	1	9/15/00
PAH BY SIM, AQUEOUS		8270-SIM				Analyst: ams
1-Methylnaphthalene	ND	0.400		µg/L	1	9/19/00
2-Methylnaphthalene	ND	0.400		µg/L	1	9/19/00
Acenaphthene	ND	0.400		µg/L	1	9/19/00
Acenaphthylene	ND	0.400		µg/L	1	9/19/00
Anthracene	ND	0.400		µg/L	1	9/19/00
Benz(a)anthracene	ND	0.400		µg/L	1	9/19/00
Benzo(a)pyrene	ND	0.400		µg/L	1	9/19/00
Benzo(b)fluoranthene	ND	0.400		µg/L	1	9/19/00
Benzo(g,h,i)perylene	ND	0.400		µg/L	1	9/19/00
Benzo(k)fluoranthene	ND	0.400		µg/L	1	9/19/00
Chrysene	ND	0.400		µg/L	1	9/19/00
Dibenz(a,h)anthracene	ND	0.400		µg/L	1	9/19/00
Fluoranthene	ND	0.400		µg/L	1	9/19/00
Fluorene	0.480	0.400		µg/L	1	9/19/00
Indeno(1,2,3-cd)pyrene	ND	0.400		µg/L	1	9/19/00
Naphthalene	ND	0.400		µg/L	1	9/19/00
Phenanthrene	ND	0.400		µg/L	1	9/19/00
Pyrene	ND	0.400		µg/L	1	9/19/00
Surr: 2-Fluorobiphenyl	68.0	43-116		%REC	1	9/19/00
Surr: 4-Terphenyl-d14	89.0	33-141		%REC	1	9/19/00
Surr: Nitrobenzene-d5	52.0	35-114		%REC	1	9/19/00

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

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
 Work Order: 0009051
 Project: 009063/PHIL

QC SUMMARY REPORT

Method Blank

Sample ID: MB-1862	Batch ID: 1862	Test Code: 8270-SIM	Units: µg/L	Analysis Date 9/19/00	Prep Date: 9/14/00
Client ID:	0009051	Run ID: HEISENBURG_000919A	SeqNo: 52557		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
1-Methylnaphthalene	ND	0.1			
2-Methylnaphthalene	ND	0.1			
Acenaphthene	ND	0.1			
Acenaphthylene	ND	0.1			
Anthracene	ND	0.1			
Benz(a)anthracene	ND	0.1			
Benzo(a)pyrene	ND	0.1			
Benzo(b)fluoranthene	ND	0.1			
Benzo(g,h,i)perylene	ND	0.1			
Benzo(k)fluoranthene	ND	0.1			
Chrysene	ND	0.1			
Dibenz(a,h)anthracene	ND	0.1			
Fluoranthene	ND	0.1			
Fluorene	ND	0.1			
Indeno(1,2,3-cd)pyrene	ND	0.1			
Naphthalene	ND	0.1			
Phenanthrene	ND	0.1			
Pyrene	ND	0.1			

Sample ID: MB-1865	Batch ID: 1865	Test Code: EPA 7470A	Units: mg/L	Analysis Date 9/14/00	Prep Date: 9/13/00
Client ID:	0009051	Run ID: MERC_000914A	SeqNo: 52153		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.0002			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 0009051
Project: 009063/PHIL

QC SUMMARY REPORT
Method Blank

Sample ID: MB-1866	Batch ID: 1866	Test Code: EPA 6010B	Units: mg/L	Analysis Date: 9/15/00	Prep Date: 9/14/00
Client ID:	0009051	Run ID: ICP_000915A		SeqNo: 52145	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Cadmium	ND	0.002			
Chromium	ND	0.005			

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
 Work Order: 0009051
 Project: 009063/PHIL

