Barbara

Public Service Company of New Mexico
Person Generating Station
Groundwater Treatment System

Treatment Effectiveness Report
Third Quarter 1995

November 1, 1995

Report Prepared Pursuant to Requirements Contained in:

The Person Generating Station Corrective Action Directive (NMT 360010342)
and
The New Mexico Environment Department Discharge Plan, DP-1006

PNM03L

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Appendix A. Laboratory Reports

I. Groundwater Treatment Effectiveness

The Person Station Groundwater Treatment system was officially started on Friday, January 27, 1995 with treated effluent being sent to the University of New Mexico Championship Golf Course. Due to concerns about the ability of the single check valve in the effluent line to hold should an automatic shut down occur over the weekend, the system was manually shut down at the end of the day. On Saturday, January 28, a second check valve (just outside the treatment building) was installed in the effluent line to the golf course. The groundwater treatment system was re-started on Monday, January 30, and semi-continuously operated until a scheduled planned shutdown occurred on March 8, 1995.

During the approximately 30 plus days of first operation, a series of groundwater level measurements were taken at monitoring wells in the vicinity of PSMW-16 and the VEW in order to determine the radius of influence of each well on the surrounding aquifer. Results from that data indicate that PSMW-16 has a radius of influence of 600 feet when pumped at 13.3 gpm, and the VEW has a radius of influence of 80 feet when pumped at 5.6 gpm.

On March 8, 1995, the groundwater treatment system was shut down in order to evaluate the recovery characteristics of the pumped aquifer and to conduct maintenance activities and equipment replacement in the system. During the first 30 days of operation it was determined that a better system of throttle valves was needed on the extraction wells, and that small changes in piping configuration inside the treatment building were needed. These changes were scheduled to occur during the planned shut-down period.

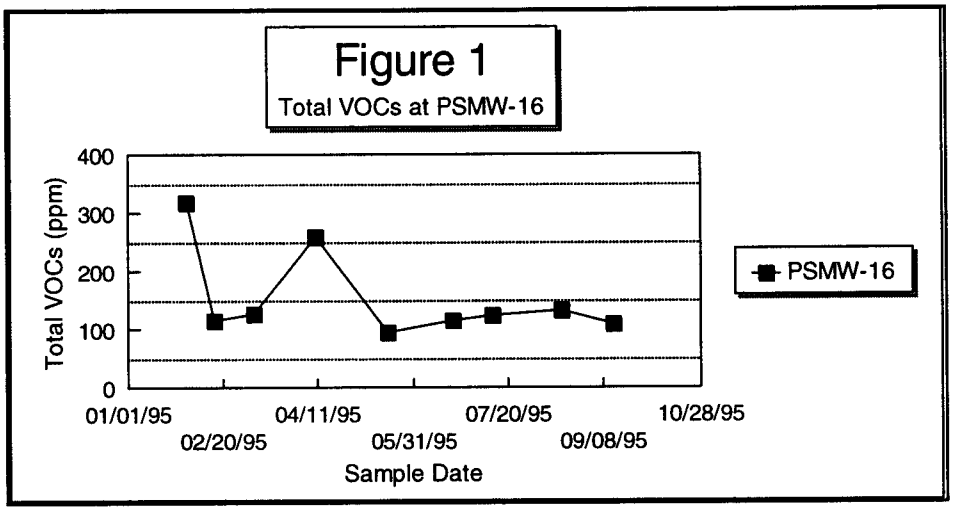
The groundwater treatment system was re-started on April 10, 1995, after completion of the above mentioned maintenance activities. The system has operated semi-continuously during the second quarter of 1995. Down times have been related to minor system problems encountered during operation.

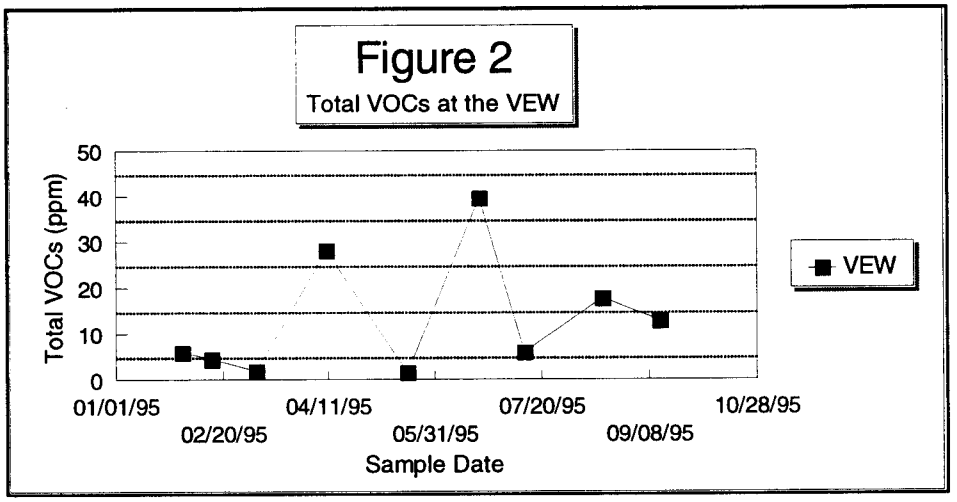
Operation has continued on a semi-continuous basis during the third quarter of 1995. The system continues to encounter periodic minor problems as well as a more serious problem with mineralization of the system components down stream from the air stripper. PNM contractor Parsons-Engineering Science, Inc. is currently evaluating potential solutions for this problem.

