

3R - 322

REPORTS

DATE:

1999

Public Service Company
of New Mexico
Alvarado Square MS 0408
Albuquerque, NM 87158

RECEIVED

April 5, 1999

APR 07 1999

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION



RE: 1999 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1999 Annual Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites reported in this document is provided below.

Blanco Wash Drip	Mangum 1E
Davis 1	McClanahan 22
Dogie East Pit	McClanahan A 2E
Dogie North Pit	McCoy Gas Com A1
Florance 124	Miles Federal 1E Drip
Florance 32A	O' Shea 1M
Florance 40	Patterson A Com A1
Florance 44	Pritchard 2
Florance M 47X	Randleman 1
Hampton 4M	Reid 16 Drip
Honolulu Drip	Turner 1A
Ice Canyon Drip	Wilmerding 1M
Jacques 2A	Zachry 18E
Jicarilla Contract 147-6	
Linda 1A	

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM will request closure of four of the above sites, the Florance 32A, Jacques 2A, Mangum 1E and the McClanahan A2E, with the submittal of the 1st Quarter 1999 Pit Closures Report. This request is based upon the analytical data collected over the last two years at each of the sites. BTEX concentrations have been consistently below WQCC standards for four consecutive quarters.

Upon approval of the groundwater closure report, PNM will plug and abandon all of the groundwater monitoring wells at each of the locations. The concrete pad and metal vault surrounding each well will be removed. The well casing will be cut to ground surface and each well will be plugged to the surface

Bill Olson
04/05/99
Page 2

with cement containing 5% bentonite. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,

A handwritten signature in cursive script, appearing to read "Maureen Gannon", with a long horizontal flourish extending to the right.

Maureen Gannon
Project Manager

Enclosure

cc: Colin Adams, Esq.
Ingrid Deklau, WFS
Denny Foust, OCD-Aztec Office
Ron Johnson
Mark Sikelianos
Bill VonDrehle, WFS



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APR 07 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Annual

Groundwater Report

1999

Volume II

***Unlined Surface Impoundments
San Juan Basin***



Groundwater Site Summary Report

Quarter/Year: 2nd/98, 3rd/98, 4th/98 & 1st/99

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Operator: Williams Field Services
Sec: 13 **Twn:** 26N **Rng:** 7W **Unit:** H
Canyon: Largo

Vulnerable Class: Original
OCD Ranking: 40
Lead Agency: NMOCD

Topo Map: previously submitted

Well Completion Diagram: Figure 1

Site Map with Analysis: Figure 2

Groundwater Contour Maps: Figure 3a (June 1998), Figure 3b (September 1998), Figure 3c (December 1998), & Figure 3d (February 1999)

Groundwater Hydrograph: Figure 4

Full-Suite Groundwater Sampling Results: Table 1

Analytical Results: NA

Site Hydrology:

The Ice Canyon Drip site lies at an elevation of about 6160 ft. amsl and sits adjacent to the valley floor of Ice Canyon, a southwest-draining tributary to Largo Canyon, which is about one-half mile away. The stream in Ice Canyon is intermittent, and its valley floor loops around the site to the east and north (Figure 2). The valley is narrow (perhaps 500 feet wide) and is bordered by steep cliffs. Surface topography at the site slopes downward towards the northeast and the valley floor of Ice Canyon.

Materials encountered in the subsurface were sands, with minor amounts of gravel, silt and/or clay. The total depths of the wells drilled at the site ranged from about 40 to 50 feet. Hard bedrock units were reportedly not encountered; rather, a prominent clay unit was found at about 38 feet.

Groundwater occurs beneath the site at depths of from 37 to 44 feet. Flow direction in June, 1998 was towards the east, parallel to the surface topography (Figure 3a). However, flow direction subsequently changed, and has been towards the south-southwest for the last three quarters (Figures 3b, 3c and 3d).

Hydrographs at the site (Figure 4) also show that conditions have varied through time at the site. The water table in well MW-1 was abnormally high in June, 1998, but has since fallen and tracks water levels in the other wells.

Activities for Previous Year:

PNM installed four groundwater monitoring wells in May, 1998. Figure 1 presents a typical well completion diagram. PNM conducted quarterly groundwater sampling of the wells on June 4 (additional sampling on 06/19/98), September 14 and December 9, 1998, and again on February 10, 1999. Table 1 presents the full-suite analysis for the newly installed monitoring wells. Prior to sampling, water level measurements were taken in each of the four wells. Samples from the wells were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). In addition, during the September sampling event, MW-1 and MW-2 were also sampled for Water Quality Control Commission (WQCC) metals (dissolved) and for major cations/anions. Sampling was performed in strict compliance with EPA protocol. PNM delivered the samples to OnSite Technologies, Farmington, New Mexico for chemical analysis of the following:

- BTEX using EPA Method 8020
- major cations/anions using various EPA methods
- WQCC metals- filtered (As, Ba, Cd, Cr, Pb, Se, and Ag using inductively coupled plasma (ICP) for heavy metals and atomic absorption spectroscopy (AAS) for Hg and Se).

Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408
Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974

PNMGS Well Site: Ice Canyon Drip (continued)

On December 8, 1998, PNM installed a 4-inch monitor well to be used for a soil vapor extraction (SVE) pilot feasibility study (see Figure 2). The (SVE) pilot study was performed in December 1998.

Results:

Figure 2 is a site map of the Ice Canyon Drip and includes groundwater analytical results. The benzene, toluene and xylene concentrations in MW-2 have been above WQCC standard for the past four quarters since installation of the well. Concentrations in well MW-4 have also been consistently above standards for benzene, and occasionally above standards for toluene and xylene.

Because of the elevated contaminant levels, PNM conducted secondary source removal January and February, 1998. Almost 9000 cubic yards of soil were removed at this time. However, after a drop in contaminant levels in mid-1998, the BTEX levels began to rise, and in February 1999 were at the highest levels observed in both wells, MW-2 and MW-4. These patterns suggest that recontamination of the site has occurred. The water quality analysis in MW-1 showed elevated levels of sulfate in groundwater in this area., at 1200 mg/L. In addition, the secondary (aesthetic) groundwater parameters for total dissolved solids and manganese were elevated in both wells, MW-1 and MW-2.

The SVE pilot test was run for 5.5 hours at an extraction rate of about 35 cubic feet per minute and with a vacuum of about 17 inches of water in the extraction well. Wells, MW-2 and MW-4, showed good response; with a vacuum of 0.5 inches of water by the end of the test. The calculated effective radius of influence for the SVE system was about 50 feet. Of note is that oxygen levels were very low throughout the test (a few percent or less), and carbon dioxide levels were elevated (about 15%). This indicates that biodegradation of hydrocarbons is occurring at the Ice Canyon Drip site.

Future Actions:

PNM will continue to perform quarterly monitoring at the site and investigate other potential sources on site to determine the origin of "recontamination" at the site. Further evaluation of an SVE remedial approach will also occur.

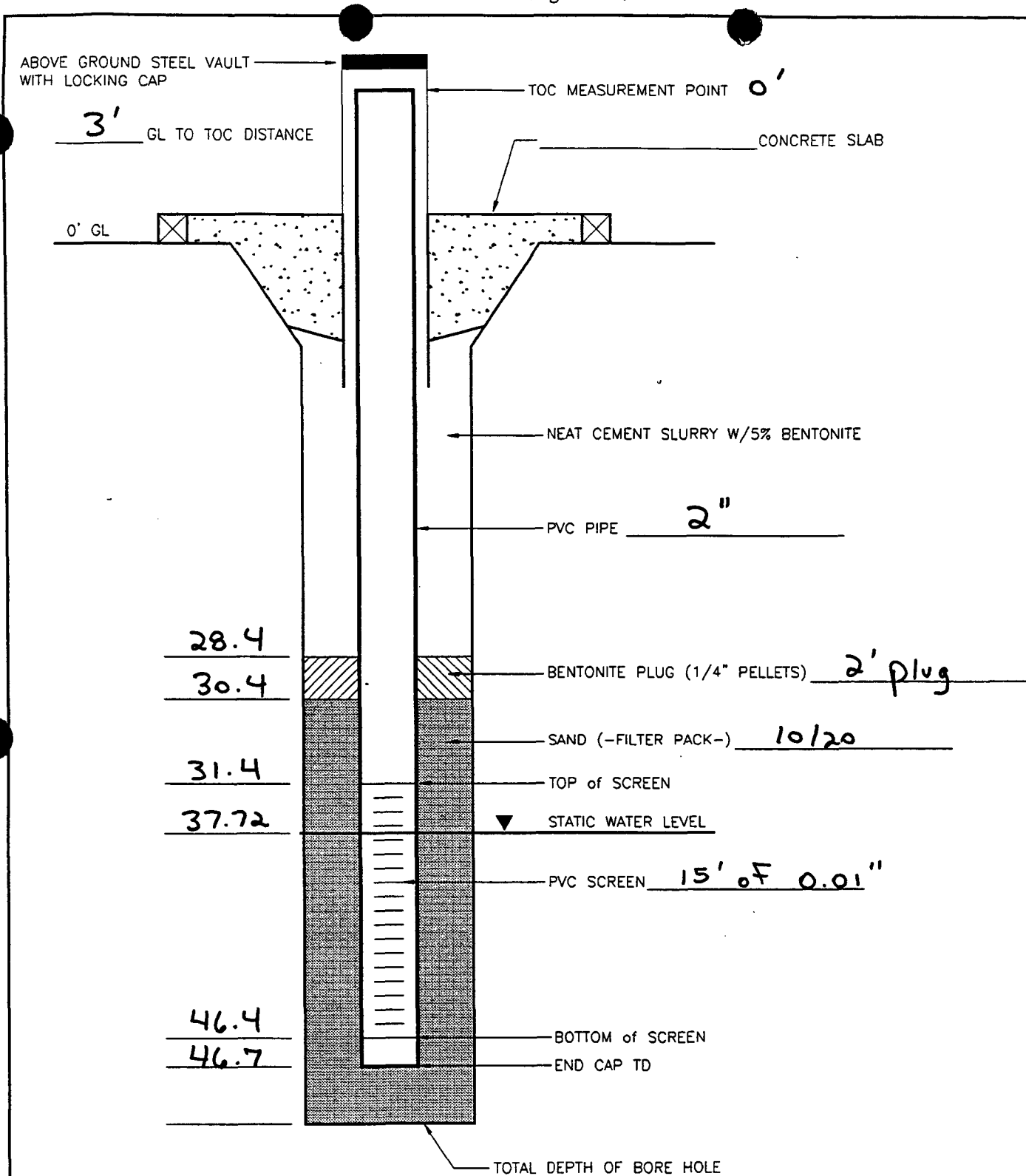
Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408
Albuquerque, NM 87158

Contact: Maureen Gannon

Telephone: 505-241-2974

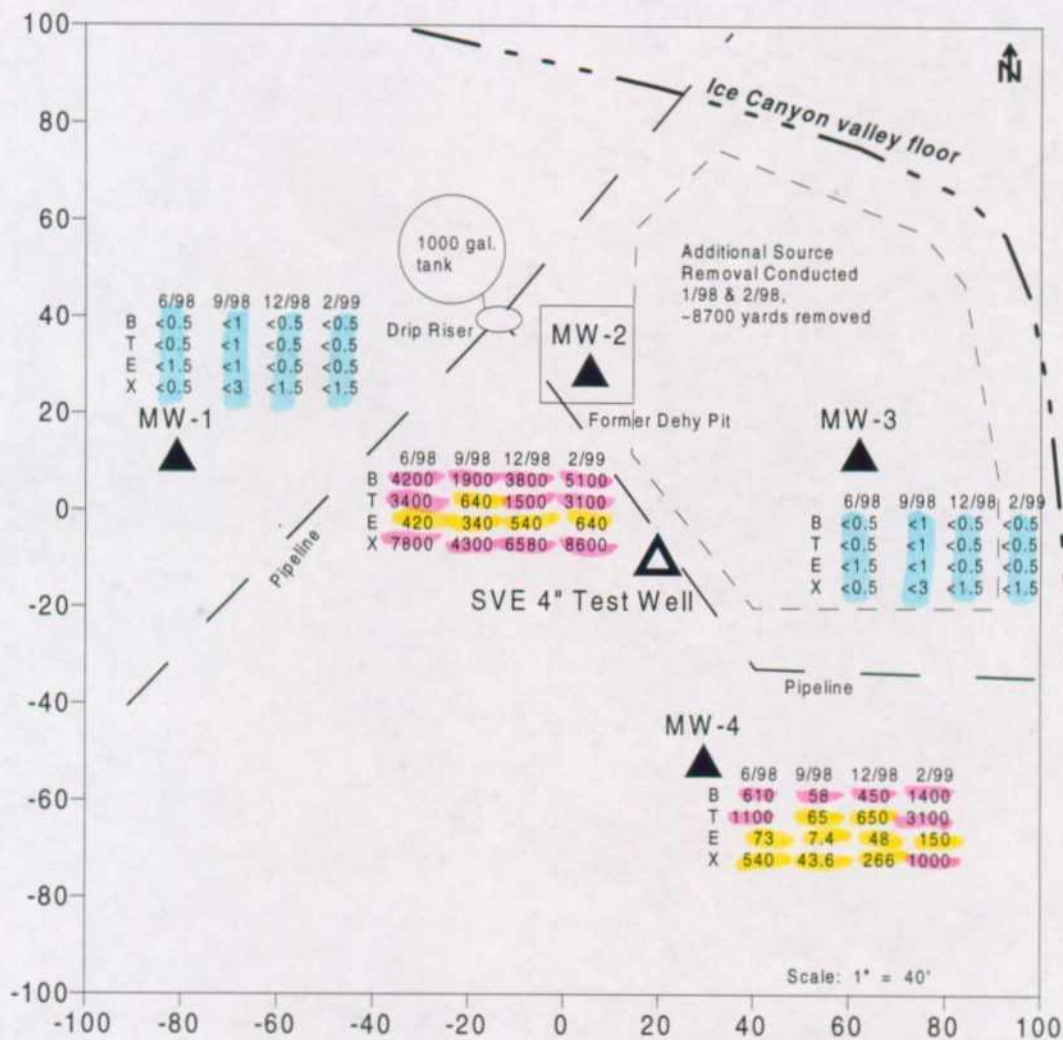
Figure 1.



Well Completion Diagram

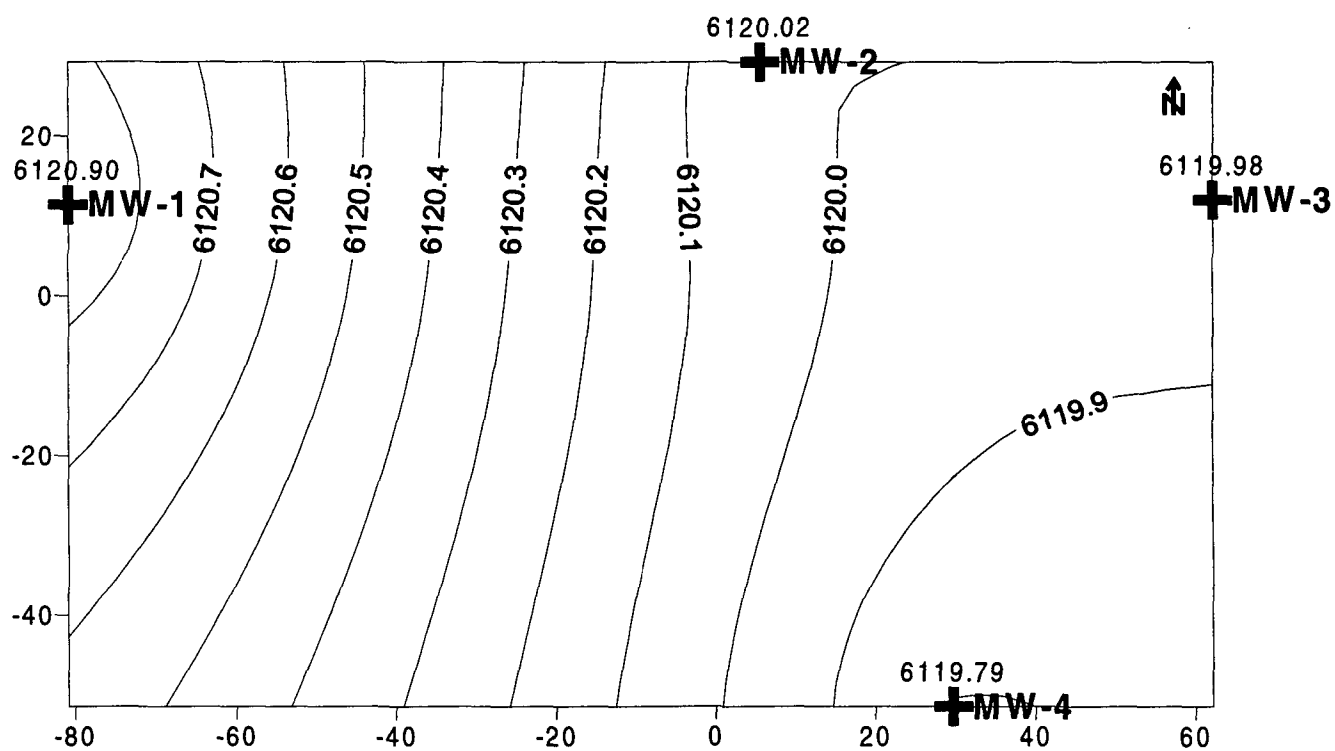
SITE NAME Ice Canyon Drip
 WELL NUMBER MW-3
 DATE 6/4/98
 RECORDER M.S.