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0009026-01A DUP	Batch ID: 1865	Test Code: EPA 7470A	Units: mg/L	Analysis Date 9/14/00	Prep Date: 9/13/00
Client ID: MW-51	0009051	Run ID: MERC_000914A		SeqNo: 52156	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	ND	0.0002	0	0	0 0 0 0.0% 20
Sample ID: 0009051-02A DUP	Batch ID: 1866	Test Code: EPA 6010B	Units: mg/L	Analysis Date 9/15/00	Prep Date: 9/14/00
Client ID: 009063-02	0009051	Run ID: ICP_000915A		SeqNo: 52148	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Cadmium	ND	0.002	0	0	0 0 0 0.0% 20
Chromium	ND	0.005	0	0	0 0 0.0052 0.0% 20

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
 Work Order: 0009051
 Project: 009063/PHIL

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0009026-01A MS		Batch ID: 1865		Test Code: EPA 7470A		Units: mg/L		Analysis Date 9/14/00		Prep Date: 9/13/00	
Client ID: 0009051		Run ID: MERC_000914A						SeqNo: 52157			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00178	0.0002	0.002	0	89.0%	75	125	0			
Sample ID: 0009026-01A MSD		Batch ID: 1865		Test Code: EPA 7470A		Units: mg/L		Analysis Date 9/14/00		Prep Date: 9/13/00	
Client ID: 0009051		Run ID: MERC_000914A						SeqNo: 52158			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00195	0.0002	0.002	0	97.5%	75	125	0.00178	9.1%	20	
Sample ID: 0009051-01A MS		Batch ID: 1866		Test Code: EPA 6010B		Units: mg/L		Analysis Date 9/15/00		Prep Date: 9/14/00	
Client ID: 009063-01		Run ID: ICP_000915A						SeqNo: 52149			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	.472	0.002	0.5	0	94.4%	75	125	0			
Chromium	.483	0.005	0.5	0.008	95.0%	75	125	0			
Sample ID: 0009051-01A MSD		Batch ID: 1866		Test Code: EPA 6010B		Units: mg/L		Analysis Date 9/15/00		Prep Date: 9/14/00	
Client ID: 009063-01		Run ID: ICP_000915A						SeqNo: 52150			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	.472	0.002	0.5	0	94.4%	75	125	0.472	0.0%	20	
Chromium	.484	0.005	0.5	0.008	95.2%	75	125	0.483	0.2%	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: 21-Sep-00

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Pinnacle Laboratories
Work Order: 0009051
Project: 009063/PHIL

Sample ID: LCS-1862	Batch ID: 1862	Test Code: 8270-SIM	Units: µg/L	Analysis Date 9/19/00	Prep Date: 9/14/00						
Client ID:	0009051	Run ID: HEISENBURG_000919A		SeqNo: 52558							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	.73	0.1	1	0	73.0%	21	133	0			
2-Methylnaphthalene	.72	0.1	1	0	72.0%	21	133	0			
Acenaphthene	.7	0.1	1	0	70.0%	47	145	0			
Acenaphthylene	.64	0.1	1	0	64.0%	33	145	0			
Anthracene	.71	0.1	1	0	71.0%	27	133	0			
Benz(a)anthracene	.67	0.1	1	0	67.0%	33	143	0			
Benzo(a)pyrene	.74	0.1	1	0	74.0%	17	163	0			
Benzo(b)fluoranthene	.67	0.1	1	0	67.0%	24	159	0			
Benzo(g,h,i)perylene	.67	0.1	1	0	67.0%	1	219	0			
Benzo(k)fluoranthene	1	0.1	1	0	100.0%	11	162	0			
Chrysene	.8	0.1	1	0	80.0%	17	168	0			
Dibenz(a,h)anthracene	.54	0.1	1	0	54.0%	1	227	0			
Fluoranthene	.63	0.1	1	0	63.0%	26	137	0			
Fluorene	.6	0.1	1	0	60.0%	59	121	0			
Indeno(1,2,3-cd)pyrene	.62	0.1	1	0	62.0%	1	171	0			
Naphthalene	.68	0.1	1	0	68.0%	21	133	0			
Phenanthrene	.6	0.1	1	0	60.0%	54	120	0			
Pyrene	.95	0.1	1	0	95.0%	52	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
 Work Order: 0009051
 Project: 009063/PHIL

