

3R - 318

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".

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

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

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

Operator: Amoco
Sec: 27 **Twn:** 29N **Rng:** 9 W **Unit:** M
Canyon: Largo

Vulnerable Class: Original
OCD Ranking: 30
Lead Agency: NMOCD

Topo Map: previously submitted

Well Completion Diagram: previously submitted

Site Map with Groundwater Analysis: Figure 1

Groundwater Contour Map: Figure 2a (April 1998), Figure 2b (July 1998), Figure 2c (November 1998) and Figure 2d (February 1999)

Hydrograph: Figure 3

Full Suite- Groundwater Sampling: previously submitted

Analytical Results: attached

Site Hydrology:

The Florance 124 site lies in the alluvial valley floor of Largo Canyon, about three miles from its mouth with the San Juan River. The valley floor is more than one-half mile wide near the site, and Largo Canyon flows northwest towards the San Juan. The site lies at about 5607 feet above mean sea level, and lies on the north side of the wash. Materials beneath the site are sands, varying in size from coarse to fine. Some silt was encountered, but little clay.

Groundwater is shallow at the site, and has ranged from 10 to 11 feet below land surface. The flow direction is predominantly westward (Figure(s) 2a, 2b, & 2c). Water level measurements taken during the November 1999, sampling event were misplaced, therefore a groundwater contour map is not available for this quarter. This pattern is consistent with the hydrologic setting, and perpendicular to the axis of flow in Largo Canyon. The observed groundwater gradients are typically low, on the order of 0.001. Hydrographs show seasonal fluctuations of about one-half foot.

Activities for Previous Year:

On April 28, July 31, November 4, 1998 and on January 21, 1999, PNM performed quarterly sampling of groundwater monitoring wells at the site. PNM measured water levels and conducted groundwater sampling in wells for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). Sampling was performed in strict compliance with EPA protocol. In all instances, PNM delivered the samples to OnSite Technologies, Farmington, New Mexico. The samples were analyzed using EPA Method 8020 for BTEX.

On March 2, 1999, PNM performed secondary soil remediation west of the former dehydrator pit (Figure 1). Approximately 660 cubic yard of contaminated soil were removed from the excavation and landfarmed on location.

Results:

Figure 1 provides a site map showing benzene, toluene, ethylbenzene and xylenes (BTEX) and a sample portion of total dissolved solids (TDS) analytical data for each monitoring well since groundwater contamination was discovered.

MW-1, -3 & -4 show BTEX levels below laboratory detection limits for at least four consecutive quarters. In MW-2, the source well, benzene concentrations have fluctuated for the past year between 1 and 37 ppb. All other BTEX parameters are below WQCC standards.

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: Florance 124 (continued)

Further Action:

PNM will continue to monitor the groundwater gradient and perform quarterly groundwater sampling at the Florance 124 to determine the effectiveness of the secondary remediation.

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.
Florance 124: Site Map with Analytical Results
(concentrations in ppb)

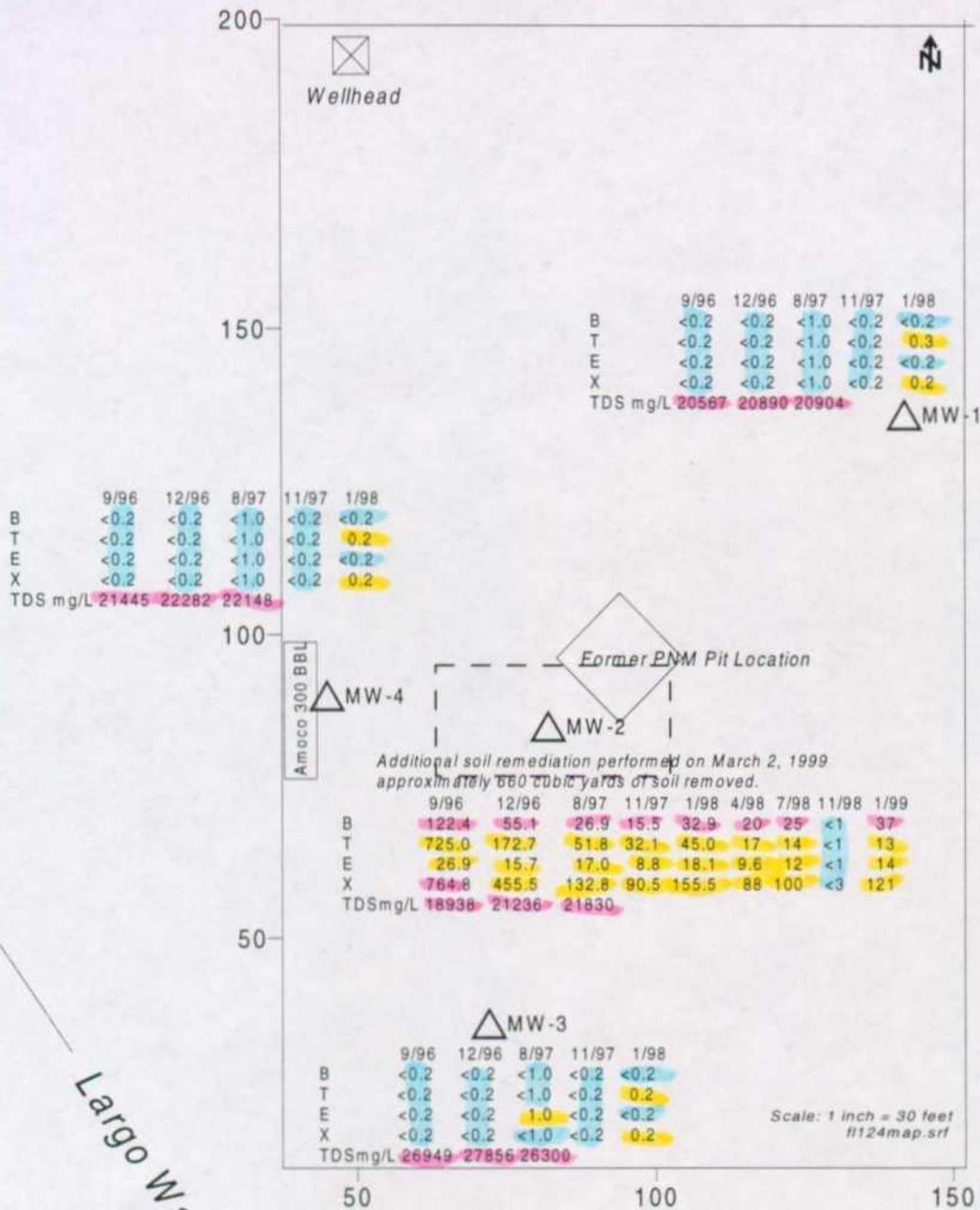
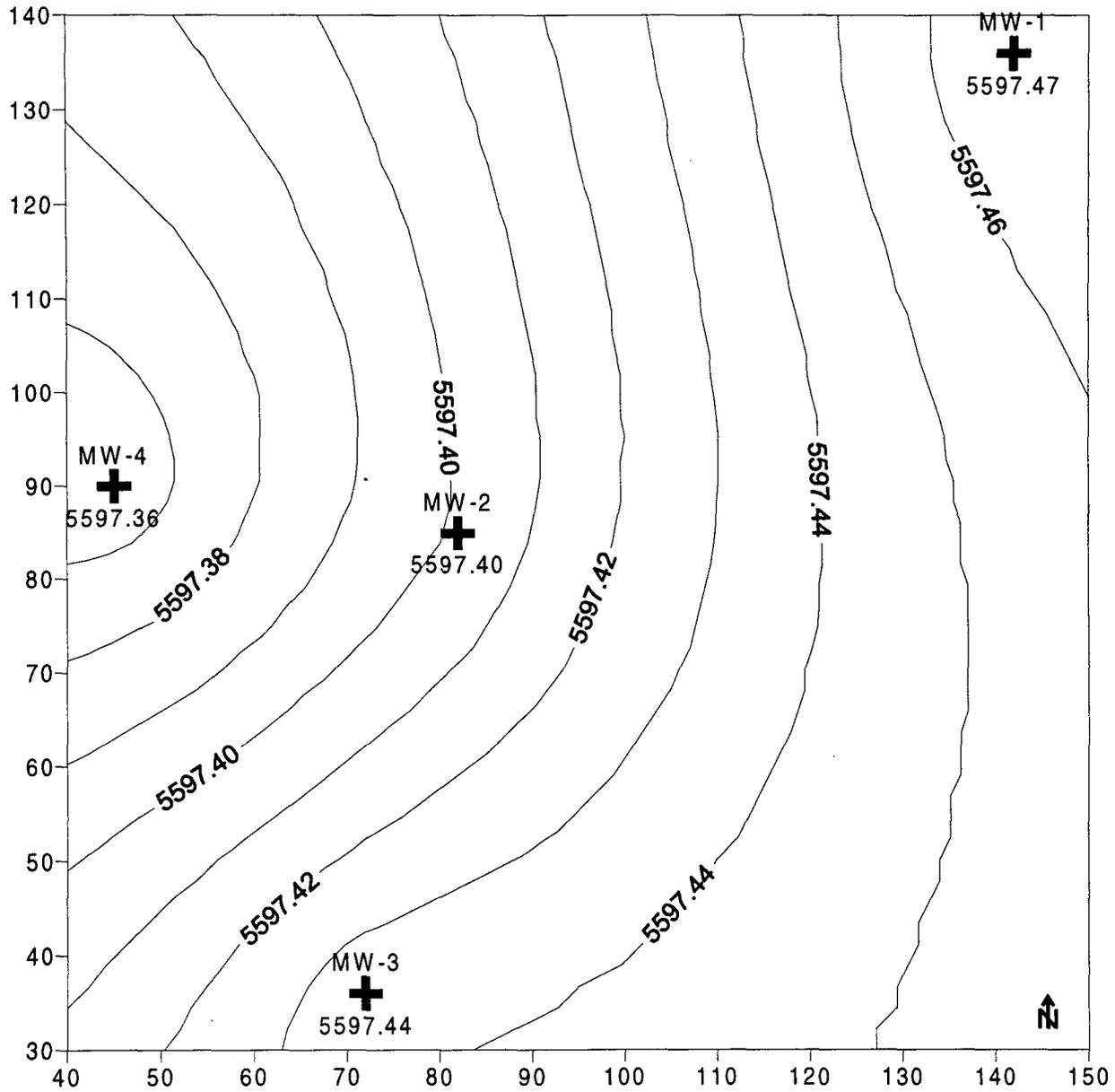