Figure 2.
Ice Canyon Drip Site Map and Analytical Results
(Groundwater Concentrations in ppb)



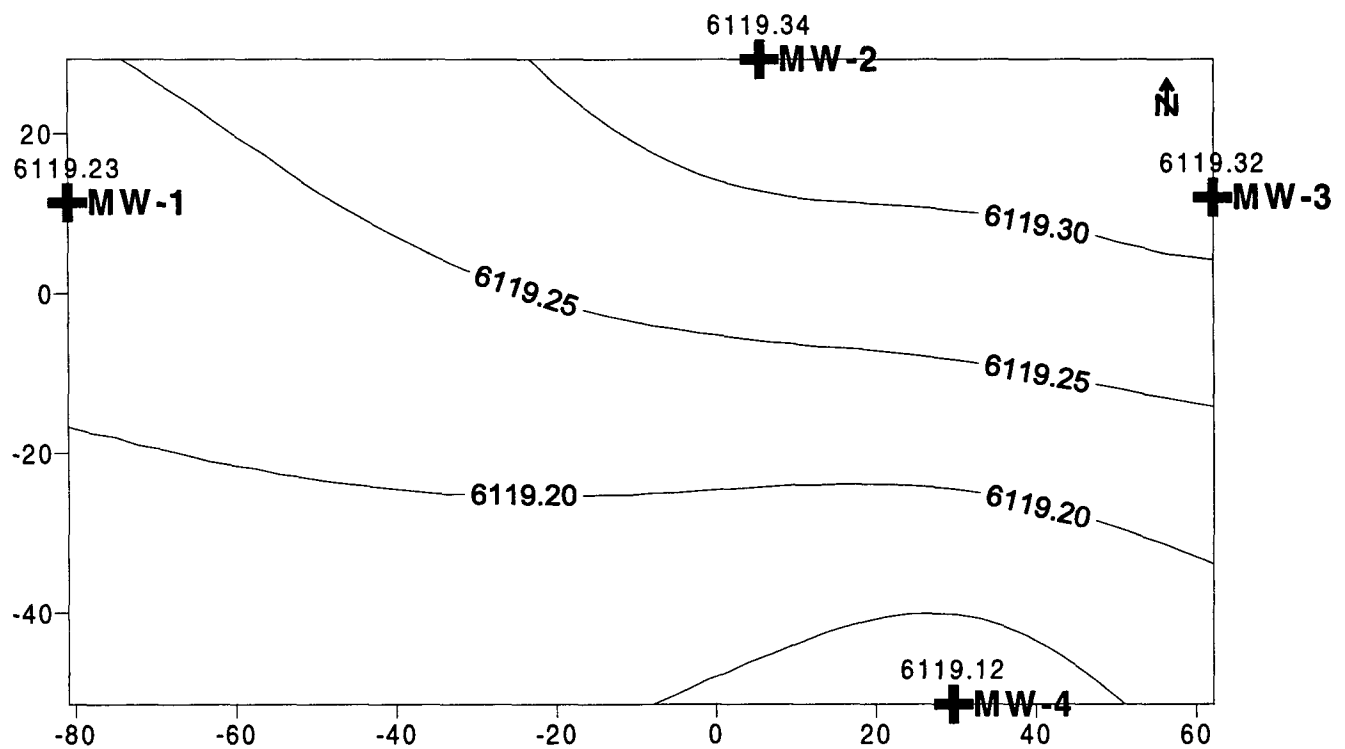
S:\surfer\lcecanon\lceap.srf

Figure 3a.
Ice Canyon Drip Site Groundwater Contour Map
(June 19, 1998)



SCALE IN FEET
(X-axis = Easting, Y-axis = Northing)

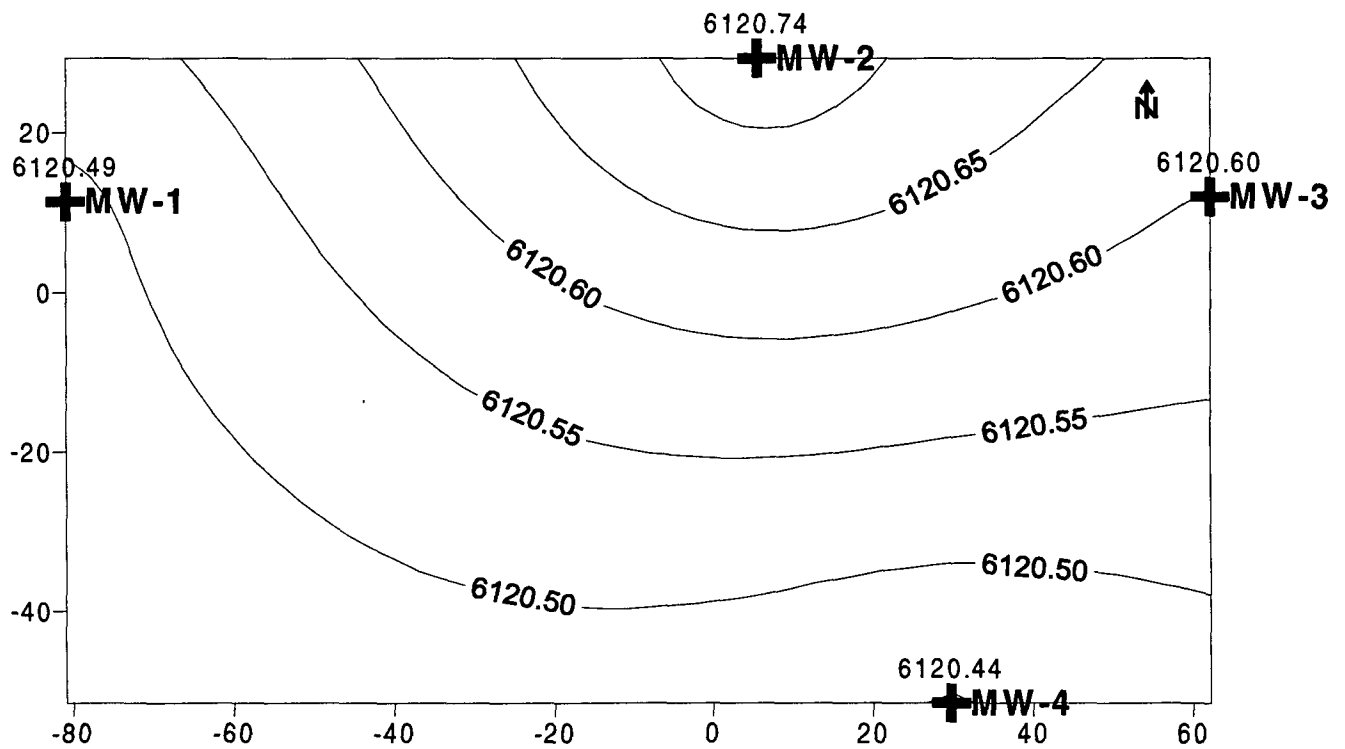
Figure 3b.
Ice Canyon Drip Site Groundwater Contour Map
(September 14, 1998)



SCALE IN FEET
(X-axis = Easting, Y-axis = Northing)

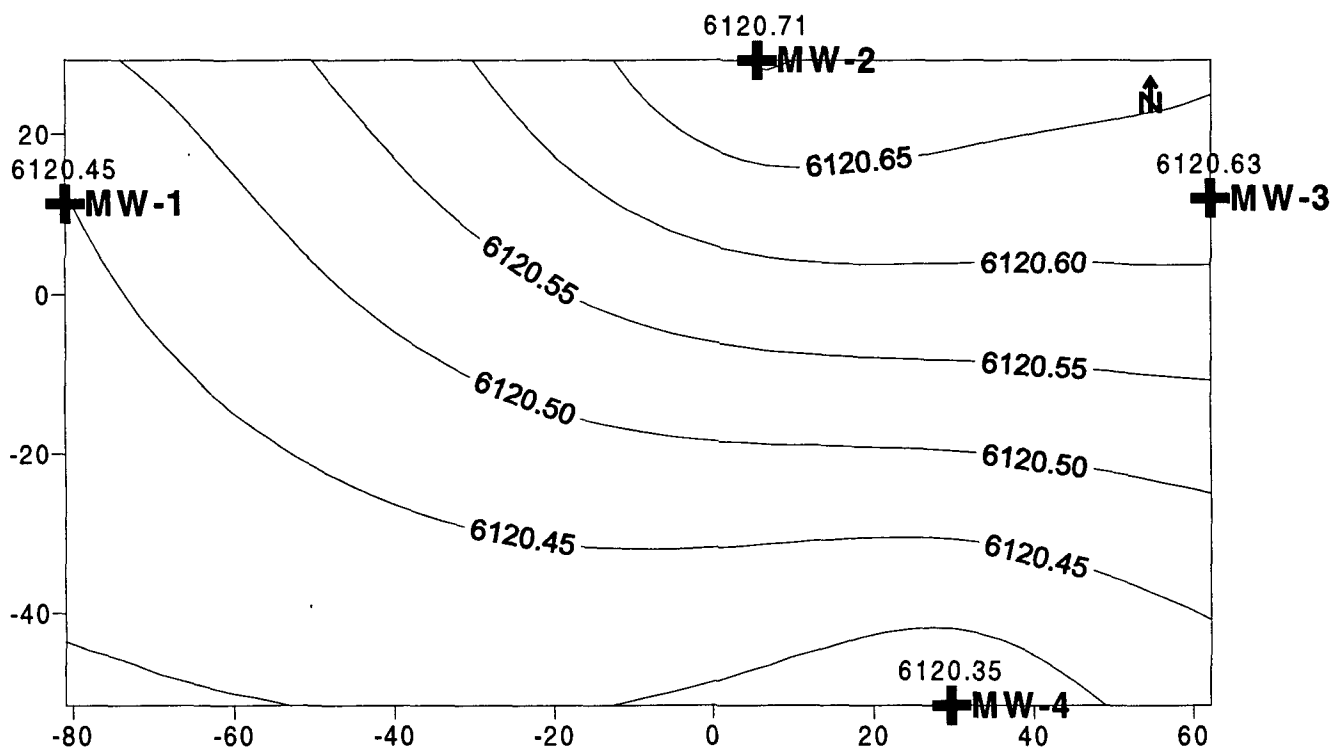
s:/ice998.srf

Figure 3c.
Ice Canyon Drip Site Groundwater Contour Map
(December 9, 1998)



SCALE IN FEET
(X-axis = Easting, Y-axis = Northing)

Figure 3d.
Ice Canyon Drip Site Groundwater Contour Map
(February 10, 1999)



SCALE IN FEET
(X-axis = Easting, Y-axis = Northing)

s:/ice299.srf

Figure 4. Ice Canyon Drip Site Hydrograph
(Water Level vs. Time)

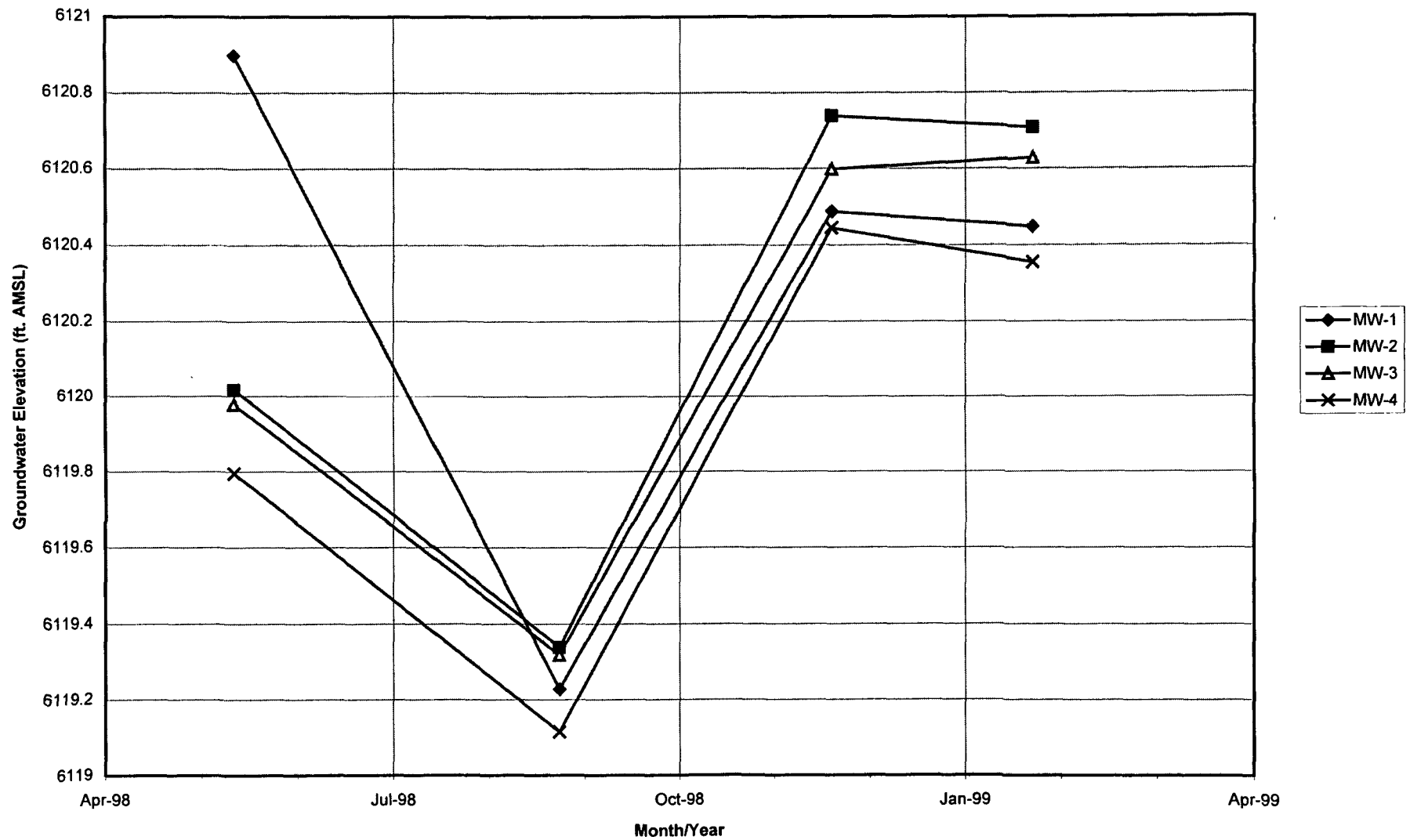


Table 1. Ice Cane Drip Goundwater Sampling Results 6/04/98, 9/14/98
(mg/L unless otherwise specified)

Constituent	WQCC Std.	MW-1 (taken 06/04/98)	MW-2 (taken 06/04/98)	MW-3 (taken 06/04/98)	MW-4 (taken from 06/19/98)	MW-5 (Duplicate of MW-4)
Benzene	0.01	<0.0005	4.2	<0.0005	0.61	0.63
Toluene	0.75	<0.0005	3.4	<0.0005	1.1	1.1
Ethylbenzene	0.75	<0.0005	0.42	<0.0005	0.073	0.066
Xylenes m,p,o	0.62	<0.001	7.8	<0.001	0.54	5.4
PAHs	0.03	NA	NA	NA	NA	NA
Metals		taken 09/14/98	taken 09/14/98			
As	0.1	<0.035	<0.035	NS	NS	NS
Ba	1	0.028	0.508	NS	NS	NS
Cd	0.01	<0.004	<0.004	NS	NS	NS
Cr	0.05	<0.010	<0.010	NS	NS	NS
Fe	*1	<0.2	<0.2	NS	NS	NS
Pb	0.05	<0.05	<0.05	NS	NS	NS
Mn	*0.2	1.74	8.48	NS	NS	NS
Se	0.05	<0.06	0.011	NS	NS	NS
Ag	0.05	<0.005	<0.005	NS	NS	NS
Hg	0.002	<0.00010	<0.00010	NS	NS	NS
Cations/Anions						
Ca	NA	370	92	NS	NS	NS
K	NA	6.2	8.1	NS	NS	NS
Mg	NA	56	16	NS	NS	NS
Na	NA	220	340	NS	NS	NS
Alkalinity						
Alkalinity, Bicarbonate (CaCO ₃)	NA	350	624	NS	NS	NS
Alkalinity, Carbonate (CaCO ₃)	NA	<5	<5	NS	NS	NS
Alkalinity, Hydroxide	NA	NR	NR	NS	NS	NS
Alkalinity, Total (CaCO ₃)	NA	350	624	NS	NS	NS
Chloride (Cl)	*250	20	20	NS	NS	NS
Specific Conductance	NA	1600 uS/cm	1100 uS/cm	NS	NS	NS
Hardness (CaCO ₃)	NA	1157	426	NS	NS	NS
pH	NA	7.05 pH units	6.83 pH units	NS	NS	NS
Sulfate (SO ₄)	*600	1200	310	NS	NS	NS
Total Dissolved Solids (TDS)	*1000	2300	1295	NS	NS	NS
Total Cation-Anion	NA	65.26 me/L	34.15 me/L	NS	NS	NS
Difference Cation-Anion	NA	0.09 me/L	0.06 me/L	NS	NS	NS
% Difference	NA	0.1	0.2	NS	NS	NS
	*	Other Standards for Domestic Water Supply (aesthetic)				
	**	Out of Acceptable Range, % Diff. +/-5				
	NA:	Not Applicable				
	NR:	Not Reported				
	NS:	Not Sampled				
	Bold:	Concentration Above WQCC Standard				

6/04/98

OFF: (505) 325-5667



LAB: (505) 325-1556

June 17, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

2nd Quarter 98
1st Sampling

RE: Ice Canyon Drip

Order No.: 9806015

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 6/4/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8020A)

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox".

