AP-053

Abatement Plan Work Plan

DATE: Jan 29, 2010

NEW MEXICO SALT WATER DISPOSAL COMPANY, INC.

400 N. Pennsylvania Ave. Suite 1000 P.O. Box 1518 (88202) Roswell, NM 88201 575/625-0277 Telephone 575/622-8643 Fax

January 29, 2010

Mr. Glenn von Gonten, Acting Environmental Bureau Chief Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: Stage 1 Abatement Plan Work-plan (AP053)

Response to Wayne Price October 9, 2008 Letter and Stage 1 Report

Dear Mr. von Gonten:

RECEIVED OCD

Subsequent to receiving the October 9, 2008 letter from then Environmental Bureau Chief Wayne Price, New Mexico Salt Water Disposal Company ("NMSWDCo") has evaluated that letter in light of the data known at that time and has performed further site investigation activities at our Station 11 tank battery located in Lea County, New Mexico, specifically within Unit D of Section 21, Township 10 South and Range 34 East. *See* 10/09/08 Wayne Price letter, attached hereto as Exhibit ("Ex.") A.

Based on NMSWDo's initial and supplemental site assessment activities, we now request that you conclude that (i) we have adequately assessed the site and (ii) there are no reasons to perform any additional site investigation nor are there any reasons to conduct remediation other than NMSWDo's proposed redevelopment of the bermed area to contain 150% of tank volumes and install a surface liner with a 40 mil impervious material.

We will respond to the letter of October 9, 2008 in a point-by-point manner as follows:

STAGE 1 ABATEMENT PLAN REPORT DEFICIENCIES

Point:

The first paragraph states "OCD is conditionally approving both reports because of several deficiencies noted below. The deficiencies do not impact the overall quality of the reports."

Response:

The wording as quoted above indicates to us that while specific methods utilized and data collected were questioned in other parts of the letter, the OCD doesn't disagree with the methodology utilized and the data collected by our environmental consulting firm, CMB Environmental & Geological Services, Inc. ("CMB"), and the data derived therefrom significantly enough to reject the CMB report.

Point:

1. NMSWDCo installed 20 feet of screen in its three new monitoring wells (see p. 5). However, Section 3.3 (p.9) of the approved Stage 1 Abatement Plan Proposal specified 15 foot screens.

Response:

We believe that this point is not an issue nor is it a detriment to the quality of the data collected. In fact, it is our belief that the additional 5 feet of length in the screen exposes that much more of the formation directly to atmospheric pressure.

Point:

2. NMSWDCo advanced MW-1 from 63.5 feet BGS to 135 feet BGS using a mud rotary. This contingency was never discussed in the approved Stage 1 Abatement Plan Proposal and is usually not acceptable to OCD. However, because NMSWDCo advanced two other monitor wells, OCD is willing to accept the analytical results from MW-1. NMSWDCo is cautioned against using mud rotary methods in the future without first justifying to OCD first.

Response:

MW-1 was drilled with a hollow stem auger to 63.5 feet BGS whereupon water was encountered (the wellbore had been dry all the way down to that point, therefore, the water encountered was on the top of the clay barrier) and because of split spoon sampling methods, we were aware of the fact that we were going to penetrate a clay barrier, and not wanting to do so, we decided to run 6 inch PVC casing from surface to 65.0 feet BGS whereupon the 6 inch casing was cement grouted to surface. We resumed drilling using the mud rotary method through the 6 inch PVC casing. Knowing full well that our objective was 115 feet BGS and not wanting to have the potential of dragging contamination towards that aquifer, we prudently set casing. Procedurally, it is ineffective and impractical to use a hollow stem auger when the auger has to pass through casing after the auger has been drilling in a clay zone. The augers tear up the PVC. All mud and soil boring cuttings from the mud rotary were circulated in a steel pit, there was no surface contamination and the mud was drummed and was subsequently shipped to an approved dump site, Gandy Marley, Inc.

Point:

3. NMSWDCo committed to a more comprehensive monitoring list than it actually analyzed for. In its approved Stage 1 Abatement Plan Proposal, NMSWDCo committed to analyzing for "general chemistry, including chlorides and total dissolved solids (TDS)..." General chemistry parameters include all constituents specified at 40 CFR 136, not just chlorides and TDS.

Response:

As stated within the Section of the August 10, 2008 Stage 1 Abatement Plan report titled Appendix 6, under Hall Environmental Analysis Report 0707164, 7 water samples were analyzed, including monitor wells 1, 2 and 3, for TPH, Modified 8015, DRO-GRO, BTEX 8021B, Anions, dissolved metals, alkalinity, specific conductance, pH, and TDS. Also in the same report, see the 4th Table "Groundwater Sampling, July 9, 2007", containing the analytical results of the aforementioned lab analysis.

Point:

4. NMSWDCo refers to "perched water" several places in its report and appears to be under the assumption that "perched water" is not afforded the same protection as a regional aquifer. Perched water is ground water and is protected to the same degree as a more extensive regional aquifer.

Response:

NMSWDCo's additional site assessment work demonstrates that the water inappropriately termed "perched water" in the CMB report is not sustainable and, therefore, there is not sufficient water to be put to a beneficial use. See attached GEOLOGICAL AND HYDROGEOLOGICAL EVALUATION OF BORINGS AND MONITOR WELLS AT AND AROUND NEW MEXICO SALT WATER DISPOSAL CO., INC., STATION 11 Prepared by Kay Havenor, Ph.D. ("Havenor Report"), attached hereto as Ex. B, at ii-iii, Points IV, VIII, and XI, and 18-19.

Point:

5. NMSWDCo refers to "perched produced water" (see p. 6) encountered in MW-1 at a depth of 60.0-63.5 feet BGS. The chlorides concentration in this "perched produced water" was 21,000 mg/l. Previously, NMSWDCo had reported that the chlorides concentration in SB-4A at a depth of 29-31 feet BGS was 45,000 mg/l. The chlorides concentration in the produced water taken from its tank battery was 83,000 mg/l.

Response:

NMSWDCo is unclear as to this point. See Havenor Report, Ex. B, at 2.

Point:

6. NMSWDCo encountered saturated conditions at approximately 60 to 63.5 feet BGS in MW-1; however, the well bore was only left open for only 30 minutes. This is not an adequate amount of time to allow for fluid entry into the well bore. This same inappropriate procedure was followed at MW-2, MW-3, and RW-1 although the well bore was left open for 60 minutes at RW-1.

Response:

During the drilling the sampled soils from the soil borings (split spoon), particularly in the capillary fringe, were dry and did not have retained water. Clayey sandy soils tend to retain moisture. Experience has proven that when drilling and installing a monitor well, the soils above the saturated zone are damp and retain moisture from capillary forces. As an example, when we began drilling MW-1, at 60.0 feet BGS the soils were damp to the point of being almost saturated and at 61.0 feet BGS we had immediate fluid entry into the wellbore. While drilling SB-4A, we had saturated soils and immediate fluid entry at 29.0 feet BGS. While all other borings in the site investigation were being drilled, upon encountering the clay barrier at 29.0-31.0 feet BGS and from 60.0-65.0 feet BGS, the split spoon samples were dry and the borings were dry. We pulled the augers back 6 inches from total depth, after encountering the clay barriers, installed a Solinist Water Level Meter and waited for fluid entry. None was encountered. The Principal Investigator's previous drilling experience of more than 500 monitor wells installed in New Mexico has shown that, in virtually all of those instances, there has been some fluid entry if a monitor well is to be installed and if there indeed was an aquifer penetrated by the soil boring. There is no documented procedure for the amount of time, correct or incorrect, to allow for fluid entry into a wellbore. Therefore, we continued drilling.

Point:

7. On page 11, NMSWDCo indicates that while bailing RW-1, the recovery rate was slow and attribute the water level to well completion procedures. OCD is skeptical of this interpretation. OCD notes that no water samples were collected or analyzed; therefore, there is no analytical data to support NMSWDCo's assertion. As discussed below, OCD will require NMSWDCo to analyze the water from 29-31 feet BGS perched zone.

Response:

RW-1 was dry; it did not encounter the water that SB-4A encountered at 29.0-31.0 feet BGS. During the installation of the sand filter pack, we had to add water to the hole to make sure that we had a good filter pack in the clay barrier. The well was bailed and was bailed dry. Fluid entry was minimal and the water recovered by bailing was the exact amount used to assist in the installation of the sand filter pack. Additionally, see Havenor Report, Ex. B, at ii, Point IV.

Point:

8. Beginning on page 13, NMSWDCo discusses the chloride concentrations in the soil samples and uses "mg/l" or PPM rather than "mg/kg". In all future reports, NMSWDCo should be careful to use the correct unit to avoid confusion.

Response:

Accepted.

Point:

9. In summary comment 1 (p.15), NMSWDCo that it has "defined the vertical and horizontal extent of alleged chloride contamination." OCD disagrees; NMSWDCo has not depicted the vertical extent of soil or ground water contamination on its cross section nor has it provided a map depicting the horizontal extent of soil and ground contamination on a map.

Response:

The data collected from the drilling and sampling of the additional monitor wells advanced by NMSWDCo, after consultation with the OCD, completely define the vertical and horizontal extent of alleged chloride contamination. See Havenor Report, Ex. B.

Point:

10. In Summary Comment 1 (p. 15), NMSWDCo indicates that the hydraulic gradient is 0.66 ft/ft, which is obviously incorrect.

Response:

We concur with this point even though it amounts to nothing more than errata, as it can be corrected to feet per mile (ft/mile).

Point:

11. In Summary Comment 3 (p. 15), NMSWDCo again refers to "perched produced formation water" in MW-1. As noted above, OCD has determined that the perched ground water in MW-1 is fresh water which has been contaminated by produced water released from the produced water tank batteries. NMSWDCo chose not to adequately test the perched zone. As discussed below, OCD will require NMSWDCo to offset MW-1 and complete a monitor well in the perched zone.

Response:

See responses to Points 4 & 5, above. Also, see Havenor Report, Ex. B, at ii-iii, Points IV, VIII, and XI, and 18-19.

Point:

12. OCD accepts NMSWDCo's conclusion that the deeper, regional aquifer encountered at 100-105 feet BGS has not been contaminated by a release from Station

Response:

The OCD will surely understand that we are pleased to have their agreement that the fresh water in the deep regional aquifer has not been contaminated by releases from Station 11.

REPORT ON INFRASTRUCTURE AND OPERATING GUIDELINES DEFICIENCIES

Point:

13. NMSWDCo must revise its proposed *Operational and Emergency Policy* by deleting items 4 and 5 of its *Operation Policy*. NMSWDCo is not a regulatory agency and has no authority over "adversarial tenants" or to "uphold the rights of the State of New Mexico". The State Land Office has authority over tenants on state land. NMSWDCo must submit a revised *Operational and Emergency Policy* within 10 days of its receipt of this Notice of Deficiency.

Response:

Please see the copy of NMSWDCo's timely response, attached hereto as Ex. C.

REQUIREMENT TO SUBMIT PHASE TWO OF STAGE 1 ABATEMENT PLAN

Point:

OCD has determined that NMSWDCo failed to adequately test the ground water encountered at 29-31 feet BFGS in RW-1 and at 60-63.5 feet BGS in MW-1 and has determined the horizontal and vertical extent of soil and ground water contamination. NMSWDCo must submit a phase two work plan which documents the tasks that it will perform to determine the ground water quality in the perched zones in RW-1. The phase two work plan must also specify that the NMSWDCo will offset MW-1 and install a monitor well screened above 60-63.5 feet BGFS. NMSWDCo's phase two work plan must also specify that it will install a new monitor well on the north side of the bermed area to determine the extent of and water quality of the perched zone encountered in MW-1.

Response:

The OCD is aware that NMSWDCo drilled additional monitor wells after receipt of the October 9, 2008, letter from Mr. Price. Consequently, NMSWDCo has already completed the requested Phase Two work. *See* Havenor Report, Ex. B. Also see Exs. D through K attached hereto (addressing the three additional monitor wells and associated analyses).

REBUILDING OF PUMP STATION 11

Points:

NMSWDCo's Stage 1 investigation did not address the soil contamination beneath the bermed tank battery area. NMSWDCo has committed to rebuild Pump Station 11 in its letter of December 15, 2005. OCD has determined that it is extremely likely that the soil beneath the tank battery area is grossly contaminated by chlorides and that this contamination poses a very real threat to ground water as long as the source of contamination remains. Therefore, OCD is also requiring NMSWDCo to move its tank batteries from the present location to another location to be determined by NMSWDCo and the State Land Office. The new location should be constructed with a berm that will contain at least 150% of the combined volume of the tank batteries and be lined with an 40 mil plastic.

NMSWDCo has at least two options for source removal. First, it can conduct a soil boring investigation to determine the horizontal and vertical extent of the chlorides contamination and then propose how much of the contamination source should be removed. Second, it can presumptively remove all soil to a depth of 30 feet BGS and backfill, avoiding the cost of the soil investigation.

NMSWDCo should consider its options and include a source removal proposal to OCD when it submits its phase two Stage 1 work plan.

Response:

Based on NMSWDCo's supplemental site assessment work, there is no basis for OCD to require excavation of contaminated soil. See Havenor Report, Ex. B, at 20. The results of the analysis and assessment of all of the soil borings and monitor wells do not support OCD's statement "Therefore, OCD is also requiring NMSWDCo to move its tank batteries from the present location to another location to be determined by NMSWDCo and the State Land Office." Instead, NMSWDCo proposes to do the following:

- 1. Continue to monitor the wells at the site by providing an annual sampling and analysis of any liquids recovered for a maximum term of three (3) years, copies provided to the OCD and the State Land Office ("SLO");
- 2. Construct, re-contour and improve the bermed area to contain 150% of the calculated combined fluid capacity of the tanks that are or will be located within the bermed area; and
- 3. Install a 40 mil liner clamped to the outside diameter of each of the tanks at ground level and extending out over an improved bermed area.

REQUIREMENT TO CLOSE PERMANENT PIT

Point:

NMSWDCo's report documents the presence of a permanent pit located on the south side of the tank batteries. NMSWDCo's must submit a separate work plan to close this permanent pit pursuant to 19.15.17.13 NMAC, with a contingency plan to investigate the extent of any soil or ground water contamination detected during closure.

Response:

The reference to a "permanent pit" was erroneous based on an incorrect survey. Please see the attached Ex. L, which contains a revised survey of the area (prior to the completion of the drilling of the last three monitor wells) and the Affidavit of Ronald J. Eidson correcting the errors in the originally submitted survey.

RESPONSE AND COMMENTS BY NMSWDCo

The OCD, under AP053, will have in its files for reference the original submittals, the *ENVIRONMENTAL SITE ASSESSMENT*, dated April 1, 2004 and the *STAGE 1 ABATEMENT PLAN/MONITOR WELL INSTALLATION REPORT* dated August 10, 2007, both provided by CMB. In addition, this submittal is referencing the "Wayne Price October 9, 2008 Letter" (copy included and labeled Introductory Letter), our response to which is attached is labeled "Cover Letter".

NMSWDCo has endeavored to comply with both the SLO's desires and instructions and those of the OCD in its efforts to investigate the possible contamination resulting from multiple releases (estimated at a net amount of 136 Barrels) of produced water from its tank battery at its Station 11 since 1999. See Havenor Report, Ex. B, at 1. The reference material in the OCD files will provide the background to the previous statement. As a result of the October 9, 2008 Letter, NMSWDCo elected to continue with soil boring/monitor well installation to determine the horizontal and vertical extent of the alleged chloride contamination in lieu of the second option offered in the "Letter" of digging and hauling to a 30 foot depth. The proposal to increase the number of monitor wells was submitted to the OCD in a letter dated November 21, 2008 (Exhibit K). In that letter NMSWDCo proposed to drill 2 monitor wells with the possibility of drilling a third at the same time. The Company subsequently drilled three monitor wells.

The results of those monitor wells are encapsulated in this submittal. In addition, Kay Havenor, Ph.D. of GeoScience Technologies was contracted to evaluate the results of the most recent monitor wells in addition to all of the previously submitted reports, data and submittals to both the OCD and the SLO. Dr. Havenor's evaluation is enclosed in its entirety, as Exhibit B.

As a result of the original submittals, the correspondence and conversations with both the OCD and SLO, the field notes of Clayton M. Barnhill, the laboratory analysis of the samplings, and the findings of Dr. Havenor, NMSWDCo submits this Stage 1 Report.

In conclusion, we reinterate our request that you conclude that (i) we have adequately assessed the site and (ii) based upon our assessment, there are no reasons to perform any further site investigation nor are there any reasons to conduct remediation other than the redevelopment of the bermed area to contain 150% of tank volumes and to include a surface liner with a 40 mil impervious material.

While this has been a significantly long process to arrive at this point, we acknowledge by our recommendations that we are further committed to complete certain tasks. We look forward to your response to this submittal.

Yours Sincerely,

Rory McMinn, Consultant to

New Mexico Salt Water Disposal Company, Inc.

cc: Gino Romero, NM State Land Office

Charles B. Read, New Mexico Salt Water Disposal Company, Inc. James B. Read, New Mexico Salt Water Disposal Company, Inc.

Gary Larson, Hinkle, Hensley, Shanor and Martin, LLP Kay Havenor, Ph.D., GeoScience Technologies, Inc.

Clayton M. Barnhill, CMB Geological and Environmental Services, Inc.

Bill Richardson

Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



October 9, 2008

Mr. Charles B. Read New Mexico Salt Water Disposal Company P.O. Box 1518 Roswell, NM 88201

RE: STAGE 1 ABTEMENT PLAN WORKPLAN (AP053)
REPORT ON INFRASTRUCTURE AND OPERATING GUIDELINES

Dear Mr. Read:

The Oil Conservation Division (OCD) has reviewed the Stage 1 Abatement Plan Report entitled "State (sic) I Abatement Plan / Monitor Well Installation Report", submitted on August 10, 2007, by CMB Environmental and Geological Services Inc. on behalf of the New Mexico Salt Water Disposal Company (NMSWDCo) and the Report On Infrastructure and Operating Guidelines submitted on December 16, 2006 in accordance with the stipulations specified in the Agreed Compliance Order 96, executed on January 12, 2006. OCD hereby conditionally approves the Stage 1 Report and the Infrastructure Report. OCD is conditionally approving both reports because of several deficiencies noted below. The deficiencies do not impact the overall quality of the reports. OCD is providing NMSWDCo with a list of deficiencies for future reference.

STAGE 1 ABATEMENT PLAN REPORT DEFICIENCIES

- 1. NMSWDCo installed 20 feet of screen in its three new monitoring wells (see p. 5). However, Section 3.3 (p. 9) of the approved Stage 1 Abatement Plan Proposal specified 15 foot screens.
- 2. NMSWDCo advanced MW-1 from 63.5 feet BGS to 135 feet BGS using a mud rotary. This contingency was never discussed in the approved Stage 1 Abatement Plan Proposal and is usually not acceptable to OCD. However, because NMSWDCo advanced two other monitor wells, OCD is willing to accept the analytical results from MW-1. NMSWDCo is cautioned against using mud rotary methods in the future without first justifying to OCD first.
- 3. NMSWDCo committed to a more comprehensive monitoring list that it actually analyzed for. In its approved Stage I Abatement Plan Proposal, NMSWDCo committed to analyzing for



Mr. Charles Read October 9, 2008 Page 2

"general chemistry, including chlorides and total dissolved solids (TDS)..." General chemistry parameters include all constituents specified at 40 CFR 136, not just chlorides and TDS.

- 4. NMSWDCo refers to "perched water" several places in its report and appears to be under the assumption that "perched water" is not afforded the same protection as a regional aquifer. Perched water is ground water and is protected to the same degree as a more extensive regional aquifer.
- 5. NMSWDCo refers to "perched produced water" (see p. 6) encountered in MW-1 at a depth of 60.0-63.5 feet BGS. The chlorides concentration in this "perched produced water" was 21,000 mg/l. Previously, NMSWDCo had reported that the chlorides concentration in SB-4A at a depth of 29-31 feet BGS was 45,000 mg/l. The chlorides concentration in the produced water taken from its tank battery was 83,000 mg/l.