In August 1995, a third extraction well was added to the system. This well is designated EW-1 and was drilled and completed specifically for extraction purposes.

Figures 1, 2 and 3 show graphs of concentration of total VOC's as measured at wells PSMW-16, VEW, and EW-1 over the operation of the groundwater treatment system. More detailed data for this operational year is shown in Tables 1 and 2. From February 1, 1995 through March 8, 1995 the total Chlorinated VOC's dropped from 318.4 ppb to 128.3 ppb at PSMW-16. During the same period total Chlorinated VOC's dropped from 6.1 ppb to 1.8 ppb at the VEW. As anticipated, concentrations rose again when the system was restarted in April. Since that time concentrations have held relatively steady at PSMW-16. Concentrations at VEW have fluctuated up and down. Concentrations at EW-1 rose over the two month period of its operation for this report.

Laboratory reports are contained in Appendix A.





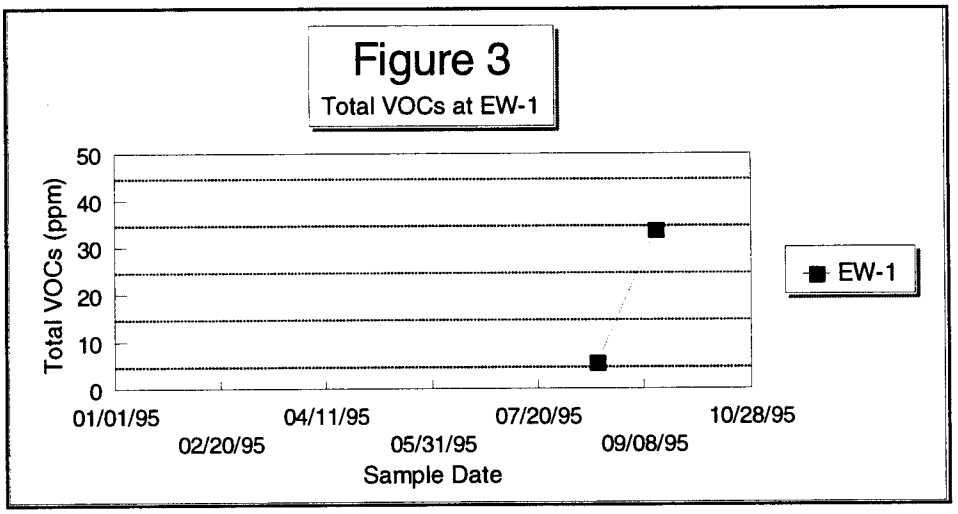


Table 1
Influent Concentrations From PSMW-16

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOC's (ppb)
2/1/95	502304	200	110	318.4
2/15/95	502376	69	39	115.0
3/8/95	503317	78	46	128.3
4/10/95	504341	170	81	258.6
5/18/95	505371	62	30	94.6
6/21/95	506396	76	36	114.8
7/12/95	507327	75	41	124.3
8/17/95	508405	83	45	134.0
9/13/95	509339	69	35	109.2

Table 2
Influent Concentrations From VEW

Date	Laboratory Report No.	PCE (ppb)	DCE (ppb)	Total VOC's (ppb)
2/1/95	502304	5.3	0.8	6.1
2/15/95	502376	4	0.5	4.5
3/8/95	503317	1.5	0.3	1.8
4/10/95	504341	21	5.8	28.1
5/18/95	505371	1.4	< 0.2	1.4
6/21/95	506396	25	9.4	39.8
7/12/95	507327	3.5	1.0	5.8
8/17/95	508405	6.4	1.1	17.7
9/13/95	509339	9.7	1.9	12.9

Table 3 Influent Concentrations From EW-1				
Date	Laboratory Report No.	PCE (ppb)	DCE(ppb)	Total VOC's (ppb)
8/17/95	508405	3.5	0.9	5.4
9/13/95	509339	25	6.1	33.6

II. Operational Dates

The Person Station Groundwater Treatment system was operated from July 1, 1995 through September 30, 1995 in an almost continuous mode. The table below details significant operational activities for this report quarter.