David Cox

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM
Project: Ice Canyon Drip
Lab Order: 9806015

CASE NARRATIVE

Analytical Comments for SAMPLE ID 9806015-04A, 9806041230; MW-4 and 9806015-05A, 9806041300; MW-5: High sediment samples. The two (2) VOA's submitted for each site had to be combined due to high sediment content. Both sites will need to be re-sampled due to dilution needed for Upper Quantitation Limit (UQL). Samples were analyzed using the methods outlined in the following references:

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9806015	Client Sample ID:	9806041100; MW-1
Lab ID:	9806015-01A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	6/4/98 11:00:00 AM
		COC Record:	7160

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	0.5		µg/L	1	6/15/98
Toluene	ND	0.5		µg/L	1	6/15/98
Ethylbenzene	ND	0.5		µg/L	1	6/15/98
m,p-Xylene	ND	1		µg/L	1	6/15/98
o-Xylene	ND	0.5		µg/L	1	6/15/98

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9806015	Client Sample ID:	9806041130; MW-2
Lab ID:	9806015-02A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	6/4/98 11:30:00 AM
		COC Record:	7160

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	4200	50		µg/L	100	6/15/98
Toluene	3400	50		µg/L	100	6/15/98
Ethylbenzene	420	50		µg/L	100	6/15/98
m,p-Xylene	6500	100		µg/L	100	6/15/98
o-Xylene	1300	50		µg/L	100	6/15/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 17-Jun-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9806015	Client Sample ID:	9806041200; MW-3
Lab ID:	9806015-03A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	6/4/98 12:00:00 PM
		COC Record:	7160

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	0.5		µg/L	1	6/15/98
Toluene	ND	0.5		µg/L	1	6/15/98
Ethylbenzene	ND	0.5		µg/L	1	6/15/98
m,p-Xylene	ND	1		µg/L	1	6/15/98
o-Xylene	ND	0.5		µg/L	1	6/15/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806015

Project: Ice Canyon Drip

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980615	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/15/98					Prep Date:		
Client ID:	9806015	Run ID:	GC-1_980615A	SeqNo: 3106							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0418	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	.1275	1									J
o-Xylene	ND	0.5									
Toluene	.1234	0.5									J

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

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806015

Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9806015-02AMS	Batch ID: GC-1_980615	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/15/98				Prep Date:			
Client ID: 9806041130; MW-	9806015	Run ID: GC-1_980615A			SeqNo: 3107						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	8159	50	4000	4153	100.1%	56	128				
Ethylbenzene	4411	50	4000	421	99.7%	78	107				
m,p-Xylene	14170	100	8000	6527	95.5%	67	118				
o-Xylene	5239	50	4000	1346	97.3%	78	107				
Toluene	7282	50	4000	3434	96.2%	74	116				

Sample ID: 9806015-02AMSD	Batch ID: GC-1_980615	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/15/98				Prep Date:			
Client ID: 9806041130; MW-	9806015	Run ID: GC-1_980615A			SeqNo: 3108						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	7966	50	4000	4153	95.3%	56	128	8159	2.4%	12	
Ethylbenzene	4305	50	4000	421	97.1%	78	107	4411	2.4%	11	
m,p-Xylene	13820	100	8000	6527	91.2%	67	118	14170	2.5%	10	
o-Xylene	5137	50	4000	1346	94.8%	78	107	5239	2.0%	14	
Toluene	7100	50	4000	3434	91.6%	74	116	7282	2.5%	14	

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

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806015

Project: Ice Canyon Drip

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_980615	Test Code: SW8020A	Units: µg/L			Analysis Date: 6/15/98			Prep Date:		
Client ID:	9806015	Run ID:	GC-1_980615A			SeqNo:		3105			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.12	0.5	40	0.0418	102.7%	56	128				
Ethylbenzene	42.19	0.5	40	0	105.5%	78	107				
m,p-Xylene	80.34	1	80	0.1275	100.3%	67	118				
o-Xylene	40.85	0.5	40	0	102.1%	78	107				
Toluene	40.86	0.5	40	0.1234	101.8%	74	116				

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

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9806015
 Project: Ice Canyon Drip

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980615	Test Code: SW8020A		Units: µg/L	Analysis Date: 6/15/98			Prep Date:		
Client ID:		9806015	Run ID: GC-1_980615A			SeqNo: 3102					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.44	0.5	20	0	107.2%	85	115				
Ethylbenzene	22.16	0.5	20	0	110.8%	85	115				
m,p-Xylene	41.99	1	40	0	105.0%	85	115				
o-Xylene	21.39	0.5	20	0	106.9%	85	115				
Toluene	21.37	0.5	20	0	106.9%	85	115				
1,4-Difluorobenzene	92.64	0	100	0	92.6%	70	130				
4-Bromochlorobenzene	79.51	0	100	0	79.5%	70	130				
Fluorobenzene	92.78	0	100	0	92.8%	70	130				

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980615	Test Code: SW8020A		Units: µg/L	Analysis Date: 6/15/98			Prep Date:		
Client ID:		9806015	Run ID: GC-1_980615A			SeqNo: 3103					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.66	0.5	20	0	103.3%	85	115				
Ethylbenzene	21.47	0.5	20	0	107.3%	85	115				
m,p-Xylene	40.93	1	40	0	102.3%	85	115				
o-Xylene	20.77	0.5	20	0	103.9%	85	115				
Toluene	20.79	0.5	20	0	104.0%	85	115				
1,4-Difluorobenzene	92.43	0	100	0	92.4%	70	130				
4-Bromochlorobenzene	68.57	0	100	0	68.6%	70	130				
Fluorobenzene	92.48	0	100	0	92.5%	70	130				S

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: PNM - Public Service Company of NM
Work Order: 9806015
Project: Ice Canyon Drip

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980615		Test Code: SW8020A		Units: µg/L		Analysis Date: 6/15/98		Prep Date:	
Client ID:		9806015		Run ID: GC-1_980615A		SeqNo: 3104					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.25	0.5	20	0	106.3%	85	115				
Ethylbenzene	21.75	0.5	20	0	108.7%	85	115				
m,p-Xylene	40.9	1	40	0	102.3%	85	115				
o-Xylene	21.08	0.5	20	0	105.4%	85	115				
Toluene	21	0.5	20	0	105.0%	85	115				
1,4-Difluorobenzene	93.05	0	100	0	93.1%	70	130				
4-Bromochlorobenzene	84.48	0	100	0	84.5%	70	130				
Fluorobenzene	92.77	0	100	0	92.8%	70	130				

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

On Site Technologies, LTD.

Date: 17-Jun-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9806015
Project: Ice Canyon Drip
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9806014-02A	93.9	77.6	94.9					
9806014-03A	87.6	63.9 *	89.4					
9806014-04A	95	67.2 *	95.8					
9806014-05A	89.9	68 *	91.6					
9806015-01A	93.2	69.9 *	93					
9806015-02A	91.6	67.9 *	92.5					
9806015-02AMS	91.8	69.1 *	92.5					
9806015-02AMSD	91.8	68.4 *	92.8					
9806015-03A	92.5	67.4 *	93					
9806030-01A	92.6	67.6 *	92.8					
9806040-01A	92	60.6 *	92					
9806041-01A	92.1	76.9	92.1					
9806041-02A	92.5	65.2 *	92.3					
9806041-03A	93	69.9 *	92.4					
9806043-01A	93	74	93.1					
9806043-02A	91.8	68.1 *	91.3					
9806044-01A	92.4	66.8 *	93					
9806044-02A	89.1	65.2 *	89					
9806044-04A	83.5	61.8 *	103					
CCV1 QC0529/30	92.6	79.5	92.8					
CCV2 QC0529/30	92.4	68.6 *	92.5					
CCV3 QC0529/30	93	84.5	92.8					
LCS WATER	92.4	78.9	92.6					
MB1	93.2	80.5	93.1					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits



CHAIN OF CUSTODY RECORD

Date: 6/4/98Page: 1 of 1612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		Name Maureen Gannon		Title	
SEND INVOICE TO	Name Denver Bearden		Company PNM Gas Services		Mailing Address Alverado Square, Mail Stop 0408		
	Company PNM Gas Services		Dept. 324-3763		City, State, Zip Albuquerque, NM 87158		
	Address 603 W. Elm Street				Telephone No. 505-848-2974		Telefax No.
	City, State, Zip Farmington, NM 87401						
Sampling Location: Ice Canyon Drip				ANALYSIS REQUESTED			
Sampler: RD MS				Number of Containers			
SAMPLE IDENTIFICATION				SAMPLE		LAB ID	
				DATE	TIME	MATRIX	PRES.
9806041100 MW-1						H ₂ O	ACL
9806041130 MW-2							
9806041200 MW-3							
9806041230 MW-4							
9806041300 MW-5							
A. NOTE: HIGH SEDIMENT SAMPLES. TWO (2) VOA'S SUBMITTED HAD TO BE COMBINED DUE TO HIGH SEDIMENT CONTENT. BOTH MW-1 AND MW-5 WILL NEED TO BE RE-SAMPLED DUE TO DILUTION NEEDED FOR UCL. NOTIFIED MARK SKELEANS 6/15/98 1730 FOR RE-SAMPLING @ 6/15/98							
Relinquished by: <u>Ronald D. Dedrick</u>				Date/Time <u>6/4/98 1626</u>		Received by: <u>[Signature]</u>	
Relinquished by:				Date/Time		Received by:	
Relinquished by:				Date/Time		Received by:	
Method of Shipment:				Rush		24-48 Hours	
Authorized by: <u>Ronald D. Dedrick</u> Date <u>6/4/98</u> (Client Signature Must Accompany Request)						10 Working Days	
						Special Instructions: Results to be sent to both parties.	



CHAIN OF CUSTODY RECORD

Date: 6/4/98Page: 1 of 1612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.:		Name: Maureen Gannon		Title:	
SEND INVOICE TO	Name: Denver Bearden		Company: PNM Gas Services		Mailing Address: Alverado Square, Mail Stop 0408		
	Company: PNM Gas Services		Dept. 324-3763		City, State, Zip: Albuquerque, NM 87158		
	Address: 603 W. Elm Street				Telephone No. 505-848-2974		Telefax No.
	City, State, Zip: Farmington, NM 87401						
Sampling Location: Ice Canyon Drip				ANALYSIS REQUESTED			
Sampler: RD MS.				Number of Containers			
SAMPLE IDENTIFICATION				SAMPLE		LAB ID	
				DATE	TIME	MATRIX	PRES.
9806041100 MW-1						H ₂ O	ACL
9806041130 MW-2							
9806041200 MW-3							
9806041230 MW-4							
9806041300 MW-5							
A. NOTE: HIGH SULFATE SAMPLES. TWO (2) VIALS SUBMITTED PER TO BE CONSIDERED DUE TO HIGH SULFATE CONTENT. POTENTIAL FOR ANALYSIS WITH AFFECT TO BE HIGH SULFATE DUE TO HIGH SULFATE FOR UGL. NOTIFIED BY MAIL 6/15/98 1730 FOR HIGH SULFATE 6/15/98							
Relinquished by: <u>Ronald H. Decker</u>				Date/Time: <u>6/1/98 16:26</u>		Received by: <u>[Signature]</u>	
Relinquished by:				Date/Time:		Received by:	
Relinquished by:				Date/Time:		Received by:	
Method of Shipment:				Rush		24-48 Hours	
Authorized by: <u>Ronald H. Decker</u> Date: <u>6/4/98</u>						10 Working Days	
(Client Signature Must Accompany Request)						Special Instructions:	
						Results to be sent to both parties.	



LAB: (505) 325-5667 • FAX: (505) 325-6256

Date:

of

86/75/

[illegible]

6/19/98

OFF: (505) 325-5667



LAB: (505) 325-1556

July 01, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

Resampling of MW-4
Due to Lab problems
on First Event
2nd Qtr 1998

RE: Ice Canyon Drip

Order No.: 9806083

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 6/19/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8020A)

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

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

Sincerely,

A handwritten signature in dark ink, appearing to read "David Cox", written in a cursive style.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM

Project: Ice Canyon Drip

Lab Order: 9806083

CASE NARRATIVE

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

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 01-Jul-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9806083	Client Sample ID:	9806191100; MW-4
Lab ID:	9806083-01A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	6/19/98 11:00:00 AM
		COC Record:	7269

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	610	25		µg/L	50	6/26/98
Toluene	1100	25		µg/L	50	6/26/98
Ethylbenzene	73	25		µg/L	50	6/26/98
m,p-Xylene	440	50		µg/L	50	6/26/98
o-Xylene	100	25		µg/L	50	6/26/98

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 01-Jul-98

Client: PNM - Public Service Company of NM
Work Order: 9806083
Lab ID: 9806083-02A **Matrix:** AQUEOUS
Project: Ice Canyon Drip

Client Sample Info: Ice Canyon Drip
Client Sample ID: 9806191130; MW-5 (Resample)
Collection Date: 6/19/98 11:30:00 AM
COC Record: 7269

*Duplicate
MW-4*

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	630	25		µg/L	50	6/26/98
Toluene	1100	25		µg/L	50	6/26/98
Ethylbenzene	66	25		µg/L	50	6/26/98
m,p-Xylene	440	50		µg/L	50	6/26/98
o-Xylene	100	25		µg/L	50	6/26/98

Qualifiers:
PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806083

Project: Ice Canyon Drip

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980626	Test Code: SW8020A	Units: µg/L	Analysis Date 6/26/98				Prep Date:			
Client ID:	9806083	Run ID:	GC-1_980626B	SeqNo: 3712							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0354	0.5									J
Ethylbenzene	.1588	0.5									J
m,p-Xylene	.2269	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1206	0.5									J
Toluene	.0987	0.5									J

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

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9806083
Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9806071-02AMS		Batch ID: GC-1_980626		Test Code: SW8020A		Units: µg/L		Analysis Date 6/26/98		Prep Date:	
Client ID:		9806083		Run ID:		GC-1_980626B		SeqNo: 3713			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1885	5	400	1500	96.3%	56	128				
Ethylbenzene	982.6	5	400	580	100.7%	78	107				
m,p-Xylene	1771	10	800	990	97.6%	67	118				
Methyl tert-Butyl Ether	478.9	10	400	32	111.7%	70	130				
o-Xylene	743.7	5	400	360	95.9%	78	107				
Toluene	1144	5	400	750	98.5%	74	116				

Sample ID: 9806071-02AMSD		Batch ID: GC-1_980626		Test Code: SW8020A		Units: µg/L		Analysis Date 6/26/98		Prep Date:	
Client ID:		9806083		Run ID:		GC-1_980626B		SeqNo: 3714			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1808	5	400	1500	76.9%	56	128	1885	4.2%	12	
Ethylbenzene	941.9	5	400	580	90.5%	78	107	982.6	4.2%	11	
m,p-Xylene	1700	10	800	990	88.7%	67	118	1771	4.1%	10	
Methyl tert-Butyl Ether	471.3	10	400	32	109.8%	70	130	478.9	1.6%	15	
o-Xylene	715	5	400	360	88.8%	78	107	743.7	3.9%	14	
Toluene	1098	5	400	750	86.9%	74	116	1144	4.1%	14	

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

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806083

Project: Ice Canyon Drip

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_980626	Test Code: SW8020A	Units: µg/L			Analysis Date 6/26/98			Prep Date:		
Client ID:	9806083	Run ID:	GC-1_980626B			SeqNo:	3711				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.07	0.5	40	0.0354	102.6%	56	128				
Ethylbenzene	42.06	0.5	40	0.1588	104.7%	78	107				
m,p-Xylene	80.77	1	80	0.2269	100.7%	67	118				
Methyl tert-Butyl Ether	44.05	1	40	0	110.1%	70	130				
o-Xylene	41.54	0.5	40	0.1206	103.6%	78	107				
Toluene	41.33	0.5	40	0.0987	103.1%	74	116				

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

On Site Technologies, LTD.