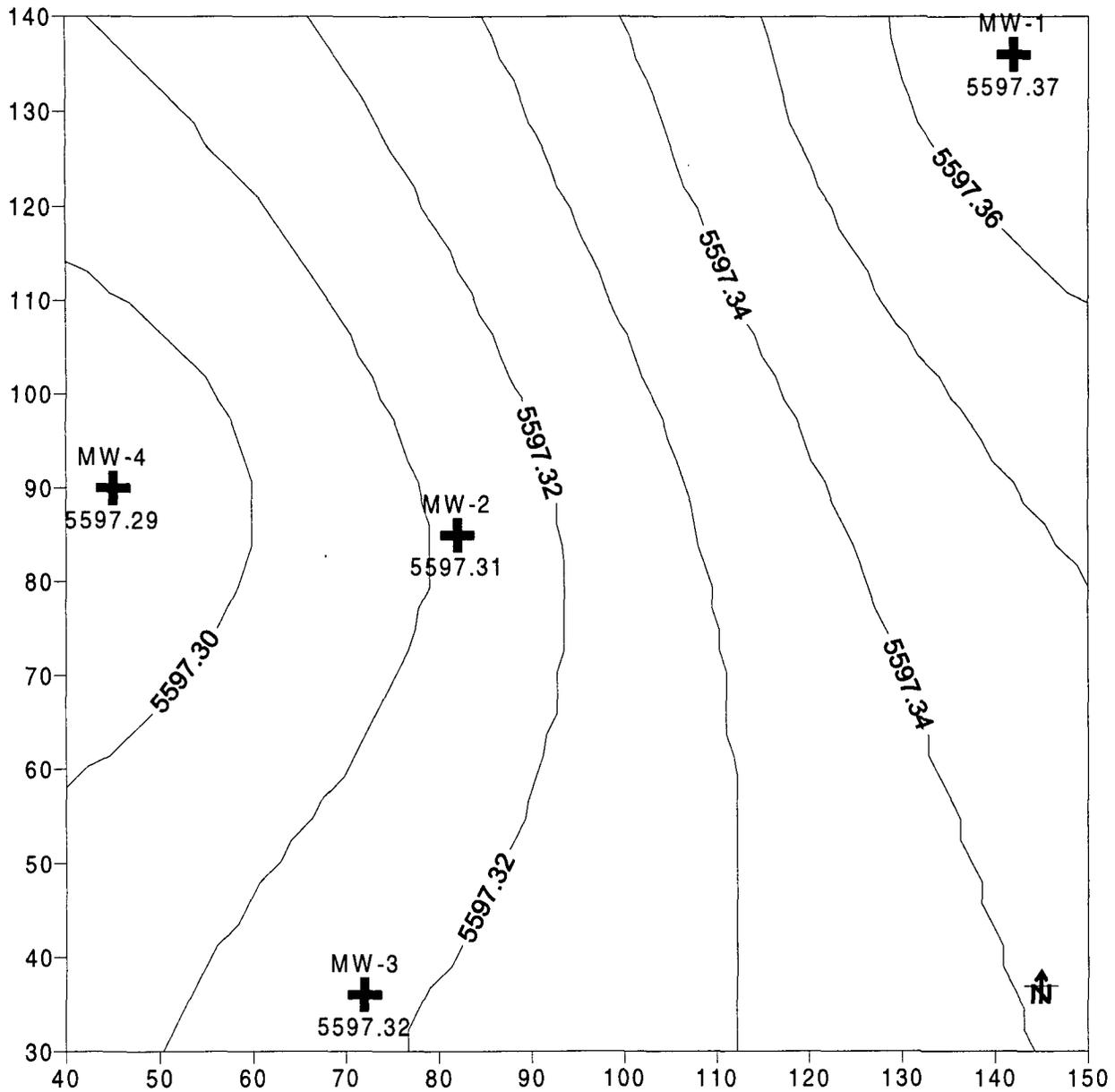
Figure 2a.
Florance 124 Groundwater Contour Map
(April 28, 1998)



surfer/flo124/f112442898.srf

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

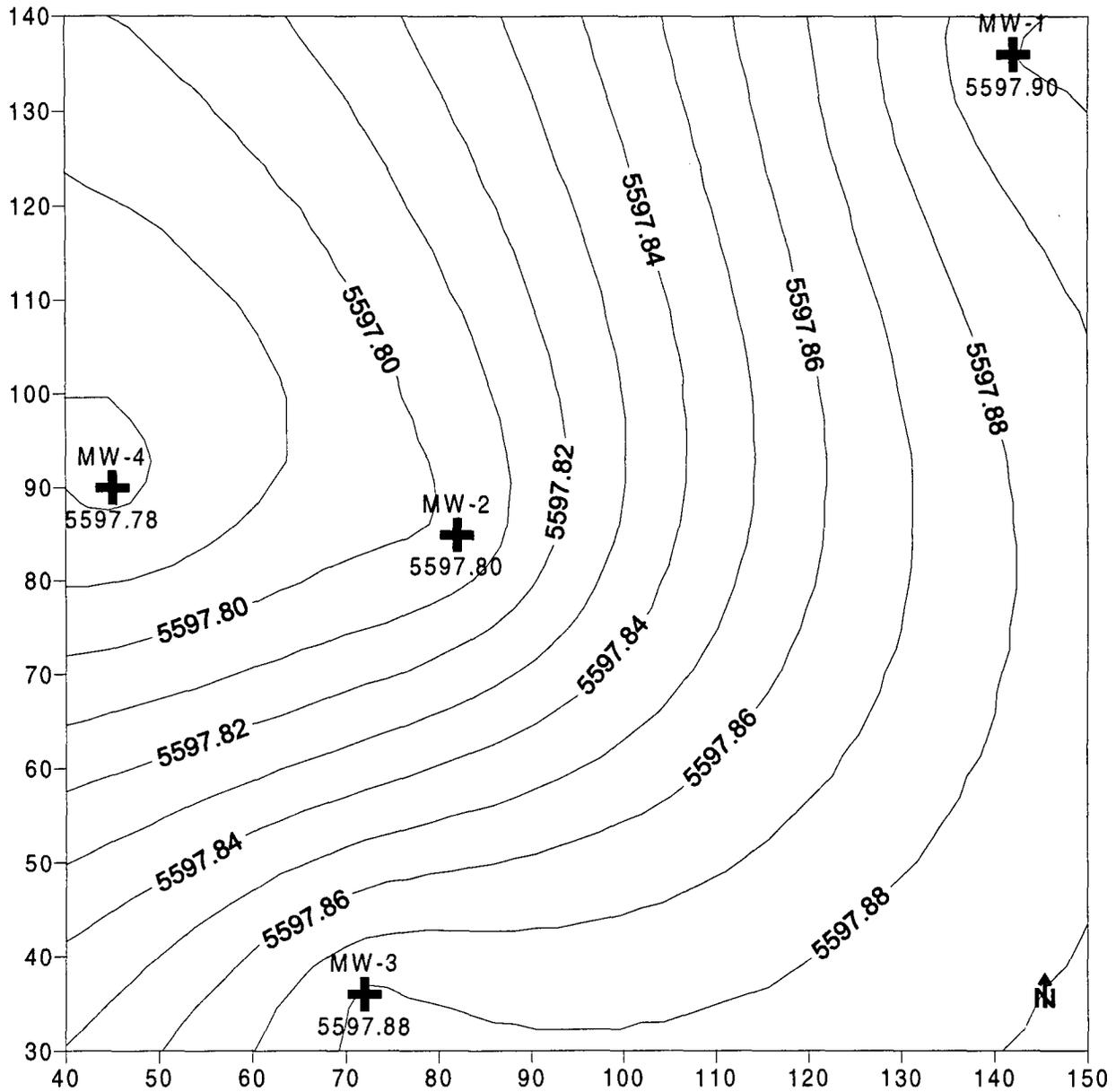
Figure 2b.
Florance 124 Groundwater Contour Map
(July 31, 1998)