Water wells in the same township encountered ground water from 7 to 55 feet BGS. OCD concludes that the "perched water" at both 29-31 feet BGS and 60.0-63.5 feet BGS was fresh, high quality Ogallala water and that at Station 11, two shallow perched zones have been contaminated by produced water, resulting in chlorides concentrations in the two perched zones that is intermediate between fresh water and produced water.

- 6. NMSWDCo encountered saturated conditions at approximately 60 to 63.5 feet BGS in MW-1; however, the well bore was only left open for only 30 minutes. This is not an adequate amount of time to allow for fluid entry into a well bore. This same inappropriate procedure was followed at MW-2, MW-3, and RW-1 although the well bore was left open for 60 minutes at RW-1.
- 7. On page 11, NMSWDCo indicates that while bailing RW-1, the recovery rate was slow and attribute the water level to well completion procedures. OCD is skeptical of this interpretation. OCD notes that no water samples were collected or analyzed; therefore, there is no analytical data to support NMSWDCo's assertion. As discussed below, OCD will require NMSWDCo to analyze the water from the 29-31 feet BGS perched zone.
- 8. Beginning on page 13, NMSWDCo discusses the chloride concentrations in the soil samples and uses "mg/l" or PPM rather than "mg/kg". In all future reports, NMSWDCo should be careful to use the correct unit to avoid confusion.
- 9. In Summary Comment 1 (p. 15), NMSWDCo that it has "defined the vertical and horizontal extent of alleged chloride contamination." OCD disagrees; NMSWDCo has not depicted the vertical extent of the soil or ground water contamination on its cross section nor has it provided a map depicting the horizontal extent of soil and ground contamination on a map.
- 10. In Summary Comment 1 (p. 15), NMSWDCo indicates that the hydraulic gradient is 0.66 ft/ft, which is obviously incorrect.

Mr. Charles Read October 9, 2008 Page 3

- 11. In Summary Comment 3 (p. 15), NMSWDCo again refers to "perched produced formation water" in MW-1. As noted above, OCD has determined that the perched ground water in MW-1 is fresh water which has been contaminated by produced water released from the produced water tank batteries. NMSWDCo chose to not adequately test the perched zone. As discussed below, OCD will require NMSWDCo to offset MW-1 and complete a monitor well in the perched zone.
- 12. OCD accepts NMSWDCo's conclusion that the deeper, regional aquifer encountered at 100-105 feet BGS has not been contaminated by a release from Station 11.

REPORT ON INFRASTRUCTURE AND OPERATING GUIDELINES DEFICIENCIES

13. NMSWDCo must revise its proposed *Operational and Emergency Policy* be deleting items 4 and 5 of its *Operation Policy*. NMSWDCo is not a regulatory agency and has no authority over "adversarial tenants" or to "uphold the rights of the State of New Mexico". The State Land Office has authority over tenants on state land. NMSWDCo must submit a revised *Operational and Emergency Policy* within 10 days of its receipt of this Notice of Deficiency.

REQUIREMENT TO SUBMIT PHASE TWO OF STAGE 1 ABATEMENT PLAN

OCD has determined that NMSWDCo failed to adequately test the ground water encountered at 29-31 feet BGS in RW-1 and at 60.0-63.5 feet BGS in MW-1 and has determined the horizontal and vertical extent of soil and ground water contamination. NMSWDCo must submit a phase two workplan which documents the tasks that it will perform to determine the ground water quality in the perched zones in RW-1. The phase two workplan must also specify that NMSWDCo will offset MW-1 and install a monitor well screened above 60.0-63.5 feet BGS. NMSWDCo's phase two workplan must also specify that it will install a new monitor well on the north side of the bermed area to determine the extent of and water quality of the perched zone encountered in MW-1.

REBUILDING OF PUMP STATION 11

NMSWDCo's Stage 1 investigation did not address the soil contamination beneath the bermed tank battery area. NMSWDCo has committed to rebuild Pump Station 11 in its letter of December 15, 2005. OCD has determined that it is extremely likely that the soil beneath the tank battery area is grossly contaminated by chlorides and that this contamination poses a very real threat to ground water as long as the source of the contamination remains. Therefore, OCD is also requiring NMSWDCo to move its tank batteries from the present location to another location to be determined by NMSWDCo and the State Land Office. The new location should be constructed with a berm that will contain at least 150% of the combined volume of the tank batteries and be lined with 40 mil plastic.

Mr. Charles Read October 9, 2008 Page 4

NMSWDCo has at least two options for source removal. First, it can conduct a soil boring investigation to determine the horizontal and vertical extent of the chlorides contamination and then propose how much of the contamination source should be removed. Second, it can presumptively remove all soil to a depth of 30 feet BGS and backfill, avoiding the cost of the soil investigation.

NMSWDCo should consider its options and include a source removal proposal to OCD when it submits its phase two Stage 1 workplan.

REQUIREMENT TO CLOSE PERMANENT PIT

NMSWDCo's report documents the presence of a permanent pit located on the south side of the tank batteries. NMSWDCo's must submit a separate workplan to close this permanent pit pursuant to 19.15.17.13 NMAC, with a contingency plan to investigate the extent of any soil or ground water contamination detected during closure.

NMSWDCo should submit one paper copy with and an electronic copy on CD of all future workplans and/or reports. Please include "AP053" on all future correspondence. If you have any questions, please contact Glenn von Gonten of my staff at (505) 476-3488.

Sincerely,

Wayne Price

Environmental Bureau Chief

WP/gyg

xc:

OCD District I Office, Hobbs

Thaddeus Kostrubala, State Land Office Rory McMinn, Sage Service Group

GEOLOGICAL AND HYDROGEOLOGICAL EVALUATION OF BORINGS AND MONITOR WELLS AT AND AROUND NEW MEXICO SALT WATER DISPOSAL CO., INC., STATION 11

Section 21, Township 10 South, Range 34 East Lea County, New Mexico New Mexico Oil Conservation Division AP053

Prepared by:

Kay Havenor, Ph.D.

Registered Geologist # 30348, Arizona Professional Geologist # 5806, Texas Certified Professional Geologist # 673, AIPG

GeoScience Technologies

Deborah Havenor, Owner and Business Manager
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Roswell, New Mexico 88203

(575) 622-0283

July 31, 2009

Prepared for:

New Mexico Salt Water Disposal Co., Inc. Roswell, New Mexico

Executive Summary

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- I. As the result of New Mexico Salt Water Disposal Co., Inc., (NMSWDC) produced water releases at its Station 11 tank battery, Unit D of Sec. 21, T10S-R34E, Lea Co., New Mexico State Land Office (SLO) directed soil borings be made to determine the extent of the contamination, if any, resulting from the releases. See page 1.
- II. Four soil borings, SB-1, 2, 3, and 4, from 11 ft to 16 ft were made and found no water, but soil chlorides analyzed in the laboratory exceeded 250 ppm (mg/kg) and the SLO initiated requirements for additional deeper borings. See page 1.
- III. Four deeper soil borings, SB-1A, 2A, 3A, and 4A were drilled to 36 ft with SB-4A stopping at 31 ft due to penetrating 0.18 ft (2.16 in) of produced water saturated silty clay. See p. 2.
- IV. Recovery well RW-1 was drilled a few feet from SB-4A and encountered no water after sitting for one hour. After one week, only enough water was recovered for an analysis sample. A year later less that one liter of water was recovered. The term aquifer is defined at length and the conclusion is that this is not in an aquifer. See p. 3.
- V. Monitor wells MW-1, MW-2, and MW-3 were drilled to 135 ft, 139 ft, and 135 ft. MW-2 and MW-3 had no shows of water until penetrating the water table of the Cretaceous sandstone aquifer at 117± ft. MW-1 had a small accumulation of produced water at 61 ft to 63 ft in basal Ogallala sand on top of the disconformity at the top of the Cretaceous shale aquiclude. Water in the Cretaceous sandstone is below 117 ft in the USGS aquifer unit designated as Cretaceous System (210CRCS). See p. 5.
- VI. Three more monitor wells found small accumulations of produced water seen at 61 ft in MW-1. MW-4, MW-5, and MW-6 were drilled to 65 ft, 30.5 ft, and 65 ft, respectively. MW-5 encountered a show of produced water 0.9 ft (10.8 in) thick across the base of a sand and the top of a fat clay at 30 ft TD. MW-4 had 3.27 ft of produced water at 60.49 ft (basal) Ogallala sand to 63.49 ft in the Cretaceous shale at 63 ft. MW-6 similarly had 3.36 ft of water from 59.87 ft in lower Ogallala sand and Cretaceous shale to 63 ft. See page 5.
- VIII. The produced waters found in RW-1 and MW-5 are very small accumulations in restricted areas, trapped on and in the top of a clay barrier. Produced water found in MW-1, MW-4, and MW-6 at approximately 60 ft is captured in and on the top of the Cretaceous shale, an aquiclude. The quantities are small as evidenced by their thickness,

lack of response to bailing and recharge, and their absence in MW-2 and MW-3. The produced water occurs in zones that are otherwise void of fluid. None of the zones are in paths of recharge to the Cretaceous sandstone aquifer. Individually and collectively they form no threat to the Cretaceous sandstone aquifer. No potable or protectable water supplies are present in the area above the isolated Cretaceous aquifer.

- IX. Concerns as to contamination of windmill wells are not valid. The Lucky windmill is contaminated with nitrates from livestock watering at the well. Nitrates are not found in oil/gas produced waters. Nitrates found in MW-6 had to be present in the zone prior to the accumulation of produced water at the 60 ft zone from spill(s) at Station 11. The leakage direction from the Lucky windmill to the MW-6 area is confirmed because of the absence of bromide in the Lucky water analysis, plus the nitrates occurring in MW-6.
- X. The compilation of a geological profile of the shallow subsurface demonstrates that very small volumes of produced water are trapped on and in the upper surface of either the 30 ft deep fat clay in the Ogallala Formation, or the 60 ft deep disconformable Cretaceous shale. The data also shows the respective clays/shale are significant aquicludes that protect the fresh water of the deeper Cretaceous sandstone aquifer.
- XI. This study concludes that the produced water releases at Station 11 have not contaminated or endangered any groundwater under or immediately adjacent to Station 11. There is no protectable water in the greater Station 11 area above the underlying Cretaceous sandstone aquifer.
- XII. The Cretaceous sandstone aquifer and its water are safe and highly protected by at least one overlying, thick, contiguous Cretaceous shale aquiclude. The water in the Cretaceous sandstone aquifer is of generally good quality. No evidence can be found that places the Cretaceous aquifer water at risk, save the nitrates emanating from Lucky windmill.
- XIII. More than adequate monitoring capability at Station 11 is present to insure these conclusions remain correct. The recommendation of this report is that monitoring continue for a reasonable time. No further testing is required. The meager amounts of produced water found should be left undisturbed for natural attenuation. They pose no threat of vertical or horizontal migration.

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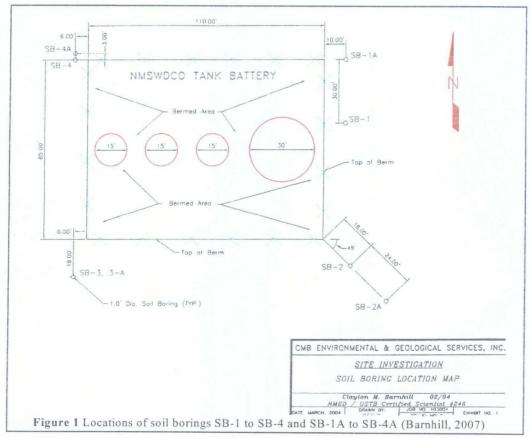
Introduction

NMSWD's Station 11 is located in New Mexico Oil Conservation Division (OCD) Unit D of Sec. 21, T10S-R34E, Lea Co., New Mexico.

Since 1999, NMSWD has experienced produced water releases totaling approximately 1,700 bbls, of which about 92% was recovered. The unrecovered water amounts to approximately 136 bbls. In 2003, NMSWD was required by the SLO to make soil borings to preliminarily evaluate possible contamination as a result of the releases.

Initially, four shallow borings were scheduled with locations approximately at the corners of the E-W orientated Station 11 tank battery, Figure 1, p. 1. SB-1, SB-2, and SB-3 were 11 ft deep. SB-4 was drilled to 16 ft. No BTEX or TPH was detected. No water was detected. Soil chlorides were laboratory measured and found to be above 250 ppm (mg/l).

The SLO required addition soil borings (Figure 1, p. 1) be made because the *soil* chlorides were greater than 250 ppm (mg/kg) (the EPA ppm maximum recommendation for drinking *water*).



Illustrations

Figure 1 Locations of soil borings SB-1 to SB-4 and SB-1A to SB-4A
Figure 2 Monitor well locations
Figure 3 Cross-Section MW-2, MW-1, MW-3.
Figure 4 Borehole log MW-4
Figure 5 Borehole log MW-5
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Table 1 Bromide and nitrate-N concentrations in Lucky windmill and monitor wells 16

Secondary Soil Borings

Soil borings SB-1A, SB-2A, and SB-3A were drilled to depths of 36 ft without encountering water. SB-4A drilled a clayey sand from 19 ft to 27 ft, followed by a tighter fat clay from 27 ft to TD 31 ft. Water was found within the silty fat clay at 30.82 to 31 ft that field tested 45,000 mg/l chloride, but had no hydrocarbon odor or staining. The thickness of this water zone was only 0.18 ft (2.2 inches).

Discussion of SB-4A water zone characterization

Barnhill (2004, p. 14) in reporting the drilling of SB-4A described the thin water zone saying, "A perched aquifer was found in soil boring 4A perched on top of the clay zone at 31' feet (sic) below ground surface." After examination of the drilling data, log descriptions and chemical analyses, along with numerous conversations with Mr. Barnhill, two facts emerge. First, a corrected and more appropriate description of the SB-4A water zone would have been, "A very thin water saturated zone was found within a tight silty fat clay drilled from 27 to 31 ft BGS." Those depths are from the penetration rate and descriptions of the split spoon samples of drilling the interval from 27 to 31 ft. The correctly reported show of produced water was 2.2 *inches* thick and almost 4 ft beneath the top of, and within, the clayey interval. Second, unfortunately, the graphically plotted sample log is not quite as detailed as are the on-site in-drilling handwritten descriptions. The graphic log simply is too small to accommodate the lithology change at 27 ft to 31 ft. The level of the water show interval displayed on the graphic log is correct. The field notes do correspond to Barnhill's (2004, p. 14) textual discussion. The graphic log places the water show in clayey sand whereas the on-site drilling log indicates the interval 27 to 31 ft was fat clay with brown inorganic silts. The plotted sample log notes soil chlorides from 29-31 ft at 3900 ppm. The field notes show the H₂O chlorides at 8220 ppm and VOC's at 8260 ppm. VOC's had been non-detect in all the other wells.

Unfortunately, the reader tends to focus on the graphical depictions of test holes and bypass the more tedious examination of handwritten field notes. In the case of SB-4A the difference, although small, is significant. The implications of the presence of water, albeit 2.2 inches, in the bottom of a sand is substantially different than when within a silty fat clay. Clays have very significant porosity, very low horizontal permeability, but virtually no vertical permeability. Water in a sand is visualized to have the capacity to move horizontally and vertically. The water in a clay is, for all practical purposes, immobile.

The water zone in SB-4A was not bailer tested during drilling. The show of water was correctly handled on-site by Barnhill's not penetrating deeper and potentially opening a conduit to any water that might be deeper. Bailer testing was performed after the development of a twin recovery well, RW-4, as discussed later.

Connotation of "Aquifer"

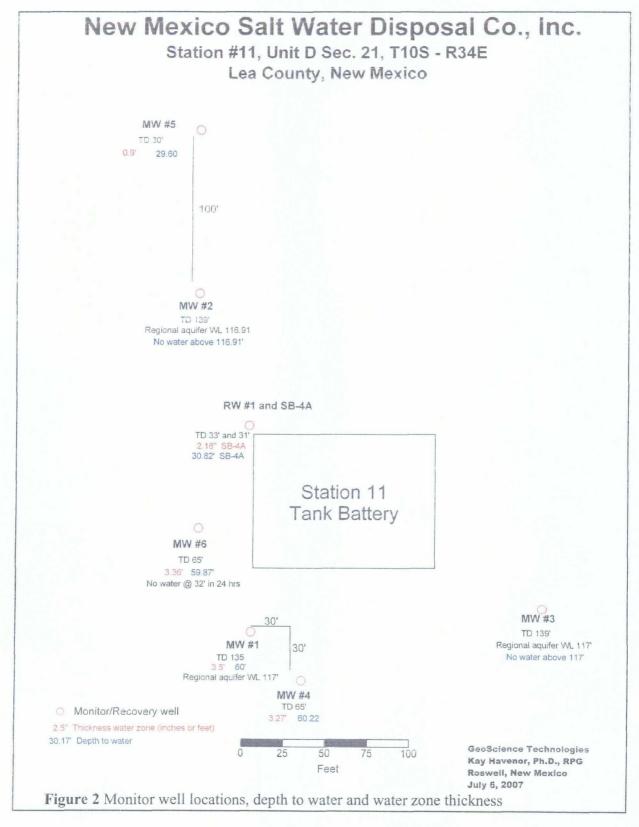
The unintended application of the word "aquifer," in it's technical sense, combined with the insufficient graphical representation of the water show having occurred in a sand instead of a clay may have allowed a misreading of the geological implications of groundwater at and around Station 11. That raised concern as to potential contamination of much deeper, quasi-potable (livestock) water suspected to underlie the immediate area. The OCD's initially conservative approach was to the presence of water with high chloride concentrations in the immediate vicinity of Station 11 and potentially above a regionally recognized aquifer.

The conclusion in Mr. Price's letter (AP053, 2008, p. 4) in item 12, that "the deeper, regional aquifer encountered at 100-105 feet BGS has not been contaminated by a release from Station 11" implies a shallow aquifer to be locally present. However, the OCD's concern also appears to have been to the protection of *any* water in a recognized aquifer, and the "perched aquifer" fell into that broad grouping. A brief discussion of the hydrogeological and scientific understanding of the word "aquifer" seems in order.

The lay meaning of "aquifer," from Webster (1980), is simply a "water bearing stratum of permeable rock, sand, or gravel." In the scientific realm, Todd (1980, p. 25) states, "An aquifer may be defined as a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs." A highly respected and accepted authority on groundwater, Driscoll (1986), describes an aquifer (p. 19) thus: "An aquifer is a water-bearing reservoir capable of yielding enough water to satisfy a particular demand." On the more contemporaneous side, Wikipedia (2009) states, "An aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, silt, or clay) from which groundwater can be usefully extracted using a water well." The OCD definition is: "Aquifer" means a geological formation, group of formations or a part of a formation that is capable of yielding a significant amount of water to a well or spring (NMAC 19.15.2.7.A.(13)).

Discussion of recovery well RW-1

Based on Barnhill's (2004) report of 2.2 inches of water in clay in SB-4A, a recovery well, RW-1, was drilled a few feet away from the SB-4A boring, on the northwest corner of Station 11 as shown in Figure.2, p. 4. RW-1 ws drilled on June 13, 2007 and the well was developed (completed) on June 21, 2007. Barnhill (2007, p. 11) reports that during drilling to TD 33 feet no water was encountered. The SB-4A wet zone, only a few feet away, was not present. Upon completion of drilling, the well was rested for 60 minutes to allow water entry. No water entry occurred. During development of the recovery well, one week later, a water sample was recovered, but the well "quickly bailed down and had slow recovery..." (Barnhill, 2007, p. 11).