Date: 01-Jul-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9806083

Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980626		Test Code: SW8020A		Units: µg/L		Analysis Date 6/26/98			Prep Date:	
Client ID: 9806083		Run ID: GC-1_980626B				SeqNo: 3708						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	21.54	0.5	20	0	107.7%	85	115					
Ethylbenzene	22.08	0.5	20	0	110.4%	85	115					
m,p-Xylene	42.12	1	40	0	105.3%	85	115					
Methyl tert-Butyl Ether	23.75	1	20	0	118.7%	85	115				S	
o-Xylene	21.73	0.5	20	0	108.7%	85	115					
Toluene	21.67	0.5	20	0	108.4%	85	115					
1,4-Difluorobenzene	93.05	0	100	0	93.1%	70	130					
4-Bromochlorobenzene	84.53	0	100	0	84.5%	70	130					
Fluorobenzene	92.92	0	100	0	92.9%	70	130					

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980626		Test Code: SW8020A		Units: µg/L		Analysis Date 6/26/98		Prep Date:	
Client ID: 9806083		Run ID: GC-1_980626B				SeqNo: 3709					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.22	0.5	20	0	101.1%	85	115				
Ethylbenzene	21.22	0.5	20	0	106.1%	85	115				
m,p-Xylene	39.72	1	40	0	99.3%	85	115				
Methyl tert-Butyl Ether	17.62	1	20	0	88.1%	85	115				
o-Xylene	20.36	0.5	20	0	101.8%	85	115				
Toluene	20.4	0.5	20	0	102.0%	85	115				
1,4-Difluorobenzene	92.57	0	100	0	92.6%	70	130				
4-Bromochlorobenzene	72.38	0	100	0	72.4%	70	130				
Fluorobenzene	92.38	0	100	0	92.4%	70	130				

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: PNM - Public Service Company of NM
Work Order: 9806083
Project: Ice Canyon Drip

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980626		Test Code: SW8020A		Units: µg/L		Analysis Date 6/26/98		Prep Date:	
Client ID:		9806083		Run ID:		GC-1_980626B		SeqNo: 3710			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.34	0.5	20	0	101.7%	85	115				
Ethylbenzene	20.56	0.5	20	0	102.8%	85	115				
m,p-Xylene	39.15	1	40	0	97.9%	85	115				
Methyl tert-Butyl Ether	20.77	1	20	0	103.9%	85	115				
o-Xylene	20.52	0.5	20	0	102.6%	85	115				
Toluene	20.41	0.5	20	0	102.1%	85	115				
1,4-Difluorobenzene	92.79	0	100	0	92.8%	70	130				
4-Bromochlorobenzene	83.34	0	100	0	83.3%	70	130				
Fluorobenzene	92.67	0	100	0	92.7%	70	130				

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: PNM - Public Service Company of NM
 Work Order: 9806083
 Project: Ice Canyon Drip
 Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9806071-01A	94.8	74.1	92.4					
9806071-02A	97	72.1	95.4					
9806071-02AMS	97.7	73.6	95.2					
9806071-02AMSD	97.4	74.2	95.2					
9806071-03A	93.3	86.9	93.4					
9806082-01A	87.9	71.3	93.8					
9806082-02A	89.8	66.1 *	95.3					
9806083-01A	92.9	68.7 *	92.8					
9806083-02A	92.8	72.2	92.3					
9806083-02AMS	89.8	84.2	90.9					
9806083-02AMSD	90.3	84	90.7					
9806084-01A	92.4	60.3 *	91.9					
9806084-02A	92.9	69.3 *	92.5					
9806084-03A	92.9	69.9 *	92.5					
9806095-01A	93.5	87.5	93.4					
9806095-02A	93.4	84.6	93.1					
9806095-03A	92.8	71.3	92.9					
9806095-04A	93.4	70.3	93.1					
9806095-05A	91.5	52.7 *	91.1					
9806095-06A	89.8	47.2 *	89.7					
9806095-07A	93.1	82.7	92.4					
9806095-08A	89.5	83.7	89.5					
9806095-09A	91.9	73.3	91.9					
9806095-10A	92.7	70.2	92.7					
9806097-01A	90.6	60 *	90.8					
9806097-02A	91.1	90	91.5					
9806097-03A	92.2	82.2	92.3					

Acronym

Surrogate

QC Limits

14FBZ

= 1,4-Difluorobenzene

70-130

4BCBZ

= 4-Bromochlorobenzene

70-130

FLBZ

= Fluorobenzene

70-130

* Surrogate recovery outside acceptance limits

CLIENT: PNM - Public Service Company of NM
Work Order: 9806083
Project: Ice Canyon Drip
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9806097-04A	90.9	80.2	90.6					
9806097-05A	90	79.9	91.3					
9806097-06A	91.5	54.3 *	90.3					
9806097-07A	92.5	77.5	92.7					
9806097-08A	90.2	55.1 *	90.5					
9806097-09A	89.3	81.5	90.4					
9806097-10A	93.4	86.2	93.1					
9806097-11A	93.2	85.6	93.5					
9806097-12A	90.8	83.3	91.3					
9806097-13A	90.8	82.6	91.5					
9806097-15A	92.6	81.8	91.9					
9806108-01A	91.3	70.4	91.7					
9806108-01AMS	92.2	84.3	92.7					
9806108-01AMSD	92.1	80	92.5					
9806108-02A	91.1	60 *	91.1					
9806108-03A	91	54.8 *	90.3					
9806109-01A	91.5	68.4 *	92.7					
9806115-01A	87	76.1	89.4					
CCV1 QC0529/30	92.7	78.2	93					
CCV2 QC0529/30	93.2	82.4	92.4					
CCV3 QC0529/30	91.5	76.4	92.1					
CCV4 QC0529/30	91.7	69.1 *	92.3					
CCV5 QC0529/30	91.6	67.6 *	91.9					
LCS WATER	92.4	78.2	92.3					
MB1	93.2	72.5	93					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

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

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

October 27, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

3rd Qtr 1998

RE: Ice Canyon Drip

Order No.: 9809027

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 9/14/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Alkalinity, Total (M2320 B)
Arsenic, Dissolved (SW6010A)
Barium, Dissolved (SW6010A)
BTEX (SW8020A)
Cadmium, Dissolved (SW6010A)
Calcium by AA (SW7140)
Chloride (M4500-Cl C.)
Chromium, Dissolved (SW6010A)
Conductivity (E120.1)
Hardness, Total (E130.1)
Iron, Dissolved (SW6010A)
Lead, Dissolved (SW6010A)
Magnesium by AA (SW7450)
Manganese, Dissolved (SW6010A)
Mercury, Dissolved (SW7470)
pH (E150.1)
Potassium by AA (SW7610)
Selenium, Dissolved (SW7742)
Silver, Dissolved (SW6010A)
Sodium by AA (SW7770)
Sulfate (M4500-SO4 D)
Total Dissolved Solids (M2540 C.)

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

October 27, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

RE: Ice Canyon Drip

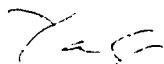
Order No.: 9809027

Dear Maureen Gannon,

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

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

Sincerely,



David Cox

OFF: (505) 325-5667

ON SITE

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

On Site Technologies, LTD.

Date: 27-Oct-98

CLIENT: PNM - Public Service Company of NM

Project: Ice Canyon Drip

Lab Order: 9809027

CASE NARRATIVE

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

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

Standard Methods for The Examination of Water and Wastewater, 18th Edition.

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

Cation-Anion Balance Ice Canyon Drip 9809141130; MW-1

Total Cation-Anion = 65.26 me/L

Difference Cation-Anion = 0.09 me/L

% Difference = 0.1%

Cation-Anion Balance Ice Canyon Drip 9809141200; MW-2

Total Cation-Anion = 34.15 me/L

Difference Cation-Anion = 0.06 me/L

% Difference = 0.2%

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9809027	Client Sample ID:	9809141130; MW-1
Lab ID:	9809027-01A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	9/14/98 11:30:00 AM
		COC Record:	7294

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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- TECHNICAL BLENDED WITH USE IN THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client: PNM - Public Service Company of NM	Client Sample Info: Ice Canyon Drip
Work Order: 9809027	Client Sample ID: 9809141130; MW-1
Lab ID: 9809027-01B Matrix: AQUEOUS	Collection Date: 9/14/98 11:30:00 AM
Project: Ice Canyon Drip	COC Record: 7294

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM BY AA		SW7140				Analyst: HR
Calcium	370	25		mg/L	100	10/2/98
POTASSIUM BY AA		SW7610				Analyst: HR
Potassium	6.2	1.2		mg/L	5	10/2/98
MAGNESIUM BY AA		SW7450				Analyst: HR
Magnesium	56	6.2		mg/L	25	10/2/98
SODIUM BY AA		SW7770				Analyst: HR
Sodium	220	25		mg/L	100	10/2/98
ALKALINITY, TOTAL		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO ₃)	350	5		mg/L CaCO ₃	1	9/21/98
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	9/21/98
Alkalinity, Total (As CaCO ₃)	350	5		mg/L CaCO ₃	1	9/21/98
CHLORIDE		M4500-CL C.				Analyst: HR
Chloride	20	10		mg/L	1	9/25/98
CONDUCTIVITY		E120.1				Analyst: HR
Specific Conductance	1600	2		uS/cm	1	9/21/98
HARDNESS, TOTAL		E130.1				Analyst: HR
Hardness (As CaCO ₃)	1157	1		mg/L	1	10/5/98
PH		E150.1				Analyst: HR
pH	7.05	2		pH units	1	9/21/98
SULFATE		M4500-SO4 D				Analyst: HR
Sulfate	1200	5		mg/L	1	9/30/98
TOTAL DISSOLVED SOLIDS		M2540 C.				Analyst: HR
Total Dissolved Solids (Residue, Filterable)	2300	40		mg/L	1	10/5/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr - Surrogate

1 of 1

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- TECHNICAL PERSONNEL ONLY -

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9809027	Client Sample ID:	9809141200; MW-2
Lab ID:	9809027-02A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	9/14/98 12:00:00 PM
		COC Record:	7294

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	1900	50		µg/L	50	9/21/98
Toluene	640	50		µg/L	50	9/21/98
Ethylbenzene	340	50		µg/L	50	9/21/98
m,p-Xylene	4100	100		µg/L	50	9/21/98
o-Xylene	200	50		µg/L	50	9/21/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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- TECHNICAL SERVICES PROVIDED WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client: PNM - Public Service Company of NM Work Order: 9809027 Lab ID: 9809027-02B Matrix: AQUEOUS Project: Ice Canyon Drip	Client Sample Info: Ice Canyon Drip Client Sample ID: 9809141200; MW-2 Collection Date: 9/14/98 12:00:00 PM COC Record: 7294
---	---

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM BY AA		SW7140				Analyst: HR
Calcium	130	12		mg/L	50	10/2/98
POTASSIUM BY AA		SW7610				Analyst: HR
Potassium	3.4	0.25		mg/L	1	10/2/98
MAGNESIUM BY AA		SW7450				Analyst: HR
Magnesium	29	2.5		mg/L	10	10/2/98
SODIUM BY AA		SW7770				Analyst: HR
Sodium	190	25		mg/L	100	10/2/98
ALKALINITY, TOTAL		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO ₃)	624	5		mg/L CaCO ₃	1	9/21/98
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	9/21/98
Alkalinity, Total (As CaCO ₃)	624	5		mg/L CaCO ₃	1	9/21/98
CHLORIDE		M4500-CL C.				Analyst: HR
Chloride	20	10		mg/L	1	9/25/98
CONDUCTIVITY		E120.1				Analyst: HR
Specific Conductance	1100	2		uS/cm	1	9/21/98
HARDNESS, TOTAL		E130.1				Analyst: HR
Hardness (As CaCO ₃)	444	1		mg/L	1	10/5/98
PH		E150.1				Analyst: HR
pH	6.83	2		pH units	1	9/21/98
SULFATE		M4500-SO4 D				Analyst: HR
Sulfate	310	5		mg/L	1	9/30/98
TOTAL DISSOLVED SOLIDS		M2540 C.				Analyst: HR
Total Dissolved Solids (Residue, Filterable)	1295	40		mg/L	1	10/5/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9809027	Client Sample ID:	9809141230; MW-3
Lab ID:	9809027-03A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	9/14/98 12:30:00 PM
		COC Record:	7294

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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TECHNICAL SERVICES DIVISION • LABORATORY

1 of 1

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9809027	Client Sample ID:	9809141300; MW-4
Lab ID:	9809027-04A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	9/14/98 1:00:00 PM
		COC Record:	7294

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	58	1		µg/L	1	9/22/98
Toluene	65	1		µg/L	1	9/22/98
Ethylbenzene	7.4	1		µg/L	1	9/22/98
m,p-Xylene	35	2		µg/L	1	9/22/98
o-Xylene	8.6	1		µg/L	1	9/22/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

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1 of 1

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 27-Oct-98

Client: PNM - Public Service Company of NM
Work Order: 9809027
Lab ID: 9809027-05A **Matrix:** AQUEOUS
Project: Ice Canyon Drip

Client Sample Info: Ice Canyon Drip
Client Sample ID: 9809141330; MW-5
Collection Date: 9/14/98 1:30:00 PM
COC Record: 7294

MW-2
Duplicate

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	1900	50		µg/L	50	9/21/98
Toluene	610	50		µg/L	50	9/21/98
Ethylbenzene	350	50		µg/L	50	9/21/98
m,p-Xylene	4000	100		µg/L	50	9/21/98
o-Xylene	210	50		µg/L	50	9/21/98

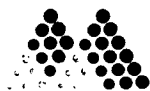
Qualifiers:
PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

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**Mountain States Analytical, Inc.***The Quality Solution*

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

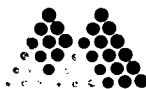
Attn: Mr. David Cox
Project: WQCC Metals Analysis

Sample ID: 9809027-01C
Matrix: Water

MSAI Sample: 86646
MSAI Group: 24101
Date Reported: 10/15/98
Discard Date: 11/14/98
Date Submitted: 09/17/98
Date Sampled: 09/14/98
Collected by:
Purchase Order:
Project No.: 01

Ice Canyon Drip 9809141130; MW-1

Test Analysis	Results as Received	Units	Method Detection Limit
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00010
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w614		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w221		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w631		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.035
Barium	0.028	mg/l	0.003
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Iron	ND	mg/l	0.20
Lead	ND	mg/l	0.050
Manganese	1.74	mg/l	0.003
Silver	ND	mg/l	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.06
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		



Mountain States Analytical, Inc.

The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 86646

MSAI Group: 24101

Sample ID: 9809027-01C

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

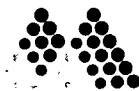
Attn: Mr. David Cox
Project: WQCC Metals Analysis

Sample ID: 9809027-02C
Matrix: Water

MSAI Sample: 86647
MSAI Group: 24101
Date Reported: 10/15/98
Discard Date: 11/14/98
Date Submitted: 09/17/98
Date Sampled: 09/14/98
Collected by:
Purchase Order:
Project No.:

Ice Canyon Drip 9809141200; MW-2

Test Analysis	Results as Received	Units	Method Detection Limit
0259B Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00010
0392I Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w614		
0392M Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w221		
0401 Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w631		
13001 Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
Arsenic	ND	mg/l	0.035
Barium	0.508	mg/l	0.003
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Iron	0.53	mg/l	0.20
Lead	ND	mg/l	0.050
Manganese	8.48	mg/l	0.003
Silver	ND	mg/l	0.005
1451 Selenium by HAA, w/ww, 7742 Method: SW-846 7742	0.011	mg/l	0.01
0939 Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		



Mountain States Analytical, Inc.

The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 86647

MSAI Group: 24101

Sample ID: 9809027-02C

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

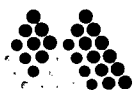
Corporate Office: 1645 West 2200 South • Salt Lake City, Utah 84119

801-973-0050 • 1-800-973-6724 (MSAI) • FAX 801-972-6278

e-mail: service@msailabs.com



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



Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: WQCC Pb Analysis

Sample ID: 9809074-01C
Matrix: Water

MSAI Sample: 87354
MSAI Group: 24280
Date Reported: 10/12/98
Discard Date: 11/11/98
Date Submitted: 10/01/98
Date Sampled: 09/24/98
Collected by:
Purchase Order:
Project No.: DL

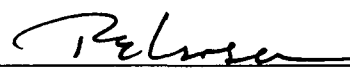
Miles Federal 1E Drip 9809241400; MW-1

Test	Analysis	Results as Received	Units	Method Detection Limit
03921	Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w650		
13001	Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
	Lead	ND	mg/l	0.050
0939	Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	COMPLETE		

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

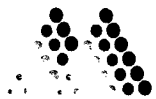
Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

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

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

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Mountain States Analytical, Inc.