Table 4
Significant Operational Activities

Date	Activity
7/17/95-8/3/95	GTS shut down in order to expand the electrical switch gear equipment needed to add the second air stripper and additional extraction wells as part of the Corrective Action Program Phase II.
8/14/95	Start up of extraction well EW-1, water being treated at GTS. Well operates at approximately 7.5 gpm.
8/15/95	GTS West Stripper operated for first time. System is currently configured to operate either to East Stripper or West Stripper but not both at this time.
8/16/95	Kramer and Associates, Inc. on site to conduct air testing of Soil Vapor Extraction System (SVE) for compliance with air permit using EPA methods 18 and 25.
8/17/95	Kramer and Associates, Inc. on site to conduct air testing of East Air Stripper Vent Stack for compliance with air permit using EPA methods 18 and 25.
8/18/95	Kramer and Associates, Inc. on site to conduct air testing of West Air Stripper Vent Stack for compliance with air permit using EPA methods 18 and 25.
3rd Quarter	Several system shut downs due to failure of clay valve system (controls water level in transfer tank leading to golf course). Problem associated with mineralization due to pH changes of the water occurring after the air stripper.

III. Influent / Effluent Volumes

Flow totalizing meters are present on each influent well line and on the effluent flow line. The table below details flow volumes from each influent well and the effluent line. Differences between total effluent and total influent may be attributed to water loss (evaporation) out the stack in the air stripper system and to differences, inaccuracies, and operational problems with the flow meters.

Table 5
Influent / Effluent Volumes

Source	Meter Number	Start Reading	End Reading	Volume (Gallons)
Flow Volumes for July 1995:				
Influent (VEW)	Badger Meter No. 94976130	802,807	937,556	134,749
Influent (PSMW-16)	Badger Meter No. 94398832	1,832,555	2,201,000	368,445
Effluent (to Golf Course)	Badger Meter No. 94398834	2,581,677	3,069,855	488,178
Flow Volumes for August 1995:				
Influent (VEW)	Badger Meter No. 94976130	937,556	1,125,628	188,072
Influent (PSMW-16)	Badger Meter No. 94398832	2,201,000	2,454,340	253,340
Influent (EW-1)	Badger Meter No. 94398833	0	209,990	209,990
Effluent (to Golf Course)	Badger Meter No. 94398834	3,069,855	3,680,620	610,765
Flow Volumes for September 1995:				
Influent (VEW)	Badger Meter No. 94976130	1,125,628	1,250,416	124,788
Influent (PSMW-16)	Badger Meter No. 94398832	2,454,340	2,681,020	226,680
Influent (EW-1)	Badger Meter No. 94398833	209,990	401,910	191,920
Effluent (to Golf Course)	Badger Meter No. 94398834	3,680,620	4,200,939	520,319
Quarterly Total for Influent (VEW + PSMW-16 + EW-1):				1,697,984
Quarterly Total for Effluent:				1,619,262

IV. Laboratory Analysis

A. Influent/Effluent Sampling for VOC's (8010 analysis)

During the third operational quarter of the groundwater treatment system, influent and effluent sampling was conducted pursuant to the routine schedule outlined in the NMED approved discharge plan, i.e., once each month. Total VOC analysis of GTS Influent and Effluent (after GAC units) is shown graphically in Figure 4. More detailed data results are shown in the Tables 5, 6 and 7, below. Laboratory analytical data reports are contained in Appendix A. All influent/effluent sampling results show that the treatment system has consistently removed chlorinated VOC contaminants in the 50 to 200 ppb range to levels below laboratory detection limits in the effluent sent to the golf course. Laboratory analysis of the water stream at a point after the air stripper and before the granular activated carbon treatment also show that at these influent concentrations and a flow rate of approximately 20 gpm, the air stripper alone is capable of treating the groundwater to concentrations consistently below or near laboratory detection limits for chlorinated VOCs.