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-1862	Batch ID: 1862	Test Code: 8270-SIM	Units: µg/L	Analysis Date 9/19/00	Prep Date: 9/14/00						
Client ID:	0009051	Run ID: HEISENBURG_000919A		SeqNo: 52559							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	.73	0.1	1	0	73.0%	21	133	0.73	0.0%	30	
2-Methylnaphthalene	.73	0.1	1	0	73.0%	21	133	0.72	1.4%	30	
Acenaphthene	.69	0.1	1	0	69.0%	47	145	0.7	1.4%	30	
Acenaphthylene	.64	0.1	1	0	64.0%	33	145	0.64	0.0%	30	
Anthracene	.71	0.1	1	0	71.0%	27	133	0.71	0.0%	30	
Benz(a)anthracene	.69	0.1	1	0	69.0%	33	143	0.67	2.9%	30	
Benzo(a)pyrene	.73	0.1	1	0	73.0%	17	163	0.74	1.4%	30	
Benzo(b)fluoranthene	.6	0.1	1	0	60.0%	24	159	0.67	11.0%	30	
Benzo(g,h,i)perylene	.68	0.1	1	0	68.0%	1	219	0.67	1.5%	30	
Benzo(k)fluoranthene	.86	0.1	1	0	86.0%	11	162	1	15.1%	30	
Chrysene	.8	0.1	1	0	80.0%	17	168	0.8	0.0%	30	
Dibenz(a,h)anthracene	.6	0.1	1	0	60.0%	1	227	0.54	10.5%	30	
Fluoranthene	.71	0.1	1	0	71.0%	26	137	0.63	11.9%	30	
Fluorene	.66	0.1	1	0	66.0%	59	121	0.6	9.5%	30	
Indeno(1,2,3-cd)pyrene	.66	0.1	1	0	66.0%	1	171	0.62	6.3%	30	
Naphthalene	.68	0.1	1	0	68.0%	21	133	0.68	0.0%	30	
Phenanthrene	.6	0.1	1	0	60.0%	54	120	0.6	0.0%	30	
Pyrene	.83	0.1	1	0	83.0%	52	115	0.95	13.5%	30	

Sample ID: LCS-1865		Batch ID: 1865	Test Code: EPA 7470A		Units: mg/L	Analysis Date 9/14/00		Prep Date: 9/13/00			
Client ID:		0009051	Run ID:	MERC_000914A		SeqNo: 52154					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00101	0.0002	0.001	0	101.0%	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Pinnacle Laboratories
Work Order: 0009051
Project: 009063/PHIL

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS-1866	Batch ID: 1866	Test Code: EPA 6010B	Units: mg/L	Analysis Date 9/15/00	Prep Date: 9/14/00						
Client ID:	0009051	Run ID: ICP_000915A		SeqNo: 52146							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	.489	0.002	0.5	0	97.8%	80	120	0			
Chromium	.488	0.005	0.5	0	97.6%	80	120	0			

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories
Work Order: 0009051
Project: 009063/PHIL