The Quality Solution

October 15, 1998

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: WQCC Metals Analysis
MSAI Group: 24101

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

9809027-01C

9809027-02C

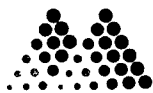
All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen
Project Manager



Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: WQCC Metals Analysis

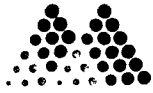
Sample ID: 9809027-01C

Matrix: Water

Ice Canyon Drip 9809141130; MW-1

MSAI Sample: 86646
MSAI Group: 24101
Date Reported: 10/15/98
Discard Date: 11/14/98
Date Submitted: 09/17/98
Date Sampled: 09/14/98
Collected by:
Purchase Order:
Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0259B	Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00050
0392I	Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w614		
0392M	Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w221		
0401	Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w631		
13001	Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
	Arsenic	ND	mg/l	0.180
	Barium	0.028	mg/l	0.015
	Cadmium	ND	mg/l	0.020
	Chromium	ND	mg/l	0.050
	Iron	ND	mg/l	1.00
	Lead	ND	mg/l	0.250
	Manganese	1.74	mg/l	0.015
	Silver	ND	mg/l	0.020
1451	Selenium by HAA, w/ww, 7742 Method: SW-846 7742	ND	mg/l	0.06
0939	Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		



Mountain States Analytical, Inc.

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Page 2

On Site Technologies, Ltd.

MSAI Sample: 86646

MSAI Group: 24101

Sample ID: 9809027-01C

ND - Not detected at the Limit of Quantitation.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

10
Years of
Quality
Service

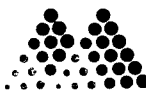
Corporate Office

1645 West 2200 South, Salt Lake City, Utah 84119
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Southwest States Region

6223 Bayonne, Spring, Texas 77389
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Mountain States Analytical, Inc.

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: WQCC Metals Analysis

MSAI Sample: 86647
MSAI Group: 24101
Date Reported: 10/15/98
Discard Date: 11/14/98
Date Submitted: 09/17/98
Date Sampled: 09/14/98
Collected by:
Purchase Order:
Project No.:

Sample ID: 9809027-02C

Matrix: Water

Ice Canyon Drip 9809141200; MW-2

Test	Analysis	Results as Received	Units	Limit of Quantitation
0259B	Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.00050
0392I	Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Batch. w614		
0392M	Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Batch. w221		
0401	Prep for HAA, w/ww, 7062/7742 Method: SW-846 7062/7742	Batch. w631		
13001	Metals by ICP, 6010A, w/ww Method: SW-846 6010A			
	Arsenic	ND	mg/l	0.180
	Barium	0.508	mg/l	0.015
	Cadmium	ND	mg/l	0.020
	Chromium	ND	mg/l	0.050
	Iron	ND	mg/l	1.00
	Lead	ND	mg/l	0.250
	Manganese	8.48	mg/l	0.015
	Silver	ND	mg/l	0.020
1451	Selenium by HAA, w/ww, 7742 Method: SW-846 7742	0.011	mg/l	0.01
0939	Sample Filtering, ww, MSAI Method: IN HOUSE MSAI	Complete		

10
Years of
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The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 86647

MSAI Group: 24101

Sample ID: 9809027-02C

ND - Not detected at the Limit of Quantitation.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

10
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Analysis Batch Number: 1451 -10/10/98-061 -2

Test Identification : 1451 -Selenium by HAA, w/ww, 7742

Sequence : DAAA287

Number of Samples : 2

Batch Data-Date/Time : 10/14/98 / 17:25:30

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW-675	Selenium	0.0019	0.0060

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
24101-86647	Selenium	0.0800	0.0110	0.0880	96.3	75.0	125.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
24101-86647	Selenium	0.0800	0.0110	0.0921	101.4	75.0	125.0	4.6	20.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
24101-86647	Selenium	0.0110	0.0076	36.6(5a)	20.0	2.00

					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCSW-675	Selenium	0.0408	0.0400	102.0	75.0	125.0

						QC LIMITS	
#	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER	
	Selenium	0.0500	0.0506	101.2	80.0	120.0	
CCV1--2	Selenium	0.0500	0.0548	109.6	80.0	120.0	

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Selenium	0.0046	0.0060
CCB1-	Selenium	0.0043	0.0060

----- Result Footnotes -----
 (5a) - Duplicates not evaluated: Results are <10x detection limit

Groups & Samples

 24101-86646 24101-86647

Analysis Batch Number: 8259 -09/25/98-147 -1

Test Identification : 8259 -Mercury by CVAA, w/ww, EPA 245.1

Sequence : 8259 -1

Number of Samples : 17

Batch Data-Date/Time : 09/28/98 / 15:39:29

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW1-221	Mercury	-0.0400	0.1000
PBW2-221-2	Mercury	-0.0480	0.1000

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
24150-86893	Mercury	2.5000	-0.0510	2.3510	96.1	80.0	120.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
24150-86893	Mercury	2.5000	-0.0510	2.3470	95.9	80.0	120.0	0.2	20.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
24150-86893	Mercury	-0.0510	-0.0490	4.0	20.0	1.00

					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCSW-221	Mercury	2.4600	2.5000	98.4	80.0	120.0

						QC LIMITS	
#	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER	
ICV-	Mercury	3.0000	2.8850	96.2	90.0	110.0	
CCV--2	Mercury	5.0000	4.9900	99.8	80.0	120.0	
CCV--3	Mercury	5.0000	5.0540	101.1	80.0	120.0	
CCV--4	Mercury	5.0000	4.9770	99.5	80.0	120.0	
CCV--5	Mercury	5.0000	4.8880	97.8	80.0	120.0	
CCV--6	Mercury	5.0000	4.9170	98.3	80.0	120.0	

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Mercury	-0.0290	0.1000
CCB-	Mercury	-0.0280	0.1000
CCB-	Mercury	-0.0290	0.1000
CCB-	Mercury	-0.0770	0.1000
CCB-	Mercury	-0.1280(1b)	0.1000
CCB-	Mercury	-0.1270(1b)	0.1000

----- Result Footnotes -----

(1b) - Blank is less than 2 times the MDL

Groups & Samples

24101-86646	24101-86647	24150-86893	24150-86896	24150-86897	24150-86898	24150-86899	24150-86900
24150-86901	24150-86902	24150-86903	24150-86904	24177-86989	24177-86990	24177-86991	24177-86992
24177-86993	24177-86994						

Analysis Batch Number: ICPWA-09/24/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATA267

Number of Samples : 10

Batch Data-Date/Time : 09/25/98 / 09:48:57

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
24103-86655	Silver	0.0040	0.0050
	Arsenic	ND	0.0350
	Barium	ND	0.0030
	Calcium	0.0780	0.3000
	Cadmium	0.0018	0.0040
	Chromium	ND	0.0100
	Copper	ND	0.0100
	Iron	0.0177	0.2000
	Potassium	ND	0.1500
	Magnesium	ND	0.0500
	Manganese	0.0005	0.0030
	Sodium	0.2964(1c)	0.1500
	Lead	ND	0.0500
	Selenium	ND	0.0600

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
24103-86651	Silver	0.0500	0.0100	0.0583	96.6	80.0	120.0
	Arsenic	2.0000	-0.0062	2.1012	105.4	80.0	120.0
	Barium	2.0000	0.0785	2.1733	104.7	80.0	120.0
	Calcium	2.0000	62.8061	66.3201	175.7(2k)	80.0	120.0
	Cadmium	0.0500	-0.0004	0.0525	105.8	80.0	120.0
	Chromium	0.2000	0.0073	0.2233	108.0	80.0	120.0
	Copper	0.2500	0.0020	0.2604	103.4	80.0	120.0
	Iron	1.0000	0.0729	1.1686	109.6	80.0	120.0
	Potassium	10.0000	1.6795	12.0145	103.3	80.0	120.0
	Magnesium	2.0000	19.7145	22.2345	126.0(2k)	80.0	120.0
	Manganese	0.5000	0.0522	0.5765	104.9	80.0	120.0
	Sodium	3.0000	79.2783	84.3427	168.8(2k)	80.0	120.0
	Lead	0.5000	-0.0139	0.5242	107.6	80.0	120.0
	Selenium	2.0000	-0.0524	2.0778	106.5	80.0	120.0

MSD						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
24103-86651	Silver	0.0500	0.0100	0.0627	105.5	80.0	120.0	7.3	20.0
	Arsenic	2.0000	-0.0062	2.0963	105.1	80.0	120.0	0.2	20.0
	Barium	2.0000	0.0785	2.1734	104.7	80.0	120.0	0.0	20.0
	Calcium	2.0000	62.8061	66.4974	184.6(2k)	80.0	120.0	0.3	20.0
	Cadmium	0.0500	-0.0004	0.0545	109.7	80.0	120.0	3.7	20.0
	Chromium	0.2000	0.0073	0.2202	106.5	80.0	120.0	1.4	20.0
	Copper	0.2500	0.0020	0.2604	103.4	80.0	120.0	0.0	20.0
	Iron	1.0000	0.0729	1.2398	116.7	80.0	120.0	5.9	20.0
	Potassium	10.0000	1.6795	11.9711	102.9	80.0	120.0	0.4	20.0
	Magnesium	2.0000	19.7145	22.3040	129.5(2k)	80.0	120.0	0.3	20.0
	Manganese	0.5000	0.0522	0.5789	105.3	80.0	120.0	0.4	20.0
	Sodium	3.0000	79.2783	83.9002	154.1(2k)	80.0	120.0	0.5	20.0
	Lead	0.5000	-0.0139	0.5298	108.7	80.0	120.0	1.1	20.0
	Selenium	2.0000	-0.0524	2.0799	106.6	80.0	120.0	0.1	20.0

Analysis Batch Number: ICPWA-09/24/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Number of Samples : 10

Batch Data-Date/Time : 09/25/98 / 09:48:57

Sequence : DATA267

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
24103-86651	Silver	0.0100	0.0097	2.8	20.0	1.00
	Arsenic	-0.0062	0.0097	922.1(11)	20.0	1.00
	Barium	0.0785	0.0787	0.3	20.0	1.00
	Calcium	62.8061	62.5343	0.4	20.0	1.00
	Cadmium	-0.0004	0.0046	237.0(5a)	20.0	1.00
	Chromium	0.0073	0.0074	1.8	20.0	1.00
	Copper	0.0020	0.0032	48.8(11)	20.0	1.00
	Iron	0.0729	0.1543	71.7(11)	20.0	1.00
	Potassium	1.6795	1.7573	4.5	20.0	1.00
	Magnesium	19.7145	19.6092	0.5	20.0	1.00
	Manganese	0.0522	0.0524	0.3	20.0	1.00
	Sodium	79.2783	78.9522	0.4	20.0	1.00
	Lead	-0.0139	0.0000	200.0(11)	20.0	1.00
	Selenium	-0.0524	0.0086	278.1(11)	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
24103-86656	Silver	0.0597	0.0500	119.5	80.0	120.0
	Arsenic	2.0574	2.0000	102.9	80.0	120.0
	Barium	2.0527	2.0000	102.6	80.0	120.0
	Calcium	2.1406	2.0000	107.0	80.0	120.0
	Cadmium	0.0560	0.0500	111.9	80.0	120.0
	Chromium	0.2189	0.2000	109.4	80.0	120.0
	Copper	0.2640	0.2500	105.6	80.0	120.0
	Iron	1.1052	1.0000	110.5	80.0	120.0
	Potassium	9.9520	10.0000	99.5	80.0	120.0
	Magnesium	2.0760	2.0000	103.8	80.0	120.0
	Manganese	0.5213	0.5000	104.3	80.0	120.0
	Sodium	3.5163	3.0000	117.2	80.0	120.0
	Lead	0.5430	0.5000	108.6	80.0	120.0
	Selenium	2.0281	2.0000	101.4	80.0	120.0

QC LIMITS

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
ICV-	Silver	0.4000	0.4064	101.6	90.0	110.0
	Arsenic	1.6000	1.6103	100.6	90.0	110.0
	Barium	4.0000	4.0834	102.1	90.0	110.0
	Calcium	40.0000	40.4738	101.2	90.0	110.0
	Cadmium	4.0000	4.1631	104.1	90.0	110.0
	Chromium	4.0000	4.1952	104.9	90.0	110.0
	Copper	4.0000	4.0853	102.1	90.0	110.0
	Iron	4.0000	4.1454	103.6	90.0	110.0
	Potassium	40.0000	40.9306	102.3	90.0	110.0
	Magnesium	20.0000	20.1841	100.9	90.0	110.0
	Manganese	4.0000	4.0954	102.4	90.0	110.0
	Sodium	40.0000	40.9969	102.5	90.0	110.0
	Lead	20.0000	21.0281	105.1	90.0	110.0
	Selenium	1.6000	1.5645	97.8	90.0	110.0
CCV1--2	Silver	0.4000	0.4194	104.8	90.0	110.0

Analysis Batch Number: ICPWA-09/24/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATA267

Number of Samples : 10

Batch Data-Date/Time : 09/25/98 / 09:48:57

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS	
					LOWER	UPPER
CCV1--2	Arsenic	1.6000	1.6432	102.7	90.0	110.0
	Barium	4.0000	4.1018	102.5	90.0	110.0
	Calcium	40.0000	40.8217	102.1	90.0	110.0
	Cadmium	4.0000	4.1723	104.3	90.0	110.0
	Chromium	4.0000	4.2290	105.7	90.0	110.0
	Copper	4.0000	4.1212	103.0	90.0	110.0
	Iron	4.0000	4.1652	104.1	90.0	110.0
	Potassium	40.0000	40.8238	102.1	90.0	110.0
	Magnesium	20.0000	20.4256	102.1	90.0	110.0
	Manganese	4.0000	4.1156	102.9	90.0	110.0
	Sodium	40.0000	41.0541	102.6	90.0	110.0
	Lead	20.0000	21.1152	105.6	90.0	110.0
	Selenium	1.6000	1.6191	101.2	90.0	110.0
CCV2--3	Silver	0.4000	0.4181	104.5	90.0	110.0
	Arsenic	1.6000	1.6383	102.4	90.0	110.0
	Barium	4.0000	4.0816	102.0	90.0	110.0
	Calcium	40.0000	41.2029	103.0	90.0	110.0
	Cadmium	4.0000	4.2039	105.1	90.0	110.0
	Chromium	4.0000	4.2519	106.3	90.0	110.0
	Copper	4.0000	4.1109	102.8	90.0	110.0
	Iron	4.0000	4.1178	102.9	90.0	110.0
	Potassium	40.0000	40.8026	102.0	90.0	110.0
	Magnesium	20.0000	20.5400	102.7	90.0	110.0
	Manganese	4.0000	4.1300	103.2	90.0	110.0
	Sodium	40.0000	40.6721	101.7	90.0	110.0
	Lead	20.0000	21.3646	106.8	90.0	110.0
	Selenium	1.6000	1.6321	102.0	90.0	110.0
CCV3--4	Silver	0.4000	0.4215	105.4	90.0	110.0
	Arsenic	1.6000	1.6202	101.3	90.0	110.0
	Barium	4.0000	4.0724	101.8	90.0	110.0
	Calcium	40.0000	41.0872	102.7	90.0	110.0
	Cadmium	4.0000	4.1762	104.4	90.0	110.0
	Chromium	4.0000	4.2272	105.7	90.0	110.0
	Copper	4.0000	4.1059	102.6	90.0	110.0
	Iron	4.0000	4.1345	103.4	90.0	110.0
	Potassium	40.0000	40.6969	101.7	90.0	110.0
	Magnesium	20.0000	20.5378	102.7	90.0	110.0
	Manganese	4.0000	4.1119	102.8	90.0	110.0
	Sodium	40.0000	40.4344	101.1	90.0	110.0
	Lead	20.0000	21.2893	106.4	90.0	110.0
	Selenium	1.6000	1.5933	99.6	90.0	110.0
CCV4--5	Silver	0.4000	0.4266	106.6	90.0	110.0
	Arsenic	1.6000	1.6460	102.9	90.0	110.0
	Barium	4.0000	4.0690	101.7	90.0	110.0
	Calcium	40.0000	41.1093	102.8	90.0	110.0
	Cadmium	4.0000	4.1940	104.8	90.0	110.0
	Chromium	4.0000	4.2412	106.0	90.0	110.0
	Copper	4.0000	4.1126	102.8	90.0	110.0
	Iron	4.0000	4.1717	104.3	90.0	110.0