The very small amount of water recovered and the nature of the poor recovery initially led Barnhill to consider the fluid was derived from construction. The well was left to recover and was completely secured. On July 10, 2007 the well was bailed dry after yielding a total of eight (8) gallons of water. After 45 minutes the well had not recovered any water.

After receiving the laboratory analysis of the RW-1 captured water, Barnhill (personal communication) reconsidered and concluded that the original sample was from produced water. Approximately one year later the well was unlocked and bailer tested for water by Mr. Barnhill accompanied by Mr. Rory McMinn. Less than a full liter of water was obtained for analysis, reportedly with considerable difficulty. The hole, for practical purposes, was virtually empty. That information is completely consistent with the lithologic description of the produced water zone in SB-4A, detailed above. It is also apparent this zone is not an aquifer.

Monitor Well Development

Monitor well development began on June 12, 2007 with the drilling of MW-1, MW-2, and MW-4. The details of drilling and construction are in Barnhill's (2007) comprehensive report.

Monitor Wells - First Phase

MW-1 is located toward the southwest corner of Station 11, as shown on Figure 2, p. 4. No water was observed at the 30 ft depth interval of SB-4A. When the driller pulled the center rod at 63 ft, after having drilled sand from 41 ft, he noticed clay. Upon going back in the hole there was 2 ft of water on top of a 40 ft thick, very-tight Cretaceous shale. The Cretaceous local aquifer, discussed below, was found beneath the shale in the lower part of a sandstone at 117.23 ft. TD was 135 ft.

MW-2 is located north of the northwest corner of Station 11. The hole was dry in drilling to below 120 ft. A log notation indicated that no water came into the hole. Drilling was temporarily suspended at 124 ft due to lightning. After resumption of drilling shale (fat clay) was penetrated from 133 to 135 ft. The well was completed at 139 ft (rathole) because of heaving sand from 129 - 133 ft. The well was set to 135 ft. Top of water was called at 117 ft, with water level at 116.91 ft, upon completion in the Cretaceous local aquifer.

MW-3 is located southeast of Station 11. After drilling the sand from 49 ft to 64 ft (through the interval with water in MW-1 and MW-4) with no show of water, drilling was shutdown for night. The next morning the hole was dry. Drilling was advanced to 119 ft where the hole was dry. Additional drilling with meager to no sample returns went to 139 ft. The water level on completion was at 119 ft in the Cretaceous local aquifer. Based upon meager samples, the TD of the well appears to have been at the top of the Triassic Dockum Formation.

An annotated cross-section including MW-1, MW-2, and MW-3 from Barnhill (2007) is shown below as Figure 3, p. 7, and is helpful in following these discussions.

Monitor Wells - Second Phase

The second phase of monitor well construction was precipitated, in part, by the occurrence of 2 ft of water on top of the Cretaceous shale in MW-1 at 61 ft to 63 ft. The drilling of this second phase began April 14, 2009 under the direction and supervision of Mr. Barnhill.

MW-4 was drilled to south of Station 11 to TD 65'. No water was encountered in the interval observed in SB-4A. A test in the clay at 30.30 ft showed the hole was dry. Produced water was found from 60.22' to 63.49' (3.27 ft thick) in sand overlying the disconformity on top of the Cretaceous shale (fat clay) and into the top of the shale. Lab chlorides jn the water sample were 33,000 mg/l. The borehole log for MW-4 is shown in Figure 4, p. 8.

MW-5 was drilled 100 ft north of MW-2 as shown in Figure 2, p. 4. The well encountered 0.9 ft of water interval from 29.6 ft to 30.5 ft. Drilling was not taken deeper to prevent potential communication with deeper zones. Lab chlorides on the water sample were 28,000 mg/l. The borehole log for MW-5 is shown in Figure 5, p. 9.

MW-6 was drilled west of Station 11 (see Figure 2, p. 4) to a depth of 67 ft. Drilling was halted for 24 hours to test for water from 30 ft to 32 ftr. Water observed at this depth in MW-5 was not found in this well. Water was encountered at 59.87 ft in sand overlying Cretaceous shale and its disconformity at 63 ft.. TD was at 65 ft in Cretaceous shale. The top of the water was reported at 59.87 ft. Lab chlorides on the water sample were 20,000 mg/l. The borehole log for MW-6 is shown in Figure 6, p. 10.

Monitor wells MW-1, MW-2, and MW-3, as shown by Barnhill (2007) in cross-section, Figure 3, p. 7, provide important hydrogeological information relating to this immediate area as regards structural attitude, sedimentary depositional environment, and the Cretaceous local aquifer water table. These wells penetrate the Cretaceous shale that forms the aquiclude above the water-bearing sandstone beneath.

New Mexico Salt Water Disposal Company Station # 11 Section 21, Township 10 South, Range 34 East, N.M. P. M. Lea County, New Mexico

Cross Section Of Soil Borings / Monitor Wells 1, 2,8, 3

4

P'

SOIL DESCRIPTION		SWL Brown into gr. to medium gr.beard (38), coalisho	IVII. Clayer Sifty Sand, yellow - red brown, in. aand, 10% caliche, 25% cray CH: Srown clay 31,8; Eff.	Por. 23.7 Neat 2 4E 37 SW: Sand, line of red- vellowish brown	CHI Clay, it clive brown ratically mudatorial carbon line.	Ckey @ 88'	SAHDSTONE: Dark gray to very craft gray, very me grains a sand 25% eit and 25% class 113	bgs. Water @ 116.85 TOC. Isser @ 108 Capillary Fringe 1.5E-05 Effective Porosity 25.1%
USCS	tt 13	E E	ME	СН	CH	E CE	S S S	88
SYMBOLS	Monitor Well #							
EVEPTIS	Mon	110	-25	-50-	-50-	2 8 8 9 8 10 8 9 9 8 10 8 9 9 9 9	-105	-126 -125 -130
SOIL DESCRIPTION		SW: brown lins gr. eo matkun gr. esirti. Bik, c calcine	full: Clayay Salty Sand, yeltow - red brown, fr.sand, 10% callohe, 25% day, 34.6* Kear 8.8E-02 Eii. Por;e -16,4%,40.2* Kasi =	3.6E-05 Eff. Por.= 13.8% Svv.: Vary line Brown Sand , slit &day,trace gravel.	perdhed water of -0.5 Cri. Clay, light olive brown to hight yellowen brown, year alont fat clay 10-15%	very fine seand and slit, high plasticity 65.61-46.11 Kesa. 5.2E-uë Eff. Pordally 9.3%	SANDSTONE: Dark gray to vory dark gray, very the ordinal sand 25% sig and	25% clay. Saturated at 117 bgs. weter @ 117.23 100
SCS	72-	5.00 5.00	MI	PIL	SW	E 3	Si	55.52
SOUL USCS	Monitor Well #							
DEPTH	Mon	150 150 150 150	130-1	550	- 70	1 1 1 1 2 2 2 2 3 2 0 0 0 3 4 0 0 3	103	1120
SOIL DESCRIPTION		SM: Brown fine gr. vo modium gr.asmd, alit, 3. calisho	ML: Clayey Sifty Send, yellow - red brown, maaind, CH: Brown ciey, 31 S. Eli. Pur223 7 Year 2. 4E-07	SW: Sand , fine gr.reu- yellowish brown SM: Yellow silty sand	CH: Fat Clay, R olive brown, fat clay, harder drilling at 75 Mudsaone?	SANDSTONE: Brown CH: Clay, skl., sand, yellow brown with carbon?	SANDSTONE: Derk gray —— to very dark gray, very has grained sand. 25% ells ond 25% clay. Saturated at 117	bgs. Wuter @ 116.91'
USCS	2 2	SN	ML	SW	H H H	SSCH	SS	SS
SYMBOLS	Monitor Well # 2							
DEPTH	Mon	1.50	130 E	150 150 150 150	160	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	100	-120

Scale: 1" inch = 30' feet (Vertical and Horizontal) Clayton M. Barnhill, PG

CMB Environmental & Geological Services Inc. July 2007

Figure 3 Cross-Section MW-2, MW-1, MW-3 (Barnhill, 2007)

PO Box					- T	I herr from loor		
	x 2304 Rt	oswell	PO Box 2304 Roswell, NM 88202-2304	4	m	OREHO	BOREHOLE NO. NIN-4	-
(505) 62	cmbenviro@dfn.com (505) 622-2012 Fax (505) 625-0538	(505) 6	25.0538		Ĭ	OTAL D	TOTAL DEPTH: 65'	
	PROJECT INFORMATION	INFOR	MATION			DRILLIN	DRILLING INFORMATION	NO.
PROJECT:	H	NNI	NAISWD AIW Drilling	DRIL	DRILLING CO	.0.	Pererson	Peterson Drilling Co
SITE LOCATION:	CATION:	Lea	Lea County, NAI	DRIL	DRILLER		Charles Johnson	Johnson
JOB NO.				RIG	AIG TYPE		IR TH-60	0
LOGGED BY) BY:	CAI	CM Bambill, PG	MET	METHOD OF DRILLING:	F DRILL	JING. An Rotary	13
PROJECT MANA	PROJECT MANAGER DATES DRILLED:		Rory McMinn 04:14:09	SAM	SAMPLING METHODS: HAMMER WT /DROP	METHO!	DS: Split Spoon	011
NOTES:	Split Spoon	Pushed	Split Spoon Pushed by TH-60 Drilling Rig.		™ Wal	ter level d	Water level during drilling Water level in completed well	Page 1 of 1
ОЕРТН	SYMBOLS	nscs	SOIL DESCRIPTION	SAMP. # / feet	Rec. / feet.	PPM TPH / CL	BORING	WELL
0		SM		di co				Comment / Promp
N.			SW. Tan Brown 2.5 YR/8/2 fine gr. to medium	Split	0.5	/ QM		
-10 -		SH	gr.sand , silt, & caliche	Soil	0.5	MD /		
1151-				analyzed		යැ ධ		
-20		ns	SW. Brown med gr sand, well sorted 2.5 YR 6/4	for TPH Mod 8015	1.0.1	MD /		Bentomite
0 0		35	SC. Clayey Sifty Sand,	GRO				
3 20		TO	CL: Brown Fat Clay	FIEX,	1.0	13 /		
0.4-		ML	ML: Clayey Sitry Sand, yellow-redbrown.fn.sand.	Chloride		7 59 /		
-45			25% clay	co co	1.0.1	1300		Grout 0'-
- 50		Sill	SVV: Very fine Brown Sand 7/5 YR 6/6, silt &clay, trace	Total Depth	1.0.	/ QM		.5',Betonite
155			gravel, perched water	Boring		1100		Sand 45-
		ns	TOC Completed Well.	@ every 10'	1.0.	/ QM		Screen 45'-65'
-65		СН	CH: Clay, light olive brown to light vellowish prown	feet.		1400		

Figure 4 Borehole log MW-4 (Barnhill, 2009)

CMB EL	vironmer	stal &	ChiB Environmental & Geological Services, Inc.	es, Inc.	-		BOREH	FIELD BOREHOLE LOG
PO Box	r 2304 R	oswei	PO Box 2304 Roswell, NM 88202-2304	4	<u>m</u>	OREHOL	BOREHOLE NO. NIW-S	16
(505) 62	cmbenviro@dfn.com (505) 622-2012 Fax (505) 625-0538	x (505)	625-0538		F	OTAL DE	TOTAL DEPTH: 30'	
	PROJECT INFORMATION	LINFOR	MATION		-	DRILLING	DRILLING INFORMATION	NOI
PROJECT	H	IM	NAISWD AIW Dulling	DRII	DRILLING CO.:		Peterson Drilling	Dulling
SITE LOCATION	CATION	Lez	Lea County, NAI	DRI	DRILLER		Charles Johnson	Joimson
JOB NO.				RIG	RIG TYPE		IR TH-00	0
LOGGED BY	BY:	CI	C.M Barnhill, PG	ME	HOD C	METHOD OF DRILLING.	MG. An Rotary	ħ.
PROJECT MANA(PROJECT MANAGER. DATES DRILLED:		Rory McMinn	SAW	APLING AMER V	SAMPLING METHODS: HAMMER WT /DROP	S: Split Spoon	011
NOTES	Split Spoor	n Pushed	Split Spoon Pushed by TH-60 Drilling Rig.		N W	ater level du	p fiu	Page 1 of 1
DEPTH	SVMBOLS	nsos	SOIL DESCRIPTION	SAMP. # / feet.	Rec.	PPIM TPH / CL	PPM BORING TPH/CL COMPLETION	WELL
0			SM Tan 0 5 VR 8/0 fine					Cement / Grout
5		SM	grained sand foalighe /sift mixture.	Split Spoon Soil	0.5	\ <u>1</u>		
-10				analyzed	ن ت ت	, E		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
				Mod 8015	;	1600		o Tipolina
I U I		ns	SW. Brown fn, gr., well sored sand 2.5 YR 6/4	/DRO, BIEX,				
-20-				from	1.0.	ND /		TD 30' Cement
12.5		SC	SC:Brownclayey sand 2.5 YR 6/4 Perched water @	to Total		2000		Grout 0'- 2', Betorice 2'- 16', 20/40 Sand
D			drilling Measured from TOC (@ 31.57' completed	of Boring				16'-30,0.010 Slot Screen
6 N		TO	CL. Brown fat clay.	@ every 10:	1.0'	MD / 0M		20'-30'
1				feet.		0010		

Figure 5 Borehole log MW-5 (Barnhill, 2009)

osi					A STATE OF THE STA
	PO Box 2304 Roswell, NM 88202-2304		BOREHOLE NO.: NIN-6	NO NIN	9-
41	cmbenviro@dfn.com (505) 622-2012 Fax (505) 625-0538		TOTAL DEPTH: 63'	H 651	
-	PROJECT INFORMATION		DRILLING INFORMATION	FORMAT	NO
	NAISWD AIW Drilling	DRILLING CO	000	Peterson	Peterson Drilling Co
	Lea County, NIM	DRILLER		Charles Johnson	omison
		RIG TYPE		IR TH-60	
	CMI Bandull, PG	METHOD	METHOD OF DRILLING	An Rotary	γ.
PROJECT MANAGER: DATES DRILLED:	Roty McMinn 04.14.09	SAMPLING	SAMPLING METHODS: HAMMER WT./DROP	Split Spoon	111
000	Split Spoon Pushed by TH-60 Drilling Rig.	S S	Water level during drilling Water level in completed well	drilling pleted well	Page 1 of 1
SOIL	USCS SOIL DESCRIPTION	SAMP. # / feet	PPM TPH724	BORING	WELL
	SM. Tan Brown 2.5 YR8/2 tine gr. to medium gr. sand , silt, 8 caliche	Split 0.5' Spoon Soil Samples 0.5' analyzed	MD / 22 22 MD / 20 20	33	Cement / Srout
	SW: Brown med. gr sand, SC: Clayey Sity Sand, yellow - brown , fn.sand,	T	63.7		Bentonite
		PETEX, 1.0' Chloride	MD / 3500		
· · · · · · · · ·	SW Very line Brown Sand SW Very line Brown Sand 7/5 YR 6/6, still & clay, trace or evel periched water	surface to Total Depth	ND / 1700 ND /		TD 65' Cement Grout 0'- .5', Beconite
	50. Strongleted Well	Boring G every 1.0'	160		Sand 45- 65',0.010 Slot Screen 45'-65'
100	CH CH: Clay, light olive brown	feet.	1700		

Figure 6 Monitor well MW-6 (Barnhill, 2009)

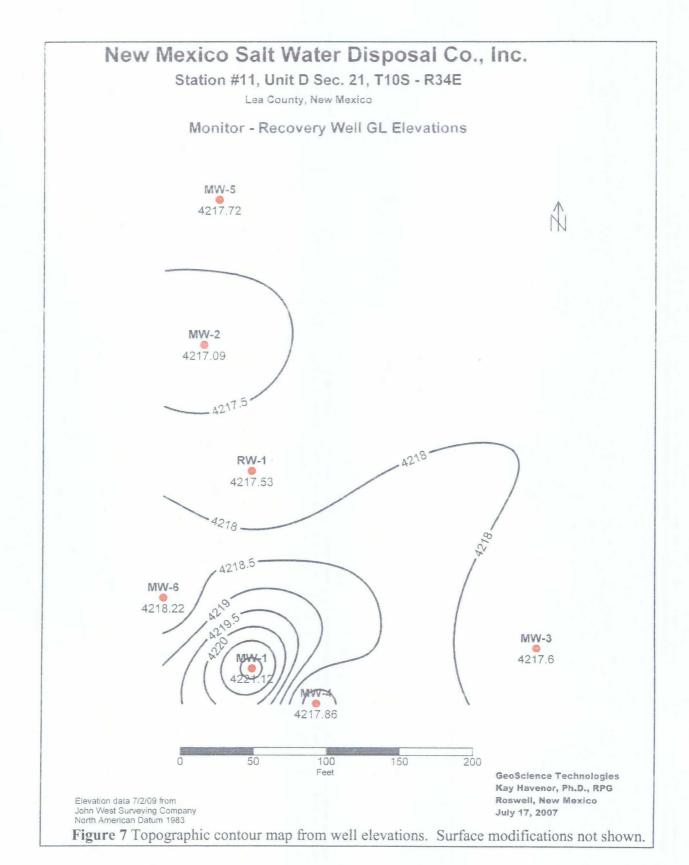
Geology Revealed by First and Second Phase Borings

Monitor well elevations, Figure 7, p. 12, illustrate the Station 11 area is close to 4,218 ft MSL. MW-1 is mounded 3-feet higher than the surrounding wells and is less than 10 ft south of the intersection of a N-S road into an E-W road. The contouring ignores the roads and the likely man-made mound related to the construction immediately north of the well. The regional ground surface in Section 21 is known to slope east at 25 feet per mile, approximately 1/4°. Station 11 is essentially a flat area. The USGS topographic quadrangle map shown in Barnhill (2004) marks the elevation of the southwest corner of Station 11 tank battery to be 4217 ft MSL.

Two horizons provide excellent structural reference for all three first phase wells. The uppermost horizon is at the base of the Quaternary sand, silt, caliche horizon to about 19 ft as highlighted by Barnhill (2007), shown here in Figure 3, p. 7. This marker is the top of a beveled Ogallala Formation overlain by Quaternary sediment. The marker is essentially flat. The lowermost marker is the groundwater table for the local area's groundwater in Cretaceous age sediments. Figure 3 demonstrates the Cretaceous water table as essentially flat. The water levels on July 7, 2007 were: MW-2 = 116.91 ft, MW-1 = 117.23 ft, and MW-3 = 116.85 ft, a maximum variation of only 0.28 ft (3.36 in). Figure 3 shows the ground's surface, the eroded surface of the Ogallala Formation, the lowermost bed of Cretaceous sandstone, and the water table in each of the wells, all of which are quasi-parallel with only a 0.38 ft gradient from MW-2 to MW-1

Beneath the clayey, brown sand, silty unit and brown clay unit of the Ogallala Formation (at 42 ft in MW-2) is the first sand in which produced water occurs, but only in MW-1. Both MW-2 and MW-3 are dry in that interval. This sand is the same zone in which produced water also has been found in MW-4, and MW-6, p. 8 and 10, respectively. In all three of these wells (MW-1, MW-4, and MW-6) produced water is only in the most basal part of the Ogallala sand that is disconformable on top of Cretaceous shale. These three wells are located to the west and southwest of Station 11 tank (Figure 2, p. 4). Figure 3, p. 7, illustrates that the depths of this sand in MW-1 and MW-3 are essentially the same, but MW-2, located on the northwest corner of Station 11 tank battery, is structurally higher.