surfer/flo124/f12473198.srf

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

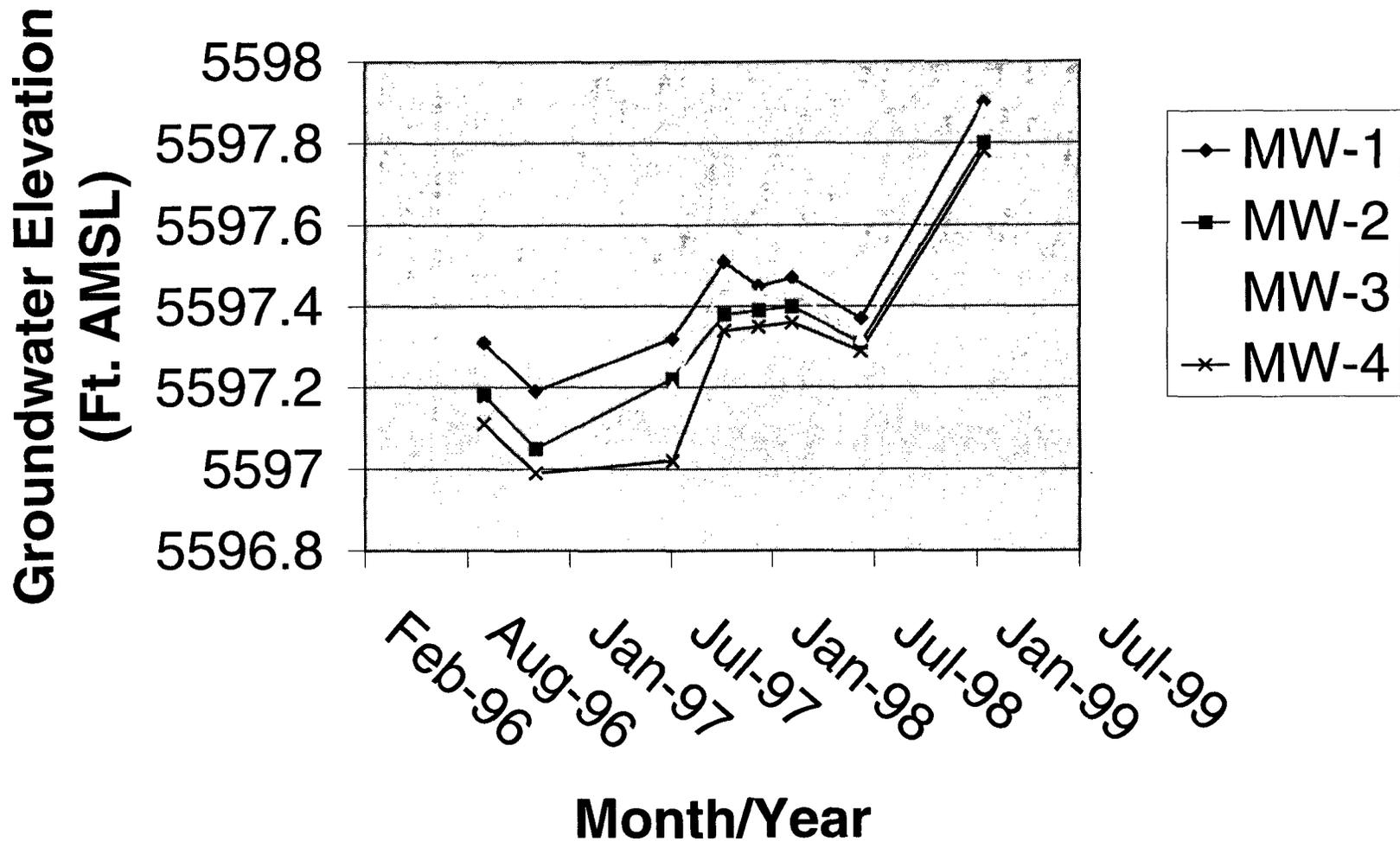
Figure 2c.
Florance 124 Groundwater Contour Map
(February 11, 1999)



surfer/flo124/f12421199.srf

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

Figure 3. Florance 124 Hydrograph



OFF: (505) 325-5667



LAB: (505) 325-1556

May 11, 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

RE: Florance 124

Order No.: 9804053

Dear Maureen Gannon,

On Site Technologies, LTD. received 1 sample on 4/29/98 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 be 'D Cox', is written above the name David Cox.

David Cox



OFF: (505) 325-5667

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 11-May-98

CLIENT: PNM - Public Service Company of NM
Project: Florance 124
Lab Order: 9804053

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: 11-May-98

| | | | |
|--------------------|------------------------------------|----------------------------|---------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9804053 | Client Sample ID: | 9804281200; MW-2 |
| Lab ID: | 9804053-01A | Matrix: | AQUEOUS |
| Project: | Florance 124 | Collection Date: | 4/28/98 12:00:00 PM |
| | | COC Record: | 7248 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8020A | | | | Analyst: DC |
| Benzene | 20 | 0.5 | | µg/L | 1 | 5/7/98 |
| Toluene | 17 | 0.5 | | µg/L | 1 | 5/7/98 |
| Ethylbenzene | 9.6 | 0.5 | | µg/L | 1 | 5/7/98 |
| m,p-Xylene | 66 | 1 | | µg/L | 1 | 5/7/98 |
| o-Xylene | 22 | 0.5 | | µg/L | 1 | 5/7/98 |

| | | |
|--------------------|---|---|
| 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 |

On Site Technologies, LTD.

Date: 11-May-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9804053

Project: Florance 124

QC SUMMARY REPORT

Method Blank

| Sample ID: MB1 | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date 5/7/98 | Prep Date: | | | | | | |
|-------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9804053 | Run ID: GC-1_980507A | SeqNo: 1678 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | .0604 | 0.5 | | | | | | | | | J |
| Ethylbenzene | .0824 | 0.5 | | | | | | | | | J |
| m,p-Xylene | .2996 | 1 | | | | | | | | | J |
| Methyl tert-Butyl Ether | .0751 | 1 | | | | | | | | | J |
| o-Xylene | .1208 | 0.5 | | | | | | | | | J |
| Toluene | .173 | 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: 11-May-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9804053
 Project: Florance 124

QC SUMMARY REPORT
 Sample Matrix Spike

| Sample ID: 9804054-01AMS | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date 5/7/98 | Prep Date: | | | | | | |
|--------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9804053 | Run ID: GC-1_980507A | SeqNo: 1679 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 8323 | 50 | 4000 | 3999 | 108.1% | 56 | 128 | | | | |
| Ethylbenzene | 5411 | 50 | 4000 | 995.8 | 110.4% | 78 | 107 | | | | S |
| m,p-Xylene | 28750 | 100 | 8000 | 14760 | 174.9% | 67 | 118 | | | | S |
| Methyl tert-Butyl Ether | 3732 | 100 | 4000 | 18.23 | 92.9% | 70 | 130 | | | | S |
| o-Xylene | 9129 | 50 | 4000 | 3818 | 132.8% | 78 | 107 | | | | S |
| Toluene | 18610 | 50 | 4000 | 12990 | 140.7% | 74 | 116 | | | | S |

CONFIRMED
 LCS
 5/11/98
 WRS/1/98

| Sample ID: 9804054-01AMSD | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date 5/7/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9804053 | Run ID: GC-1_980507A | SeqNo: 1680 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 7975 | 50 | 4000 | 3999 | 99.4% | 56 | 128 | 8323 | 4.3% | 12 | |
| Ethylbenzene | 5198 | 50 | 4000 | 995.8 | 105.1% | 78 | 107 | 5411 | 4.0% | 11 | |
| m,p-Xylene | 27560 | 100 | 8000 | 14760 | 160.1% | 67 | 118 | 28750 | 4.2% | 10 | S |
| Methyl tert-Butyl Ether | 3664 | 100 | 4000 | 18.23 | 91.1% | 70 | 130 | 3732 | 1.9% | 15 | |
| o-Xylene | 8811 | 50 | 4000 | 3818 | 124.8% | 78 | 107 | 9129 | 3.5% | 14 | S |
| Toluene | 17820 | 50 | 4000 | 12990 | 120.7% | 74 | 116 | 18610 | 4.4% | 14 | S |

CONFIRMED
 LCS
 5/11/98
 WRS/1/98

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

On Site Technologies, LTD.

Date: 11-May-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9804053

Project: Florance 124

QC SUMMARY REPORT
Laboratory Control Spike - generic

| Sample ID: LCS WATER | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date: 5/7/98 | Prep Date: | | | | | | |
|-------------------------|-----------------------|----------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9804053 | Run ID: GC-1_980507A | SeqNo: 1677 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 42.28 | 0.5 | 40 | 0.0604 | 105.6% | 56 | 128 | | | | |
| Ethylbenzene | 42.69 | 0.5 | 40 | 0.0824 | 106.5% | 78 | 107 | | | | |
| m,p-Xylene | 82.27 | 1 | 80 | 0.2996 | 102.5% | 67 | 118 | | | | |
| Methyl tert-Butyl Ether | 38.02 | 1 | 40 | 0.0751 | 94.9% | 70 | 130 | | | | |
| o-Xylene | 42.5 | 0.5 | 40 | 0.1208 | 105.9% | 78 | 107 | | | | |
| Toluene | 42.21 | 0.5 | 40 | 0.173 | 105.1% | 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: 11-May-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9804053
Project: Florance 124

QC SUMMARY REPORT
Continuing Calibration Verification Standard

| Sample ID: CCV1 QC0529/30 | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date: 5/7/98 | Prep Date: | | | | | | |
|----------------------------------|------------------------------|---------------------------|--------------------|------------------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9804053 | Run ID: GC-1_980507A | SeqNo: 1672 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 21.26 | 0.5 | 20 | 0 | 106.3% | 85 | 115 | | | | |
| Ethylbenzene | 21.65 | 0.5 | 20 | 0 | 108.3% | 85 | 115 | | | | |
| m,p-Xylene | 41.55 | 1 | 40 | 0 | 103.9% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 19.41 | 1 | 20 | 0 | 97.0% | 85 | 115 | | | | |
| o-Xylene | 21.46 | 0.5 | 20 | 0 | 107.3% | 85 | 115 | | | | |
| Toluene | 21.37 | 0.5 | 20 | 0 | 106.8% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 92.8 | 0 | 100 | 0 | 92.8% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 89.27 | 0 | 100 | 0 | 89.3% | 70 | 130 | | | | |
| Fluorobenzene | 92.92 | 0 | 100 | 0 | 92.9% | 70 | 130 | | | | |

| Sample ID: CCV2 QC0529/30 | Batch ID: GC-1_980507 | Test Code: SW8020A | Units: µg/L | Analysis Date: 5/7/98 | Prep Date: | | | | | | |
|----------------------------------|------------------------------|---------------------------|--------------------|------------------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9804053 | Run ID: GC-1_980507A | SeqNo: 1673 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.82 | 0.5 | 20 | 0 | 104.1% | 85 | 115 | | | | |
| Ethylbenzene | 21.2 | 0.5 | 20 | 0 | 106.0% | 85 | 115 | | | | |
| m,p-Xylene | 40.61 | 1 | 40 | 0 | 101.5% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 18.49 | 1 | 20 | 0 | 92.4% | 85 | 115 | | | | |
| o-Xylene | 21.2 | 0.5 | 20 | 0 | 106.0% | 85 | 115 | | | | |
| Toluene | 20.97 | 0.5 | 20 | 0 | 104.9% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 92.53 | 0 | 100 | 0 | 92.5% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 90.18 | 0 | 100 | 0 | 90.2% | 70 | 130 | | | | |
| Fluorobenzene | 92.97 | 0 | 100 | 0 | 93.0% | 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: 9804053
Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV3 QC0529/30 | | Batch ID: GC-1_980507 | | Test Code: SW8020A | | Units: µg/L | | Analysis Date: 5/7/98 | | Prep Date: | |
|----------------------------------|--------|------------------------------|-----------|---------------------------|--------|--------------------|-----------|------------------------------|------|------------|------|
| Client ID: 9804053 | | Run ID: GC-1_980507A | | SeqNo: 1674 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 21.24 | 0.5 | 20 | 0 | 106.2% | 85 | 115 | | | | |
| Ethylbenzene | 21.5 | 0.5 | 20 | 0 | 107.5% | 85 | 115 | | | | |
| m,p-Xylene | 41.01 | 1 | 40 | 0 | 102.5% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 17.96 | 1 | 20 | 0 | 89.8% | 85 | 115 | | | | |
| o-Xylene | 22.72 | 0.5 | 20 | 0 | 113.6% | 85 | 115 | | | | |
| Toluene | 21.47 | 0.5 | 20 | 0 | 107.3% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 92.47 | 0 | 100 | 0 | 92.5% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 88.18 | 0 | 100 | 0 | 88.2% | 70 | 130 | | | | |
| Fluorobenzene | 92.84 | 0 | 100 | 0 | 92.8% | 70 | 130 | | | | |