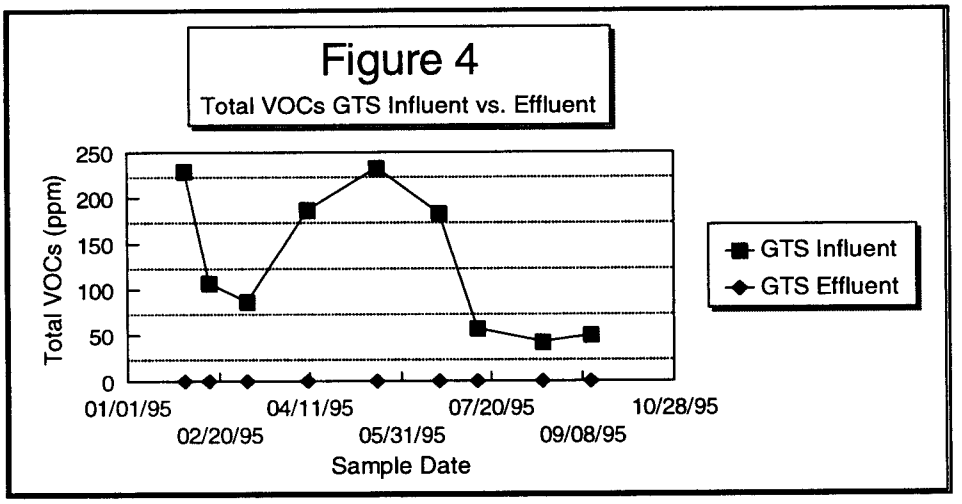


Table 5
Summary of Influent and Effluent Analysis

Sampling Date: 7/12/95	Lab Report Number: 507327		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	0.8	< 0.5	< 0.5
1,1-Dichloroethane	0.3	< 0.2	< 0.2
1,1-Dichloroethene	18	< 0.2	< 0.2
Tetrachloroethene	37	< 0.5	< 0.5
1,1,1-Trichloroethane	1.7	< 1.0	< 1.0
TOTAL VOC'S	57.8	BDL	BDL

Table 6
Summary of Influent and Effluent Analysis

Sampling Date: 8/17/95	Lab Report Number: 508405		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	< 0.5	< 0.5	< 0.5
1,1-Dichloroethane	0.3	< 0.2	< 0.2
1,1-Dichloroethene	12	< 0.2	< 0.2
Tetrachloroethene	29	< 0.5	< 0.5
1,1,1-Trichloroethane	1.3	< 1.0	< 1.0
TOTAL VOC'S	42.6	BDL	BDL

Table 7
Summary of Influent and Effluent Analysis

Sampling Date: 9/13/95	Lab Report Number: 509339		
VOC Compound	Influent (ppb)	Effluent After Air Stripper (ppb)	Effluent After GAC Unit (ppb)
Chloroform	0.6	< 0.5	< 0.5
1,1-Dichloroethane	0.3	< 0.2	< 0.2
1,1-Dichloroethene	12	0.3	< 0.2
Tetrachloroethene	35	1.2	< 0.5
1,1,1-Trichloroethane	1.8	< 1.0	< 1.0
Trichloroethene	0.2	< 0.2	< 0.2
TOTAL VOC'S	49.9	BDL	BDL

B. Golf Course Pond Sampling

The GTS NMED Discharge Plan (DP 1006) requires monthly sampling of the East and West ponds for 8010 analysis after the first month of operation, and during each subsequent month of operation. During the third quarter of 1995, the ponds were sampled three times pursuant to this requirement. No EPA Method 8010 parameters were detected in the samples. Copies of the laboratory reports are contained in Appendix A.

Appendix A. Laboratory Reports

Analytical **Technologies,** Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. 507327

July 18, 1995

Public Service Co. of NM
Alvarado Square MS 0408
Albuquerque, NM 87158

Project Name/Number: PERSON STATION REMEDIATION

Attention: Ron Johnson

On **07/12/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), 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.
Laboratory Manager

MR:jt

Enclosure

Analytical Technologies, Inc.

CLIENT	: PUBLIC SERVICE CO OF NM	DATE RECEIVED	: 07/12/95
PROJECT #	: REMEDIATION		
PROJECT NAME	: PERSON STATION	REPORT DATE	: 07/18/95

ATI ID: 507327

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GTS-INFLUENT	AQUEOUS	07/12/95
02	GTS-AIR STRIPPER EFFLUENT	AQUEOUS	07/12/95
03	GTS-GAC EFFLUENT	AQUEOUS	07/12/95
04	UNM EAST RESERVOIR	AQUEOUS	07/12/95
05	UNM WEST RESERVOIR	AQUEOUS	07/12/95
06	VEW WELL SAMPLE	AQUEOUS	07/12/95
07	PSMW-16 WELL SAMPLE	AQUEOUS	07/12/95
08	TRIP BLANK	AQUEOUS	07/12/95

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	8

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 507327
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS-INFLUENT	AQUEOUS	07/12/95	NA	07/12/95	1
02	GTS-AIR STRIPPER EFFLUENT	AQUEOUS	07/12/95	NA	07/13/95	1
03	GTS-GAC EFFLUENT	AQUEOUS	07/12/95	NA	07/13/95	1

PARAMETER	UNITS	01	02	03
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	0.8	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.3	<0.2	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	18	<0.2	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	37 D(5)	<0.5	<0.5
1,1,1-TRICHLOROETHANE	UG/L	1.7	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		97	103	103