The sand at 42 ft in MW-2 was not penetrated in MW-5, located 100 ft north, because it stopped at TD 30 ft. The top of the MW-2's clay at 30 ft overlays sand (42 ft to 57 ft). The clay is also present in MW-5 at 30 ft and is the bed that traps and holds the very thin occurrence of produced water shown at 29.60 ft on the borehole log, Figure 5, p. 9. The water zone in MW-5 extends into the clay layer to 30.5 ft, a water column thickness of 0.9 ft. Lab chlorides on the water measured 28,000 mg/l.



The 40 ft thick shale beneath the Ogallala and the Cenozoic-Paleozoic disconformity is on top, the aquiclude, of the water bearing sandstone in MW-1, MW-2, and MW-3, as shown above in Figure 3, p. 7. MW-4 and MW-6 were only drilled to 65 ft, but both have the same shale underlying their trapped water zone in the 60 ft range. It is a reasonable geological projection that the shale zone is present with consistent thicknesses in MW-4, MW-6, and beneath Station 11 as evidenced by its presence in MW-2 and MW-3.

Shallow Stratigraphy and Structure of the Study Area

Fluids must move through soil, sediment and rock to penetrate into the subsurface. The fate of the fluid's movement is dependent upon many factors including the mass/volume of the fluid, time, and *most* importantly, the formations through which they must move.

Within the immediate study area the surface is covered with 15 ft to 19 ft of Quaternary alluvium, mostly in the form of fine blow sand and caliche. The underlying Tertiary Ogallala Formation extends from about 19 ft to a depth ranging from 57 ft in MW-2 to a maximum 63 ft depth in the remaining wells. The Ogallala aquifer is not present in this greater study area as mapped by Ash, 1963. The Ogallala Formation is present, but all fresh water in the greater part of T10S-R34E is derived from the Ash's (1963) Cretaceous unit mapped with the symbol Kcl. The Cretaceous unit is an erosional remnant upon which Ogallala was later deposited.

A disconformity is present and identified as such from a split-spoon samples in MW-4 across 63 ft. The zone has excellent correlativity to all the sands found in that interval in the other wells. The disconformity is the Cretaceous-Ogallala contact and is a time break of some 42 million years. A significant change of lithology is apparent below the formation contact.

Figure 3, p. 7, shows that MW-1 is located in a structurally lower position than the tops of the correlative sands in MW-2 and MW-4, especially at the base of MW-1's Cretaceous shale at 104 ft.. The slight structural depression developed as a slight reduction in the thickness of the Cretaceous sand beneath the shale at 104 ft in MW-1. This slightly lower structural position in MW-1 reflects upward into the overlying Ogallala. It forms the sag, or sump, into which 3.5 ft of produced water accumulated in the basal Ogallala sand in MW-1. This is significant because it shows 1) the upper Cretaceous shale is a strong aquiclude preventing downward movement of produced water from Station 11, and 2) the trapped water at this horizon is isolated to a small area around the southwest corner of Station 11. This additionally shows the volume of water in the sump is relatively small. The contaminated thickness in the lower Ogallala thins slightly from MW-1 to both MW-4 on the south and MW-6 on the north (Figure 2, p. 4). The produced water is absent in both MW-3, approximately 165 ft west, and MW-2, approximately 140 ft north.

The log plot of MW-1 in Figure 3, p. 7, appears to be anomalous immediately above the 46 ft top of sand. In the adjoining wells, MW-2 and MW-3, the sand at 46 ft is overlain by a brown clay. Comparison of the graphic plot of that interval with the on-site data recorded during drilling discloses that a sandy, silty brown clay is actually present from 39 ft to 46 ft. The unit is not as strong in clay as the correlative zones in all the other wells, but it is present. It also provides a possible conduit to allow produced water from the surface to reach the 60 ft interval in MW-1.

Drilling Testing Information

Soil boring and monitor well development details aid the understanding of the data being reviewed. MW-1 was at 63 ft on June 12, 2007 when the driller noted clay on the bit when he tripped out of the hole. Upon returning to bottom there was 2 ft of water which they sampled. The hole was drilled to 65 ft in fat clay and millimeter thin stringers of sandstone and mudstone. It is important to note that the recorded 2 ft were not logged as sand and clay, but as sandstone and mudstone. At temporary TD of 65' the drilling was suspended by the contractor and was shutdown for five days. Recovery well RW-1 was completed before resuming drilling in MW-1. The lithology encountered at 63 to 65 ft in MW-1 was reconfirmed with slightly more detailed sample descriptions and finished drilling to TD at 135 ft.

Monitor wells MW-2 and MW-3 were drilled into the Cretaceous sandstone aquifer with no observed water zones above the basal sandstone. Both were completed in the Cretaceous sandstone.

Five monitor wells, MW-1, MW-2, MW-3, MW-4, and MW-6, penetrated the local Ogallala Formation into the top few feet of the Cretaceous shale. The first three listed penetrated the 40 ft thick upper shale unit of the Cretaceous in which the hydraulic conductivity is very low, Ksat = 5.2⁻⁸. MW-5 was drilled into the Ogallala Formation, TD 30 ft, where it encountered 0.9 ft of water in the Cretaceous shale (fat clay) beneath a clayey Ogallala sand.

Three monitor wells were drilled beneath the Cretaceous shale into the lower part of the underlying Cretaceous sandstone. This sandstone has a measured water level 14 ft to 17 ft below the base of the overlying shale aquiclude. MW-2 encountered heaving sediment in the basal part of the sandstone layer at about 133 ft. The formation was drilled from 133 ft to 135 ft, and then ratholed to 139 ft, into what may be the top of the Triassic Dockum Formation.

The Cretaceous water in MW-2 is effectively confined by the overlying shale, but is not artesian because the sandstone is not water filled and therefore has no driving hydraulic head. The Cretaceous waters do not have high chlorides content, but range from 538 to 648 mg/l in MW-1, MW-2, and MW-3. The chloride levels are all above EPA MCL levels of 250 mg/l.

Area Windmills

Two windmills tap the Cretaceous sandstone aquifer in the local area. The Lucky windmill in Section 20 is 1-mile southwest of Station 11 and the Sand windmill is 1.3 miles north in Section 9. The chlorides in the two wells were 638 and 548 mg/l respectively. The Lucky windmill wells and one additional unsampled well located in the NW/4 of Section 27, about 1.75 miles southeast of Station 11, are classified in the USGS groundwater data base as producing from the Cretaceous System (210CRCS). The Sand well is not in the USGS well records.

The productive capacity of the Lucky and Sand windmills was described by Barnhill (personal communication) as extremely weak when sampled in May 2009. When asked to explain, Mr. Barnhill reflected that it was about enough water to allow the cows to get a drink, illustrating a finger size stream from the windmill at Lucky well and from the solar powered electric pump at Sand well.

Bailing from the bottom of the Cretaceous sandstone aquifer in the Station 11 MW-3 completed well yielded approximately 15 gallons of fresh water from 117 ft. The well completion field notes indicated "slow recovery!" That suggests the visual pumping discharge described by Mr. Barnhill at the Lucky and Sand windmill wells was reasonable.

Windmill Contamination

USGS water levels have been reported in the "Cretaceous System local aquifer" Lucky and the ranch well southeast in Section 27. Total depths of the ranch well and Lucky well are not reported in the USGS files. The OSE records suggest the Lucky well is at least 101 ft deep. The last reported water level in the Lucky windmill well was 1981 at a depth of 34.11 ft. The water analysis of water taken from the Sandy windmill is geochemically inconsistent with the Lucky windmill data. No information is available on the Sandy windmill as to depth or water level. The Sandy well has therefore been disregarded in this analysis. Cretaceous water analyses from the Station 11 monitor wells MW-1, MW-2 and MW-3 were reported by Barnhill (2007) and are geochemically consistent with the water from Lucky windmill, except for nitrate levels. No Ogallala aquifer is reported in the sections surrounding Station 11, or in most of this township, by Ash (1963).

The water level in the Lucky windmill is at a height approximately the same as the top of the first significant fat clay encountered about 30 ft in all the Station 11 monitor wells, except possibly MW-1. The 34 ft deep water level in the Lucky windmill was not observed in the Station 11 wells, except for MW-5. The difference undoubtly has to do with the professional installation of the monitor wells, their casing, screening, and grouting to prevent water zone mixing. That cannot be assumed for the windmill well. The Lucky's well depth, at a minimum, puts the hole

into the Cretaceous local aquifer, as the water chemistry very clearly confirms.

The Station 11 well lithology logs, water levels and analyses shows the aquifer beneath Station 11 is not artesian. The water level is about 15 ft beneath the top of the sandstone host. Lack of evidence otherwise requires we assume the Lucky windmill is similar. There is also evidence, discussed below, that some communication exists between MW-6 and the Lucky well at the 60 ft level. That communication presents conditions that must be met in MW-6, namely that the incoming volume must be extremely small to match the amount of water accurately measured in MW-6. It would further require that water being pumped from the Lucky borehole would stand and maintain a water level around 34 ft over many years. USGS water level records from 1970 to 1981 show water levels from 37.01 ft to 34.11..

To evaluate the local rancher's expressed concern that produced water releases from Station 11 have contaminated the Lucky stock water supply, a sample of water from the Lucky windmill was taken at the same time as from MW-4, MW-5, MW-6. Samples from MW-1, MW-2, and MW-3 had previously been collected and analyzed. Those analyses permit comparisons of bromide and nitrate to evaluate possible migration of contamination from Station 11 to the Lucky area one-mile southwest.

Bromide and nitrates are each normally less than 10 mg/l in groundwater, except in special circumstances not known to be present in this region. Nitrate in fresh water is characteristically indicative of septic systems, livestock feeding, and commercial farming, none of which exist in the Station 11 or Lucky windmill area, except livestock watering at the latter. Bromide is generally in oil/gas related produced water in high quantities. Livestock presence is not physically excluded from the Station 11 area except from the fenced tank battery.

Unfortunately, the laboratory failed to analyze nitrates in the MW-5 sample submitted, but it was analyzed in the Lucky windmill well plus MW-4 and MW-6. EPA limits (MCL) for nitrate as N in public drinking water is 10 mg/l. The EPA has no MCL for bromide, but it is considered as dangerous over 10 mg/l. Table 1 shows the concentrations found in the Lucky windmill, MW-4, MW-5, and MW-6.

Table 1 Bromide and nitrate-N concentrations in Lucky windmill and monitor wells.

Compound in mg/l	Lucky	MW-4	MW-5	MW-6
Nitrate as N	15.9	<2.50	NA	49.4
Bromide	<2.50	940	512	609

The hydrogeochemical argument is relatively simple. Nitrate is not found in oil/gas produced water. Bromide is uncommon in fresh waters. Nitrate source is present in the Lucky windmill at contamination levels. Professional well construction of the Station 11 monitor wells is specifically engineered to prevent subsurface water contamination via the well bore except from a specific horizon. Common construction of ranch water wells, including many domestic wells, does not have the grouting and/or isolation to prevent contamination via the open borehole.

The Lucky well analysis shows it has 15.9 mg/l nitrate–N in its well water produced from the Cretaceous groundwater aquifer. MW-4 has below measurable nitrate in water taken from the lower Ogallala at TD 65 ft. MW-6 shows 49.4 mg/l nitrate-N from the bottom of the 65 ft grouted and surface isolated well. The Lucky windmill well is the only potential source of nitrate and it is assumed to be the up-gradient well. The higher level of nitrate in MW-6 can be directly related to concentration caused by H_2O adsorption and the resulting concentration of nitrates as very small volumes of water have moved from Lucky to the MW-6 site for decades. The volumes constitute seepage rather than flow. The Lucky windmill is one-mile southwest of Station 11.

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The Lucky windmill has below detectable bromide whereas MW-4, and MW-6 have 940 mg/l and 609 mg/l respectively. The high oil/gas produced water concentrations of bromide are not seen in the Lucky windmill. The hydrogeochemistry demonstrates that water movement, albeit small, is from Lucky windmill to the MW-6 site. Were there any water from Station 11 moving into the Lucky windmill there would be unquestionably high concentrations of bromide as well as highly elevated chlorides and sodium. Water from Lucky windmill is and has moved into the MW-6 site through the sand along the top of the Cretaceous disconformity at 63 ft. No bromides, and no high sodium-chlorides (elevated above that seen in the Cretaceous sandstone) demonstrates that water is not moving from the Station 11 area to the Lucky windmill. An additional consideration to these indicated movements is that of time. With no driving flow of water, and the observed minuscule, isolated volumes, the rate of movement of either fresh or produced water through the Ogallala sandy horizons present in this environment would be truly of geological proportions.

The initial round of soil borings (SB-1, SB-2, SB-3), at the corners of Station 11, found no shallow indications of water, but did record *soil* chlorides above 250 mg/kg (ppm). As has been noted, the 250 ppm value is the EPA's MCL limits in water for safe consumption by humans. New Mexico has no health or environmental standards for soil chlorides. If soil chloride standards were set at 250 mg/kg there would be large areas, especially in southern New Mexico, where soils in their native/natural state would be in extreme violation.

Septic systems are an excellent example of using soils as filters to purify waste water. The filtering and ion exchange processes essentially adsorb ions and/or particles as well as exchange

ions such as Na/K, but generally excepting nitrates. However, there no known water/rock (mineral) interaction that will remove chloride from groundwater.

The chloride content of the 61 - 63.5 ft produced water in MW-1 was 21,000 mg/l whereas the underlying regional aquifer water was 550 mg/l. The separation of the two zones is effected by the 40 ft+ Cretaceous shale (fat clay horizon) above the Cretaceous aquifer sand. The water samples from the Cretaceous aquifer in MW-2, and MW-3, plus the more distant Lucky windmill, individually and collectively confirm that the Cretaceous shale has effectively prevented any downward migration into the Cretaceous aquifer from the thin, dispersed and areally isolated produced water shows at Station 11. Unfortunately, the Cretaceous sandstone aquifer beneath Lucky windmill has nitrate contamination.

Conclusions

Four shallow borings, SB-1, 2, 3, and 4, were drilled to a maximum depth of 16 ft. No water, BTEX or TPH was detected, but laboratory analyses found soil chlorides to be above 250 ppm (mg/l). Although 250 mg/l chloride is an EPA MCL for drinking water, New Mexico has no standard for *soil* chloride concentrations.

Because of the >250 mg/l chlorides in soil samples, the SLO required additional soil borings. Four new borings were drilled close to the original soil borings near the corners of Station 11. SB-1A, SB-2A and SB-3A were drilled to 36 ft into a clay layer without encountering any water. SB-4A was drilled at the northwest corner of Station 11 to a TD of 31 ft in clay. Water was noted in the clay from 30.82 ft to 31 ft, a thickness of 2.16 inches. Chloride content of the water was 45,000 mg/l.

The SB-4A water zone in clay was inappropriately referred to by Barnhill (2004) as a "perched aquifer." This writer, following geological concepts, disagrees with the SB-4A zone being classified as an aquifer. It should more appropriately have been described as "A very thin water saturated zone was found within a tight silty fat clay drilled from 27 to 31 ft BGS." Less than 2.2 inches of water in a fat clay does not constitute an aquifer or groundwater protected by the OCD's abatement regulations.

Three monitor wells plus a recovery well immediately next to SB-4A were ordered by the OCD. MW-1, MW-2, and MW-3 were drilled at locations shown on Figure 2, p. 4. Two monitor wells were drilled to TD 135 ft. MW-3 was drilled to TD 139 ft. Water levels were found in all three wells at about 117 ft in Cretaceous sandstone. No contamination was found in the Cretaceous aquifer water. The USGS classifies other wells in this aquifer in the immediate area as Cretaceous local aquifer (Cretaceous System (210CRCS)) (Ash, 1963).

fresh water supplies. The most important hydrogeological conclusion concerning the greater Station 11 area is that there is no protectable groundwater above the aquiclude isolated Cretaceous aquifer.

The previous corrections of the mechanical problems that caused produced water releases at Station 11 are to be further enhanced by NMSWDC's installation of a liner and berms with larger capacity that will hold 150% of the capacity of the storage tanks. Additionally, the verification of no effect, or potential affect(s), on any fresh water supply demonstrates that natural attenuation processes have/will insure that no imminent nor future threat is present due to the Station 11 releases. Monitoring could continue for a reasonable time to insure the minuscule water volumes observed remain harmless. There is no threat of potable water being impaired. It is recommended that no further action be required by the SLO or OCD at Station 11.

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MS thesis on The Pennsylvanian System of Arizona

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Publications in geology

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GeoScience Technologies

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Expert Witness Summary

Qualified as an expert witness in various areas, including geoscience, hydrogeology, hydrology, paleoclimatology, hydrogeochemistry, groundwater, oil and natural gas, and economics thereof in hearings/trials before:

New Mexico Oil Conservation Commission New Mexico State Engineer US District Court, Albuquerque, New Mexico Fifth Judicial District Court of New Mexico Twelfth Judicial District Court of New Mexico



P.O. Box 1213 • Roswell, NM 88202-1213 Office 505.622.8800 • Fax 505.622.8805 www.sageservgroup.com

October 15, 2008

NMEMNRD, OCD

Attention: Wayne Price, Environmental Bureau Chief 1220 South St. Francis Drive Wendell Chino Building Santa Fe, NM 87505

RE: AP053

New Mexico Salt Water Disposal Company, Inc.

Dear Mr. Price:

On behalf of my client, New Mexico Salt Water Disposal Company, Inc. (NMSWDCo), I am writing in response to your Item 13 within the October 9, 2008 letter from you to Charles B. Read, President of NMSWDCo.

The attached Operational and Emergency Policy-Revised has incorporated your instructions and the references made in your Item 13 have been deleted from the Revised Policy. Please update your files with this current submittal.

While we would like to be able to provide you with a target date for our response to the balance of the items and statements made by you in the same October 9, 2008 letter previously referenced, we can only tell you that at this time we are endeavoring to persevere in formulating that response. We will respond as quickly as we are able.

Yours Sincerely,

Rory McMinn

Sage Service Group, LLC as consultant to and for:

New Mexico Salt Water Disposal Company, Inc.

cc: NMSWDCo OCD files

Charles B. Read

Gary Larson, Hinkle Law Firm

Taddeus Kostrubala, SLO Environmental Engineer

NEW MEXICO SALT WATER DISPOSAL COMPANY, INC.

400 N. Pennsylvania Ave. Suite 1000 P.O. Box 1518 (88202) Roswell, NM 88201 575/625-0277 Telephone 575/622-8643 Fax

OPERATIONAL AND EMERGENCY POLICY-REVISED

Operational Policy

- 1.) Maintain 24/7 policy on operating and maintaining system.
- 2.) Work within the guidelines of OCD and State Land Office for operating a system of this type.
- 3.) Operate under a policy to strive to be 100% environmentally safe.

Emergency Procedures

- 1.) Follow the OCD and State Guidelines for operating and reporting for a system of this caliber.
- 2.) Follow the attached spill/leak policy as set out in our company.
- 3.) "Be prepared" to be 100% emergency and environmentally safe.
- 4.) Have emergency alert equipment, so we can respond prior to any potential threat to our system which does not comply with our policy or the State of New Mexico guidelines.
- 5.) Change our attitude and corporate culture to reflect the <u>personal responsibility</u> to abide by the enforcement regulation and environmental responsibility to leave a clean and safe environment for future generation. (This would include especially being subject to the attached Spill/Leak policy. (See Attachment)).

Work Order Receipt



6701 Aberdeen Avenue, Suits 9 200 East Sunset Road, Suite E 5002 Gaoin Street, Stiffe AT

6015 Hamis Parkway, Suite 110 Ft, Worth, Texas 76132

Lubbock, Texas 79424 El Paso, Texas 79922 Midland, Texas 79703

888 • 588 • 3443

808 • 794 • 1296 915 • 585 • 3443 432 • 689 • 6301 FAX 806 • 794 • 1298 FAX 915 • 585 • 4844 FAX 432+689+6313

817 • 201 • 5260

E-Mail: lab@naceanalysis.com

Work Order Receipt

Order

8110902 Work Order

Receive Date

Requestor

Rory McMinn - New Mexico Salt Water Disposal Co.