| Sample ID: CCV4 QC0529/30 | | Batch ID: GC-1_980507 | | Test Code: SW8020A | | Units: µg/L | | Analysis Date: 5/7/98 | | Prep Date: | |
|----------------------------------|--------|------------------------------|-----------|---------------------------|--------|--------------------|-----------|------------------------------|------|------------|------|
| Client ID: 9804053 | | Run ID: GC-1_980507A | | SeqNo: 1675 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.82 | 0.5 | 20 | 0 | 104.1% | 85 | 115 | | | | |
| Ethylbenzene | 21.86 | 0.5 | 20 | 0 | 109.3% | 85 | 115 | | | | |
| m,p-Xylene | 41.02 | 1 | 40 | 0 | 102.6% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 18.32 | 1 | 20 | 0 | 91.6% | 85 | 115 | | | | |
| o-Xylene | 21.68 | 0.5 | 20 | 0 | 108.4% | 85 | 115 | | | | |
| Toluene | 21.03 | 0.5 | 20 | 0 | 105.1% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 92.66 | 0 | 100 | 0 | 92.7% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 88.98 | 0 | 100 | 0 | 89.0% | 70 | 130 | | | | |
| Fluorobenzene | 92.65 | 0 | 100 | 0 | 92.6% | 70 | 130 | | | | |

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: 9804053
Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV5 QC0529/30 | | Batch ID: GC-1_980507 | | Test Code: SW8020A | | Units: µg/L | | Analysis Date 5/7/98 | | Prep Date: | |
|----------------------------------|--------|------------------------------|-----------|---------------------------|--------|--------------------|-----------|-----------------------------|------|------------|------|
| Client ID: 9804053 | | Run ID: GC-1_980507A | | SeqNo: 1676 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.54 | 0.5 | 20 | 0 | 102.7% | 85 | 115 | | | | |
| Ethylbenzene | 20.93 | 0.5 | 20 | 0 | 104.6% | 85 | 115 | | | | |
| m,p-Xylene | 40.5 | 1 | 40 | 0 | 101.2% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 17.55 | 1 | 20 | 0 | 87.8% | 85 | 115 | | | | |
| o-Xylene | 20.6 | 0.5 | 20 | 0 | 103.0% | 85 | 115 | | | | |
| Toluene | 21.34 | 0.5 | 20 | 0 | 106.7% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 91.93 | 0 | 100 | 0 | 91.9% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 88.69 | 0 | 100 | 0 | 88.7% | 70 | 130 | | | | |
| Fluorobenzene | 92.03 | 0 | 100 | 0 | 92.0% | 70 | 130 | | | | |

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: 9804053
Project: Florance 124
Test No: SW8020A

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

BTEX

| Sample ID | 14FBZ | 4BCBZ | FLBZ | | | | |
|----------------|-------|-------|------|--|--|--|--|
| 9804051-01A | 89.6 | 85 | 90.3 | | | | |
| 9804051-02A | 89.5 | 84.7 | 89.6 | | | | |
| 9804052-01A | 90.3 | 88 | 91.7 | | | | |
| 9804053-01A | 78 | 80 | 80.4 | | | | |
| 9804054-01A | 91.5 | 89.1 | 92.8 | | | | |
| 9804054-01AMS | 91.5 | 91.3 | 93.3 | | | | |
| 9804054-01AMSD | 90 | 89.2 | 91.1 | | | | |
| 9804055-01A | 81.8 | 77.1 | 87.9 | | | | |
| 9804055-02A | 85.9 | 83.4 | 88.5 | | | | |
| 9804056-01A | 85.8 | 85.3 | 86.6 | | | | |
| 9804057-01A | 93.4 | 88.7 | 93.7 | | | | |
| 9804057-02A | 90.2 | 88.6 | 91.3 | | | | |
| 9804057-03A | 91.2 | 88.6 | 91.7 | | | | |
| 9805003-01A | 93.1 | 88.8 | 93.5 | | | | |
| 9805003-02A | 90.7 | 88.8 | 91.6 | | | | |
| CCV1 QC0529/30 | 92.8 | 89.3 | 92.9 | | | | |
| CCV2 QC0529/30 | 92.5 | 90.2 | 93 | | | | |
| CCV3 QC0529/30 | 92.5 | 88.2 | 92.8 | | | | |
| CCV4 QC0529/30 | 92.7 | 89 | 92.6 | | | | |
| CCV5 QC0529/30 | 91.9 | 88.7 | 92 | | | | |
| LCS WATER | 92.5 | 89.2 | 92.5 | | | | |
| MB1 | 93.1 | 86.4 | 93.6 | | | | |

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

* Surrogate recovery outside acceptance limits

OFF: (505) 325-5667



LAB: (505) 325-1556

August 04, 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 Quarter 98

RE: Florance 124

Order No.: 9808001

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 7/31/98 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 "D Cox", is written above the name David Cox.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 04-Aug-98

CLIENT: PNM - Public Service Company of NM
Project: Florance 124
Lab Order: 9808001

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: 05-Aug-98

| | | | |
|--------------------|------------------------------------|----------------------------|---------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9808001 | Client Sample ID: | 9807311200; MW-2 |
| Lab ID: | 9808001-01A | Matrix: | SOIL |
| Project: | Florance 124 | Collection Date: | 7/31/98 12:00:00 PM |
| | | COC Record: | 7282 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8020A | | | | Analyst: HR |
| Benzene | 25 | 0.5 | | µg/L | 1 | 8/4/98 |
| Toluene | 14 | 0.5 | | µg/L | 1 | 8/4/98 |
| Ethylbenzene | 12 | 0.5 | | µg/L | 1 | 8/4/98 |
| m,p-Xylene | 79 | 1 | | µg/L | 1 | 8/4/98 |
| o-Xylene | 21 | 0.5 | | µg/L | 1 | 8/4/98 |

| | | |
|--------------------|---|---|
| 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 |

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 05-Aug-98

| | | | | |
|--------------------|------------------------------------|----------------------------|---------------------|----------------------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 | <i>Duplicate of MW-2</i> |
| Work Order: | 9808001 | Client Sample ID: | 9807311215; MW-5 | |
| Lab ID: | 9808001-02A | Matrix: | SOIL | |
| Project: | Florance 124 | Collection Date: | 7/31/98 12:15:00 PM | |
| | | COC Record: | 7282 | |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8020A | | | | Analyst: HR |
| Benzene | 26 | 0.5 | | µg/L | 1 | 8/4/98 |
| Toluene | 13 | 0.5 | | µg/L | 1 | 8/4/98 |
| Ethylbenzene | 11 | 0.5 | | µg/L | 1 | 8/4/98 |
| m,p-Xylene | 68 | 1 | | µg/L | 1 | 8/4/98 |
| o-Xylene | 19 | 0.5 | | µg/L | 1 | 8/4/98 |

| | | |
|--------------------|---|---|
| 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 |

On Site Technologies, LTD.

Date: 04-Aug-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9808001

Project: Florance 124

QC SUMMARY REPORT

Method Blank

| Sample ID: MB1 | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date: 8/3/98 | Prep Date: | | | | | | |
|-------------------------|------------------------------|-----------------------------|--------------------|------------------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9808001 | Run ID: GC-1_980803A | SeqNo: 5288 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | .1526 | 0.5 | | | | | | | | | J |
| Ethylbenzene | ND | 0.5 | | | | | | | | | |
| m,p-Xylene | ND | 1 | | | | | | | | | |
| Methyl tert-Butyl Ether | ND | 1 | | | | | | | | | |
| o-Xylene | ND | 0.5 | | | | | | | | | |
| Toluene | .0977 | 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: 04-Aug-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9808001
 Project: Florance 124

QC SUMMARY REPORT
 Sample Matrix Spike

| Sample ID: 9807072-03AMS | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date 8/3/98 | Prep Date: | | | | | | |
|--------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9808001 | Run ID: GC-1_980803A | SeqNo: 5289 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 888.6 | 10 | 800 | 247.5 | 80.1% | 56 | 128 | | | | |
| Ethylbenzene | 730.2 | 10 | 800 | 11.4 | 89.9% | 78 | 107 | | | | |
| m,p-Xylene | 1430 | 20 | 1600 | 70.46 | 85.0% | 67 | 118 | | | | |
| Methyl tert-Butyl Ether | 579.6 | 20 | 800 | 25.16 | 69.3% | 70 | 130 | | | | S |
| o-Xylene | 691.1 | 10 | 800 | 1.312 | 86.2% | 78 | 107 | | | | |
| Toluene | 707.4 | 10 | 800 | 2.416 | 88.1% | 74 | 116 | | | | |

| Sample ID: 9807072-03AMSD | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date 8/3/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9808001 | Run ID: GC-1_980803A | SeqNo: 5290 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 890.3 | 10 | 800 | 247.5 | 80.3% | 56 | 128 | 888.6 | 0.2% | 12 | |
| Ethylbenzene | 729.1 | 10 | 800 | 11.4 | 89.7% | 78 | 107 | 730.2 | 0.2% | 11 | |
| m,p-Xylene | 1428 | 20 | 1600 | 70.46 | 84.8% | 67 | 118 | 1430 | 0.1% | 10 | |
| Methyl tert-Butyl Ether | 566.2 | 20 | 800 | 25.16 | 67.6% | 70 | 130 | 579.6 | 2.3% | 15 | S |
| o-Xylene | 695.9 | 10 | 800 | 1.312 | 86.8% | 78 | 107 | 691.1 | 0.7% | 14 | |
| Toluene | 705.4 | 10 | 800 | 2.416 | 87.9% | 74 | 116 | 707.4 | 0.3% | 14 | |

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

On Site Technologies, LTD.