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV	Batch ID: 1862	Test Code: 8270-SIM	Units: µg/L	Analysis Date 9/19/00	Prep Date:						
Client ID:	0009051	Run ID: HEISENBURG_000919A		SeqNo: 52556							
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
1-Methylnaphthalene	4.59	0.1	5	0	91.8%	80	120	0			
2-Methylnaphthalene	4.63	0.1	5	0	92.6%	80	120	0			
Acenaphthene	4.18	0.1	5	0	83.6%	80	120	0			
Acenaphthylene	4.04	0.1	5	0	80.8%	80	120	0			
Anthracene	4.11	0.1	5	0	82.2%	80	120	0			
Benzo(a)anthracene	4.17	0.1	5	0	83.4%	80	120	0			
Benzo(a)pyrene	4.7	0.1	5	0	94.0%	80	120	0			
Benzo(b)fluoranthene	4.62	0.1	5	0	92.4%	80	120	0			
Benzo(g,h,i)perylene	4.52	0.1	5	0	90.4%	80	120	0			
Benzo(k)fluoranthene	4.83	0.1	5	0	96.6%	80	120	0			
Chrysene	4.32	0.1	5	0	86.4%	80	120	0			
Dibenz(a,h)anthracene	4.08	0.1	5	0	81.6%	80	120	0			
Fluoranthene	4.32	0.1	5	0	86.4%	80	120	0			
Fluorene	4.03	0.1	5	0	80.6%	80	120	0			
Indeno(1,2,3-cd)pyrene	4.37	0.1	5	0	87.4%	80	120	0			
Naphthalene	4.21	0.1	5	0	84.2%	80	120	0			
Phenanthrene	4.05	0.1	5	0	81.0%	80	120	0			
Pyrene	4.83	0.1	5	0	96.6%	80	120	0			
2-Fluorobiphenyl	4.65	0.1	5	0	93.0%	43	116	0			
4-Terphenyl-d14	5.14	0.1	5	0	102.8%	33	141	0			
Nitrobenzene-d5	5.42	0.1	5	0	108.4%	35	114	0			

Sample ID: ICV	Batch ID: 1865	Test Code: EPA 7470A	Units: mg/L	Analysis Date 9/14/00	Prep Date: 9/13/00						
Client ID:	0009051	Run ID: MERC_000914A		SeqNo: 52152							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	.00211	0.0002	0.002	0	105.5%	90	110	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Environmental Services Laboratory

Date: 21-Sep-00

CLIENT: Pinnacle Laboratories

Work Order: 0009051

Project: 009063/PHIL

QC SUMMARY REPORT

Initial Calibration Verification Standard

Sample ID: ICVLOW	Batch ID: 1866	Test Code: EPA 6010B	Units: mg/L	Analysis Date	9/15/00	Prep Date: 9/14/00
Client ID:	0009051	Run ID: ICP_000915A		SeqNo:	52144	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Cadmium	.503	0.002	0.5	0	100.6%	90 110 0
Chromium	.497	0.005	0.5	0	99.4%	90 110 0

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Public
Access

Network Project Manager: Jacinta A Tenorio

ANALYSIS REQUEST

Network Project Manager: Jacinta A Tenorio

Pinnacle Laboratories, Inc.

2709-D Pan American Freeway, NE
Albuquerque, New Mexico 87107

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

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
009063-01	9/11	1421	AQ	01
-02	"	1310	"	02

[illegible]

PROJECT INFORMATION						SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY:		1. RELINQUISHED BY:		2.	
PROJECT #: 009063						Total Number of Containers		PENSACOLA - STL-FL		Signature: [Signature]		Time: 1:30			
PROJ. NAME: PHIL						Chain of Custody Seals		ESL - OR		Printed Name: Francine Toranzo		Date: 9/12/00			
QCC LEVEL: STD IV						Received Intact?		STL - CT		Printed Name: Francine Toranzo		Date: 9/12/00			
QCC REQUIRED: MS MSD BLANK						Received Good Cond./Cold		ATEL - AZ		Company: Pinnacle Laboratories, Inc.					
TAT: STANDARD RUSH!!						LAB NUMBER: 0009051		ATEL - MARION		RECEIVED BY: 1.		RECEIVED BY: 2.			
DUE DATE: 9/26						COMMENTS:		BARRINGER		Signature: Michelle Kay		Time: 10:04			
RUSH SURCHARGE: —								WCAS		Printed Name: Michelle Kay		Date: 9/13			
CLIENT DISCOUNT: ✓								WOHL		Signature: Michelle Kay		Date: 9/13			
SPECIAL CERTIFICATION REQUIRED: YES (NO)										Company: Michelle Kay					

Chain of Custody Record

4000 Monroe Road
Farmington, NM 87401

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

009063

COC Serial No. C 2455

[illegible]

Relinquished by:

Received By:

Signature	Date	Time	- Signature	Date	Time
Chia A. M.	09 11 00	1606	Annex 1	9/12/00	1035

Samples Iced:

Samples Iced: ☒ Yes ☐

Preservatives (ONLY for Water Samples)