D(5)=DILUTED 5X, ANALYZED 07/13/95

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 507327
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	07/12/95	NA	07/13/95	1
05	UNM WEST RESERVOIR	AQUEOUS	07/12/95	NA	07/13/95	1
06	VEW WELL SAMPLE	AQUEOUS	07/12/95	NA	07/13/95	1

PARAMETER	UNITS	04	05	06
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	<0.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2	<0.2	0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2	<0.2	1.0
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	<0.5	<0.5	3.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0	<1.0	1.1
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		103	100	103

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 507327
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 WELL SAMPLE	AQUEOUS	07/12/95	NA	07/13/95	1
08	TRIP BLANK	AQUEOUS	07/12/95	NA	07/14/95	1

PARAMETER	UNITS	07	08
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5
CHLOROFORM	UG/L	1.7	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.3	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	41 D(10)	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	2.8	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2
TETRACHLOROETHENE	UG/L	75 D(10)	<0.5
1,1,1-TRICHLOROETHANE	UG/L	3.5	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5
SURROGATE:			
BROMOCHLOROMETHANE (%)		104	100

D(10)=DILUTED 10X, ANALYZED 07/14/95

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 507327
BLANK I.D.	: 071295	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 07/12/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		91

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 507327
BLANK I.D.	: 071395	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 07/13/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		111

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 507327
BLANK I.D.	: 071495	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 07/14/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		103

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 50732704	ATI I.D.	: 507327
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 07/13/95
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 50732704	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
CHLOROBENZENE	<0.5	10	9.8	98	11	110	12
1,1-DICHLOROETHENE	<0.2	10	7.3	73	7.6	76	4
TRICHLOROETHENE	<0.2	10	9.9	99	11	110	11

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

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

Analytical Technologies, Inc., Albuquerque, NM

San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 7-12-95 PAGE 1 OF 1

ATI LAB I.D. 9507327

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

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - 0408
ALBUQUERQUE, NM 87158
PHONE: (505) 241-2998
FAX: (505) 241-2340

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: RON JOHNSON

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	SDWA Primary Standards - Arizona	SDWA Secondary Standards - Arizona	SDWA Primary Standards - Federal	SDWA Secondary Standards - Federal	The 13 Priority Pollutant Metals	RCRA Metals by Total Digestion	RCRA Metals by TCLP (1311)	NUMBER OF CONTAINERS
GTS - INFLUENT	7-12-95	1336	W	-01	X															3
GTS-AIR STRIPPER EFFLUENT	7-12-95	1333	W	-02	X															3
GTS-GAC EFFLUENT	7-12-95	1330	W	-03	X															3
UNM EAST RESERVOIR	7-12-95	1357	W	-04	X															3
UNM WEST RESERVOIR	7-12-95	1408	W	-05	X															3
VEW WELL SAMPLE	7-12-95	1338	W	-06	X															3
PSMW-16 WELL SAMPLE	7-12-95	1340	W	-07	X															3
TRIP BLANK	7-12-95		W	-08	X															2

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	28
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	(Y) / N / NA
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Chuck Time: 1515	Signature: Time:	Signature: Time:
Printed Name: CHUCK MARTIN Date: 7-12-95	Printed Name: Date:	Printed Name: Date:
Company: PNM Phone: 241-4744	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time: 1520
Printed Name: Date:	Printed Name: Date:	Printed Name: Andrew Parker Date: 7-12-95
Company:	Company:	Analytical Technologies, Inc.

Analytical **Technologies,** Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **508405**

August 30, 1995

Public Service Co of NM
Alvarado Square MS0408
Albuquerque, NM 87158

Project Name/Number: PERSON STATION REMEDIATION

Attention: Ron Johnson

On **08/17/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), 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.
Laboratory Manager

MR:jt

Enclosure

Analytical Technologies, Inc.

CLIENT : PUBLIC SERVICE CO OF NM
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

DATE RECEIVED : 08/17/95
REPORT DATE : 08/30/95

ATI ID: 508405

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GTS-INFLUENT	AQUEOUS	08/17/95
02	GTS-AIR STRIPPER EAST EFFLUENT	AQUEOUS	08/17/95
03	GTS-GAC EAST EFFLUENT	AQUEOUS	08/17/95
04	UNM EAST RESERVOIR	AQUEOUS	08/17/95
05	UNM WEST RESERVOIR	AQUEOUS	08/17/95
06	VEW WELL SAMPLE	AQUEOUS	08/17/95
07	PSMW-16 WELL SAMPLE	AQUEOUS	08/17/95
08	EW-1	AQUEOUS	08/17/95
09	TRIP BLANK	AQUEOUS	08/16/95