Date: 04-Aug-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9808001
Project: Florance 124

QC SUMMARY REPORT
Laboratory Control Spike - generic

| Sample ID: LCS WATER | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date 8/3/98 | Prep Date: | | | | | | |
|-------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9808001 | Run ID: GC-1_980803A | SeqNo: 5287 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 36.2 | 0.5 | 40 | 0.1526 | 90.1% | 56 | 128 | | | | |
| Ethylbenzene | 38.02 | 0.5 | 40 | 0 | 95.1% | 78 | 107 | | | | |
| m,p-Xylene | 71.84 | 1 | 80 | 0 | 89.8% | 67 | 118 | | | | |
| Methyl tert-Butyl Ether | 42.38 | 1 | 40 | 0 | 106.0% | 70 | 130 | | | | |
| o-Xylene | 37.09 | 0.5 | 40 | 0 | 92.7% | 78 | 107 | | | | |
| Toluene | 36.51 | 0.5 | 40 | 0.0977 | 91.0% | 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: 04-Aug-98

CLIENT: PNM - Public Service Company of NM
 Work Order: 9808001
 Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV1 QC0606/07 | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date 8/3/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9808001 | Run ID: GC-1_980803A | SeqNo: 5284 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 19.35 | 0.5 | 20 | 0 | 96.7% | 85 | 115 | | | | |
| Ethylbenzene | 19.84 | 0.5 | 20 | 0 | 99.2% | 85 | 115 | | | | |
| m,p-Xylene | 37.76 | 1 | 40 | 0 | 94.4% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 21.85 | 1 | 20 | 0 | 109.2% | 85 | 115 | | | | |
| o-Xylene | 19.76 | 0.5 | 20 | 0 | 98.8% | 85 | 115 | | | | |
| Toluene | 19.52 | 0.5 | 20 | 0 | 97.6% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 86.68 | 0 | 100 | 0 | 86.7% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 91.93 | 0 | 100 | 0 | 91.9% | 70 | 130 | | | | |
| Fluorobenzene | 82.78 | 0 | 100 | 0 | 82.8% | 70 | 130 | | | | |

| Sample ID: CCV2 QC0606/07 | Batch ID: GC-1_980803 | Test Code: SW8020A | Units: µg/L | Analysis Date 8/3/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9808001 | Run ID: GC-1_980803A | SeqNo: 5285 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 18.03 | 0.5 | 20 | 0 | 90.1% | 85 | 115 | | | | |
| Ethylbenzene | 18.58 | 0.5 | 20 | 0 | 92.9% | 85 | 115 | | | | |
| m,p-Xylene | 35.3 | 1 | 40 | 0 | 88.3% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 20.05 | 1 | 20 | 0 | 100.3% | 85 | 115 | | | | |
| o-Xylene | 18.44 | 0.5 | 20 | 0 | 92.2% | 85 | 115 | | | | |
| Toluene | 18.33 | 0.5 | 20 | 0 | 91.7% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 86.42 | 0 | 100 | 0 | 86.4% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 87.34 | 0 | 100 | 0 | 87.3% | 70 | 130 | | | | |
| Fluorobenzene | 82.48 | 0 | 100 | 0 | 82.5% | 70 | 130 | | | | |

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: 9808001
Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV3 QC0606/07 | | Batch ID: GC-1_980803 | | Test Code: SW8020A | | Units: µg/L | | Analysis Date 8/3/98 | | Prep Date: | |
|----------------------------------|--------|------------------------------|-----------|---------------------------|-------|--------------------|-----------|-----------------------------|------|------------|------|
| Client ID: 9808001 | | Run ID: GC-1_980803A | | SeqNo: 5286 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 18.08 | 0.5 | 20 | 0 | 90.4% | 85 | 115 | | | | |
| Ethylbenzene | 18.86 | 0.5 | 20 | 0 | 94.3% | 85 | 115 | | | | |
| m,p-Xylene | 38.12 | 1 | 40 | 0 | 95.3% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 18.46 | 1 | 20 | 0 | 92.3% | 85 | 115 | | | | |
| o-Xylene | 19.47 | 0.5 | 20 | 0 | 97.3% | 85 | 115 | | | | |
| Toluene | 18.92 | 0.5 | 20 | 0 | 94.6% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 86.53 | 0 | 100 | 0 | 86.5% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 92.38 | 0 | 100 | 0 | 92.4% | 70 | 130 | | | | |
| Fluorobenzene | 82.47 | 0 | 100 | 0 | 82.5% | 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: 9808001
Project: Florance 124
Test No: SW8020A

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

BTEX

| Sample ID | 14FBZ | 4BCBZ | FLBZ |
|----------------|-------|--------|------|
| 9807072-01A | 87.8 | 94 | 83.6 |
| 9807072-02A | 74.6 | 82.5 | 72.8 |
| 9807072-03A | 83.6 | 62.2 * | 79.4 |
| 9807072-03AMS | 82.6 | 63.1 * | 79 |
| 9807072-03AMSD | 83.3 | 66.1 * | 79 |
| 9807072-04A | 82.5 | 62.2 * | 83.5 |
| 9807072-05A | 85 | 90 | 81.5 |
| 9807072-06A | 82.7 | 70.2 | 79.6 |
| 9807072-07A | 85 | 82.8 | 81.8 |
| 9807072-08A | 84.3 | 79.3 | 86.1 |
| 9807072-09A | 86.8 | 84.8 | 83.3 |
| 9807072-10A | 84.4 | 81.7 | 80.7 |
| 9807077-01A | 83.9 | 68.8 * | 79.3 |
| 9807077-02A | 85.8 | 83.3 | 82.2 |
| 9807077-03A | 85.7 | 85.6 | 82.6 |
| 9807078-01A | 85.4 | 84.4 | 82.6 |
| 9808001-01A | 74.4 | 73.7 | 85 |
| 9808001-02A | 76.6 | 78.8 | 82.7 |
| CCV1 QC0606/07 | 86.7 | 91.9 | 82.8 |
| CCV2 QC0606/07 | 86.4 | 87.3 | 82.5 |
| CCV3 QC0606/07 | 86.5 | 92.4 | 82.5 |
| LCS WATER | 86 | 94 | 82.3 |
| MB1 | 86.8 | 87.8 | 83.4 |

| 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

702

Date: 7/31/98

Page: 1 of 1

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

| | | | | | | | | | | | | | |
|---|---|----------|-----------------------|-------------------------------|---|-------------------------------------|--------------|-----------------|--|-------------------------------|--|--------|--|
| Purchase Order No.: | | Job No.: | | REPORT RESULTS TO | Name: Maureen Gannon | | Title: | | | | | | |
| SEND INVOICE TO | Name: Denver Bearden | | | | Company: PNM Gas Services | | | | | | | | |
| | Company: PNM Gas Services | | Dept. 324-3763 | | Mailing Address: Alverado Square, Mail Stop 0408 | | | | | | | | |
| | Address: 603 W. Elm Street | | | | City, State, Zip: Albuquerque, NM 87158 | | | | | | | | |
| | City, State, Zip: Farmington, NM 87401 | | | | Telephone No.: 505-848-2974 | | Telefax No.: | | | | | | |
| Sampling Location: Florence 124 | | | | Number of Containers | ANALYSIS REQUESTED | | | | | | | | |
| Sampler: Mark S. Kelianos | | | | | <div style="border: 1px solid black; padding: 5px; display: inline-block; transform: rotate(-45deg);"> BTEX 8020 </div> | | | | | | | | |
| SAMPLE IDENTIFICATION | | | | SAMPLE | | MATRIX | | PRES. | | | | LAB ID | |
| | | | | DATE | TIME | | | | | | | | |
| 9807311200 | | | | | | H₂O HCL | | 2 | | X | | | |
| 9807311215 | | | | | | H₂O HCL | | 2 | | X | | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |
| Relinquished by: | | | | Date/Time 7/31/98 1245 | | Received by: | | | | Date/Time 7/31/98 1245 | | | |
| Relinquished by: | | | | Date/Time | | Received by: | | | | Date/Time | | | |
| Relinquished by: | | | | Date/Time | | Received by: | | | | Date/Time | | | |
| Method of Shipment: | | | | Rush | | 24-48 Hours | | 10 Working Days | | Special Instructions: | | | |
| Authorized by: | | | | Date 7/31/98 | | Results to be sent to both parties. | | | | | | | |
| | | | | | | | | | | | | | |

OFF: (505) 325-5667



LAB: (505) 325-1556

November 06, 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: Florance 124

Order No.: 9811014

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 11/4/98 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 "D Cox", is written over the name David Cox.

David Cox

OFF: (505) 325-5667

LAB: (505) 325-1556



On Site Technologies, LTD.

Date: 06-Nov-98

CLIENT: PNM - Public Service Company of NM
Project: Florance 124
Lab Order: 9811014

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: 06-Nov-98

| | | | |
|--------------------|------------------------------------|----------------------------|--------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9811014 | Client Sample ID: | 9811041400; MW-2 |
| Lab ID: | 9811014-01A | Matrix: | AQUEOUS |
| Project: | Florance 124 | Collection Date: | 11/4/98 2:00:00 PM |
| | | COC Record: | 7517 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|---------------|
| BTEX | | SW8020A | | | | Analyst: DC |
| Benzene | ND | 1 | | µg/L | 1 | 11/4/98 |
| Toluene | ND | 1 | | µg/L | 1 | 11/4/98 |
| Ethylbenzene | ND | 1 | | µg/L | 1 | 11/4/98 |
| m,p-Xylene | ND | 2 | | µg/L | 1 | 11/4/98 |
| o-Xylene | ND | 1 | | µg/L | 1 | 11/4/98 |

| | | |
|--------------------|---|---|
| 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 |

P.O. BOX 2606 • FARMINGTON, NM 87499

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Duplicate MW-2
Date: 06-Nov-98

| | | | |
|--------------------|------------------------------------|----------------------------|--------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9811014 | Client Sample ID: | 9811041430; MW-5 |
| Lab ID: | 9811014-02A | Matrix: | AQUEOUS |
| Project: | Florance 124 | Collection Date: | 11/4/98 2:30:00 PM |
| | | COC Record: | 7517 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8020A | | | | Analyst: DC |
| Benzene | ND | 1 | | µg/L | 1 | 11/4/98 |
| Toluene | ND | 1 | | µg/L | 1 | 11/4/98 |
| Ethylbenzene | ND | 1 | | µg/L | 1 | 11/4/98 |
| m,p-Xylene | ND | 2 | | µg/L | 1 | 11/4/98 |
| o-Xylene | ND | 1 | | µg/L | 1 | 11/4/98 |

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 |

P.O. BOX 2606 • FARMINGTON, NM 87499

On Site Technologies, LTD.