Samples Iced: ☒ Yes ☐ No

Preservatives (ONLY for Water Samples)

☐ Cyanide Sodium hydroxide (NaOH)

☒ Volatile Organic Analysis Hydrochloric acid (HCl)

☒ Metals Nitric acid (HNO₃)

☐ TPH (418.1) Sulfuric acid (H₂SO₄)

☒ Other (Specify) H₂SO₄

☐ Other (Specify) _____

Carrier: Greyhound Bus Lines

Shipping and Lab Notes:

AirbIII No. 6/I 1606918209

Rec'd @ 4.00

Well Number 11w-01

☒ Development
☐ Pumping

WELL DEVELOPMENT AND PURGING DATA

Serial No. WOPD

Page 1 of 1

Project Name EPFS Quarterly Sample

Client Company EPFS

Project Manager R. H. Hays

Project No. 62800102

Site Name Chaco plant

Project Address Rural San Juan CO

Phase/Task No. 0301

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 25.16
Initial Depth to Water (feet) 19.81
Height of Water Column in Well (feet) 5.35
Diameter (inches): Well 4" Gravel Pack

Instruments

Serial No. (if applicable)

Methods of Development

- ☐ Pump
☐ Centrifugal ☒ Bottom Valve
☐ Submersible ☐ Double Check Valve
☐ Peristaltic ☐ Stainless-steel Kemmerer
☐ Other

Item	Water Volume in Well	Gallons to be Removed
Well Casing	5.35	3.49 x 3
Gravel Pack		10.47
Drilling Fluids		
Total		10.47

Water Disposal

KITZ Separator Blower #111

Water Removal Data

Date	Time	Development Method	Removal Rate (gal/min)	Initial Depth (feet)	Ending Water Depth (feet)	Well Volume Removed (gallons)	Product Volume Removed (gallons)	Temperature (°C)	pH	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/l)	Comments
09-11-00	1:39	X				2.25	2.25	14.7	6.12	2390		
	1:49	X				2.22	4.5	17.4	6.09	3340		
	1:54	X				2.23	6.75	16.3	6.06	2290		
	2:07	X				2.25		16.3	6.06	2210		
	2:12	X				2.25	11.25	16.2	6.09	2300		

Circle the date and time that the development criteria are met.

Comments Samples for BTEX 2:21 pm

AND Cd, Cr, Hg & Pb's

Developer's Signature(s) Chris A. Mung

Date 09-11-00

Reviewer RT

Date 9/19/00

PHILIP

Well Number MW-08

☐ Development
☒ Purging

WELL DEVELOPMENT AND PURGING DATA

ENVIRONMENTAL

Serial No. WDPD

Page 1 of 1

Project Name EPFS Quarterly Sampling

Project Manager K. Thompson

Project No. 62800107

Client Company EPFS

Phase/Task No. 0301

Site Name Checo Plant

Site Address Reed Van Horn Rd

Development Criteria

☒ 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters

☐ Other

Water Volume Calculation

Initial Depth of Well (feet) 31.80
Initial Depth to Water (feet) 11.19
Height of Water Column in Well (feet) 20.61
Diameter (inches): Well 4" Gravel Pack

Instruments

Serial No. (if applicable)

☒ pH Meter

Hydac

☐ DO Monitor

☒ Conductivity Meter

Hydac

☒ Temperature Meter

Hydac

☐ Other

Methods of Development

Pump ☐ ☒ Bottom Valve
☐ Centrifugal ☐ Double Check Valve
☐ Submersible ☐ Stainless-steel Kemmerer
☐ Peristaltic ☐ Other

Item	Water Volume In Well	Gallons to be Removed
Well Casing	80.61	13.95 x 3
Gravel Pack		40.35
Drilling Fluids		
Total		

Water Disposal

Kutz Separator Skarfield NM.