Analysis Batch Number: ICPWA-09/24/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATA267

Number of Samples : 10

Batch Data-Date/Time : 09/25/98 / 09:48:57

CCV #	ANALYTE	TRUE VALUE	BATCH READ	QC LIMITS		
				% REC #	LOWER	UPPER
CCV4--5	Potassium	40.0000	40.8221	102.1	90.0	110.0
	Magnesium	20.0000	20.5457	102.7	90.0	110.0
	Manganese	4.0000	4.1232	103.1	90.0	110.0
	Sodium	40.0000	40.5592	101.4	90.0	110.0
	Lead	20.0000	21.3627	106.8	90.0	110.0
	Selenium	1.6000	1.5817	98.9	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Silver	0.0049	0.0050
	Arsenic	0.0030	0.0350
	Barium	0.0002	0.0030
	Calcium	0.0025	0.3000
	Cadmium	0.0011	0.0040
	Chromium	0.0008	0.0100
	Copper	ND	0.0100
	Iron	ND	0.2000
	Potassium	0.0556	0.1500
	Magnesium	ND	0.0500
	Manganese	0.0002	0.0030
	Sodium	ND	0.1500
	Lead	ND	0.0500
	Selenium	ND	0.0600
CCB1-	Silver	0.0056(8a)	0.0050
	Arsenic	ND	0.0350
	Barium	0.0013	0.0030
	Calcium	0.0076	0.3000
	Cadmium	0.0014	0.0040
	Chromium	0.0079	0.0100
	Copper	0.0069	0.0100
	Iron	ND	0.2000
	Potassium	0.1339	0.1500
	Magnesium	0.0169	0.0500
	Manganese	0.0001	0.0030
	Sodium	ND	0.1500
	Lead	ND	0.0500
	Selenium	0.0122	0.0600
CCB2-	Silver	0.0069(8a)	0.0050
	Arsenic	0.0092	0.0350
	Barium	0.0015	0.0030
	Calcium	0.0076	0.3000
	Cadmium	0.0012	0.0040
	Chromium	0.0057	0.0100
	Copper	0.0033	0.0100
	Iron	ND	0.2000
	Potassium	0.1043	0.1500
	Magnesium	0.0122	0.0500
	Manganese	0.0001	0.0030
	Sodium	ND	0.1500
	Lead	ND	0.0500

Analysis Batch Number: ICPWA-09/24/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATA267

Number of Samples : 10

Batch Data-Date/Time : 09/25/98 / 09:48:57

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB2-	Selenium	0.0174	0.0600
CCB3-	Silver	0.0061(8a)	0.0050
	Arsenic	0.0015	0.0350
	Barium	0.0009	0.0030
	Calcium	0.0039	0.3000
	Cadmium	0.0020	0.0040
	Chromium	0.0018	0.0100
	Copper	0.0036	0.0100
	Iron	0.0194	0.2000
	Potassium	0.0463	0.1500
	Magnesium	0.0036	0.0500
	Manganese	0.0006	0.0030
	Sodium	ND	0.1500
	Lead	ND	0.0500
	Selenium	ND	0.0600
CCB4-	Silver	0.0065(8a)	0.0050
	Arsenic	0.0039	0.0350
	Barium	0.0004	0.0030
	Calcium	0.0076	0.3000
	Cadmium	0.0037	0.0040
	Chromium	0.0015	0.0100
	Copper	0.0037	0.0100
	Iron	ND	0.2000
	Potassium	0.0385	0.1500
	Magnesium	0.0114	0.0500
	Manganese	0.0004	0.0030
	Sodium	ND	0.1500
	Lead	ND	0.0500
	Selenium	ND	0.0600

----- Result Footnotes -----

- (1c) - The preparation blank concentration is less than 5% of each sample in the batch
 (2k) - Sample concentration >4X spk added. Serial dilution was recovered within 10% limits.
 (11) - The duplicate results cannot be evaluated because both results are <MDL.
 (5a) - Duplicates not evaluated: Results are <10x detection limit
 (8a) - See comments below.

----- Batch Notes -----

The silver CCB's were within customer established limits for some samples, all others were re-analyzed. djc

Groups & Samples

24083-86559	24098-86640	24098-86641	24100-86643	24100-86644	24100-86645	24101-86646	24101-86647
24103-86651	24103-86652	24103-86655	24103-86656				

Analysis Batch Number: ICPWA-09/25/98-061 -1

Test Identification : ICPWA-*Metals by ICP

Sequence : DATB268

Number of Samples : 6

Batch Data-Date/Time : 09/25/98 / 14:53:43

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW-614	Silver	ND	0.0050

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
24103-86651	Silver	0.0500	-0.0037	0.0498	107.0	80.0	120.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
24103-86651	Silver	0.0500	-0.0037	0.0499	107.3	80.0	120.0	0.3	20.0

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
24103-86651	Silver	-0.0037	0.0000	200.0(11)	20.0	1.00

					QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
LCSW-614	Silver	0.0493	0.0500	98.5	80.0	120.0

		QC LIMITS				
#	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
	Silver	0.4000	0.4057	101.4	90.0	110.0
CCV1--2	Silver	0.4000	0.4041	101.0	90.0	110.0
CCV2--3	Silver	0.4000	0.4039	101.0	90.0	110.0
CCV3--4	Silver	0.4000	0.4055	101.4	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Silver	ND	0.0050
CCB1-	Silver	0.0004	0.0050
CCB2-	Silver	0.0017	0.0050
CCB3-	Silver	0.0029	0.0050

----- Result Footnotes -----
 (11) - The duplicate results cannot be evaluated because both results are <MDL.

Groups & Samples

 24100-86643 24100-86644 24100-86645 24101-86646 24101-86647 24103-86651

On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

Mountain States Analytical, Inc.
1645 West 2200 South

TEL: (800) 973-6724
FAX: (801) 972-6278

Salt Lake City, UT 84119

Acct #:

15-Sep-98

Sample ID	Matrix	Collection Date	Bottle Type	SW6010A	SW7470	SW7742	Requested Tests	
9809027-01C	Aqueous	9/14/98 11:30:00 AM	1LCU	6	1	1		
9809027-02C	Aqueous	9/14/98 12:00:00 PM	1LCU	6	1	1		

Comments: Please analyze two (2) water samples per WQCC Metals (Dissolved).

Relinquished by: Heidi Rees.
Relinquished by:

Date/Time
9/16/98 1530

Received by: Pam Owen MSAI
Received by:

Date/Time
9-17-98 1000

On Site Technologies, LTD.

Date: 14-Oct-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9809027

Project: Ice Canyon Drip

QC SUMMARY REPORT

Method Blank

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7027	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	.02	0.25			J

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7041	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	ND	0.25			

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7084	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	ND	0.25			

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: SW7770	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7098	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	ND	0.25			

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: M2320 B	Units: mg/L CaCO3	Analysis Date: 9/21/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7112	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Bicarbonate (As CaCO3)	3	5			J
Alkalinity, Carbonate (As CaCO3)	ND	5			
Alkalinity, Total (As CaCO3)	3	5			J

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT

Method Blank

Sample ID: MBLank	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7120	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	1.4	10			J
Sample ID: MBLank	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7125	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	3.5	10			J
Sample ID: MBLank	Batch ID: API H2O_981	Test Code: E120.1	Units: uS/cm	Analysis Date: 9/21/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7131	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Specific Conductance	ND	2			
Sample ID: MBLank	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date: 9/30/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7153	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sulfate	ND	5			
Sample ID: MBLank	Batch ID: API H2O_981	Test Code: SW7380	Units: mg/L	Analysis Date: 10/5/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7380	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	ND	0.25			

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

On Site Technologies, LTD.

Date: 14-Oct-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9809027

Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 9809027-01BD	Batch ID: API H2O_981	Test Code: M2320 B	Units: mg/L CaCO3	Analysis Date: 9/21/98	Prep Date:						
Client ID: 9809141130; MW-	9809027	Run ID: API H2O_981005A		SeqNo: 7115							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	362	5	0	0	0.0%	0	0	351	3.1%	5	
Alkalinity, Carbonate (As CaCO3)	ND	5	0	0	0.0%	0	0	0	0.0%	5	
Alkalinity, Total (As CaCO3)	362	5	0	0	0.0%	0	0	351	3.1%	5	
Sample ID: 9809027-01BD	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:						
Client ID: 9809141130; MW-	9809027	Run ID: API H2O_981005A		SeqNo: 7123							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	19	10	0	0	0.0%	0	0	20.5	7.6%	10	
Sample ID: 9809027-02BD	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date: 9/30/98	Prep Date:						
Client ID: 9809141200; MW-	9809027	Run ID: API H2O_981005A		SeqNo: 7157							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	299	5	0	0	0.0%	0	0	307	2.6%	6	
Sample ID: 9809035-04CD	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7129							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	336	10	0	0	0.0%	0	0	341	1.5%	7	

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

On Site Technologies, LTD.

Date: 14-Oct-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9809035-05CMS	Batch ID: API H2O_981	Test Code: SW7380	Units: mg/L	Analysis Date: 10/5/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7385	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	2.24	0.25	2	0.05	109.5% 66 126

Sample ID: 9809073-01BMS	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7053	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	12.6	0.25	5	7.4	104.0% 67 157

Sample ID: 9809074-02BMS	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7039	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	298	0.25	100	182	116.0% 69 159

Sample ID: 9809074-02BMS	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7096	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	66.4	0.25	20	44	112.0% 78 126

Sample ID: 9809075-02BMS	Batch ID: API H2O_981	Test Code: SW7770	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7110	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	1360	0.25	400	990	92.5% 81 135

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

On Site Technologies, LTD.

Date: 14-Oct-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M2320 B	Units: mg/L CaCO3	Analysis Date: 9/21/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7113							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	211	5	201	3	103.5%	91	116				

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7121							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	113	10	108	1	103.7%	90	114				

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M4500-CI C.	Units: mg/L	Analysis Date: 9/25/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7126							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	103	10	108	4	91.7%	90	114				

Sample ID: LCS	Batch ID: API H2O_981	Test Code: E120.1	Units: uS/cm	Analysis Date: 9/21/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7132							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Specific Conductance	1121	2	1100	0	101.9%	97	103				

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M2510 C	Units: ohm-m	Analysis Date: 9/21/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7138							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Resistivity	8.921	0.001	9.091	0	98.1%	97	103				

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

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID: LCS	Batch ID: API H2O_981	Test Code: E150.1	Units: pH units	Analysis Date: 9/21/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A	SeqNo: 7147								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	9.029	2	9.11	0	99.1%	98	102				

Sample ID: LCS	Batch ID: API H2O_981	Test Code: M4500-SO4 D	Units: mg/L	Analysis Date: 9/30/98	Prep Date:						
Client ID:	9809027	Run ID: API H2O_981005A	SeqNo: 7154								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate	143	5	139	0	102.9%	83	113				

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

On Site Technologies, LTD.

Date: 14-Oct-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV1	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L			Analysis Date: 10/2/98			Prep Date:		
Client ID:	9809027	Run ID:	API H2O_981005A			SeqNo:		7028			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	1.98	0.25	1.95	0	101.5%	89	107				

Sample ID: CCV1	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L			Analysis Date: 10/2/98			Prep Date:		
Client ID:	9809027	Run ID:	API H2O_981005A			SeqNo:		7042			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	2.65	0.25	2.68	0	98.9%	84	114				

Sample ID: CCV1	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L			Analysis Date: 10/2/98			Prep Date:		
Client ID:	9809027	Run ID:	API H2O_981005A			SeqNo:		7085			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	1.61	0.25	1.58	0	101.9%	96	114				

Sample ID: CCV1	Batch ID: API H2O_981	Test Code: SW7770	Units: mg/L			Analysis Date: 10/2/98			Prep Date:		
Client ID:	9809027	Run ID:	API H2O_981005A			SeqNo:		7099			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	2.84	0.25	2.64	0	107.6%	87	111				

Sample ID: CCV1	Batch ID: API H2O_981	Test Code: SW7380	Units: mg/L			Analysis Date: 10/5/98			Prep Date:		
Client ID:	9809027	Run ID:	API H2O_981005A			SeqNo:		7381			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	2.17	0.25	2	0	108.5%	87	111				

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2	Batch ID: API H2O_981	Test Code: SW7140	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7040	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Calcium	1.98	0.25	1.95	0	101.5% 89 107

Sample ID: CCV2	Batch ID: API H2O_981	Test Code: SW7610	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7054	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Potassium	2.66	0.25	2.68	0	99.3% 84 114

Sample ID: CCV2	Batch ID: API H2O_981	Test Code: SW7450	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7097	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Magnesium	1.62	0.25	1.58	0	102.5% 96 114

Sample ID: CCV2	Batch ID: API H2O_981	Test Code: SW7770	Units: mg/L	Analysis Date: 10/2/98	Prep Date:
Client ID:	9809027	Run ID: API H2O_981005A		SeqNo: 7111	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	2.8	0.25	2.64	0	106.1% 87 111

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

On Site Technologies, LTD.

Date: 27-Oct-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT
Method Blank

Sample ID: MB1	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98	Prep Date:						
Client ID:	9809027	Run ID: GC-1_980921A		SeqNo: 6730							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0421	1									J
Ethylbenzene	.0623	1									J
m,p-Xylene	.1705	2									J
o-Xylene	.1247	1									J
Toluene	.1509	1									J

Sample ID: MB1	Batch ID: GC-1_980922	Test Code: SW8020A	Units: µg/L	Analysis Date 9/22/98	Prep Date:						
Client ID:	9809027	Run ID: GC-1_980922A		SeqNo: 6744							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0445	1									J
Ethylbenzene	ND	1									
m,p-Xylene	ND	2									
o-Xylene	.0627	1									J
Toluene	.1011	1									J

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

On Site Technologies, LTD.

Date: 27-Oct-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9809027

Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9809031-02AMS	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98				Prep Date:			
Client ID: 9809027	Run ID: GC-1_980921A	SeqNo: 6731									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	191.1	5	200	0.4255	95.3%	56	128				
Ethylbenzene	211.5	5	200	0.4985	105.5%	78	107				
m,p-Xylene	414.5	10	400	2.556	103.0%	67	118				
o-Xylene	201.8	5	200	0.3315	100.8%	78	107				
Toluene	204.9	5	200	1.194	101.8%	74	116				

Sample ID: 9809031-02AMSD	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98				Prep Date:			
Client ID: 9809027	Run ID: GC-1_980921A	SeqNo: 6732									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	184.1	5	200	0.4255	91.8%	56	128	191.1	3.7%	12	
Ethylbenzene	206.4	5	200	0.4985	103.0%	78	107	211.5	2.4%	11	
m,p-Xylene	404.8	10	400	2.556	100.6%	67	118	414.5	2.4%	10	
o-Xylene	196.7	5	200	0.3315	98.2%	78	107	201.8	2.6%	14	
Toluene	199.3	5	200	1.194	99.1%	74	116	204.9	2.7%	14	

Sample ID: 9809055-03AMS	Batch ID: GC-1_980922	Test Code: SW8020A	Units: µg/L	Analysis Date 9/22/98				Prep Date:			
Client ID: 9809027	Run ID: GC-1_980922A	SeqNo: 6745									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	185.3	5	200	1.291	92.0%	56	128				
Ethylbenzene	201.4	5	200	3.72	98.9%	78	107				
m,p-Xylene	416.4	10	400	23.92	98.1%	67	118				
o-Xylene	205.7	5	200	10.49	97.6%	78	107				
Toluene	200.6	5	200	9.649	95.5%	74	116				

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT
Sample Matrix Spike Duplicate

Sample ID: 9809055-03AMSD	Batch ID: GC-1_980922	Test Code: SW8020A	Units: µg/L	Analysis Date: 9/22/98	Prep Date:						
Client ID:	9809027	Run ID: GC-1_980922A		SeqNo: 6746							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	180.8	5	200	1.291	89.8%	56	128	185.3	2.5%	12	
Ethylbenzene	193.3	5	200	3.72	94.8%	78	107	201.4	4.1%	11	
m,p-Xylene	406.1	10	400	23.92	95.6%	67	118	416.4	2.5%	10	
o-Xylene	204.2	5	200	10.49	96.9%	78	107	205.7	0.7%	14	
Toluene	197.3	5	200	9.649	93.8%	74	116	200.6	1.7%	14	

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

On Site Technologies, LTD.