Date: 06-Nov-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9811014

Project: Florance 124

QC SUMMARY REPORT

Method Blank

| Sample ID: MB1 | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date: 11/4/98 | Prep Date: | | | | | | |
|-------------------------|------------------------------|-----------------------------|--------------------|-------------------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9811014 | Run ID: GC-1_981104A | SeqNo: 8462 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | ND | 1 | | | | | | | | | |
| Ethylbenzene | ND | 1 | | | | | | | | | |
| m,p-Xylene | .1915 | 2 | | | | | | | | | J |
| Methyl tert-Butyl Ether | ND | 1 | | | | | | | | | |
| o-Xylene | ND | 1 | | | | | | | | | |
| Toluene | .1132 | 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: 06-Nov-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9811014

Project: Florance 124

QC SUMMARY REPORT

Sample Matrix Spike

| Sample ID: 9810083-01AMS | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date 11/4/98 | Prep Date: | | | | | | |
|--------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9811014 | Run ID: GC-1_981104A | SeqNo: 8463 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 557.3 | 10 | 400 | 174.9 | 95.6% | 56 | 128 | | | | |
| Ethylbenzene | 495.2 | 10 | 400 | 103.2 | 98.0% | 78 | 107 | | | | |
| m,p-Xylene | 1867 | 20 | 800 | 1118 | 93.6% | 67 | 118 | | | | |
| Methyl tert-Butyl Ether | 414 | 10 | 400 | 2.82 | 102.8% | 70 | 130 | | | | |
| o-Xylene | 744.5 | 10 | 400 | 345.3 | 99.8% | 78 | 107 | | | | |
| Toluene | 1168 | 10 | 400 | 794.7 | 93.3% | 74 | 116 | | | | |

| Sample ID: 9810083-01AMSD | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date 11/4/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9811014 | Run ID: GC-1_981104A | SeqNo: 8464 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 540.5 | 10 | 400 | 174.9 | 91.4% | 56 | 128 | 557.3 | 3.1% | 12 | |
| Ethylbenzene | 480 | 10 | 400 | 103.2 | 94.2% | 78 | 107 | 495.2 | 3.1% | 11 | |
| m,p-Xylene | 1809 | 20 | 800 | 1118 | 86.4% | 67 | 118 | 1867 | 3.1% | 10 | |
| Methyl tert-Butyl Ether | 409.9 | 10 | 400 | 2.82 | 101.8% | 70 | 130 | 414 | 1.0% | 15 | |
| o-Xylene | 726 | 10 | 400 | 345.3 | 95.2% | 78 | 107 | 744.5 | 2.5% | 14 | |
| Toluene | 1132 | 10 | 400 | 794.7 | 84.4% | 74 | 116 | 1168 | 3.1% | 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: 06-Nov-98

CLIENT: PNM - Public Service Company of NM
Work Order: 9811014
Project: Florance 124

QC SUMMARY REPORT
Laboratory Control Spike - generic

| Sample ID: LCS WATER | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date: 11/4/98 | Prep Date: | | | | | | |
|-----------------------------|------------------------------|-----------------------------|--------------------|-------------------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: | 9811014 | Run ID: GC-1_981104A | SeqNo: 8461 | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 39.08 | 1 | 40 | 0 | 97.7% | 56 | 128 | | | | |
| Ethylbenzene | 39.35 | 1 | 40 | 0 | 98.4% | 78 | 107 | | | | |
| m,p-Xylene | 77.64 | 2 | 80 | 0.1915 | 96.8% | 67 | 118 | | | | |
| Methyl tert-Butyl Ether | 39.46 | 1 | 40 | 0 | 98.6% | 70 | 130 | | | | |
| o-Xylene | 39.78 | 1 | 40 | 0 | 99.5% | 78 | 107 | | | | |
| Toluene | 39.28 | 1 | 40 | 0.1132 | 97.9% | 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: 06-Nov-98

CLIENT: PNM - Public Service Company of NM

Work Order: 9811014

Project: Florance 124

QC SUMMARY REPORT

Continuing Calibration Verification Standard

| Sample ID: CCV1 QC0606/07 | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date 11/4/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9811014 | Run ID: GC-1_981104A | SeqNo: 8459 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 21.15 | 1 | 20 | 0 | 105.7% | 85 | 115 | | | | |
| Ethylbenzene | 21.33 | 1 | 20 | 0 | 106.7% | 85 | 115 | | | | |
| m,p-Xylene | 42 | 2 | 40 | 0 | 105.0% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 20.99 | 1 | 20 | 0 | 105.0% | 85 | 115 | | | | |
| o-Xylene | 21.54 | 1 | 20 | 0 | 107.7% | 85 | 115 | | | | |
| Toluene | 21.27 | 1 | 20 | 0 | 106.3% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 89.74 | 0 | 100 | 0 | 89.7% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 102.7 | 0 | 100 | 0 | 102.7% | 70 | 130 | | | | |
| Fluorobenzene | 87.6 | 0 | 100 | 0 | 87.6% | 70 | 130 | | | | |

| Sample ID: CCV2 QC0606/07 | Batch ID: GC-1_981104 | Test Code: SW8020A | Units: µg/L | Analysis Date 11/4/98 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9811014 | Run ID: GC-1_981104A | SeqNo: 8460 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.8 | 1 | 20 | 0 | 104.0% | 85 | 115 | | | | |
| Ethylbenzene | 20.93 | 1 | 20 | 0 | 104.6% | 85 | 115 | | | | |
| m,p-Xylene | 41.08 | 2 | 40 | 0 | 102.7% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 21.31 | 1 | 20 | 0 | 106.5% | 85 | 115 | | | | |
| o-Xylene | 21.31 | 1 | 20 | 0 | 106.6% | 85 | 115 | | | | |
| Toluene | 20.99 | 1 | 20 | 0 | 105.0% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 89.25 | 0 | 100 | 0 | 89.2% | 70 | 130 | | | | |
| 4-Bromochlorobenzene | 102.4 | 0 | 100 | 0 | 102.4% | 70 | 130 | | | | |
| Fluorobenzene | 87.7 | 0 | 100 | 0 | 87.7% | 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: 9811014
Project: Florance 124
Test No: SW8020A

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

BTEX

| Sample ID | 14FBZ | 4BCBZ | FLBZ | | | | |
|----------------|-------|-------|------|--|--|--|--|
| 9810083-01A | 90.1 | 103 | 88.1 | | | | |
| 9810083-01AMS | 90.2 | 103 | 87.8 | | | | |
| 9810083-01AMSD | 89.9 | 103 | 87.6 | | | | |
| 9810094-01A | 90 | 102 | 88 | | | | |
| 9810094-02A | 89.8 | 103 | 87.9 | | | | |
| 9811008-01A | 89.1 | 99.6 | 96.9 | | | | |
| 9811012-01A | 82.6 | 97.4 | 82.6 | | | | |
| 9811012-02A | 82.4 | 96.4 | 82 | | | | |
| 9811013-01A | 88 | 102 | 85.6 | | | | |
| 9811014-01A | 89.7 | 104 | 88 | | | | |
| 9811014-02A | 89.8 | 104 | 88 | | | | |
| CCV1 QC0606/07 | 89.7 | 103 | 87.6 | | | | |
| CCV2 QC0606/07 | 89.2 | 102 | 87.7 | | | | |
| LCS WATER | 89 | 102 | 87.6 | | | | |
| MB1 | 90.2 | 103 | 88 | | | | |

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

* Surrogate recovery outside acceptance limits

OFF: (505) 325-5667



LAB: (505) 325-1556

February 10, 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

Received
Feb 19 1999

1st Q+R 1999

RE: Florance 124

Order No.: 9901017

Dear Maureen Gannon,

On Site Technologies, LTD. received 2 samples on 1/21/99 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 "David Cox", written in a cursive style.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 10-Feb-99

CLIENT: PNM - Public Service Company of NM
Project: Florance 124
Lab Order: 9901017

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: 10-Feb-99

| | | | |
|--------------------|------------------------------------|----------------------------|--------------------|
| Client: | PNM - Public Service Company of NM | Client Sample Info: | Florance 124 |
| Work Order: | 9901017 | Client Sample ID: | 9901211530; MW 2 |
| Lab ID: | 9901017-01A | Matrix: | AQUEOUS |
| Project: | Florance 124 | Collection Date: | 1/21/99 3:30:00 PM |
| | | COC Record: | 7471 |

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8021B | | | | Analyst: HR |
| Benzene | 37 | 0.5 | | µg/L | 1 | 2/1/99 |
| Toluene | 13 | 0.5 | | µg/L | 1 | 2/1/99 |
| Ethylbenzene | 14 | 0.5 | | µg/L | 1 | 2/1/99 |
| m,p-Xylene | 99 | 1 | | µg/L | 1 | 2/1/99 |
| o-Xylene | 31 | 0.5 | | µg/L | 1 | 2/1/99 |

| | | |
|--------------------|---|---|
| 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 |

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 10-Feb-99

Client: PNM - Public Service Company of NM **Client Sample Info:** Florance 124
Work Order: 9901017 **Client Sample ID:** 9901211600; MW 5
Lab ID: 9901017-02A **Matrix:** AQUEOUS **Collection Date:** 1/21/99 4:00:00 PM
Project: Florance 124 **COC Record:** 7471

Duplicate
of
MW-2

| Parameter | Result | PQL | Qual | Units | DF | Date Analyzed |
|--------------|--------|----------------|------|-------|----|--------------------|
| BTEX | | SW8021B | | | | Analyst: HR |
| Benzene | 33 | 0.5 | | µg/L | 1 | 2/1/99 |
| Toluene | 12 | 0.5 | | µg/L | 1 | 2/1/99 |
| Ethylbenzene | 12 | 0.5 | | µg/L | 1 | 2/1/99 |
| m,p-Xylene | 88 | 1 | | µg/L | 1 | 2/1/99 |
| o-Xylene | 29 | 0.5 | | µg/L | 1 | 2/1/99 |

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

On Site Technologies, LTD.