Water Removal Data

Date	Time	Development Method		Removal Rate (gal/min)	Initial Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°F)	pH	Conductivity (umhos/cm)	Dissolved Oxygen (mg/l)	Comments
		Pump	Boiler				Incremental	Cumulative	Incremental	Cumulative					
05.11.06	12:14		X				9	9			80.5	6.14	2260		Clear no odor
	12:41		X				9	18			19.1	6.10	2300		" "
	12:33		X				9	27			19.7	6.09	2220		Turning Brown muds
	12:48		X				9	36			18.7	6.04	2050		" "
	12:03		X				4.5	40.5			18.6	5.99	2060		Clear no odor

Circle the date and time that the development criteria are met.

Comments Sampled for BTEX 1:10 pm

AND Cd, Cr, Hg, Pb's

Developer's Signature(s) Chris A. M...

Date 05-11-06

Reviewer RT Date 9/19/00

PHILIP
ENVIRONMENTAL

Well Number MW-09
Serial No. WDPD

☒ Development
☒ Purging

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 1

Project Name EPFS quarterly Sampling
Client Company EPFS
Site Name Chaco plant

Project Manager L. Thompson
Site Address Rural San Juan CO

Project No. 62400107
Phase/Task No. 0301

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other _____

Methods of Development

- Pump
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kermmerer
☐ Other _____

Water Volume Calculation

Initial Depth of Well (feet)	21.39	
Initial Depth to Water (feet)	24.86	
Height of Water Column in Well (feet)	9.53	
Diameter (inches): Well	4" Gravel Pack	
Item	Water Volume in Well	Gallons to be Removed
Well Casing	Cubic Feet	Gallons
Gravel Pack	2.55	6.2253
Drilling Fluids		18.66
Total		18.66

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☒ Temperature Meter
☐ Other _____

Serial No. (if applicable)
Hydac
Hydac

Water Disposal

K-72 Separator Bloomfield NM.

Water Removal Data

Date	Time	Development Method	Pump	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)	Product Volume Removed (gallons)	Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/l)	Comments
06-11-03	11:12	X	Boiler				3.75	3.75	21.1	6.50	2490		Cloudy Greenish
	11:17	X					7.5	7.5	20.1	6.24	2500		"
	11:22	X					11.25	11.25	20.1	6.17	2470		"
	11:29	X					15	15	20.1	6.19	2430		"
	11:33	X					18.75	18.75	19.5	6.13	2170		Remained the same

Circle the date and time that the development criteria are met.

Comments Sampled for BTEX 11.39 AM

Developer's Signature(s) John A. Quinn

Date 09/11/03

Reviewer RT

Date 9/19/02

PHILIP

ENVIRONMENTAL

Well Number MW-10

Development
Purging

WELL DEVELOPMENT AND PURGING DATA

Serial No. WDPD

Page 1 of 1

Project Name EPFS Quarterly Samples

Project Manager R Thompson

Project No. 62800102

Client Company EPFS

Phase/Task No. 0301

Site Name Chaco plant

Site Address Kurak 1 Main Street

Development Criteria

- ☒ 3 to 5 Casing Volumes of Water Removal
☒ Stabilization of Indicator Parameters
☐ Other

Methods of Development

- Pump
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☐ Other
- Boiler
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kemmerer

Water Volume Calculation

Initial Depth of Well (feet) 31.25
Initial Depth to Water (feet) 11.94
Height of Water Column in Well (feet) 19.31
Diameter (inches): Well 4" Gravel Pack

Item	Water Volume in Well Cubic Feet	Gallons	Gallons to be Removed
Well Casing	<u>19.31</u>	<u>1260.5</u>	<u>32.8</u>
Gravel Pack			
Drilling Fluids			
Total			<u>32.8</u>

Instruments

- ☒ pH Meter
☐ DO Monitor
☒ Conductivity Meter
☐ Temperature Meter
☐ Other

Water Disposal

KUTZ separate dumpfield RM

Water Removal Data

Date	Time	Development Pump Method	Boiler	Removal Rate (gal/min)	Initial Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)	Product Volume Removed (gallons)	Temperature (°C)	pH	Conductivity (micro/cm)	Dissolved Oxygen (mg/l)	Comments
09-11-00	9:37		X				7.75	2.75	21.4	7.05	2770		Clear product on top
	9:47		X				7.75	15.5	20.2	7.01	2670		Filtered to clear
	9:56		X				7.75	23.25	19.2	6.93	2700		in the grey area
	10:14		X				7.75	31	19.2	6.78	900		"
	10:27		X				7.75	38.25	19.7	6.39	2620		Returned the tank

Circle the date and time that the development criteria are met.