Date: 27-Oct-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9809027

Project: Ice Canyon Drip

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98				Prep Date:			
Client ID:	9809027	Run ID:	GC-1_980921A	SeqNo: 6729							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.51	1	40	0.0421	98.7%	56	128				S ✓
Ethylbenzene	43.12	1	40	0.0623	107.6%	78	107				
m,p-Xylene	85.18	2	80	0.1705	106.3%	67	118				
o-Xylene	42.33	1	40	0.1247	105.5%	78	107				
Toluene	41.78	1	40	0.1509	104.1%	74	116				

S ✓
10/20/98
42
10/27/98

Sample ID: LCS WATER	Batch ID: GC-1_980922	Test Code: SW8020A	Units: µg/L			Analysis Date 9/22/98			Prep Date:		
Client ID:	9809027	Run ID:	GC-1_980922A			SeqNo:		6743			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.03	1	40	0.0445	97.5%	56	128				
Ethylbenzene	41.56	1	40	0	103.9%	78	107				
m,p-Xylene	82.54	2	80	0	103.2%	67	118				
o-Xylene	40.95	1	40	0.0627	102.2%	78	107				
Toluene	40.15	1	40	0.1011	100.1%	74	116				

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

On Site Technologies, LTD.

Date: 27-Oct-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9809027

Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L			Analysis Date 9/21/98			Prep Date:		
Client ID:	9809027	Run ID:	GC-1_980921A			SeqNo:		6726			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.22	1	20	0	101.1%	85	115				
Ethylbenzene	22.23	1	20	0	111.2%	85	115				
m,p-Xylene	43.6	2	40	0	109.0%	85	115				
o-Xylene	21.64	1	20	0	108.2%	85	115				
Toluene	21.52	1	20	0	107.6%	85	115				
1,4-Difluorobenzene	88.91	0	100	0	88.9%	70	130				
4-Bromochlorobenzene	79.55	0	100	0	79.5%	70	130				
Fluorobenzene	85.36	0	100	0	85.4%	70	130				

Sample ID: CCV2 QC0606/07	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98				Prep Date:			
Client ID:	9809027	Run ID:	GC-1_980921A			SeqNo:	6727				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.84	1	20	0	99.2%	85	115				
Ethylbenzene	21.74	1	20	0	108.7%	85	115				
m,p-Xylene	42.67	2	40	0	106.7%	85	115				
o-Xylene	20.81	1	20	0	104.1%	85	115				
Toluene	20.98	1	20	0	104.9%	85	115				
1,4-Difluorobenzene	88.7	0	100	0	88.7%	70	130				
4-Bromochlorobenzene	69.55	0	100	0	69.6%	70	130				S
Fluorobenzene	85.39	0	100	0	85.4%	70	130				

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_980921		Test Code: SW8020A		Units: µg/L		Analysis Date 9/21/98		Prep Date:	
Client ID:		9809027		Run ID:		GC-1_980921A		SeqNo: 6728			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.58	1	40	0	93.9%	85	115				
Ethylbenzene	41.94	1	40	0	104.8%	85	115				
m,p-Xylene	82.28	2	80	0	102.9%	85	115				
o-Xylene	40.08	1	40	0	100.2%	85	115				
Toluene	40.64	1	40	0	101.6%	85	115				
1,4-Difluorobenzene	87.81	0	100	0	87.8%	70	130				
4-Bromochlorobenzene	63.38	0	100	0	63.4%	70	130				S
Fluorobenzene	84.05	0	100	0	84.0%	70	130				

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_980922		Test Code: SW8020A		Units: µg/L		Analysis Date 9/22/98			Prep Date:	
Client ID:		9809027		Run ID:		GC-1_980922A		SeqNo: 6741				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	20.18	1	20	0	100.9%	85	115					
Ethylbenzene	21.48	1	20	0	107.4%	85	115					
m,p-Xylene	42.26	2	40	0	105.6%	85	115					
o-Xylene	20.9	1	20	0	104.5%	85	115					
Toluene	20.74	1	20	0	103.7%	85	115					
1,4-Difluorobenzene	91.14	0	100	0	91.1%	70	130					
4-Bromochlorobenzene	80.67	0	100	0	80.7%	70	130					
Fluorobenzene	91.16	0	100	0	91.2%	70	130					

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_980922		Test Code: SW8020A		Units: µg/L		Analysis Date 9/22/98			Prep Date:	
Client ID:		9809027		Run ID: GC-1_980922A		SeqNo: 6742						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	19.67	1	20	0	98.3%	85	115					
Ethylbenzene	20.87	1	20	0	104.3%	85	115					
m,p-Xylene	41.74	2	40	0	104.3%	85	115					
o-Xylene	20.89	1	20	0	104.5%	85	115					
Toluene	20.77	1	20	0	103.9%	85	115					
1,4-Difluorobenzene	91.19	0	100	0	91.2%	70	130					
4-Bromochlorobenzene	64.62	0	100	0	64.6%	70	130				S	
Fluorobenzene	89.76	0	100	0	89.8%	70	130					

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: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ
9809027-01A	88.5	71	85
9809027-02A	86	58.3 *	82.6
9809027-03A	87.8	58.5 *	84.3
9809027-04A	88.6	78.6	88.4
9809027-05A	87.2	67.7 *	84.1
9809028-01A	79	39.9 *	75.7
9809029-01A	86.3	58 *	83.2
9809030-01A	88.8	64 *	84.6
9809031-01A	86.8	55.5 *	80
9809031-02A	89.3	70.7	85.1
9809031-02AMS	88.3	66.9 *	84.2
9809031-02AMSD	87.7	63.8 *	83.8
9809031-03A	82.7	40.8 *	78
9809033-01A	83.4	44.6 *	79.4
9809034-01A	89.9	71	85.8
9809034-02A	83.8	61.4 *	82.2
9809034-03A	89.3	76	85.4
9809034-04A	89.3	69.8 *	85.3
9809034-05A	87.6	55.7 *	83.1
9809035-01A	78.8	36.9 *	74.3
9809035-02A	87.3	53.2 *	82.7
9809035-03A	91.2	62.8 *	90.1
9809035-04A	91	66.5 *	90.6
9809035-05A	90.9	65.2 *	90
9809051-01A	86.7	45.2 *	85.4
9809051-02A	88.3	56.2 *	87.9
9809051-03A	91	60.9 *	89.9

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

CLIENT: PNM - Public Service Company of NM
Work Order: 9809027
Project: Ice Canyon Drip
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ
9809055-03A	90.4	56.8 *	89.4
9809055-03AMS	90.7	76.5	90.3
9809055-03AMSD	90.2	75.4	90.3
CCV1 QC0606/07	91.1	80.7	91.2
CCV2 QC0606/07	91.2	64.6 *	89.8
CCV3 QC0606/07	87.8	63.4 *	84
LCS WATER	91.3	83.3	90.7
MBI	92.4	80	91.3

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

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

OFF: (505) 325-5667



LAB: (505) 325-1556

December 15, 1998

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

4th Quarter 1998

RE: Ice Canyon Drip

Order No.: 9812024

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 12/10/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8020A)

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox", written in a cursive style.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD:

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Project: Ice Canyon Drip

Lab Order: 9812024

CASE NARRATIVE

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

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9812024	Client Sample ID:	9812091330; MW-1
Lab ID:	9812024-01A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	12/9/98 1:30:00 PM
		COC Record:	7304

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	ND	1		µg/L	1	12/11/98
Toluene	ND	1		µg/L	1	12/11/98
Ethylbenzene	ND	1		µg/L	1	12/11/98
m,p-Xylene	ND	2		µg/L	1	12/11/98
o-Xylene	ND	1		µg/L	1	12/11/98

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9812024	Client Sample ID:	9812091350; MW-2
Lab ID:	9812024-02A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	12/9/98 1:50:00 PM
		COC Record:	7304

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	3800	50		µg/L	50	12/11/98
Toluene	1500	50		µg/L	50	12/11/98
Ethylbenzene	540	50		µg/L	50	12/11/98
m,p-Xylene	5800	100		µg/L	50	12/11/98
o-Xylene	780	50		µg/L	50	12/11/98

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9812024	Client Sample ID:	9812091410; MW-3
Lab ID:	9812024-03A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	12/9/98 2:10:00 PM
		COC Record:	7304

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	ND	1		µg/L	1	12/11/98
Toluene	ND	1		µg/L	1	12/11/98
Ethylbenzene	ND	1		µg/L	1	12/11/98
m,p-Xylene	ND	2		µg/L	1	12/11/98
o-Xylene	ND	1		µg/L	1	12/11/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Dec-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9812024	Client Sample ID:	9812091430; MW-4
Lab ID:	9812024-04A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	12/9/98 2:30:00 PM
		COC Record:	7304

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: HR
Benzene	450	10		µg/L	10	12/11/98
Toluene	650	10		µg/L	10	12/11/98
Ethylbenzene	48	10		µg/L	10	12/11/98
m,p-Xylene	220	20		µg/L	10	12/11/98
o-Xylene	46	10		µg/L	10	12/11/98

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 15-Dec-98

Client: PNM - Public Service Company of NM
Work Order: 9812024
Lab ID: 9812024-05A **Matrix:** AQUEOUS
Project: Ice Canyon Drip

Client Sample Info: Ice Canyon Drip
Client Sample ID: 9812091450; MW-5
Collection Date: 12/9/98 2:50:00 PM
COC Record: 7304

MW-4
Duplicate

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: HR		
Benzene	420	10		µg/L	10	12/11/98
Toluene	610	10		µg/L	10	12/11/98
Ethylbenzene	47	10		µg/L	10	12/11/98
m,p-Xylene	210	20		µg/L	10	12/11/98
o-Xylene	46	10		µg/L	10	12/11/98

Qualifiers:
PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9812024

Project: Ice Canyon Drip

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L	Analysis Date 12/11/98				Prep Date:			
Client ID:	9812024	Run ID:	GC-1_981211A	SeqNo: 9492							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.2564	1									J
Ethylbenzene	.1588	1									J
m,p-Xylene	.4285	2									J
o-Xylene	.1668	1									J
Toluene	.4123	1									J

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

On Site Technologies, LTD.

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9812024

Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9812009-01AMS	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L			Analysis Date 12/11/98			Prep Date:		
Client ID:	9812024	Run ID:	GC-1_981211A			SeqNo: 9493					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	256.4	5	200	75.59	90.4%	56	128				
Ethylbenzene	205.3	5	200	16.65	94.3%	78	107				
m,p-Xylene	476.6	10	400	118.2	89.6%	67	118				
o-Xylene	225.2	5	200	38.78	93.2%	78	107				
Toluene	423.2	5	200	256.6	83.3%	74	116				

Sample ID: 9812009-01AMSD	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L	Analysis Date 12/11/98				Prep Date:			
Client ID:	9812024	Run ID:	GC-1_981211A	SeqNo: 9494							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	254.8	5	200	75.59	89.6%	56	128	256.4	0.6%	12	
Ethylbenzene	204.5	5	200	16.65	93.9%	78	107	205.3	0.4%	11	
m,p-Xylene	474.4	10	400	118.2	89.1%	67	118	476.6	0.5%	10	
o-Xylene	224.5	5	200	38.78	92.8%	78	107	225.2	0.3%	14	
Toluene	421.2	5	200	256.6	82.3%	74	116	423.2	0.5%	14	

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

On Site Technologies, LTD.

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9812024

Project: Ice Canyon Drip

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L		Analysis Date 12/11/98			Prep Date:			
Client ID:	9812024	Run ID:	GC-1_981211A		SeqNo: 9491						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.16	1	40	0.2564	97.3%	56	128				
Ethylbenzene	39.55	1	40	0.1588	98.5%	78	107				
m,p-Xylene	77.38	2	80	0.4285	96.2%	67	118				
o-Xylene	39.81	1	40	0.1668	99.1%	78	107				
Toluene	39.36	1	40	0.4123	97.4%	74	116				

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

On Site Technologies, LTD.

Date: 15-Dec-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9812024

Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L	Analysis Date 12/11/98				Prep Date:			
Client ID:	9812024	Run ID:	GC-1_981211A	SeqNo: 9486							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.65	1	20	0	103.2%	85	115				
Ethylbenzene	20.89	1	20	0	104.4%	85	115				
m,p-Xylene	40.66	2	40	0	101.7%	85	115				
o-Xylene	20.99	1	20	0	105.0%	85	115				
Toluene	20.86	1	20	0	104.3%	85	115				
1,4-Difluorobenzene	90.02	0	100	0	90.0%	70	130				
4-Bromochlorobenzene	97.45	0	100	0	97.5%	70	130				
Fluorobenzene	88.69	0	100	0	88.7%	70	130				

Sample ID: CCV2 QC0606/07	Batch ID: GC-1_981211	Test Code: SW8020A	Units: µg/L	Analysis Date 12/11/98				Prep Date:			
Client ID:	9812024	Run ID:	GC-1_981211A	SeqNo: 9487							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.17	1	20	0	100.9%	85	115				
Ethylbenzene	20.37	1	20	0	101.9%	85	115				
m,p-Xylene	39.6	2	40	0	99.0%	85	115				
o-Xylene	20.61	1	20	0	103.1%	85	115				
Toluene	20.37	1	20	0	101.8%	85	115				
1,4-Difluorobenzene	89.98	0	100	0	90.0%	70	130				
4-Bromochlorobenzene	97.79	0	100	0	97.8%	70	130				
Fluorobenzene	88.58	0	100	0	88.6%	70	130				

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: PNM - Public Service Company of NM
Work Order: 9812024
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_981211		Test Code: SW8020A		Units: µg/L		Analysis Date 12/11/98		Prep Date:	
Client ID: 9812024		Run ID: GC-1_981211A				SeqNo: 9488					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.19	1	40	0	95.5%	85	115				
Ethylbenzene	38.64	1	40	0	96.6%	85	115				
m,p-Xylene	75.65	2	80	0	94.6%	85	115				
o-Xylene	39.11	1	40	0	97.8%	85	115				
Toluene	38.57	1	40	0	96.4%	85	115				
1,4-Difluorobenzene	89.69	0	100	0	89.7%	70	130				
4-Bromochlorobenzene	98.67	0	100	0	98.7%	70	130				
Fluorobenzene	89.01	0	100	0	89.0%	70	130				

Sample ID: CCV4 QC0606/07		Batch ID: GC-1_981211		Test Code: SW8020A		Units: µg/L		Analysis Date 12/11/98		Prep Date:	
Client ID: 9812024		Run ID: GC-1_981211A				SeqNo: 9489					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.66	1	20	0	103.3%	85	115				
Ethylbenzene	20.96	1	20	0	104.8%	85	115				
m,p-Xylene	40.56	2	40	0	101.4%	85	115				
o-Xylene	21.22	1	20	0	106.1%	85	115				
Toluene	20.77	1	20	0	103.9%	85	115				
1,4-Difluorobenzene	90.18	0	100	0	90.2%	70	130				
4-Bromochlorobenzene	97.08	0	100	0	97.1%	70	130				
Fluorobenzene	88.52	0	100	0	88.5%	70	130				

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: PNM - Public Service Company of NM
Work Order: 9812024
Project: Ice Canyon Drip

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV5 QC0606/07		Batch ID: GC-1_981211		Test Code: SW8020A		Units: µg/L		Analysis Date 12/11/98		Prep Date:	
Client ID: 9812024		Run ID: GC-1_981211A		SeqNo: 9490							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.21	1	20	0	101.0%	85	115				
Ethylbenzene	20.51	1	20	0	102.6%	85	115				
m,p-Xylene	39.72	2	40	0	99.3%	85	115				
o-Xylene	20.91	1	20	0	104.5%	85	115				
Toluene	20.42	1	20	0	102.1%	85	115				
1,4-Difluorobenzene	89.72	0	100	0	89.7%	70	130				
4-Bromochlorobenzene	98.29	0	100	0	98.3%	70	130				
Fluorobenzene	88.64	0	100	0	88.6%	70	130				

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: PNM - Public Service Company of NM

Work Order: 9812024

Project: Ice Canyon Drip

Test No: SW8020A

**QC SUMMARY REPORT
SURROGATE RECOVERIES****BTEX**

Sample ID	14FBZ	4BCBZ	FLBZ
9812009-01A	89.7	97.4	89
9812009-01AMS	89.2	98.3	88.8
9812009-01AMSD	89.7	98.5	88.4
9812021-01A	88	96.2	89.7
9812021-02A	88.5	96.4	87.5
9812021-03A	89.4	98.4	88.3
9812024-01A	89.8	97.8	88.7
9812024-02A	89.8	124	89.2
9812024-03A	90	97.6	88.6
9812024-04A	90.2	98.3	89.5
9812024-05A	89.5	99	88.6
9812025-01A	86.1	92	84.6
9812025-02A	89.9	98.5	88.9
9812025-03A	89.9	98.2	88.6
9812025-04A	89.6	97.9	88.8
CCV1 QC0606/07	90	97.4	88.7
CCV2 QC0606/07	90	97.8	88.6
CCV3 QC0606/07	89.7	98.7	89
CCV4 QC0606/07	90.2	97.1	88.5
CCV5 QC0606/07	89.7	98.3	88.6
LCS WATER	89.6	97.8	89
MB1	90.4	96	89.2