Date: 10-Feb-99

CLIENT: PNM - Public Service Company of NM
 Work Order: 9901017
 Project: Florance 124

QC SUMMARY REPORT
 Method Blank

| Sample ID: MB1 | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/1/99 | Prep Date: | | | | | | |
|-------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10591 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | .1 | 0.5 | | | | | | | | | J |
| Ethylbenzene | .1056 | 0.5 | | | | | | | | | J |
| m,p-Xylene | .217 | 1 | | | | | | | | | J |
| Methyl tert-Butyl Ether | ND | 1 | | | | | | | | | |
| o-Xylene | .1598 | 0.5 | | | | | | | | | J |
| Toluene | ND | 0.5 | | | | | | | | | |

| Sample ID: MB1 | Batch ID: GC-1_990204 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/4/99 | Prep Date: | | | | | | |
|-------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990204A | SeqNo: 10701 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | .1329 | 0.5 | | | | | | | | | J |
| Ethylbenzene | .0442 | 0.5 | | | | | | | | | J |
| m,p-Xylene | .133 | 1 | | | | | | | | | J |
| Methyl tert-Butyl Ether | ND | 1 | | | | | | | | | |
| o-Xylene | .047 | 0.5 | | | | | | | | | J |
| Toluene | .1286 | 0.5 | | | | | | | | | J |

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

On Site Technologies, LTD.

Date: 10-Feb-99

CLIENT: PNM - Public Service Company of NM

Work Order: 9901017

Project: Florance 124

QC SUMMARY REPORT

Sample Matrix Spike

| Sample ID: 9901030-03AMS | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/1/99 | Prep Date: | | | | | | |
|--------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10592 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 10480 | 50 | 4000 | 6460 | 100.6% | 73 | 115 | | | | |
| Ethylbenzene | 4644 | 50 | 4000 | 664.3 | 99.5% | 74 | 117 | | | | |
| m,p-Xylene | 13420 | 100 | 8000 | 5415 | 100.1% | 76 | 112 | | | | |
| Methyl tert-Butyl Ether | 3802 | 100 | 4000 | 65.51 | 93.4% | 62 | 122 | | | | |
| o-Xylene | 5266 | 50 | 4000 | 1321 | 98.6% | 83 | 112 | | | | |
| Toluene | 12890 | 50 | 4000 | 8934 | 98.9% | 71 | 120 | | | | |

| Sample ID: 9901030-03AMSD | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/1/99 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10593 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 10660 | 50 | 4000 | 6460 | 105.2% | 73 | 115 | 10480 | 1.7% | 8 | |
| Ethylbenzene | 4708 | 50 | 4000 | 664.3 | 101.1% | 74 | 117 | 4644 | 1.4% | 9 | |
| m,p-Xylene | 13620 | 100 | 8000 | 5415 | 102.6% | 76 | 112 | 13420 | 1.5% | 9 | |
| Methyl tert-Butyl Ether | 3734 | 100 | 4000 | 65.51 | 91.7% | 62 | 122 | 3802 | 1.8% | 7 | |
| o-Xylene | 5317 | 50 | 4000 | 1321 | 99.9% | 83 | 112 | 5266 | 1.0% | 9 | |
| Toluene | 13100 | 50 | 4000 | 8934 | 104.3% | 71 | 120 | 12890 | 1.7% | 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: 9901017
Project: Florance 124

QC SUMMARY REPORT
 Sample Matrix Spike

| Sample ID: 9901017-01AMS | Batch ID: GC-1_990204 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/4/99 | Prep Date: | | | | | | |
|---------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|---------|
| Client ID: 9901211530; MW | 9901017 | Run ID: GC-1_990204A | | SeqNo: 10702 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 90.18 | 2.5 | 200 | 37.09 | 26.5% | 73 | 115 | | | | S ✓ |
| Ethylbenzene | 191.5 | 2.5 | 200 | 14.15 | 88.7% | 74 | 117 | | | | L ✓ |
| m,p-Xylene | 435.1 | 5 | 400 | 98.74 | 84.1% | 76 | 112 | | | | S ✓ |
| Methyl tert-Butyl Ether | 100.9 | 5 | 200 | 3.314 | 48.8% | 62 | 122 | | | | 2/10/99 |
| o-Xylene | 204.9 | 2.5 | 200 | 31.49 | 86.7% | 83 | 112 | | | | 2/11/99 |
| Toluene | 213.4 | 2.5 | 200 | 13.04 | 100.2% | 71 | 120 | | | | |

| Sample ID: 9901017-01AMSD | Batch ID: GC-1_990204 | Test Code: SW8021B | Units: µg/L | Analysis Date 2/4/99 | Prep Date: | | | | | | |
|---------------------------|-----------------------|----------------------|-------------|----------------------|------------|----------|-----------|-------------|------|----------|---------|
| Client ID: 9901211530; MW | 9901017 | Run ID: GC-1_990204A | | SeqNo: 10703 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 93.15 | 2.5 | 200 | 37.09 | 28.0% | 73 | 115 | 90.18 | 3.2% | 8 | S ✓ |
| Ethylbenzene | 197.8 | 2.5 | 200 | 14.15 | 91.8% | 74 | 117 | 191.5 | 3.2% | 9 | LCS |
| m,p-Xylene | 449.7 | 5 | 400 | 98.74 | 87.7% | 76 | 112 | 435.1 | 3.3% | 9 | 2/10/99 |
| Methyl tert-Butyl Ether | 100.7 | 5 | 200 | 3.314 | 48.7% | 62 | 122 | 100.9 | 0.2% | 7 | S ✓ |
| o-Xylene | 211.1 | 2.5 | 200 | 31.49 | 89.8% | 83 | 112 | 204.9 | 3.0% | 9 | 2/11/99 |
| Toluene | 213.1 | 2.5 | 200 | 13.04 | 100.0% | 71 | 120 | 213.4 | 0.1% | 9 | |

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

On Site Technologies, LTD.

Date: 10-Feb-99

CLIENT: PNM - Public Service Company of NM
Work Order: 9901017
Project: Florance 124

QC SUMMARY REPORT
Laboratory Control Spike - generic

| Sample ID: LCS WATER | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date: 2/1/99 | Prep Date: | | | | | | |
|-------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10590 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 41.19 | 0.5 | 40 | 0.1 | 102.7% | 84 | 110 | | | | |
| Ethylbenzene | 41.35 | 0.5 | 40 | 0.1 | 103.1% | 86 | 113 | | | | |
| m,p-Xylene | 81.06 | 1 | 80 | 0.2 | 101.1% | 81 | 114 | | | | |
| Methyl tert-Butyl Ether | 40.88 | 1 | 40 | 0 | 102.2% | 69 | 129 | | | | |
| o-Xylene | 40.85 | 0.5 | 40 | 0.2 | 101.6% | 86 | 112 | | | | |
| Toluene | 40.6 | 0.5 | 40 | 0 | 101.5% | 85 | 111 | | | | |

| Sample ID: LCS WATER | Batch ID: GC-1_990204 | Test Code: SW8021B | Units: µg/L | Analysis Date: 2/4/99 | Prep Date: | | | | | | |
|-------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990204A | SeqNo: 10700 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 42.54 | 0.5 | 40 | 0.1329 | 106.0% | 84 | 110 | | | | |
| Ethylbenzene | 42.79 | 0.5 | 40 | 0.0442 | 106.9% | 86 | 113 | | | | |
| m,p-Xylene | 83.34 | 1 | 80 | 0.133 | 104.0% | 81 | 114 | | | | |
| Methyl tert-Butyl Ether | 38.28 | 1 | 40 | 0 | 95.7% | 69 | 129 | | | | |
| o-Xylene | 41.98 | 0.5 | 40 | 0.047 | 104.8% | 86 | 112 | | | | |
| Toluene | 41.92 | 0.5 | 40 | 0.1286 | 104.5% | 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: 10-Feb-99

CLIENT: PNM - Public Service Company of NM

Work Order: 9901017

Project: Florance 124

QC SUMMARY REPORT
Continuing Calibration Verification Standard

| Sample ID: CCV1 QC0606/07 | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date: 2/1/99 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10587 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 21.47 | 0.5 | 20 | 0 | 107.4% | 85 | 115 | | | | |
| Ethylbenzene | 21.23 | 0.5 | 20 | 0 | 106.2% | 85 | 115 | | | | |
| m,p-Xylene | 40.86 | 1 | 40 | 0 | 102.2% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 21.25 | 1 | 20 | 0 | 106.2% | 85 | 115 | | | | |
| o-Xylene | 20.82 | 0.5 | 20 | 0 | 104.1% | 85 | 115 | | | | |
| Toluene | 20.88 | 0.5 | 20 | 0 | 104.4% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 97.35 | 0 | 100 | 0 | 97.3% | 90 | 102 | | | | |
| 4-Bromochlorobenzene | 98.2 | 0 | 100 | 0 | 98.2% | 93 | 102 | | | | |
| Fluorobenzene | 96.44 | 0 | 100 | 0 | 96.4% | 84 | 103 | | | | |

| Sample ID: CCV2 QC0606/07 | Batch ID: GC-1_990201 | Test Code: SW8021B | Units: µg/L | Analysis Date: 2/1/99 | Prep Date: | | | | | | |
|---------------------------|-----------------------|--------------------|-------------|-----------------------|------------|----------|-----------|-------------|------|----------|------|
| Client ID: 9901017 | Run ID: GC-1_990201A | SeqNo: 10588 | | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.2 | 0.5 | 20 | 0 | 101.0% | 85 | 115 | | | | |
| Ethylbenzene | 19.81 | 0.5 | 20 | 0 | 99.1% | 85 | 115 | | | | |
| m,p-Xylene | 37.96 | 1 | 40 | 0 | 94.9% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 19.04 | 1 | 20 | 0 | 95.2% | 85 | 115 | | | | |
| o-Xylene | 19.7 | 0.5 | 20 | 0 | 98.5% | 85 | 115 | | | | |
| Toluene | 19.57 | 0.5 | 20 | 0 | 97.9% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 96.88 | 0 | 100 | 0 | 96.9% | 90 | 102 | | | | |
| 4-Bromochlorobenzene | 99.09 | 0 | 100 | 0 | 99.1% | 93 | 102 | | | | |
| Fluorobenzene | 96.51 | 0 | 100 | 0 | 96.5% | 84 | 103 | | | | |