Comments Sampled for MAX AT 10:30 am 11.62 TO product

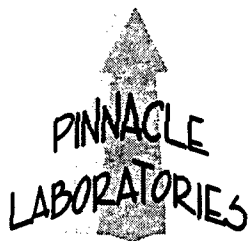
Developer's Signature(s) R. A. May

Date 09-11-00

Reviewer RT

Date 9/19/00

6528



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

Pinnacle Lab ID number 012057
December 19, 2000

PHILIP ENVIRONMENTAL
4000 MONROE ROAD
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name EPFS QUARTERLY SAMPLING
Project Number 62800107

Attention: ROBERT THOMPSON/SCOTT POPE

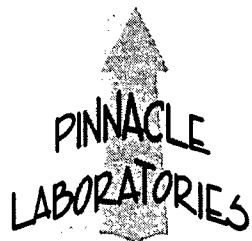
On 12/14/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

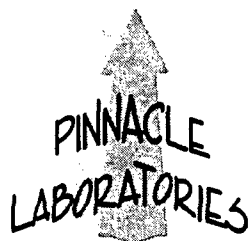
MR: jt

Enclosure



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

CLIENT	: PHILIP ENVIRONMENTAL	PINNACLE ID	: 012057
PROJECT #	: 62800107	DATE RECEIVED	: 12/14/00
PROJECT NAME	: EPFS QUARTERLY SAMPLING	REPORT DATE	: 12/19/00
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
012057 - 01	CHA-0012-MW 09	AQUEOUS	12/11/00
012057 - 02	CHA-0012-MW 10	AQUEOUS	12/11/00



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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D.: 012057

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	CHA-0012-MW 09	AQUEOUS	12/11/00	NA	12/15/00	1
02	CHA-0012-MW 10	AQUEOUS	12/11/00	NA	12/15/00	2

PARAMETER	DET. LIMIT	UNITS	CHA-0012-MW 09	CHA-0012-MW 10
BENZENE	0.5	UG/L	< 0.5	49
TOLUENE	0.5	UG/L	< 0.5	< 1.0
ETHYLBENZENE	0.5	UG/L	< 0.5	20
TOTAL XYLENES	0.5	UG/L	< 0.5	66

SURROGATE:

BROMOFLUOROBENZENE (%)

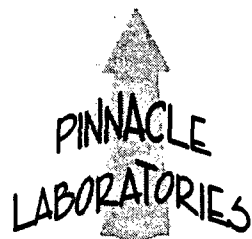
91

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SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A



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

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 012057
BLANK I. D.	: 121500	DATE EXTRACTED	: NA
CLIENT	: PHILIP ENVIRONMENTAL	DATE ANALYZED	: 12/15/00
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:

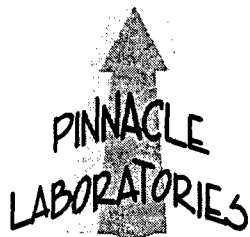
BROMOFLUOROBENZENE (%)

107

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A



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

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

TEST : EPA 8021 MODIFIED
MSMSD # : 012057-01
CLIENT : PHILIP ENVIRONMENTAL
PROJECT # : 62800107
PROJECT NAME : EPFS QUARTERLY SAMPLING

PINNACLE I.D. : 012057
DATE EXTRACTED : NA
DATE ANALYZED : 12/15/00
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.8	104	21.1	106	1	(80 - 120)	20
TOLUENE	<0.5	20.0	19.6	98	19.5	98	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.8	104	20.9	105	0	(80 - 120)	20
TOTAL XYLENES	<0.5	60.0	60.6	101	61.1	102	1	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