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	9

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical **Technologies,** Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 508405
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS-INFLUENT	AQUEOUS	08/17/95	NA	08/26/95	1
02	GTS-AIR STRIPPER EFFLUENT	AQUEOUS	08/17/95	NA	08/28/95	1
03	GTS-GAC EFFLUENT	AQUEOUS	08/17/95	NA	08/26/95	1

PARAMETER	UNITS	01	02	03
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	<0.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.3	<0.2	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	12	<0.2	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	29 D(10)	<0.5	<0.5
1,1,1-TRICHLOROETHANE	UG/L	1.3	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		96	99	111

D(10)=DILUTED 10X, ANALYZED 08/28/95

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 508405
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	08/17/95	NA	08/26/95	1
05	UNM WEST RESERVIOR	AQUEOUS	08/17/95	NA	08/26/95	1
06	VEWWELL SAMPLE	AQUEOUS	08/17/95	NA	08/26/95	1

PARAMETER	UNITS	04	05	06
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	<0.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2	<0.2	0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2	<0.2	1.1
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	<0.5	<0.5	6.4
1,1,1-TRICHLOROETHANE	UG/L	<1.0	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		105	107	78

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE CO OF NM ATI I.D.: 508405
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 WELL SAMPLE	AQUEOUS	08/17/95	NA	08/26/95	1
08	EW-1	AQUEOUS	08/17/95	NA	08/26/95	1
09	TRIP BLANK	AQUEOUS	08/16/95	NA	08/26/95	1

PARAMETER	UNITS	07	08	09
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	0.6	<0.5
CHLOROFORM	UG/L	1.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.4	0.4	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	45 D(10)	0.9	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	83 D(10)	3.5	<0.5
1,1,1-TRICHLOROETHANE	UG/L	3.8	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	0.3	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		98	103	109

D(10)=DILUTED 10X, ANALYZED 08/28/95

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 508405
BLANK I.D.	: 082695	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 08/26/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		94

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 508405
BLANK I.D.	: 082895	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 08/28/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		103

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 50839306	ATI I.D.	: 508405
CLIENT	: PUBLIC SERVICE CO OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 08/26/95
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 50839306	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
CHLOROBENZENE	<0.5	10	9.5	95	9.4	94	1
1,1-DICHLOROETHENE	<0.2	10	7.6	76	7.5	75	1
TRICHLOROETHENE	<0.2	10	9.5	95	9.6	96	1

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

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

Analytical**Technologies,**Inc., Albuquerque, NM
San Diego • Phoenix • Seattle • Pensacola • Ft. Collins • Portland • Albuquerque

CHAIN OF CUSTODY

DATE: 8-17-95 PAGE 1 OF 2

ATI LAB I.D. 508465

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

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - 0408
ALBUQUERQUE, NM 87158
PHONE: (505) 241-2998
FAX: (505) 241-2340

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: RON JOHNSON

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Chlorinated Hydrocarbons (601/8010)	Aromatic Hydrocarbons (602/8020)	NUMBER OF CONTAINERS
GTS - INFLUENT	8-17-95	1043	W	-01	X		3
GTS-AIR STRIPPER EFFLUENT (ENSR)	8-17-95	1046	W	-02	X		3
GTS-GAC EFFLUENT (ENSR)	8-17-95	1044	W	-03	X		3
UNM EAST RESERVOIR	8-17-95	1000	W	-04	X		3
UNM WEST RESERVOIR	8-17-95	1010	W	-05	X		3
VEW WELL SAMPLE	8-17-95	1054	W	-06	X		3
PSMW-16 WELL SAMPLE	8-17-95	1050	W	-07	X		3
EW-1	8-17-95	1052	W	-08	X		3
TRIP BLANK	8-16-95	0950	W	-09	X		1

Petroleum Hydrocarbons (418.1); (MOD 8015) Gas/Diesel; Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020); BTXE/MTBE (8020); SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.; Pesticides/PCB (608/8080); Herbicides (615/8150); Base/Neutral/Acid Compounds GC/MS (625/8270); Volatile Organics GC/MS (624/8240); Polynuclear Aromatics (610/8310); SDWA Primary Standards - Arizona; SDWA Secondary Standards - Arizona; SDWA Primary Standards - Federal; SDWA Secondary Standards - Federal; The 13 Priority Pollutant Metals; RCRA Metals by Total Digestion; RCRA Metals by TCLP (1311): all blank

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	25
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	(Y) N / NA
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Chuck Time: 1453	Signature: Time:	Signature: Time:
Printed Name: CHUCK Antes Date: 8-17-95	Printed Name: Date:	Printed Name: Date:
Company: PNM Phone: 241-4746	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time: 1459
Printed Name: Date:	Printed Name: Date:	Printed Name: Date: 8/17
Company:	Company:	Analytical Technologies, Inc.