Invoicing

Accounts Payable - New Mexico Salt Water Disposal Co.-Acct.

Purchase Order

N/A

Project

GW Sampling Project Location = NM-SWD Station #11, Lea Co., NM

Project Name = GW Sampling

Project Number = NMSWD Station #11

Comment

N/A

Samples Sample	Field Code	Priority	Matrix	Collect Date	Collect Time	Quantity
178801	NMSWD Station #11 MW-3	Three Day	water	2008-11-06	11:41	1
178802	NMSWD Station #11 MW-1	Three Day	water	2008-11-06	12:55	1
178803	NMSWD Station #11 MW-2	Three Day	water	2008-11-06	13:45	1
178804	NMSWD Station #11 RW-1	Three Day	water	2008-11-06	14:15	1

Sample	Test	Method	Prep	Priority	Expected Date
178801	Ag, Total	E 200.7	N/A	Three Day	2008-11-09
	Alkalinity	SM 2320B	N/A	Three Day	2008-11-09
	As, Total	E 200.7	N/A	Three Day	2008-11-09
	Ba, Total	$\to 200.7$	N/A	Three Day	2008-11-09
	Ca, Dissolved	$\to 200.7$	$\dot{N/A}$	Three Day	2008-11-09
	Cd, Total	E 200.7	N/A	Three Day	2008-11-09
	Chloride (IC)	E 300.0	N/A	Three Day	2008-11-09
	Conductivity	E 120.1	N/A	Three Day	2008-11-09
	Cr, Total	E 200.7	N/A	Three Day	2008-11-09

Sample	Test	$rac{\mathbf{Work}}{ ext{Method}}$ Ord	$rac{ ext{Receipt}}{ ext{Prep}}$	Priority	Expected Date
	Hg, Total	E 245.2	N/A	Three Day	2008-11-09
	K, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Mg, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Na, Dissolved	E 200.7	S 3005A	Three Day	2008-11-09
	Pb, Total	E 200.7	N/A	Three Day	2008-11-09
	Semivolatiles	$\to 625$	N/A	Three Day	2008-11-09
	Se, Total	E 200.7	N/A	Three Day	2008-11-09
	Si, Total	E 200.7	N/A	Three Day	2008-11-09
	SO4 (IC)	E 300.0	N/A	Three Day	2008-11-09
·	TDS	SM 2540C	N/A	Three Day	2008-11-11
	TSS	SM 2540D	N/A	Three Day	2008-11-09
	Volatiles	$\to 624$	N/A	Three Day	2008-11-09
178802	Ag, Total	E 200.7	N/A	Three Day	2008-11-09
	Alkalinity	SM 2320B	N/A	Three Day	2008-11-09
	As, Total	E 200.7	N/A	Three Day	2008-11-09
	Ba, Total	E 200.7	N'/A	Three Day	2008-11-09
	Ca, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Cd, Total	E 200.7	N/A	Three Day	2008-11-09
	Chloride (IC)	E 300.0	N/A	Three Day	2008-11-09
	Conductivity	E 120.1	N/A	Three Day	2008-11-09
	Cr, Total	E 200.7	N/A	Three Day	2008-11-09
	Hg, Total	E 245.2	N/A	Three Day	2008-11-09
	K, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Mg, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Na, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Pb, Total	E 200.7	N/A	Three Day	2008-11-09
	Semivolatiles	E 625	N/A	Three Day	2008-11-09
	Se, Total	E 200.7	N/A	Three Day	2008-11-09
	Si, Total	E 200.7	N/A	Three Day	2008-11-09
	SO4 (IC)	E 300.0	N/A	Three Day	2008-11-09
	TDS	SM 2540C	N/A	Three Day	2008-11-11
	TSS	SM 2540D	N/A	Three Day	2008-11-09
	Volatiles	E 624	N/A	Three Day	2008-11-09
178803	Ag, Total	E 200.7	N/A	Three Day	2008-11-09
110000	Alkalinity	SM 2320B	N/A	Three Day	2008-11-09
	As, Total	E 200.7	N/A	Three Day	2008-11-09
	Ba, Total	E 200.7	N/A	Three Day	2008-11-09
	Ca, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Cd, Total	E 200.7	N/A	Three Day	2008-11-09
	Chloride (IC)	E 300.0	N/A N/A	Three Day	2008-11-09
	Conductivity	E 120.1	N/A N/A	Three Day	2008-11-09
	Cr, Total	E 200.7	N/A	Three Day	2008-11-09
	Hg, Total	E 245.2	N/A	Three Day	2008-11-09
	K, Dissolved	E 200.7	N/A N/A	Three Day	2008-11-09
	Mg, Dissolved	E 200.7	N/A N/A	Three Day Three Day	2008-11-09
	Na, Dissolved	E 200.7	N/A N/A	Three Day	2008-11-09
	Pb, Total	E 200.7	N/A	Three Day	2008-11-09
	Semivolatiles	E 625	N/A	Three Day	2008-11-09
					2000-11-09

November 11, 2008 Page 2 of 3

Sample	Test	$\operatorname*{Work}_{ ext{Method}}\operatorname{Ord}$	$rac{ ext{Receipt}}{ ext{Prep}}$	Priority	Expected Date
	Se, Total	E 200.7	N/A	Three Day	2008-11-09
	Si, Total	E 200.7	N/A	Three Day	2008-11-09
	SO4 (IC)	E 300.0	N/A	Three Day	2008-11-09
	TDS	SM 2540C	N/A	Three Day	2008-11-11
	TSS	SM 2540D	N/A	Three Day	2008-11-09
	Volatiles	E 624	N/A	Three Day	2008-11-09
178804	Ag, Total	E 200.7	N/A	Three Day	2008-11-09
	Alkalinity	SM 2320B	N/A	Three Day	2008-11-09
	As, Total	E 200.7	N/A	Three Day	2008-11-09
	Ba, Total	E 200.7	N/A	Three Day	2008-11-09
	Ca, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Cd, Total	E 200.7	N/A	Three Day	2008-11-09
	Chloride (IC)	E 300.0	N/A	Three Day	2008-11-09
	Conductivity	E 120.1	N/A	Three Day	2008-11-09
	Cr, Total	E 200.7	N/A	Three Day	2008-11-09
	Hg, Total	$\to 245.2$	N/A	Three Day	2008-11-09
	K, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Mg, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Na, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Pb, Total	E 200.7	N/A	Three Day	2008-11-09
	Semivolatiles	E 625	N/A	Three Day	2008-11-09
	Se, Total	E 200.7	N/A	Three Day	2008-11-09
	Si, Total	E 200.7	N/A	Three Day	2008-11-09
	SO4 (IC)	E 300.0	N/A	Three Day	2008-11-09
	TDS	SM 2540C	N/A	Three Day	2008-11-11
	TSS	SM 2540D	N/A	Three Day	2008-11-09
	Volatiles	E 624	N'A	Three Day	2008-11-09

November 11, 2008 Page 3 of 3

7.0100118

LAB Order ID

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (80b) 794-1296 Fax (80b) 794-1298 1 (800) 378-1298

TraceAnalysis, Inc.

email: lab@traceanalysis.com

Company

Project #

LAB#

5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313

200 East Sunset Rd., Suite El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 (888) 588-3443

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ANALYSIS REQUEST

8808 Camp Bowie Blvd. West, Suite Ft. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336 ш

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рюн Turn Around Time if different from standard 3xyome vox's w/ He 2 Circle or Specify Method Dry Weight Basis Required Check If Special Reporting Limits Are Needed TRRP Report Required Moisture Content REMARKS: 58 mp/e 1× 500 AL 1P HOPEST GOB Pesticides 8081A / 608 PCB's 8082 / 608 GC/MS Semi. Vol. 8270C / 625 CC/W2 AOF 8580B / 854 BCI TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles LAB USE TCLP Metals Ag As Ba Cd Cr Pb Se Hg 当る Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C / 625 TPH 8015 GRO / DRO / TVHC TPH 418.1 / TX1005 / TX1005 EX(C35) BTEX 8021B / 602 / 8260B / 624 Temp c: 80218 / 602 / 82608 / 624 **BBTM** Temp° Temp 9 255 AM.Com Iń SAMPLING TIME -8805 575-622-8800 9.30 Time: Time: Time: 1 **3TA Q** RORUMCHINGE 622 11.5-08 Date: Date: Date: RVATIVE NONE ICE Roswell, NM 88202-1518 HOsM 575-Company: Company: Company: Sampler Signat °OS^zH Project Name: H_O3 HCI Fax #: ROSWELL, N.M 88202-1213 STUDGE Received by: Received by: Received by: MATRIX ЯІ∀ Mexico Sait Water Disposal TIOS **A**3TAW 4 'n InnomA \ emuloV Time: Time: Time: Lea 1/mm// POBOX 1518 # CONTAINERS 1143 803 NMSWD STETO, #11 MW-2 IM SWD STATING 11 8W-1 Date: Mam # Station STATION Station Soul Bax 1213 uoile, FIELD CODE W Company: Company Company Street, City, Zip) C. M. VMSWO Project Location (including NMENI 82 MMSW10 082 (If different from above) Relinquished by: Contact Person AB USE) Invoice to: 1380/

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Feblex 66 15 16069767

Work Order Receipt



6701 Aberdaen Avenue, Suite 9 200 East Suncer Road, Suite E 5002 Gasin Street, Strite AT

6015 Hamis Parkway, Suite 110 - Ft. Worth, Texas 76732

Lubbock, Texas 79424 El Paso, Texas 79922

388 • S#8 • 3448 Midfand, Texas 79700

806 • 794 • 1296 915 • 585 • 3443 432 * 689 * 6301

FAX 806 • 794 • 1298 FAX 915 • 585 • 4844 FAX 432 * 689 * 6310

817 • 201 • 6260

E-Mail: lab@daceanalysis.com

Work Order Receipt

Order

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Work Order

8110901

Receive Date

Requestor

Rory McMinn - New Mexico Salt Water Disposal Co.

Invoicing

Accounts Payable - New Mexico Salt Water Disposal Co.-Acct.

Purchase Order

Project

Kizer Project

Project Location = Lea Co., NM Project Name = Kizer Project

Project Number = NMSWD Kizer Project

Comment

N/A

N/A

Samples				Collect	Collect		
Sample	Field Code	Priority	Matrix	Date	Time	Quantity	
178800	Kizer Project	Three Day	water	2008-11-06	15:00	1	

Sample	Test	Method	Prep	Priority	Expected Date
178800	Ag, Total	E 200.7	N/A	Three Day	2008-11-09
	Alkalinity	SM 2320B	N/A	Three Day	2008-11-09
	As, Total	E 200.7	N/A	Three Day	2008-11-09
	Ba, Total	E 200.7	N/A	Three Day	2008-11-09
	Ca, Dissolved	$\to 200.7$	N/A	Three Day	2008-11-09
	Cd, Total	E 200.7	N/A	Three Day	2008-11-09
	Chloride (IC)	E 300.0	N/A	Three Day	2008-11-09
	Conductivity	$\to 120.1$	N/A	Three Day	2008-11-09
	Cr, Total	E 200.7	N/A	Three Day	2008-11-09
	Hg, Total	$\to 245.2$	N/A	Three Day	2008-11-09
	K, Dissolved	E 200.7	$\dot{N/A}$	Three Day	2008-11-09
	Mg, Dissolved	$\to 200.7$	N/A	Three Day	2008-11-09

Sample	Test	Work Orden	r Receipt $_{ ext{Prep}}$	Priority	Expected Date
	Na, Dissolved	E 200.7	N/A	Three Day	2008-11-09
	Pb, Total	$\to 200.7$	N/A	Three Day	2008-11-09
	pH	SM 4500-H+	N/A	Three Day	2008-11-09
	Semivolatiles	$\to 625$	N/A	Three Day	2008-11-09
	Se, Total	E 200.7	N/A	Three Day	2008-11-09
	Si, Total	E 200.7	N/A	Three Day	2008-11-09
	SO4 (IC)	E 300.0	N/A	Three Day	2008-11-09
	TDS	SM 2540C	N/A	Three Day	2008-11-09
	TSS	SM 2540D	N/A	Three Day	2008-11-09
	Volatiles	$\to 624$	N/A	Three Day	2008-11-09

November 11, 2008 Page 2 of 2

Barber 6134 PIOH 180 Slvd. West, Suite Texas 76116 Turn fround Time if different from standard 8808 Camp Bowie Bivd. West, Ft. Worth, Texas 7611 Tel (817) 201-5260 Fax (817) 560-4336 of Check If Special Reporting Limits Are Needed Circle or Specify Method Dry Weight Basis Require TRRP Report Required Moisture Content ANALYSIS REQUEST H0 (8) (108 REMARKS: 53 MD Pesticides 808 / A F 608 1W17X 500 MC 200 East Sunset Rd., Suite E El Paso, Texas 79922 Tei (915) 585-3443 Fax (915) 585-3443 1 (888) 588-3443 bCB,2 8082 \ 608 GC/MS Semi. Vol. 8270C / 625 GC/WS API 8580B / 654 BCI TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles LAB USE TCLP Metals Ag As Ba Cd Cr Pb Se Hg ONEY og-in-Review Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313 PAH 8270C / 625 80118 TPH 8015 GRO / DRO / TVHC TPH 418.1 / TX1005 / TX1005 Ex(C35) \$051B \ 602 \ 8260B \ 624 **X**∃T8 MTBE Temp? Temp³ Temp 8021B / 602 / 8260B / 624 2,0 1188-169-2000 SAMPLING TIME Time: Time: 9.30 6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (8605) 794-1296 Fax (806) 794-1298 1 (800) 378-1296 **BTAQ** Kory McMinn LAB Order ID 11-6-118 15/8 Date: Date: NONE ICE METHOD HOPN Company: Company: 85202 Company: OS^zH Project Name: Sampler Sign ²ОИН Phone #: нсі Fax# SCUDGE Received by: Received by: Received by: MATRIX 620121 ЯIА FraceAnalysis, Inc. well. ROIF **A**∃TAW S 1001 email: lab@traceanalysis.com InuomA \ emuloV Time: Time: Time: water # CONTAINERS 15 well 10% Date: Date: Date: OCT 5217 Po BOX FIELD CODE Company: Company: Company Project Location (including state) Jussu! (If different from above) Refinquished by: Company Name: Contact Persor LAB USEY 08% Invoice to: Project #: LAB#

CLI 304988237

carrier # Tedex 86c326069161

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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.

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E201 Aberdson Avenue Suite 9 200 East Sunset Road, Suita E 5002 Basin Street, Suite A1

Lubbock Texas 70424 Ei Paso, Texas 29922 858 • 588 • 0443

806 • 794 • 1296 915 * 585 * 3443

FAX 806 • 794 • 1298 FAX 915 • 585 • 4944

6015 Harris Parkway, Suite 110 - Ft. Worth, Texas 76:132

Midland, Texas 79703

432 • 689 • 6801 817 * 201 * 5260 FAX 422 • 669 • 6313

E-Mail, lab@traceanalysic.com

Certifications

WBENC: 237019

HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock:

T104704219-08-TX

El Paso:

T104704221-08-TX LELAP-02002

Midland:

T104704392-08-TX

LELAP-02003 Kansas E-10317

Analytical and Quality Control Report

Rory McMinn

New Mexico Salt Water Disposal Co.

P.O. box 1213

Roswell, NM, 88202

Report Date: November 14, 2008

Work Order: 8110902

Project Location:

NM-SWD Station #11, Lea Co., NM

Project Name:

GW Sampling

Project Number:

NMSWD Station #11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
178801	NMSWD Station #11 MW-3	water	2008-11-06	11:41	2008-11-08
178802	NMSWD Station #11 MW-1	water	2008-11-06	12.55	2008-11-08
178803	NMSWD Station #11 MW-2	water	2008-11-06	13:45	2008-11-08
178804	NMSWD Station #11 RW-1	water	2008-11-06	14:15	2008-11-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 71 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

 ${f B}$ - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project GW Sampling were received by TraceAnalysis, Inc. on 2008-11-08 and assigned to work order 8110902. Samples for work order 8110902 were received intact without headspace and at a temperature of 5.9 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Ag, Total	E 200.7
Alkalinity	SM 2320B
As, Total	E 200.7
Ba, Total	E 200.7
Ca, Dissolved	E 200.7
Cd, Total	$\to 200.7$
Chloride (IC)	E 300.0
Conductivity	E 120.1
Cr, Total	E 200.7
Hg, Total	E 245.2
K, Dissolved	E 200.7
Mg, Dissolved	E 200.7
Na, Dissolved	E 200.7
Pb, Total	E 200.7
рH	SM 4500-H+
Semivolatiles	$\to 625$
Se, Total	E 200.7
Si, Total	E 200.7
SO4 (IC)	E 300.0
TDS	SM 2540C
TSS	SM 2540D
Volatiles	E 624

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8110902 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 4 of 71 NM-SWD Station #11, Lea Co., NM

Analytical Report

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Alkalinity QC Batch: 54146

Analytical Method: Date Analyzed:

SM 2320B 2008-11-10 Prep Method: N/A Analyzed By: RG

Prep Batch: 46320

1

Sample Preparation:

2008-11-10

Prepared By: RG

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		218	mg/L as CaCo3	1	4.00
Total Alkalinity		218	mg/L as CaCo3	1	4.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Ca, Dissolved QC Batch: 54204 Prep Batch: 46313

Analytical Method: Date Analyzed:

E 200.7 2008-11-13 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: TP

Prepared By: KV

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Calcium		65.3	mg/L	1	1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Chloride (IC) Analysis: QC Batch: 54171Prep Batch: 46350

Analytical Method: Date Analyzed:

E 300.0 2008-11-12 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: RDPrepared By:

RL.