Acronym**Surrogate****QC Limits**

14FBZ

= 1,4-Difluorobenzene

70-130

4BCBZ

= 4-Bromochlorobenzene

70-130

FLBZ

= Fluorobenzene

70-130

* Surrogate recovery outside acceptance limits

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

OFF: (505) 325-5667



LAB: (505) 325-1556

February 23, 1999

Maureen Gannon
PNM - Public Service Company of NM
Alvarado Square Mail Stop 0408
Albuquerque, NM 87158
TEL: (505) 241-2974
FAX (505) 241-2340

1st Quarter 1999

Rec. Mar. 02 99

RE: Ice Canyon Drip

Order No.: 9902060

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 2/10/99 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8021B)

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "D. Cox" or similar, with a stylized flourish at the end.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 23-Feb-99

CLIENT: PNM - Public Service Company of NM
Project: Ice Canyon Drip
Lab Order: 9902060

CASE NARRATIVE

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

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

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

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9902060	Client Sample ID:	9902101310; MW-1
Lab ID:	9902060-01A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	2/10/99 1:10:00 PM
		COC Record:	7371

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	ND	0.5		µg/L	1	2/16/99
Toluene	ND	0.5		µg/L	1	2/16/99
Ethylbenzene	ND	0.5		µg/L	1	2/16/99
m,p-Xylene	ND	1		µg/L	1	2/16/99
o-Xylene	ND	0.5		µg/L	1	2/16/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9902060	Client Sample ID:	9902101341; MW-2
Lab ID:	9902060-02A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	2/10/99 1:41:00 PM
		COC Record:	7371

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	5100	25		µg/L	50	2/16/99
Toluene	3100	25		µg/L	50	2/16/99
Ethylbenzene	640	25		µg/L	50	2/16/99
m,p-Xylene	7100	50		µg/L	50	2/16/99
o-Xylene	1500	25		µg/L	50	2/16/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9902060	Client Sample ID:	9902101418; MW-3
Lab ID:	9902060-03A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	2/10/99 2:18:00 PM
		COC Record:	7371

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	ND	0.5		µg/L	1	2/16/99
Toluene	ND	0.5		µg/L	1	2/16/99
Ethylbenzene	ND	0.5		µg/L	1	2/16/99
m,p-Xylene	ND	1		µg/L	1	2/16/99
o-Xylene	ND	0.5		µg/L	1	2/16/99

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Feb-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Ice Canyon Drip
Work Order:	9902060	Client Sample ID:	9902101449; MW-4
Lab ID:	9902060-04A	Matrix:	AQUEOUS
Project:	Ice Canyon Drip	Collection Date:	2/10/99 2:49:00 PM
		COC Record:	7371

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	1400	10		µg/L	20	2/17/99
Toluene	3100	10		µg/L	20	2/17/99
Ethylbenzene	150	10		µg/L	20	2/17/99
m,p-Xylene	820	20		µg/L	20	2/17/99
o-Xylene	180	10		µg/L	20	2/17/99

Qualifiers:	PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
	ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
	J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
	B - Analyte detected in the associated Method Blank	Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 23-Feb-99

Client: PNM - Public Service Company of NM
Work Order: 9902060
Lab ID: 9902060-05A **Matrix:** AQUEOUS
Project: Ice Canyon Drip

Client Sample Info: Ice Canyon Drip
Client Sample ID: 9902101520; MW-5
Collection Date: 2/10/99 3:20:00 PM
COC Record: 7371

MW-2 Duplicate

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: HR
Benzene	4900	25		µg/L	50	2/17/99
Toluene	2900	25		µg/L	50	2/17/99
Ethylbenzene	610	25		µg/L	50	2/17/99
m,p-Xylene	6700	50		µg/L	50	2/17/99
o-Xylene	1400	25		µg/L	50	2/17/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 23-Feb-99

CLIENT: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip

QC SUMMARY REPORT
Method Blank

Sample ID: MB1 Batch ID: GC-1_990216 Test Code: SW8021B Units: µg/L Analysis Date 2/16/99 Prep Date:

Client ID: 9902060 Run ID: GC-1_990216A SeqNo: 11158

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0456	0.5									J
Ethylbenzene	.0406	0.5									J
m,p-Xylene	.1017	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.0444	0.5									J
Toluene	.1013	0.5									J

Sample ID: MB1 Batch ID: GC-1_990217 Test Code: SW8021B Units: µg/L Analysis Date 2/17/99 Prep Date:

Client ID: 9902060 Run ID: GC-1_990217A SeqNo: 11133

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0423	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.0269	0.5									J
Toluene	.1228	0.5									J

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

On Site Technologies, LTD.

Date: 23-Feb-99

CLIENT: PNM - Public Service Company of NM

Work Order: 9902060

Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9902064-01AMS	Batch ID: GC-1_990216	Test Code: SW8021B	Units: µg/L			Analysis Date 2/16/99			Prep Date:		
Client ID:	9902060	Run ID:	GC-1_990216A			SeqNo:	11159				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	208.4	2.5	200	18.29	95.1%	73	115				
Ethylbenzene	212.9	2.5	200	27.38	92.8%	74	117				
m,p-Xylene	738.5	5	400	382.3	89.0%	76	112				
Methyl tert-Butyl Ether	204	5	200	40.74	81.6%	62	122				
o-Xylene	219.6	2.5	200	34.65	92.5%	83	112				
Toluene	208.2	2.5	200	33.82	87.2%	71	120				

Sample ID: 9902064-01AMSD	Batch ID: GC-1_990216	Test Code: SW8021B	Units: µg/L	Analysis Date 2/16/99				Prep Date:			
Client ID:	9902060	Run ID:	GC-1_990216A		SeqNo:		11160				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	205.4	2.5	200	18.29	93.5%	73	115	208.4	1.5%	8	
Ethylbenzene	209	2.5	200	27.38	90.8%	74	117	212.9	1.9%	9	
m,p-Xylene	725.4	5	400	382.3	85.8%	76	112	738.5	1.8%	9	
Methyl tert-Butyl Ether	200	5	200	40.74	79.6%	62	122	204	2.0%	7	
o-Xylene	216.4	2.5	200	34.65	90.9%	83	112	219.6	1.5%	9	
Toluene	196.2	2.5	200	33.82	81.2%	71	120	208.2	5.9%	9	

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: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9902063-02AMS	Batch ID: GC-1_990217	Test Code: SW8021B	Units: µg/L			Analysis Date 2/17/99			Prep Date:		
Client ID:	9902060	Run ID:	GC-1_990217A			SeqNo:		11134			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	621.5	2.5	200	432.8	94.3%	73	115				
Ethylbenzene	202.6	2.5	200	0.762	100.9%	74	117				
m,p-Xylene	388.5	5	400	1.306	96.8%	76	112				
Methyl tert-Butyl Ether	205	5	200	0	102.5%	62	122				
o-Xylene	202.5	2.5	200	0.9555	100.8%	83	112				
Toluene	200.7	2.5	200	0.763	100.0%	71	120				

Sample ID: 9902063-02AMSD	Batch ID: GC-1_990217	Test Code: SW8021B	Units: µg/L			Analysis Date 2/17/99			Prep Date:		
Client ID:	9902060	Run ID:	GC-1_990217A			SeqNo:		11135			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	631.3	2.5	200	432.8	99.2%	73	115	621.5	1.6%	8	
Ethylbenzene	205.6	2.5	200	0.762	102.4%	74	117	202.6	1.5%	9	
m,p-Xylene	393.8	5	400	1.306	98.1%	76	112	388.5	1.4%	9	
Methyl tert-Butyl Ether	203.6	5	200	0	101.8%	62	122	205	0.7%	7	
o-Xylene	205.2	2.5	200	0.9555	102.1%	83	112	202.5	1.3%	9	
Toluene	203.8	2.5	200	0.763	101.5%	71	120	200.7	1.5%	9	

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

On Site Technologies, LTD.

Date: 23-Feb-99

CLIENT: PNM - Public Service Company of NM

Work Order: 9902060

Project: Ice Canyon Drip

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_990216	Test Code: SW8021B	Units: µg/L	Analysis Date 2/16/99				Prep Date:			
Client ID:	9902060	Run ID: GC-1_990216A	SeqNo: 11157								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.2	0.5	40	0.0456	100.4%	84	110				
Ethylbenzene	40.73	0.5	40	0.0406	101.7%	86	113				
m,p-Xylene	78.45	1	80	0.1017	97.9%	81	114				
Methyl tert-Butyl Ether	41.75	1	40	0	104.4%	69	129				
o-Xylene	40.64	0.5	40	0.0444	101.5%	86	112				
Toluene	40.36	0.5	40	0.1013	100.6%	85	111				

Sample ID: LCS WATER	Batch ID: GC-1_990217	Test Code: SW8021B	Units: µg/L	Analysis Date 2/17/99				Prep Date:			
Client ID:	9902060	Run ID: GC-1_990217A	SeqNo: 11132								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.99	0.5	40	0.0423	99.9%	84	110				
Ethylbenzene	40.12	0.5	40	0	100.3%	86	113				
m,p-Xylene	77.23	1	80	0	96.5%	81	114				
Methyl tert-Butyl Ether	41.32	1	40	0	103.3%	69	129				
o-Xylene	39.98	0.5	40	0.0269	99.9%	86	112				
Toluene	39.75	0.5	40	0.1228	99.1%	85	111				

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

On Site Technologies, LTD.

Date: 23-Feb-99

CLIENT: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07	Batch ID: GC-1_990216	Test Code: SW8021B	Units: µg/L			Analysis Date 2/16/99			Prep Date:		
Client ID:	9902060	Run ID:	GC-1_990216A			SeqNo:		11154			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.53	0.5	20	0	102.6%	85	115				
Ethylbenzene	20.79	0.5	20	0	103.9%	85	115				
m,p-Xylene	39.96	1	40	0	99.9%	85	115				
Methyl tert-Butyl Ether	20.9	1	20	0	104.5%	85	115				
o-Xylene	20.73	0.5	20	0	103.6%	85	115				
Toluene	20.53	0.5	20	0	102.7%	85	115				
1,4-Difluorobenzene	93.7	0	100	0	93.7%	84	100				
4-Bromochlorobenzene	96.58	0	100	0	96.6%	87	105				
Fluorobenzene	93.28	0	100	0	93.3%	87	99				

Sample ID: CCV2 QC0606/07	Batch ID: GC-1_990216	Test Code: SW8021B	Units: µg/L			Analysis Date 2/16/99			Prep Date:		
Client ID:	9902060	Run ID:	GC-1_990216A			SeqNo:	11155				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.81	0.5	20	0	104.0%	85	115				
Ethylbenzene	21.09	0.5	20	0	105.4%	85	115				
m,p-Xylene	40.47	1	40	0	101.2%	85	115				
Methyl tert-Butyl Ether	20.8	1	20	0	104.0%	85	115				
o-Xylene	21.01	0.5	20	0	105.0%	85	115				
Toluene	20.89	0.5	20	0	104.5%	85	115				
1,4-Difluorobenzene	93.54	0	100	0	93.5%	84	100				
4-Bromochlorobenzene	97.32	0	100	0	97.3%	87	105				
Fluorobenzene	93.55	0	100	0	93.6%	87	99				

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: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_990216	Test Code: SW8021B		Units: µg/L		Analysis Date 2/16/99		Prep Date:		
Client ID: 9902060		Run ID: GC-1_990216A		SeqNo: 11156							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.78	0.5	40	0	104.4%	85	115				
Ethylbenzene	40.52	0.5	40	0	101.3%	85	115				
m,p-Xylene	77.9	1	80	0	97.4%	85	115				
Methyl tert-Butyl Ether	40.67	1	40	0	101.7%	85	115				
o-Xylene	40.4	0.5	40	0	101.0%	85	115				
Toluene	40.32	0.5	40	0	100.8%	85	115				
1,4-Difluorobenzene	93.87	0	100	0	93.9%	84	100				
4-Bromochlorobenzene	97.43	0	100	0	97.4%	87	105				
Fluorobenzene	93.97	0	100	0	94.0%	87	99				

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_990217	Test Code: SW8021B		Units: µg/L		Analysis Date 2/17/99		Prep Date:		
Client ID: 9902060		Run ID: GC-1_990217A		SeqNo: 11129							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.27	0.5	20	0	106.3%	85	115				
Ethylbenzene	21.16	0.5	20	0	105.8%	85	115				
m,p-Xylene	40.62	1	40	0	101.5%	85	115				
Methyl tert-Butyl Ether	21.15	1	20	0	105.8%	85	115				
o-Xylene	21.08	0.5	20	0	105.4%	85	115				
Toluene	21.04	0.5	20	0	105.2%	85	115				
1,4-Difluorobenzene	93.24	0	100	0	93.2%	84	100				
4-Bromochlorobenzene	97.55	0	100	0	97.6%	87	105				
Fluorobenzene	94.06	0	100	0	94.1%	87	99				

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: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_990217	Test Code: SW8021B		Units: µg/L	Analysis Date 2/17/99			Prep Date:		
Client ID: 9902060		Run ID: GC-1_990217A				SeqNo: 11130					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.68	0.5	20	0	108.4%	85	115				
Ethylbenzene	21.52	0.5	20	0	107.6%	85	115				
m,p-Xylene	41.22	1	40	0	103.1%	85	115				
Methyl tert-Butyl Ether	20.81	1	20	0	104.1%	85	115				
o-Xylene	21.42	0.5	20	0	107.1%	85	115				
Toluene	21.42	0.5	20	0	107.1%	85	115				
1,4-Difluorobenzene	94.01	0	100	0	94.0%	84	100				
4-Bromochlorobenzene	96.02	0	100	0	96.0%	87	105				
Fluorobenzene	94.09	0	100	0	94.1%	87	99				

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_990217	Test Code: SW8021B		Units: µg/L	Analysis Date 2/17/99			Prep Date:		
Client ID: 9902060		Run ID: GC-1_990217A				SeqNo: 11131					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.77	0.5	40	0	101.9%	85	115				
Ethylbenzene	40.64	0.5	40	0	101.6%	85	115				
m,p-Xylene	77.98	1	80	0	97.5%	85	115				
Methyl tert-Butyl Ether	40.07	1	40	0	100.2%	85	115				
o-Xylene	40.58	0.5	40	0	101.4%	85	115				
Toluene	40.48	0.5	40	0	101.2%	85	115				
1,4-Difluorobenzene	93.25	0	100	0	93.2%	84	100				
4-Bromochlorobenzene	97.11	0	100	0	97.1%	87	105				
Fluorobenzene	93.63	0	100	0	93.6%	87	99				

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: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ
9902048-01A	92.7	97.4	93.3
9902052-01A	90.6	96.1	91.9
9902059-04A	91.4	96.4	92.1
9902059-05A	89.1	91.8	94
9902060-01A	94.1	96.5	94.6
9902060-02A	92.8	97	93
9902060-03A	94	97.3	94.7
9902060-04A	92.4	96.1	92.8
9902060-05A	92.8	97	93
9902063-01A	92.8	96.4	94.4
9902063-02A	92.5	97.2	93.1
9902063-02AMS	92.2	97.6	92.2
9902063-02AMSD	92	97.1	92.2
9902063-03A	93.6	96.9	94
9902063-04A	94.1	97.4	94.8
9902063-05A	94.4	96.8	94.9
9902063-06A	87	89.5	92.3
9902063-08A	88.1	90.8	93.9
9902064-01A	86.3	89.1	89.3
9902064-01AMS	86.3	88.9	87.9
9902064-01AMSD	86	88.4	88.3
9902064-02A	87.3	91.2	89.6
9902065-01A	87.1	89.4	87.7
9902065-02A	94.1	97.6	94.7
9902065-03A	90.8	94.8	90.8
9902065-04A	90.4	94.6	91.3
9902066-01A	93.8	96.5	94.9

Acronym**Surrogate****QC Limits**

14FBZ = 1,4-Difluorobenzene
4BCBZ = 4-Bromochlorobenzene
FLBZ = Fluorobenzene

84-100
87-105
87-99

* Surrogate recovery outside acceptance limits

CLIENT: PNM - Public Service Company of NM
Work Order: 9902060
Project: Ice Canyon Drip
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ
9902066-02A	93.8	97.4	94.8
9902066-03A	93.1	96.2	93.6
9902066-04A	94.2	96.9	94.6
9902066-05A	93.7	96.3	94.9
9902066-06A	93.4	97	94.9
9902067-01A	94.8	97.2	94.6
9902067-02A	93.7	96.6	93.8
9902067-03A	95.2	97.5	95.5
9902067-04A	94.4	97.3	95
9902069-02A	91.5	93.7	92.1
CCV1 QC0606/07	93.2	97.6	94
CCV2 QC0606/07	94	96	94.1
CCV3 QC0606/07	93.2	97.1	93.6
LCS WATER	93.4	97.5	93.6
MB1	94	96.9	95.1

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	84-100
4BCBZ	= 4-Bromochlorobenzene	87-105
FLBZ	= Fluorobenzene	87-99

* Surrogate recovery outside acceptance limits

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