ATI Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777 DISTRIBUTION: White, Canary - ATI • Pink - ORIGINATOR

Analytical**Technologies,**Inc.

2709-D Pan American Freeway, NE Albuquerque, NM 87107
Phone (505) 344-3777 FAX (505) 344-4413

ATI I.D. **509339**

September 20, 1995

Public Service of NM
Alvarado Square MS0408
Albuquerque, NM 87158

Project Name/Number: PERSON STATION REMEDIATION

Attention: Ron Johnson

On **09/13/95**, Analytical Technologies, Inc., (ADHS License No. AZ0015), 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.
Laboratory Manager

MR:jt

Enclosure

Analytical Technologies, Inc.

CLIENT : PUBLIC SERVICE OF NM
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

DATE RECEIVED : 09/13/95
REPORT DATE : 09/20/95

ATI ID: 509339

ATI #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	GTS-INFLUENT	AQUEOUS	09/13/95
02	GTS-AIR STRIPPER WEST INFLUENT	AQUEOUS	09/13/95
03	GTS-GAC WEST EFFLUENT	AQUEOUS	09/13/95
04	UNM EAST RESERVOIR	AQUEOUS	09/13/95
05	UNM WEST RESERVOIR	AQUEOUS	09/13/95
06	VEW WELL SAMPLE	AQUEOUS	09/13/95
07	PSMW-16 WELL SAMPLE	AQUEOUS	09/13/95
08	EW-1	AQUEOUS	09/13/95
09	TRIP BLANK	AQUEOUS	09/13/95

---TOTALS---

MATRIX	#SAMPLES
AQUEOUS	9

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE OF NM ATI I.D.: 509339
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	GTS-INFLUENT	AQUEOUS	09/13/95	NA	09/13/95	1
02	GTS-AIR STRIPPER	AQUEOUS	09/13/95	NA	09/14/95	1
03	GTS-GAC EFFLUENT	AQUEOUS	09/13/95	NA	09/13/95	1

PARAMETER	UNITS	01	02	03
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	0.6	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.3	<0.2	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	12	<0.2	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	35 D(10)	<0.5	<0.5
1,1,1-TRICHLOROETHANE	UG/L	1.8	<1.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		93	102	101

D(10)=DILUTED 10X, ANALYZED 09/14/95

Analytical Technologies, Inc. GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE OF NM ATI I.D.: 509339
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	UNM EAST RESERVOIR	AQUEOUS	09/13/95	NA	09/14/95	1
05	UNM WEST RESERVOIR	AQUEOUS	09/13/95	NA	09/14/95	1
06	VEW WELL SAMPLE	AQUEOUS	09/13/95	NA	09/14/95	1

PARAMETER	UNITS	04	05	06
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	<0.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2	<0.2	0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2	<0.2	1.9
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	<0.5	<0.5	9.7
1,1,1-TRICHLOROETHANE	UG/L	<1.0	<1.0	1.1
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		105	108	97

Analytical Technologies, Inc. GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS (EPA 8010)
CLIENT : PUBLIC SERVICE OF NM ATI I.D.: 509339
PROJECT # : REMEDIATION
PROJECT NAME : PERSON STATION

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
07	PSMW-16 WELL SAMPLE	AQUEOUS	09/13/95	NA	09/14/95	1
08	EW-1	AQUEOUS	09/13/95	NA	09/14/95	1
09	TRIP BLANK	AQUEOUS	09/13/95	NA	09/14/95	1

PARAMETER	UNITS	07	08	09
BROMODICHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
BROMOFORM	UG/L	<0.5	<0.5	<0.5
BROMOMETHANE	UG/L	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2	<0.2	<0.2
CHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
CHLOROETHANE	UG/L	<0.5	<0.5	<0.5
CHLOROFORM	UG/L	1.5	<0.5	<0.5
CHLOROMETHANE	UG/L	<1.0	<1.0	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2	<0.2	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2	<0.2	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	UG/L	0.4	0.5	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	UG/L	35 D(10)	6.1	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0	<1.0	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2	<0.2	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2	<0.2	<0.2
METHYLENE CHLORIDE	UG/L	<2.0	<2.0	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TETRACHLOROETHENE	UG/L	69 D(10)	25 D(10)	<0.5
1,1,1-TRICHLOROETHANE	UG/L	3.0	2.0	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2	<0.2	<0.2
TRICHLOROETHENE	UG/L	0.3	<0.2	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2	<0.2	<0.2
VINYL CHLORIDE	UG/L	<0.5	<0.5	<0.5
SURROGATE:				
BROMOCHLOROMETHANE (%)		106	98	98

D(10)=DILUTED 10X, ANALYZED 09/14/95

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 509339
BLANK I.D.	: 091395	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 09/13/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		106