Parameter	Flag	Result	Units	Dilution	RL
Chloride		234	m mg/L	50	3.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Conductivity QC Batch: 54245Prep Batch: 46408

Analytical Method: E 120.1 Date Analyzed: 2008-11-14 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: RD· Prepared By: RD

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 5 of 71 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Specific Conductance		1530	uMHOS/cm	1	0.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: QC Batch:

K, Dissolved 54204 Prep Batch: 46313

Analytical Method:

E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: TP Prepared By: KV

RLResult Flag Units Dilution RLParameter Dissolved Potassium 10.6 mg/L 1.00

Sample: 178801 - NMSWD Station #11 MW-3

Lubbock Laboratory:

Analysis: QC Batch:

Mg, Dissolved

54204Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed:

2008-11-13Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: TP

Prepared By: ΚV

RLFlag Parameter Result Units Dilution RLDissolved Magnesium 13.3mg/L 1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Prep Batch:

Lubbock

46313

Na, Dissolved Analysis: QC Batch: 54204

Analytical Method: Date Analyzed:

 $E_{200.7}$ 2008-11-13 Sample Preparation: 2008-11-11 Prep Method: S 3005A Analyzed By: TP Prepared By:

RLParameter Flag Result Units Dilution RLDissolved Sodium 332 mg/L 5 1.00

Sample: 178801 - NMSWD Station #11 MW-3

Lubbock Laboratory:

рΗ Analysis: 54283 QC Batch: Prep Batch: 46439 Analytical Method: Date Analyzed:

SM 4500-H+ 2008-11-14 Sample Preparation: 2008-11-14

Prep Method: N/A Analyzed By: RG Prepared By: RG

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 6 of 71 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
pH		7.91	s.u.	1	0.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: QC Batch:

Semivolatiles

54206 Prep Batch: 46379 Analytical Method: Date Analyzed:

E 625 2008-11-12 Sample Preparation: 2008-11-10 Prep Method: N/A Analyzed By: DS Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyridine		< 0.00458	mg/L	0.917	0.00500
N-Nitrosodimethylamine		< 0.00458	mg/L	0.917	0.00500
2-Picoline		< 0.00458	mg/L	0.917	0.00500
Methyl methanesulfonate		< 0.00458	m mg/L	0.917	0.00500
Ethyl methanesulfonate		< 0.00458	m mg/L	0.917	0.00500
Phenol		< 0.00458	mg/L	0.917	0.00500
Aniline		< 0.00458	mg/L	0.917	0.00500
bis(2-chloroethyl)ether		< 0.00458	mg/L	0.917	0.00500
2-Chlorophenol		< 0.00458	mg/L	0.917	0.00500
1,3-Dichlorobenzene (meta)		< 0.00458	m mg/L	0.917	0.00500
1,4-Dichlorobenzene (para)		< 0.00458	mg/L	0.917	0.00500
Benzyl alcohol		< 0.00458	mg/L	0.917	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00458	m mg/L	0.917	0.00500
2-Methylphenol		< 0.00458	mg/L	0.917	0.00500
bis(2-chloroisopropyl)ether		< 0.00458	mg/L	0.917	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00458	mg/L	0.917	0.00500
N-Nitrosodi-n-propylamine		< 0.00458	$_{ m mg/L}$	0.917	0.00500
Hexachloroethane		< 0.00458	mg/L	0.917	0.00500
Acetophenone		< 0.00458	mg/L	0.917	0.00500
Nitrobenzene		< 0.00458	mg/L	0.917	0.00500
N-Nitrosopiperidine		< 0.00458	m mg/L	0.917	0.00500
Isophorone		< 0.00458	m mg/L	0.917	0.00500
2-Nitrophenol		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
2,4-Dimethylphenol		< 0.00458	m mg/L	0.917	0.00500
bis(2-chloroethoxy)methane		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
2,4-Dichlorophenol		< 0.00458	mg/L	0.917	0.00500
1,2,4-Trichlorobenzene		< 0.00458	mg/L	0.917	0.00500
Benzoic acid		< 0.00458	mg/L	0.917	0.00500
Naphthalene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
a,a-Dimethylphenethylamine		< 0.00458	m mg/L	0.917	0.00500
4-Chloroaniline		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
2,6-Dichlorophenol		< 0.00917	mg/L	0.917	0.0100
Hexachlorobutadiene		< 0.00458	m mg/L	0.917	0.00500

 $continued \dots$

Report Date: November 14, 2008 NMSWD Station #11 Work Order: 8110902 GW Sampling Page Number: 7 of 71 NM-SWD Station #11, Lea Co., NM

sample 178801 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
N-Nitroso-di-n-butylamine	8	< 0.00458	mg/L	0.917	0.00500
4-Chloro-3-methylphenol		< 0.00458	mg/L	0.917	0.00500
2-Methylnaphthalene		< 0.00458	mg/L	0.917	0.00500
1-Methylnaphthalene		< 0.00458	mg/L	0.917	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00458	$_{ m mg/L}$	0.917	0.00500
Hexachlorocyclopentadiene		< 0.00458	m mg/L	0.917	0.00500
2,4,6-Trichlorophenol		< 0.00917	mg/L	0.917	0.0100
2,4,5-Trichlorophenol		< 0.00458	$_{ m mg/L}$	0.917	0.00500
2-Chloronaphthalene		< 0.00458	$_{ m mg/L}$	0.917	0.00500
1-Chloronaphthalene		< 0.00458	$_{ m mg/L}$	0.917	0.00500
2-Nitroaniline		< 0.00458	mg/L	0.917	0.00500
Dimethylphthalate		< 0.00458	$_{ m mg/L}$	0.917	0.00500
Acenaphthylene		< 0.00458	m mg/L	0.917	0.00500
2,6-Dinitrotoluene		< 0.00458	$_{ m mg/L}$	0.917	0.00500
3-Nitroaniline		< 0.00458	m mg/L	0.917	0.00500
Acenaphthene		< 0.00458	mg/L	0.917	0.00500
2,4-Dinitrophenol		< 0.00458	mg/L	0.917	0.00500
Dibenzofuran	,	< 0.00458	mg/L	0.917	0.00500
Pentachlorobenzene		< 0.00458	mg/L	0.917	0.00500
4-Nitrophenol	•	< 0.0229	$\frac{mg}{L}$	0.917	0.0250
2,4-Dinitrotoluene		< 0.00458	mg/L	0.917	0.00500
1-Naphthylamine		< 0.00458	$\frac{mg}{L}$	0.917	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00917	mg/L	0.917	0.0100
2-Naphthylamine		< 0.00458	mg/L	0.917	0.00500
Fluorene		< 0.00458	$\frac{mg}{L}$	0.917	0.00500
4-Chlorophenyl-phenylether		< 0.00458	mg/L	0.917	0.00500
Diethylphthalate		< 0.00458	mg/L	0.917	0.00500
4-Nitroaniline		< 0.00458	mg/L	0.917	0.00500
Diphenylhydrazine		< 0.00458	m mg/L	0.917	0.00500
4,6-Dinitro-2-methylphenol		< 0.00458	mg/L	0.917	0.00500
Diphenylamine		< 0.00458	m mg/L	0.917	0.00500
4-Bromophenyl-phenylether		< 0.00458	m mg/L	0.917	0.00500
Phenacetin		< 0.00458	$_{ m mg/L}$	0.917	0.00500
Hexachlorobenzene		< 0.00458	${ m mg/L}$	0.917	0.00500
4-Aminobiphenyl		< 0.00458	m mg/L	0.917	0.00500
Pentachlorophenol		< 0.00917	mg/L	0.917	0.0100
Anthracene		< 0.00458	mg/L	0.917	0.00500
Pentachloronitrobenzene		< 0.00458	mg/L	0.917	0.00500
Pronamide		< 0.00458	m mg/L	0.917	0.00500
Phenanthrene		< 0.00458	m mg/L	0.917	0.00500
Di-n-butylphthalate		< 0.00458	$_{ m mg/L}$	0.917	0.00500
Fluoranthene		< 0.00458	m mg/L	0.917	0.00500
Benzidine		< 0.0229	$_{ m mg/L}$	0.917	0.0250

 $\overline{continued \dots}$

NMSWD Station #11

(†) (†)

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 8\ of\ 71} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178801 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyrene		< 0.00458	mg/L	0.917	0.00500
p-Dimethylaminoazobenzene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Butylbenzylphthalate		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Benzo(a)anthracene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
3,3-Dichlorobenzidine		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Chrysene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
bis(2-ethylhexyl)phthalate		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Di-n-octylphthalate		< 0.00458	${ m mg/L}$	0.917	0.00500
Benzo(b)fluoranthene		< 0.00458	m mg/L	0.917	0.00500
Benzo(k)fluoranthene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00458	m mg/L	0.917	0.00500
Benzo(a)pyrene		< 0.00458	m mg/L	0.917	0.00500
3-Methylcholanthrene		< 0.00458	${ m mg/L}$	0.917	0.00500
${f Dibenzo(a,j)acridine}$		< 0.00458	${ m mg/L}$	0.917	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00458	m mg/L	0.917	0.00500
Dibenzo(a,h)anthracene		< 0.00458	${ m mg/L}$	0.917	0.00500
Benzo(g,h,i)perylene	<u></u>	< 0.00458	mg/L	0.917	0.00500

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	$\mathbf{A}\mathbf{mount}$	Recovery	Limits
2-Fluorophenol		0.0161	$\mathrm{mg/L}$	0.917	0.0800	20	10 - 62.8
Phenol-d5		0.0125	$\mathrm{mg/L}$	0.917	0.0800	16	10 - 41.3
Nitrobenzene-d5		0.0436	mg/L	0.917	0.0800	54	25.4 - 115
2-Fluorobiphenyl		0.0442	${ m mg/L}$	0.917	0.0800	55	18.7 - 125
2,4,6-Tribromophenol		0.0409	${ m mg/L}$	0.917	0.0800	51	15.5 - 107
Terphenyl-d14		0.0616	$\mathrm{mg/L}$	0.917	0.0800	77	23.4 - 151

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Si, Total
QC Batch: 54203
Prep Batch: 46344

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-12

Prep Method: N/A
Analyzed By: RR
Prepared By: KV

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silica		< 0.0500	mg/L	1	0.0500

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 9 of 71 NM-SWD Station #11, Lea Co., NM

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Prep Batch:

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Lubbock

46350

Analysis: SO4 (IC) QC Batch: 54171

Analytical Method:

E 300.0

Date Analyzed: Sample Preparation: 2008-11-11

2008-11-12

mg/L

Prep Method: N/A Analyzed By:

RDPrepared By: RD

RL

446

Flag Parameter Sulfate

Result Units

Dilution

50

Dilution

 $\overline{2}$

RL

Sample: 178801 - NMSWD Station #11 MW-3

Lubbock Laboratory:

Analysis:

TDS

54184

Analytical Method: Date Analyzed:

 $\rm SM~2540C$ 2008-11-12 Prep Method:

N/ARD

OC Batch: Prep Batch:

46362

Sample Preparation:

2008-11-11

Analyzed By: Prepared By:

RD

1.00

Parameter Flag

RLResult 1122

Units

mg/L

RL

10.00

KV

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: QC Batch:

Total 8 Metals 54162 46332

46344

Analytical Method: Date Analyzed: Sample Preparation:

E 245.2 2008-11-11

2008-11-11

Prep Method: N/A Analyzed By:

TP Prepared By: TP

Prep Batch: Laboratory: Lubbock

Total Dissolved Solids

Analysis: QC Batch:

Prep Batch:

Total 8 Metals 54203

Analytical Method: Date Analyzed: Sample Preparation: E 200.7 2008-11-13 2008-11-12 Prep Method: N/A Analyzed By: RR

Prepared By:

RL.

		1617			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.00500	mg/L	1	0.00500
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	1	0.0100
Total Barium		0.0890	m mg/L	1	0.00500
Total Cadmium		< 0.00200	m mg/L	1	0.00200
Total Chromium		0.0150	$\mathrm{mg/L}$	1	0.00500
Total Mercury		< 0.000200	${ m mg/L}$	1	0.000200
Total Lead		< 0.00500	${ m mg/L}$	1	0.00500
Total Selenium		< 0.0200	m mg/L	1	0.0200

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 10 of 71 NM-SWD Station #11, Lea Co., NM

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

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TSS Analysis: 54274 QC Batch: 46431 Prep Batch:

Analytical Method: Date Analyzed:

Sample Preparation:

SM 2540D 2008-11-13 2008-11-12 Prep Method: N/A Analyzed By: RG

Prepared By: RG

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Suspended Solids	<u></u>	546	mg/L	1	1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: Volatiles 54142 QC Batch: Prep Batch: 46318

Analytical Method: $\to 624$ Date Analyzed: 2008-11-10

Sample Preparation: 2008-11-10

Prep Method: N/A

Analyzed By: KBPrepared By: KB

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		<1.00	$\mu { m g/L}$	1	1.00
Dichlorodifluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloromethane (methyl chloride)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Vinyl Chloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromomethane (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane		< 1.00	$\mu { m g/L}$	1	1.00
Trichloroffuoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acetone		<10.0	$\mu { m g}/{ m L}$	1	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Carbon Disulfide		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acrylonitrile		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
2-Hexanone		< 5.00	$\mu { m g}/{ m L}$	1	5.00
trans 1,4-Dichloro-2-butene		< 10.0	$\mu { m g}/{ m L}$	1	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Methylene chloride		< 5.00	$\mu { m g}/{ m L}$	1	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloropropene		<1.00	$\mu { m g}/{ m L}$	1	1.00

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Report Date: November 14, 2008 NMSWD Station #11 Work Order: 8110902 GW Sampling Page Number: 11 of 71 NM-SWD Station #11, Lea Co., NM

sample 178801 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 1.00	$\mu { m g/L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropan e		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu\mathrm{g}/\mathrm{L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$. 1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	1	5.00

NMSWD Station #11

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 Work Order: 8110902 GW Sampling

Page Number: 12 of 71 NM-SWD Station #11, Lea Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.1	$\mu { m g/L}$	1	50.0	104	86.7 - 111
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.8	$\mu { m g}/{ m L}$	1	50.0	98	72.4 - 112.2

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Alkalinity QC Batch: 54146 Prep Batch: 46320

Analytical Method: SM 2320BDate Analyzed: 2008-11-10 Sample Preparation: 2008-11-10

Prep Method: N/AAnalyzed By: RGPrepared By: RG

RLFlag Result Units Dilution Parameter RLHydroxide Alkalinity < 1.00mg/L as CaCo3 1.00 Carbonate Alkalinity < 1.00mg/L as CaCo3 1 1.00 Bicarbonate Alkalinity 188 mg/L as CaCo3 1 4.00188 mg/L as CaCo3 1 4.00 Total Alkalinity

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Ca. Dissolved QC Batch: 54204 Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: TPPrepared By: KV

RLFlag Parameter Result Units Dilution RLDissolved Calcium 64.4 mg/L 1.00 1

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Chloride (IC) Analysis: QC Batch: 54171 Prep Batch: 46350

Analytical Method: E 300.0 Date Analyzed: 2008-11-12 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: RDPrepared By: RD

RLFlag Result Units Dilution Parameter RL325 Chloride mg/L 3.00 Report Date: November 14, 2008 NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 13 of 71 NM-SWD Station #11. Lea Co., NM

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

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Lubbock

Conductivity Analysis: 54245 QC Batch: 46408 Prep Batch:

Analytical Method: Date Analyzed:

E 120.1 2008-11-14 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: RDPrepared By: RD

RL

Flag Result Units Dilution RLParameter 1590 uMHOS/cm Specific Conductance 0.00 1

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

K, Dissolved Analysis: QC Batch: 54204 Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

RL

Prep Method: N/AAnalyzed By: TPPrepared By: KV

Result Parameter Flag 9.47Dissolved Potassium

Units Dilution mg/L

RL1.00

1.00

KV

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Mg, Dissolved Analysis: 54204 QC Batch: 46313 Prep Batch:

Dissolved Magnesium

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: TP Prepared By: KV

1

Parameter Flag Result

RL

16.3

Dilution RL

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Analysis: Na, Dissolved 54204 QC Batch: 46313 Prep Batch:

Analytical Method: Date Analyzed:

E 200.7 2008-11-13 Sample Preparation: 2008-11-11

Units

mg/L

N/A Prep Method: Analyzed By: TP

Prepared By:

RL

Flag Parameter Result Units Dilution RLDissolved Sodium 334 mg/L 5 1.00

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 14 of 71 NM-SWD Station #11, Lea Co., NM

Dilution

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Prep Batch:

Lubbock

46439

Analysis: На 54283 QC Batch:

Analytical Method: Date Analyzed:

SM 4500-H+

2008-11-14 Sample Preparation: 2008-11-14

Prep Method: N/A Analyzed By: RG

RLFlag Result Units Parameter

Prepared By: RG

RL

7.89Hg s.u. 0.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Analysis: QC Batch:

Semivolatiles 54206

Analytical Method: Date Analyzed:

E 625 2008-11-12

Prep Method: N/A Analyzed By: DS

Prep Batch: 46379

Sample Preparation: 2008-11-10 Prepared By: DS

RLParameter Flag Result Units Dilution RLPyridine < 0.00465 mg/L 0.930.00500 N-Nitrosodimethylamine < 0.00465 mg/L 0.93 0.005002-Picoline < 0.00465 mg/L 0.93 0.00500Methyl methanesulfonate mg/L < 0.004650.930.00500Ethyl methanesulfonate < 0.00465 mg/L 0.930.00500Phenol < 0.00465 mg/L 0.93 0.00500Aniline < 0.00465mg/L0.93 0.00500 bis(2-chloroethyl)ether < 0.00465 mg/L 0.93 0.00500 2-Chlorophenol < 0.00465 mg/L 0.93 0.005001,3-Dichlorobenzene (meta) < 0.00465mg/L 0.930.00500 1,4-Dichlorobenzene (para) < 0.00465 mg/L 0.930.00500 Benzyl alcohol < 0.00465 mg/L0.930.00500 1,2-Dichlorobenzene (ortho) < 0.00465 mg/L 0.930.00500 2-Methylphenol < 0.00465 mg/L 0.93 0.00500 bis(2-chloroisopropyl)ether < 0.00465mg/L 0.930.00500 4-Methylphenol / 3-Methylphenol < 0.00465 mg/L 0.930.00500N-Nitrosodi-n-propylamine < 0.00465 mg/L 0.930.00500Hexachloroethane < 0.00465 mg/L 0.93 0.00500 Acetophenone mg/L< 0.004650.930.00500Nitrobenzene < 0.00465 mg/L 0.93 0.00500N-Nitrosopiperidine < 0.00465 mg/L 0.93 0.00500Isophorone < 0.00465 mg/L 0.93 0.005002-Nitrophenol < 0.00465 mg/L 0.930.00500 2,4-Dimethylphenol < 0.00465 mg/L 0.93 0.00500bis(2-chloroethoxy)methane < 0.00465 mg/L 0.93 0.00500 2,4-Dichlorophenol < 0.00465 mg/L 0.930.00500

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Report Date: November 14, 2008 NMSWD Station #11 Work Order: 8110902 GW Sampling Page Number: 15 of 71 NM-SWD Station #11, Lea Co., NM

sample 178802 continued . . .