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: 9901017
Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV3 QC0606/07 | | Batch ID: GC-1_990201 | | Test Code: SW8021B | | Units: µg/L | | Analysis Date 2/1/99 | | Prep Date: | |
|---------------------------|--------|-----------------------|-----------|--------------------|--------|-------------|-----------|----------------------|------|------------|------|
| Client ID: 9901017 | | Run ID: GC-1_990201A | | SeqNo: 10589 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 41.68 | 0.5 | 40 | 0 | 104.2% | 85 | 115 | | | | |
| Ethylbenzene | 40.55 | 0.5 | 40 | 0 | 101.4% | 85 | 115 | | | | |
| m,p-Xylene | 79.37 | 1 | 80 | 0 | 99.2% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 38.63 | 1 | 40 | 0 | 96.6% | 85 | 115 | | | | |
| o-Xylene | 40.14 | 0.5 | 40 | 0 | 100.3% | 85 | 115 | | | | |
| Toluene | 40.41 | 0.5 | 40 | 0 | 101.0% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 97.11 | 0 | 100 | 0 | 97.1% | 90 | 102 | | | | |
| 4-Bromochlorobenzene | 97.98 | 0 | 100 | 0 | 98.0% | 93 | 102 | | | | |
| Fluorobenzene | 96.64 | 0 | 100 | 0 | 96.6% | 84 | 103 | | | | |

| Sample ID: CCV1 QC0606/07 | | Batch ID: GC-1_990204 | | Test Code: SW8021B | | Units: µg/L | | Analysis Date 2/4/99 | | Prep Date: | |
|---------------------------|--------|-----------------------|-----------|--------------------|--------|-------------|-----------|----------------------|------|------------|------|
| Client ID: 9901017 | | Run ID: GC-1_990204A | | SeqNo: 10698 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 22.06 | 0.5 | 20 | 0 | 110.3% | 85 | 115 | | | | |
| Ethylbenzene | 21.56 | 0.5 | 20 | 0 | 107.8% | 85 | 115 | | | | |
| m,p-Xylene | 41.34 | 1 | 40 | 0 | 103.3% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 19.46 | 1 | 20 | 0 | 97.3% | 85 | 115 | | | | |
| o-Xylene | 21.04 | 0.5 | 20 | 0 | 105.2% | 85 | 115 | | | | |
| Toluene | 21.05 | 0.5 | 20 | 0 | 105.2% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 96.84 | 0 | 100 | 0 | 96.8% | 90 | 102 | | | | |
| 4-Bromochlorobenzene | 99.27 | 0 | 100 | 0 | 99.3% | 93 | 102 | | | | |
| Fluorobenzene | 96.3 | 0 | 100 | 0 | 96.3% | 84 | 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: 9901017
Project: Florance 124

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

| Sample ID: CCV2 QC0606/07 | | Batch ID: GC-1_990204 | | Test Code: SW8021B | | Units: µg/L | | Analysis Date 2/4/99 | | Prep Date: | |
|---------------------------|--------|-----------------------|-----------|--------------------|--------|-------------|-----------|----------------------|------|------------|------|
| Client ID: 9901017 | | Run ID: GC-1_990204A | | SeqNo: 10699 | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene | 20.49 | 0.5 | 20 | 0 | 102.5% | 85 | 115 | | | | |
| Ethylbenzene | 20.42 | 0.5 | 20 | 0 | 102.1% | 85 | 115 | | | | |
| m,p-Xylene | 39.06 | 1 | 40 | 0 | 97.7% | 85 | 115 | | | | |
| Methyl tert-Butyl Ether | 20.22 | 1 | 20 | 0 | 101.1% | 85 | 115 | | | | |
| o-Xylene | 19.98 | 0.5 | 20 | 0 | 99.9% | 85 | 115 | | | | |
| Toluene | 20.01 | 0.5 | 20 | 0 | 100.1% | 85 | 115 | | | | |
| 1,4-Difluorobenzene | 96.33 | 0 | 100 | 0 | 96.3% | 90 | 102 | | | | |
| 4-Bromochlorobenzene | 98.99 | 0 | 100 | 0 | 99.0% | 93 | 102 | | | | |
| Fluorobenzene | 95.45 | 0 | 100 | 0 | 95.5% | 84 | 103 | | | | |

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: 9901017
Project: Florance 124
Test No: SW8021B

**QC SUMMARY REPORT
 SURROGATE RECOVERIES**

BTEX

| Sample ID | 14FBZ | 4BCBZ | FLBZ |
|----------------|--------|--------|--------|
| 9901015-01A | 92.5 | 94.3 | 93.5 |
| 9901015-02A | 92 | 92.5 * | 92.7 |
| 9901016-01A | 93.5 | 95.9 | 92.7 |
| 9901016-02A | 97.2 | 98.9 | 96.2 |
| 9901016-03A | 89.8 * | 94 | 89.3 |
| 9901016-04A | 94.1 | 97.2 | 93.6 |
| 9901017-01A | 84.2 * | 81.7 * | 87.3 |
| 9901017-01AMS | 36.8 * | 93.9 | 37.2 * |
| 9901017-01AMSD | 36.9 * | 93.8 | 37.4 * |
| 9901017-02A | 83.4 * | 83.2 * | 86 |
| 9901024-01A | 97.4 | 96.5 | 96.3 |
| 9901024-02A | 97.2 | 97.5 | 96.5 |
| 9901024-05A | 97.2 | 95.6 | 96.1 |
| 9901030-01A | 96.2 | 97.4 | 96 |
| 9901030-02A | 97 | 98.7 | 96.3 |
| 9901030-03A | 94.8 | 98.5 | 95.2 |
| 9901030-03AMS | 94.7 | 98.8 | 94.9 |
| 9901030-03AMSD | 94.6 | 98.4 | 94.9 |
| 9901030-04A | 92.5 | 97.2 | 93.2 |
| 9901030-05A | 96.4 | 97.2 | 95.9 |
| 9901030-06A | 96.4 | 98 | 95.9 |
| 9902002-08A | 96.6 | 98.8 | 95.3 |
| 9902002-09A | 96.6 | 98.6 | 95.8 |
| 9902003-01A | 96.1 | 98.1 | 97.5 |
| 9902003-02A | 96.8 | 99.1 | 95.9 |
| 9902008-02A | 96.8 | 99.1 | 96.1 |
| CCV1 QC0606/07 | 96.8 | 99.3 | 96.3 |

Acronym

Surrogate

QC Limits

14FBZ

= 1,4-Difluorobenzene

90-102

4BCBZ

= 4-Bromochlorobenzene

93-102

FLBZ

= Fluorobenzene

84-103

* Surrogate recovery outside acceptance limits

CLIENT: PNM - Public Service Company of NM
Work Order: 9901017
Project: Florance 124
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

BTEX

| Sample ID | 14FBZ | 4BCBZ | FLBZ | | | | |
|----------------|-------|-------|------|--|--|--|--|
| CCV2 QC0606/07 | 96.3 | 99 | 95.4 | | | | |
| CCV3 QC0606/07 | 97.1 | 98 | 96.6 | | | | |
| LCS WATER | 96.4 | 99.8 | 95 | | | | |
| MB1 | 97 | 98.8 | 95.8 | | | | |

| Acronym | Surrogate | QC Limits |
|---------|------------------------|-----------|
| 14FBZ | = 1,4-Difluorobenzene | 90-102 |
| 4BCBZ | = 4-Bromochlorobenzene | 93-102 |
| FLBZ | = Fluorobenzene | 84-103 |

* Surrogate recovery outside acceptance limits



CHAIN OF CUSTODY RECORD

Date: 1/21/99

Page: 1 of 1

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

| | | | | | | | | | |
|---|---|-------------|--------------------------------|----------------------|---|-------------|---|--------------------------------|--------------|
| Purchase Order No.: | | Job No.: | | REPORT RESULTS TO | 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 | | Mailing Address: Alverado Square, Mail Stop 0408 | | City, State, Zip: Albuquerque, NM 87158 | | |
| | Address: 603 W. Elm Street | | | | City, State, Zip: Albuquerque, NM 87158 | | Telephone No.: | | Telefax No.: |
| | City, State, Zip: Farmington, NM 87401 | | | | Telephone No.: | | 505-848-2974 | | Telefax No.: |
| Sampling Location: Florange 124 | | | | Number of Containers | ANALYSIS REQUESTED | | | | |
| Sampler: R. Dedrick | | | | | / (505) 325-5667 | | | | |
| SAMPLE IDENTIFICATION | | | SAMPLE | | LAB ID | | | | |
| | | | DATE | TIME | | MATRIX | PRES. | | |
| 9901211530 | | MW-2 | 1/21/99 | 1530 | H₂C/KI | 2 | X | 110107-41A | |
| 9901211600 | | MW-5 | 1/21/99 | 1600 | H₂O/KI | 2 | X | - 62A | |
| Relinquished by: Ronald A Dedrick | | | Date/Time: 1/21/99 1650 | | Received by: JCS | | | Date/Time: 1/21/99 1650 | |
| Relinquished by: | | | Date/Time: | | Received by: | | | Date/Time: | |
| Relinquished by: | | | Date/Time: | | Received by: | | | Date/Time: | |
| Method of Shipment: | | | | | Rush | 24-48 Hours | 10 Working Days | Special Instructions: | |
| Authorized by: Ronald A Dedrick | | | | | Date: 1/21/99 | | Results to be sent to both parties. | | |
| | | | | | | | | | |