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY RESULTS - QUALITY CONTROL

REAGENT BLANK

TEST	: EPA 8010	ATI I.D.	: 509339
BLANK I.D.	: 091495	MATRIX	: AQUEOUS
CLIENT	: PUBLIC SERVICE OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 09/14/95
PROJECT NAME	: PERSON STATION	DIL. FACTOR	: 1

PARAMETER	UNITS	
BROMODICHLOROMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.2
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
CIS-1,2-DICHLOROETHENE	UG/L	<0.2
TRANS-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
CIS-1,3-DICHLOROPROPENE	UG/L	<0.2
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.2
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.2
TETRACHLOROETHENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.2
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		100

Analytical Technologies, Inc.

GAS CHROMATOGRAPHY - QUALITY CONTROL

MSMSD

TEST	: PURGEABLE HALOCARBONS (EPA 8010)		
MSMSD #	: 50933903	ATI I.D.	: 509339
CLIENT	: PUBLIC SERVICE OF NM	DATE EXTRACTED	: NA
PROJECT #	: REMEDIATION	DATE ANALYZED	: 09/15/95
PROJECT NAME	: PERSON STATION	SAMPLE MATRIX	: AQUEOUS
REF. I.D.	: 50933903	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD
CHLOROBENZENE	<0.5	10	9.8	98	9.2	92	6
1,1-DICHLOROETHENE	<0.2	10	7.1	71	6.7	67	6
TRICHLOROETHENE	<0.2	10	10	100	9.8	98	2

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

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

Analytical Technologies, Inc., Albuquerque, NM

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CHAIN OF CUSTODY

DATE: 9-13-5r PAGE 1 OF 1

ATI LAB I.D. 509339

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

PROJECT MANAGER: RON JOHNSON

COMPANY: PUBLIC SERVICE COMPANY OF NEW MEXICO
ADDRESS: ALVARADO SQUARE - 0408
ALBUQUERQUE, NM 87158
PHONE: (505) 241-2998
FAX: (505) 241-2340

BILL TO: SAME
COMPANY:
ADDRESS:
ATTN: RON JOHNSON

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Chlorinated Hydrocarbons (601/8010)	NUMBER OF CONTAINERS
GTS - INFLUENT	9-13-5r	1051	W	-01	X	3
GTS-AIR STRIPPER EFFLUENT WEST	9-13-5r	1049	W	-02	X	3
GTS-GAC EFFLUENT WEST	9-13-5r	1047	W	-03	X	3
UNM EAST RESERVOIR	9-13-5r	1125	W	-04	X	3
UNM WEST RESERVOIR	9-13-5r	1136	W	-05	X	3
VEW WELL SAMPLE	9-13-5r	1052	W	-06	X	3
PSMW-16 WELL SAMPLE	9-13-5r	1044	W	-07	X	3
EW-1	9-13-5r	1056	W	-08	X	3
TRIP BLANK	9-13	0830	W	-09	X	1

Petroleum Hydrocarbons (418.1); (MOD 8015) Gas/Diesel; Diesel/Gasoline/BTXE/MTBE (MOD 8015/8020); BTXE/MTBE (8020); Aromatic Hydrocarbons (602/8020); SDWA Volatiles (502.1/503.1), 502.2 Reg. & Unreg.; Pesticides/PCB (608/8080); Herbicides (615/8150); Base/Neutral/Acid Compounds GC/MS (625/8270); Volatile Organics GC/MS (624/8240); Polynuclear Aromatics (610/8310); SDWA Primary Standards - Arizona; SDWA Secondary Standards - Arizona; SDWA Primary Standards - Federal; SDWA Secondary Standards - Federal; The 13 Priority Pollutant Metals; RCRA Metals by Total Digestion; RCRA Metals by TCLP (1311)

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJ. NO.:	REMEDIATION	NO. CONTAINERS	Y
PROJ. NAME:	PERSON STATION	CUSTODY SEALS	(Y) N / NA
P.O. NO.:		RECEIVED INTACT	Y
SHIPPED VIA:		RECEIVED COLD	Y

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☑ 2 WEEK

Comments:

PLEASE PROVIDE DATA ON DISKETTE AS WELL AS HARD COPY

SAMPLED & RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1310	Signature: Time:	Signature: Time:
Printed Name: Chuck Arata Date: 9-13-5r	Printed Name: Date:	Printed Name: Date:
Company: Dion Phone: 241-4744	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY:(LAB) 3.
Signature: Time:	Signature: Time:	Signature: Time: 1320
Printed Name: Date:	Printed Name: Date:	Printed Name: Andrea Porter Date: 9/13
Company:	Company:	Analytical Technologies, Inc.