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Parameter Flag Result Units Dilution RL 1,2,4-Trichlorobenzene <0.00465 mg/L 0.93 0.00500 Renzoir acid <0.00465 mg/L 0.93 0.00500 Naphthalene <0.00465 mg/L 0.93 0.00500 Naphthalene <0.00465 mg/L 0.93 0.00500 Aga-Dimethylphenethylamine <0.00465 mg/L 0.93 0.00500 4-Chloroaniline <0.00465 mg/L 0.93 0.00500 4-Chloroaniline <0.00465 mg/L 0.93 0.00500 4-Chloroaniline <0.00465 mg/L 0.93 0.00500 4-Chloro-methylphenol <0.00465 mg/L 0.93 0.00500 N-Nitroso-di-n-butylamine <0.00465 mg/L 0.93 0.00500 N-Ritroso-di-n-butylamine <0.00465 mg/L 0.93 0.00500 Hexachlorocyclopentadiene <0.00465 mg/L 0.93 0.00500 N-Ritroso-di-n-butylamine <0.00465 mg/L 0.93			RL			
1,2,4-Trichlorobenzene	Parameter	Flag		Units	Dilution	RL
Benzoic acid <0.00465 mg/L		8				
Naphthalene						
a,a-Dimethylphenethylamine < 0.00465 mg/L 0.93 0.00500 4-Chloroaniline < 0.00465						
4-Chioroaniline < 0.00465						
2,6-Dichlorophenol <0.00465						
Hexachlorobutadiene						
N-Nitroso-di-n-butylamine 4-Chloro-3-methylphenol 4-Chloro-3-methylphenol 4-Chloro-3-methylphenol 4-Chloro-3-methylphenol 4-Chloro-3-methylphenol 2-Methylmaphthalene 4-0.00465 mg/L 0.93 0.00500 1-Methylmaphthalene 4-0.00465 mg/L 0.93 0.00500 1,2,4,5-Tetrachlorobenzene 4-0.00465 mg/L 0.93 0.00500 1,2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 4-0.00465 mg/L 0.93 0.00500 2,4,6-Trichlorophenol 4-0.00465 mg/L 0.93 0.00500 2,4,5-Trichlorophenol 4-0.00465 mg/L 0.93 0.00500 1-Chloronaphthalene 4-0.00465 mg/L 0.9						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						
2-Methylnaphthalene <0.00465						
1-Methylnaphthalene						
1,2,4,5-Tetrachlorobenzene						
Hexachlorocyclopentaliene						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$						
2,4,5-Trichlorophenol <0.00465						
2-Chloronaphthalene <0.00465						
1-Chloromaphthalene			< 0.00465	٠,		
2-Nitroaniline < 0.00465 mg/L 0.93 0.00500 Dimethylphthalate < 0.00465			< 0.00465			
Dimethylphthalate <0.00465 mg/L 0.93 0.00500 Acenaphthylene <0.00465						
Acenaphthylene <0.00465 mg/L 0.93 0.00500 2,6-Dinitrotoluene <0.00465			< 0.00465			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			< 0.00465			
3-Nitroaniline <0.00465 mg/L 0.93 0.00500 Acenaphthene <0.00465 mg/L 0.93 0.00500 2,4-Dinitrophenol <0.00465 mg/L 0.93 0.00500 Dibenzofuran <0.00465 mg/L 0.93 0.00500 4-Nitrophenol <0.00465 mg/L 0.93 0.0250 4-Nitrophenol <0.00465 mg/L 0.93 0.00500 1-Naphthylamine <0.00465 mg/L 0.93 0.00500 1-Naphthylamine <0.00465 mg/L 0.93 0.00500 2-Naphthylamine <0.00465 mg/L 0.93 0.00500 2-Naphthylamine <0.00465 mg/L 0.93 0.00500 Fluorene <0.00465 mg/L 0.93 0.00500 4-Chlorophenyl-phenylether <0.00465 mg/L 0.93 0.00500 Diethylphthalate <0.00465 mg/L 0.93 0.00500 4-Nitroaniline <0.00465 mg/L 0.93 0.00500			< 0.00465			
Acenaphthene <0.00465 mg/L 0.93 0.00500 2,4-Dinitrophenol <0.00465	•					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$						
Dibenzofuran <0.00465 mg/L 0.93 0.00500 Pentachlorobenzene <0.00465						
Pentachlorobenzene <0.00465 mg/L 0.93 0.00500 4-Nitrophenol <0.0232	,					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			< 0.00465			0.00500
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			< 0.00465			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			< 0.00930			0.0100
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			< 0.00465			
$ \begin{array}{llllllllllllllllllllllllllllllllllll$			< 0.00465			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4-Chlorophenyl-phenylether	i	< 0.00465			
$ \begin{array}{llllllllllllllllllllllllllllllllllll$			< 0.00465			0.00500
$\begin{array}{llllllllllllllllllllllllllllllllllll$	4-Nitroaniline		< 0.00465		0.93	0.00500
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Diphenylhydrazine		< 0.00465		0.93	0.00500
$\begin{array}{llllllllllllllllllllllllllllllllllll$	4,6-Dinitro-2-methylphenol		< 0.00465	mg/L	0.93	0.00500
Phenacetin <0.00465 mg/L 0.93 0.00500 Hexachlorobenzene <0.00465				mg/L	0.93	0.00500
Hexachlorobenzene < 0.00465 mg/L 0.93 0.00500 4-Aminobiphenyl < 0.00465	4-Bromophenyl-phenylether		< 0.00465	mg/L	0.93	0.00500
4-Aminobiphenyl <0.00465 mg/L 0.93 0.00500					0.93	0.00500
4-Aminobiphenyl < 0.00465 mg/L 0.93 0.00500	Hexachlorobenzene		< 0.00465	m mg/L	0.93	0.00500
, -	4-Aminobiphenyl		< 0.00465			
1 enganiorophenor 70.00300 mg/ti 0.95 0.0100	Pentachlorophenol		< 0.00930	mg/L	0.93	0.0100

continued ...

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 16 of 71 NM-SWD Station #11, Lea Co., NM

sample 178802 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Anthracene		< 0.00465	m mg/L	0.93	0.00500
Pentachloronitrobenzene		< 0.00465	mg/L	0.93	0.00500
Pronamide		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Phenanthrene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Di-n-butylphthalate		< 0.00465	mg/L	0.93	0.00500
Fluoranthene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Benzidine		< 0.0232	m mg/L	0.93	0.0250
Pyrene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
p-Dimethylaminoazobenzene		< 0.00465	mg/L	0.93	0.00500
Butylbenzylphthalate		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Benzo(a)anthracene		< 0.00465	${ m mg/L}$	0.93	0.00500
3,3-Dichlorobenzidine		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Chrysene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
bis(2-ethylhexyl)phthalate		< 0.00465	m mg/L	0.93	0.00500
Di-n-octylphthalate		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Benzo(b)fluoranthene		< 0.00465	${ m mg/L}$	0.93	0.00500
Benzo(k)fluoranthene		< 0.00465	${ m mg/L}$	0.93	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Benzo(a)pyrene		< 0.00465	${ m mg/L}$	0.93	0.00500
3-Methylcholanthrene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Dibenzo(a,j)acridine		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Dibenzo(a,h)anthracene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Benzo(g,h,i)perylene		< 0.00465	$_{\rm mg/L}$	0.93	0.00500

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorophenol		0.0229	$\mathrm{mg/L}$	0.93	0.0800	29	10 - 62.8
Phenol-d5		0.0174	${ m mg/L}$	0.93	0.0800	22	10 - 41.3
Nitrobenzene-d5		0.0568	$\mathrm{mg/L}$	0.93	0.0800	71	25.4 - 115
2-Fluorobiphenyl		0.0591	${ m mg/L}$	0.93	0.0800	74	18.7 - 125
2,4,6-Tribromophenol		0.0465	$_{ m mg/L}$	0.93	0.0800	58	15.5 - 107
Terphenyl-d14	_	0.0635	m mg/L	0.93	0.0800	79	23.4 - 151

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Si, Total QC Batch: 54203 Prep Batch: 46344 Analytical Method: E 200.7
Date Analyzed: 2008-11-13
Sample Preparation: 2008-11-12

Prep Method: N/A Analyzed By: RR Prepared By: KV

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 17 of 71 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silica		< 0.0500	mg/L	1	0.0500

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: SO4 (IC) QC Batch: 54171 Prep Batch: 46350 Analytical Method: E 300.0 Date Analyzed: 2008-11-12 Sample Preparation: 2008-11-11

E 300.0 Prep Method: N/A 2008-11-12 Analyzed By: RD 2008-11-11 Prepared By: RD

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: TDS QC Batch: 54184 Prep Batch: 46362 Analytical Method: SM 2540C Date Analyzed: 2008-11-12 Sample Preparation: 2008-11-11

Prep Method: N/A
Analyzed By: RD
Prepared By: RD

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock Analysis: Total 8 Metals

QC Batch: 54162
Prep Batch: 46332
Laboratory: Lubbock
Analysis: Total 8 Metals
QC Batch: 54203
Prep Batch: 46344

Analytical Method: E 245.2
Date Analyzed: 2008-11-11
Sample Preparation: 2008-11-11

Analytical Method: E 200.7
Date Analyzed: 2008-11-13
Sample Preparation: 2008-11-12

Analyzed By: TP
Prepared By: TP
Prep Method: N/A
Analyzed By: RR

Prepared By:

Prep Method:

N/A

RLFlag Dilution Result Units Parameter RLTotal Silver < 0.00500 mg/L 0.00500 Total Arsenic < 0.0100mg/L 1 0.01000.0400Total Barium mg/L 1 0.00500Total Cadmium < 0.00200 mg/L 1 0.00200

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NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 18 of 71 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Chromium		< 0.00500	m mg/L	1	0.00500
Total Mercury		< 0.000200	$\mathrm{mg/L}$	1	0.000200
Total Lead		< 0.00500	mg/L	1	0.00500
Total Selenium		< 0.0200	m mg/L	1	0.0200

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

TSS Analytical Method: SM 2540D Prep Method: N/AAnalysis: QC Batch: 54274Date Analyzed: 2008-11-13 Analyzed By: RG Sample Preparation: Prepared By: Prep Batch: 46431 2008-11-12 RG

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock Analytical Method: Analysis: Volatiles E 624 Prep Method: N/A QC Batch: 54142 Date Analyzed: 2008-11-10 Analyzed By: KΒ Sample Preparation: Prep Batch: 46318 2008-11-10 Prepared By: KΒ

RLParameter Flag Result Dilution Units RLBromochloromethane < 1.00 $\mu g/L$ 1 1.00 Dichlorodifluoromethane < 1.00 $\mu g/L$ 1 1.00 Chloromethane (methyl chloride) < 1.00 $\mu \mathrm{g}/\mathrm{L}$ 1.00 1 Vinyl Chloride < 1.00 $\mu g/L$ 1.00 1 Bromomethane (methyl bromide) < 5.00 $\mu g/L$ 1 5.00 Chloroethane < 1.00 1.00 $\mu \mathrm{g/L}$ 1 Trichlorofluoromethane < 1.00 $\mu \mathrm{g}/\mathrm{L}$ 1 1.00 Acetone <10.0 1 10.0 $\mu g/L$ Iodomethane (methyl iodide) < 5.00 $\mu g/L$ 1 5.00 Carbon Disulfide < 1.00 $\mu g/L$ 1 1.00 Acrylonitrile < 1.00 $\mu \mathrm{g/L}$ 1 1.00 2-Butanone (MEK) < 5.005.00 $\mu g/L$ 1 4-Methyl-2-pentanone (MIBK) < 5.00 $\mu g/L$ 5.001 2-Hexanone < 5.00 $\mu g/L$ 1 5.00 trans 1,4-Dichloro-2-butene <10.0 $\mu g/L$ 1 10.0 1,1-Dichloroethene < 1.00 $\mu g/L$ 1 1.00

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Report Date: November 14, 2008 NMSWD Station #11 Work Order: 8110902 GW Sampling Page Number: 19 of 71 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Methylene chloride		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	1	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu\mathrm{g}/\mathrm{L}$	1	1.00
1,1-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Benzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g/L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu\mathrm{g}/\mathrm{L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu _{ m g}/{ m L}$	1	1.00
o-Xylene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Isopropylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Bromobenzene		<1.00	$\mu \mathrm{g/L}$	1	1.00
n-Propylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,3,5-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
tert-Butylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,2,4-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
1,4-Dichlorobenzene (para)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
sec-Butylbenzene		<1.00	$\mu { m g/L}$	1	1.00

continued ...

Work Order: 8110902 NMSWD Station #11 **GW** Sampling

Page Number: 20 of 71 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g/L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g/L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	1	5.00

					Spike	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		52.4	$\mu { m g/L}$	1	50.0	105	86.7 - 111
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.3	$\mu { m g}/{ m L}$	1	50.0	97	72.4 - 112.2

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analytical Method: Analysis: Alkalinity SM 2320B Prep Method: N/A Date Analyzed: Analyzed By: QC Batch: 54146 2008-11-10 RG Prep Batch: 46320 Sample Preparation: 2008-11-10 Prepared By: RG

RLFlag Parameter Result Units Dilution RLmg/L as CaCo3 Hydroxide Alkalinity < 1.00 1.00 1 Carbonate Alkalinity < 1.00 mg/L as CaCo3 1 1.00 Bicarbonate Alkalinity 208 mg/L as CaCo3 1 4.00 Total Alkalinity 208 mg/L as CaCo3 1 4.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Ca, Dissolved Analytical Method: Analysis: E 200.7 Prep Method: N/AQC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TPPrep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: KV

RLParameter Flag Result Units Dilution RLDissolved Calcium 54.5mg/L 1.00

Work Order: 8110902 Report Date: November 14, 2008 Page Number: 21 of 71 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Analysis: Chloride (IC) Analytical Method: E 300.0 Prep Method: N/AQC Batch: 54171 Date Analyzed: 2008-11-12 Analyzed By: RDPrep Batch: 46350 Sample Preparation: 2008-11-11 Prepared By: R.D RLFlag Result Units Dilution RLParameter 241 Chloride mg/L3.00 Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Analysis: Conductivity Analytical Method: E 120.1 Prep Method: N/A 54245 Date Analyzed: 2008-11-14 QC Batch: Analyzed By: RDSample Preparation: Prep Batch: 46408 2008-11-11 Prepared By: RDRLFlag Parameter Result Units Dilution RLSpecific Conductance 1350 uMHOS/cm 0.00 Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: K, Dissolved Analytical Method: Analysis: $\to 200.7$ Prep Method: N/A QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP Prep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: KV RLFlag Result Units Dilution Parameter RLDissolved Potassium 9.14mg/L 1.00 Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: Analysis: Mg, Dissolved Analytical Method: E 200.7 Prep Method: N/A QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP

Sample Preparation:

RL

Result

10.2

Flag

2008-11-11

Units

mg/L

Prepared By:

Dilution

KV

RL

1.00

N.

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0

 Prep Batch:

Parameter

Dissolved Magnesium

46313

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 22 of 71 NM-SWD Station #11, Lea Co., NM

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

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Lubbock

Analysis: QC Batch:

Prep Batch:

Na, Dissolved

54204 46313 Analytical Method:

Date Analyzed:

E 200.7 2008-11-13

Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: TP

Prepared By: KV

RL

Flag Parameter Dissolved Sodium

Result 309

Units mg/L

Dilution RL5 1.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

Lubbock

Analysis: OC Batch:

рΗ 54283 Prep Batch: 46439 Analytical Method: Date Analyzed:

RL

Result

7.68

SM 4500-H+ 2008-11-14Sample Preparation: 2008-11-14

Prep Method: N/A Analyzed By:

RG Prepared By: RG

0.00

Parameter Flag

Units

s.u.

Dilution RL

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

Prep Batch:

pН

Lubbock

46379

Analysis: QC Batch:

Semivolatiles 54206

Analytical Method: Date Analyzed:

Sample Preparation:

E 625 2008-11-12 2008-11-10 Prep Method: N/AAnalyzed By: DS Prepared By: DS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyridine		< 0.00468	mg/L	0.935	0.00500
N-Nitrosodimethylamine		< 0.00468	${ m mg/L}$	0.935	0.00500
2-Picoline		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Methyl methanesulfonate		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Ethyl methanesulfonate		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Phenol		< 0.00468	mg/L	0.935	0.00500
Aniline		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
bis(2-chloroethyl)ether		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
2-Chlorophenol		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
1,3-Dichlorobenzene (meta)		< 0.00468	${ m mg/L}$	0.935	0.00500
1,4-Dichlorobenzene (para)		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Benzyl alcohol		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
2-Methylphenol		< 0.00468	mg/L	0.935	0.00500

continued ...

Report Date: November 14, 2008 NMSWD Station #11 Work Order: 8110902 GW Sampling Page Number: 23 of 71 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

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		m RL			
Parameter	Flag	Result	Units	Dilution	RL
bis(2-chloroisopropyl)ether		< 0.00468	mg/L	0.935	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00468	${ m mg/L}$	0.935	0.00500
N-Nitrosodi-n-propylamine		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Hexachloroethane		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Acetophenone		< 0.00468	mg/L	0.935	0.00500
Nitrobenzene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
N-Nitrosopiperidine		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Isophorone		< 0.00468	mg/L	0.935	0.00500
2-Nitrophenol		< 0.00468	mg/L	0.935	0.00500
2,4-Dimethylphenol		< 0.00468	mg/L	0.935	0.00500
bis(2-chloroethoxy)methane		< 0.00468	mg/L	0.935	0.00500
2,4-Dichlorophenol		< 0.00468	m mg/L	0.935	0.00500
1,2,4-Trichlorobenzene		< 0.00468	mg/L	0.935	0.00500
Benzoic acid		< 0.00468	m mg/L	0.935	0.00500
Naphthalene		< 0.00468	mg/L	0.935	0.00500
a,a-Dimethylphenethylamine		< 0.00468	mg/L	0.935	0.00500
4-Chloroaniline		< 0.00468	mg/L	0.935	0.00500
2,6-Dichlorophenol		< 0.00935	$_{ m mg/L}$	0.935	0.0100
Hexachlorobutadiene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
N-Nitroso-di-n-butylamine		< 0.00468	$_{ m mg/L}$	0.935	0.00500
4-Chloro-3-methylphenol		< 0.00468	mg/L	0.935	0.00500
2-Methylnaphthalene		< 0.00468	mg/L	0.935	0.00500
1-Methylnaphthalene		< 0.00468	mg/L	0.935	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
Hexachlorocyclopentadiene		< 0.00468	mg/L	0.935	0.00500
2,4,6-Trichlorophenol		< 0.00935	mg/L	0.935	0.0100
2,4,5-Trichlorophenol		< 0.00468	$_{ m mg/L}$	0.935	0.00500
2-Chloronaphthalene		< 0.00468	mg/L	0.935	0.00500
1-Chloronaphthalene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
2-Nitroaniline		< 0.00468	mg/L	0.935	0.00500
Dimethylphthalate		< 0.00468	$_{ m mg/L}$	0.935	0.00500
Acenaphthylene		< 0.00468	mg/L	0.935	0.00500
2,6-Dinitrotoluene		< 0.00468	mg/L	0.935	0.00500
3-Nitroaniline		< 0.00468	mg/L	0.935	0.00500
Acenaphthene		< 0.00468	mg/L	0.935	0.00500
2,4-Dinitrophenol		< 0.00468	mg/L	0.935	0.00500
Dibenzofuran		< 0.00468	mg/L	0.935	0.00500
Pentachlorobenzene		< 0.00468	mg/L	0.935	0.00500
4-Nitrophenol		< 0.0234	mg/L	0.935	0.0250
2,4-Dinitrotoluene		< 0.00468	m mg/L	0.935	0.00500
1-Naphthylamine		< 0.00468	mg/L	0.935	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00935	m mg/L	0.935	0.0100
2-Naphthylamine		< 0.00468	m mg/L	0.935	0.00500

continued ...

sample 178803 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Fluorene		< 0.00468	mg/L	0.935	0.00500
4-Chlorophenyl-phenylether		< 0.00468	$^{ m mg/L}$	0.935	0.00500
Diethylphthalate		< 0.00468	m mg/L	0.935	0.00500
4-Nitroaniline		< 0.00468	$_{ m mg/L}$	0.935	0.00500
Diphenylhydrazine		< 0.00468	$_{ m mg/L}$	0.935	0.00500
4,6-Dinitro-2-methylphenol		< 0.00468	mg/L	0.935	0.00500
Diphenylamine		< 0.00468	mg/L	0.935	0.00500
4-Bromophenyl-phenylether		< 0.00468	mg/L	0.935	0.00500
Phenacetin		< 0.00468	mg/L	0.935	0.00500
Hexachlorobenzene		< 0.00468	mg/L	0.935	0.00500
4-Aminobiphenyl		< 0.00468	mg/L	0.935	0.00500
Pentachlorophenol		< 0.00935	$\mathrm{mg/L}$	0.935	0.0100
Anthracene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Pentachloronitrobenzene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Pronamide		< 0.00468	m mg/L	0.935	0.00500
Phenanthrene		< 0.00468	${ m mg/L}$	0.935	0.00500
Dí-n-butylphthalate		< 0.00468	mg/L	0.935	0.00500
Fluoranthene		< 0.00468	mg/L	0.935	0.00500
Benzidine		< 0.0234	$\mathrm{mg/L}$	0.935	0.0250
Pyrene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
p-Dimethylaminoazobenzene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Butylbenzylphthalate		< 0.00468	m mg/L	0.935	0.00500
Benzo(a)anthracene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
3,3-Dichlorobenzidine		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Chrysene		< 0.00468	m mg/L	0.935	0.00500
bis(2-ethylhexyl)phthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
Di-n-octylphthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(b)fluoranthene		< 0.00468	m mg/L	0.935	0.00500
Benzo(k)fluoranthene		< 0.00468	${ m mg/L}$	0.935	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Benzo(a)pyrene		< 0.00468	mg/L	0.935	0.00500
3-Methylcholanthrene		< 0.00468	${ m mg/L}$	0.935	0.00500
Dibenzo(a,j)acridine		< 0.00468	m mg/L	0.935	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00468	${ m mg/L}$	0.935	0.00500
Dibenzo(a,h)anthracene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Benzo(g,h,i)perylene		< 0.00468	m mg/L	0.935	0.00500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recoverv	Recovery Limits
2-Fluorophenol	1	0.00110	mg/L	0.935	0.0800	1	10 - 62.8
Phenol-d5	2	0.00230	mg/L	0.935	0.0800	3	10 - 41.3

 $continued \dots$

¹8270 Only - Two acidic surrogates are out of control limits. The other acidic surrogate shows extraction was performed properly. ²8270 Only - Two acidic surrogates are out of control limits. The other acidic surrogate shows extraction was performed properly.

NMSWD Station #11

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Work Order: 8110902 GW Sampling

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sample continued . . .

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Nitrobenzene-d5	3	0.00690	mg/L	0.935,	0.0800	9	25.4 - 115
2-Fluorobiphenyl		0.0208	${ m mg/L}$	0.935	0.0800	26	18.7 - 125
2,4,6-Tribromophenol		0.0380	$\mathrm{mg/L}$	0.935	0.0800	48	15.5 - 107
Terphenyl-d14		0.0664	mg/L	0.935	0.0800	83	23.4 - 151

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: QC Batch:

Si, Total 54203 Prep Batch: 46344

Analytical Method: Date Analyzed:

 $\to 200.7$ 2008-11-13 Sample Preparation: 2008-11-12 Prep Method: N/A Analyzed By: R.R. Prepared By: KV

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Silica		104	mg/L	10	0.0500

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: QC Batch:

SO4 (IC) 54171Prep Batch: 46350

Analytical Method: Date Analyzed:

E 300.0 2008-11-12 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: RD

Prepared By: RD

RL

Parameter	Flag	Result	Units	Dilution	RL
Sulfate		358	mg/L	50	1.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: TDS QC Batch: 54184 Prep Batch: 46362 Analytical Method: Date Analyzed:

Sample Preparation:

SM 2540C 2008-11-12 2008-11-11 Prep Method: N/A Analyzed By: Prepared By:

RD

RD

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Dissolved Solids		1018	mg/L	2	10.00

³8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

(b)

Lubbock

Analysis: Total 8 Metals QC Batch: 54162

Prep Batch: 46332

Laboratory: Lubbock Analysis: Total 8 Metals

QC Batch: 54203 Prep Batch: 46344

Analytical Method:

Analytical Method:

Date Analyzed:

Date Analyzed: 2008-11-11 Sample Preparation:

2008-11-11

E 245.2

E 200.7 2008-11-13 Sample Preparation: 2008-11-12 Analyzed By: TP Prepared By: TP

Prep Method:

Prep Method: N/A Analyzed By: RRPrepared By: KV

N/A

		RL
ırameter	Flag	Result
tal Silver		< 0.00500

Parameter	Flag	Result	Units	Dilution	RL
Total Silver	<u> </u>	< 0.00500	mg/L	1	0.00500
Total Arsenic		0.0840	mg/L	1	0.0100
Total Barium		0.987	m mg/L	1	0.00500
Total Cadmium		0.00300	m mg/L	1	0.00200
Total Chromium		0.218	mg/L	1	0.00500
Total Mercury		< 0.000400	mg/L	2	0.000200
Total Lead		< 0.00500	m mg/L	1	0.00500
Total Selenium		< 0.0200	mg/L	1	0.0200

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

Lubbock

TSS Analysis: 54274 QC Batch: 46431 Prep Batch:

Analytical Method: Date Analyzed: Sample Preparation:

SM 2540D2008-11-13 2008-11-12 Prep Method: N/AAnalyzed By: RG

Prepared By: RG

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Suspended Solids		7140	${ m mg/L}$	1	1.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

Lubbock

Analysis: Volatiles QC Batch: 54142Prep Batch: 46318

Analytical Method: E 624 Date Analyzed: Sample Preparation:

2008-11-10 2008-11-10 Prep Method: N/A Analyzed By: KBPrepared By: KB

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		<1.00	$\mu \mathrm{g/L}$	1	1.00
Dichlorodifluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloromethane (methyl chloride)		< 1.00	$\mu { m g}/{ m L}$	1	1.00

continued ...

sample 178803 continued . . .

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	RI			
Parameter	Flag Resul		Dilution	RL
Vinyl Chloride	<1.00			1.00
Bromomethane (methyl bromide)	< 5.00	$\mu_{\rm g/L}$	1	5.00
Chloroethane	<1.00		1	1.00
Trichlorofluoromethane	<1.00	, 0/	1	1.00
Acetone	<10.0		1	10.0
Iodomethane (methyl iodide)	< 5.00		1	5.00
Carbon Disulfide	<1.00		1	1.00
Acrylonitrile	<1.00		1	1.00
2-Butanone (MEK)	< 5.00	, 0,	1	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00		1	5.00
2-Hexanone	< 5.00	F-01 —	1	5.00
trans 1,4-Dichloro-2-butene	<10.0		1	10.0
1,1-Dichloroethene	<1.00	1 01	1	1.00
Methylene chloride	< 5.00	$\mu_{ m g/L}$ $\mu_{ m g/L}$	1	5.00
MTBE	<1.00	, 0,	1	1.00
trans-1,2-Dichloroethene	<1.00		1	1.00
1,1-Dichloroethane	<1.00		1	1.00
cis-1,2-Dichloroethene	<1.00	1 0/	1	1.00
2,2-Dichloropropane	<1.00		1	1.00
1.2-Dichloroethane (EDC)	<1.00	F-01 -	1	1.00
Chloroform	<1.00		1	1.00
1,1,1-Trichloroethane	<1.00	1.01 -	1	1.00
1,1-Dichloropropene	<1.00		1	1.00
Benzene	<1.00		$\stackrel{\scriptscriptstyle 1}{1}$	1.00
Carbon Tetrachloride	<1.00		1	1.00
1,2-Dichloropropane	<1.00	, 0,	1	1.00
Trichloroethene (TCE)	<1.00	1-01 -	1	1.00
Dibromomethane (methylene bromide)	<1.00	1.01 -	1	1.00
Bromodichloromethane	<1.00		1	1.00
2-Chloroethyl vinyl ether	<5.00		1	5.00
cis-1,3-Dichloropropene	<1.00	1 01		
trans-1,3-Dichloropropene	<1.00	r·0/ —	1 1	1.00 1.00
Toluene	<1.00	r-6/ —	1	1.00
1,1,2-Trichloroethane	<1.00		1	1.00
1,3-Dichloropropane	<1.00	, 0,	1	1.00
Dibromochloromethane	<1.00	1 0/	1	1.00
1.2-Dibromoethane (EDB)	<1.00		1	1.00
Tetrachloroethene (PCE)	<1.00		1	1.00
Chlorobenzene	<1.00	1 01 -		
1,1,1,2-Tetrachloroethane	<1.00	1 07	1	1.00
Ethylbenzene	<1.00	, 0,	1	$1.00 \\ 1.00$
	<1.00	, 0,	. 1	
m,p-Xylene		, 0,	1	1.00
Bromoform	<1.00	$\mu \mathrm{g/L}$	1	1.00

 $continued \dots$

Work Order: 8110902 GW Sampling Page Number: 28 of 71 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Styrene		<1.00	$\mu { m g/L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	_1	5.00

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	Percent Recovery	Recovery Limits
Dibromofluoromethane		53.8	$\mu \mathrm{g/L}$	1	50.0	108	86.7 - 111
Toluene-d8		52.2	$\mu { m g}/{ m L}$	1	50.0	104	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.2	$\mu { m g}/{ m L}$	1	50.0	96	72.4 - 112.2

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Alkalinity Analytical Method: Analysis: SM 2320B Prep Method: N/A QC Batch: 54146 Date Analyzed: 2008-11-10 Analyzed By: RGPrep Batch: 46320Sample Preparation: 2008-11-10 Prepared By:

RLParameter Flag Result Units Dilution RLHydroxide Alkalinity < 1.00 mg/L as CaCo3 1.00 1 Carbonate Alkalinity < 1.00 mg/L as CaCo3 1 1.00 Bicarbonate Alkalinity 232 mg/L as CaCo3 1 4.00

 $\overline{continued}$. . .

Work Order: 8110902 GW Sampling

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sample 178804 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Alkalinity		232	mg/L as CaCo3	1	4.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Ca, Dissolved Analytical Method: E 200.7 Prep Method: N/A QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP Prep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: KV

RLParameter Flag Result Units Dilution RLDissolved Calcium 5810 mg/L 50 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analytical Method: Analysis: Chloride (IC) E 300.0 Prep Method: N/A QC Batch: Date Analyzed: 2008-11-14 Analyzed By: 54251RDPrep Batch: 46409 Sample Preparation: 2008-11-12 Prepared By: RD

RLResult Parameter Flag Units Dilution RL51600Chloride mg/L 5000 3.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Conductivity Analytical Method: Prep Method: Analysis: $\to 120.1$ N/AQC Batch: 54245Date Analyzed: 2008-11-14 Analyzed By: RDPrep Batch: 46408 Sample Preparation: 2008-11-11 Prepared By: RD

RLFlag Parameter Result Units Dilution RL81100 uMHOS/cm Specific Conductance 0.00 1

Report Date: November 14, 2008 Work Order: 8110902 Page Number: 30 of 71 NMSWD Station #11 **GW** Sampling NM-SWD Station #11, Lea Co., NM Sample: 178804 - NMSWD Station #11 RW-1 Lubbock Laboratory: Analytical Method: Analysis: K, Dissolved $E_{200.7}$ Prep Method: N/A 54204 Date Analyzed: QC Batch: 2008-11-13 Analyzed By: TP Sample Preparation: Prep Batch: 46313 2008-11-11 Prepared By: ΚV RLParameter Flag Result Units Dilution RLDissolved Potassium 157 mg/L 1.00 5 Sample: 178804 - NMSWD Station #11 RW-1 Laboratory: Lubbock Mg, Dissolved Analytical Method: E 200.7 Analysis: Prep Method: N/AQC Batch: 54204Date Analyzed: 2008-11-13 Analyzed By: TP 46313 Sample Preparation: 2008-11-11 Prep Batch: Prepared By: KVRL Parameter Flag Result Units Dilution RL $\overline{719}$ Dissolved Magnesium mg/L õ 1.00 Sample: 178804 - NMSWD Station #11 RW-1 Laboratory: Lubbock Na, Dissolved Analytical Method: Analysis: E 200.7 Prep Method: N/A QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP Prep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: KVRLFlag Result Dilution Parameter Units RLDissolved Sodium 22200 500 mg/L 1.00

Sample: 178804 - NMSWD Station #11 RW-1

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Labor	atory:	Lubbock					
Analy	sis:	pН		Analytical Method:	SM 4500-H+	Prep Method	: N/A
QC B	atch:	54283		Date Analyzed:	2008-11-14	Analyzed By:	RG
Prep 1	Batch:	46439		Sample Preparation:	2008-11-14	Prepared By:	RG
				m RL			
Paran	neter		Flag	Result	Units	Dilution	RL

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0.00

Work Order: 8110902 GW Sampling

Page Number: 31 of 71 NM-SWD Station #11, Lea Co., NM

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

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Semivolatiles Analysis: QC Batch:

Analytical Method: 54206 Date Analyzed: Prep Batch: 46379

E 625 2008-11-12 Sample Preparation: 2008-11-10 Prep Method: N/A Analyzed By: DS Prepared By: DS

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyridine		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
N-Nitrosodimethylamine		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
2-Picoline		< 0.00461	m mg/L	0.922	0.00500
Methyl methanesulfonate		< 0.00461	m mg/L	0.922	0.00500
Ethyl methanesulfonate		< 0.00461	m mg/L	0.922	0.00500
Phenol		< 0.00461	mg/L	0.922	0.00500
Aniline		< 0.00461	mg/L	0.922	0.00500
bis(2-chloroethyl)ether		< 0.00461	mg/L	0.922	0.00500
2-Chlorophenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
1,3-Dichlorobenzene (meta)		< 0.00461	mg/L	0.922	0.00500
1,4-Dichlorobenzene (para)		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzyl alcohol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00461	${ m mg/L}$	0.922	0.00500
2-Methylphenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
bis(2-chloroisopropyl)ether		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
N-Nitrosodi-n-propylamine		< 0.00461	${ m mg/L}$	0.922	0.00500
Hexachloroethane		< 0.00461	mg/L	0.922	0.00500
Acetophenone		< 0.00461	m mg/L	0.922	0.00500
Nitrobenzene		< 0.00461	mg/L	0.922	0.00500
N-Nitrosopiperidine		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Isophorone		< 0.00461	m mg/L	0.922	0.00500
2-Nitrophenol		< 0.00461	m mg/L	0.922	0.00500
2,4-Dimethylphenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
bis(2-chloroethoxy)methane		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
2,4-Dichlorophenol		< 0.00461	mg/L	0.922	0.00500
1,2,4-Trichlorobenzene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzoic acid		< 0.00461	${ m mg/L}$	0.922	0.00500
Naphthalene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
a,a-Dimethylphenethylamine		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
4-Chloroaniline		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
2,6-Dichlorophenol		< 0.00922	$\mathrm{mg/L}$	0.922	0.0100
Hexachlorobutadiene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
N-Nitroso-di-n-butylamine		< 0.00461	${ m mg/L}$	0.922	0.00500
4-Chloro-3-methylphenol		< 0.00461	${ m mg/L}$	0.922	0.00500
2-Methylnaphthalene		< 0.00461	${ m mg/L}$	0.922	0.00500
1-Methylnaphthalene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00461	m mg/L	0.922	0.00500
Hexachlorocyclopentadiene		< 0.00461	mg/L	0.922	0.00500

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Work Order: 8110902 GW Sampling Page Number: 32 of 71 NM-SWD Station #11, Lea Co., NM

sample 178804 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
2,4,6-Trichlorophenol		< 0.00922	mg/L	0.922	0.0100
2,4,5-Trichlorophenol		< 0.00461	$_{ m mg/L}$	0.922	0.00500
2-Chloronaphthalene		< 0.00461	mg/L	0.922	0.00500
1-Chloronaphthalene		< 0.00461	mg/L	0.922	0.00500
2-Nitroaniline		< 0.00461	$_{ m mg/L}^{g/-}$	0.922	0.00500
Dimethylphthalate		< 0.00461	$\frac{1-6}{mg/L}$	0.922	0.00500
Acenaphthylene		< 0.00461	mg/L	0.922	0.00500
2,6-Dinitrotoluene		< 0.00461	mg/L	0.922	0.00500
3-Nitroaniline		< 0.00461	mg/L	0.922	0.00500
Acenaphthene		< 0.00461	mg/L	0.922	0.00500
2,4-Dinitrophenol		< 0.00461	m mg/L	0.922	0.00500
Dibenzofuran		< 0.00461	$_{ m mg/L}^{-3/-}$	0.922	0.00500
Pentachlorobenzene		< 0.00461	$_{ m mg/L}$	0.922	0.00500
4-Nitrophenol		< 0.0230	$_{ m mg/L}$	0.922	0.0250
2,4-Dinitrotoluene		< 0.00461	$_{ m mg/L}$	0.922	0.00500
1-Naphthylamine		< 0.00461	$_{ m mg/L}$	0.922	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00922	$_{ m mg/L}$	0.922	0.0100
2-Naphthylamine		< 0.00461	$_{ m mg/L}$	0.922	0.00500
Fluorene		< 0.00461	$_{ m mg/L}$	0.922	0.00500
4-Chlorophenyl-phenylether		< 0.00461	$_{ m mg/L}$	0.922	0.00500
Diethylphthalate		< 0.00461	mg/L	0.922	0.00500
4-Nitroaniline		< 0.00461	$_{ m mg/L}$	0.922	0.00500
Diphenylhydrazine		< 0.00461	$_{ m mg/L}$	0.922	0.00500
4,6-Dinitro-2-methylphenol		< 0.00461	mg/L	0.922	0.00500
Diphenylamine		< 0.00461	mg/L	0.922	0.00500
4-Bromophenyl-phenylether		< 0.00461	mg/L	0.922	0.00500
Phenacetin		< 0.00461	mg/L	0.922	0.00500
Hexachlorobenzene		< 0.00461	${ m mg/L}$	0.922	0.00500
4-Aminobiphenyl		< 0.00461	mg/L	0.922	0.00500
Pentachlorophenol		< 0.00922	mg/L	0.922	0.0100
Anthracene		< 0.00461	mg/L	0.922	0.00500
Pentachloronitrobenzene		< 0.00461	m mg/L	0.922	0.00500
Pronamide		< 0.00461	mg/L	0.922	0.00500
Phenanthrene		< 0.00461	m mg/L	0.922	0.00500
Di-n-butylphthalate		< 0.00461	m mg/L	0.922	0.00500
Fluoranthene		< 0.00461	m mg/L	0.922	0.00500
Benzidine		< 0.0230	m mg/L	0.922	0.0250
Pyrene		< 0.00461	m mg/L	0.922	0.00500
p-Dimethylaminoazobenzene		< 0.00461	${ m mg/L}$	0.922	0.00500
Butylbenzylphthalate		< 0.00461	mg/L	0.922	0.00500
Benzo(a)anthracene		< 0.00461	mg/L	0.922	0.00500
3,3-Dichlorobenzidine		< 0.00461	mg/L	0.922	0.00500
Chrysene		< 0.00461	${ m mg/L}$	0.922	0.00500

 $continued \dots$

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 33 of 71 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
bis(2-ethylhexyl)phthalate		< 0.00461	mg/L	0.922	0.00500
Di-n-octylphthalate		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(b)fluoranthene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(k)fluoranthene		< 0.00461	${ m mg/L}$	0.922	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00461	${ m mg/L}$	0.922	0.00500
Benzo(a)pyrene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
3-Methylcholanthrene		< 0.00461	m mg/L	0.922	0.00500
Dibenzo(a,j)acridine		< 0.00461	m mg/L	0.922	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00461	m mg/L	0.922	0.00500
Dibenzo(a,h)anthracene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(g,h,i)perylene		< 0.00461	mg/L	0.922	0.00500

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorophenol		0.00980	mg/L	0.922	0.0800	12	10 - 62.8
Phenol-d5		0.0111	${ m mg/L}$	0.922	0.0800	14	10 - 41.3
Nitrobenzene-d5	4	0.0198	. mg/L	0.922	0.0800	25	25.4 - 115
2-Fluorobiphenyl		0.0343	${ m mg/L}$	0.922	0.0800	43	18.7 - 125
2,4,6-Tribromophenol		0.0516	${ m mg/L}$	0.922	0.0800	64	15.5 - 107
Terphenyl-d14		0.0539	${ m mg/L}$	0.922	0.0800	67	23.4 - 151

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Si, Total QC Batch: 54203 Prep Batch: 46344

Analytical Method: $E_{200.7}$ Date Analyzed: 2008-11-13

Prep Method: Analyzed By: Sample Preparation: 2008-11-12 Prepared By:

RLParameter Flag Result Units Dilution RLTotal Silica 41.7 mg/L 10 0.0500

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: SO4 (IC) QC Batch: 5425146409 Prep-Batch:

Analytical Method: E 300.0 Date Analyzed: 2008-11-14Sample Preparation: 2008-11-12

Prep Method: N/A RDAnalyzed By: Prepared By: R.D

N/A

RR

KV

continued . . .

⁴8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

Work Order: 8110902 GW Sampling Page Number: 34 of 71 NM-SWD Station #11, Lea Co., NM

sample 178804 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
		RL			
Parameter	Flag	Result	Units	Dilution	RL
Sulfate		1270	$\mathrm{mg/L}$	50	1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

TDS Analytical Method: SM 2540C Analysis: Prep Method: N/A Date Analyzed: 2008-11-12 QC Batch: 54184 Analyzed By: RDPrep Batch: 46362 Sample Preparation: 2008-11-11 Prepared By: RD

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock Total 8 Metals Analytical Method: Analysis: E 245.2 Prep Method: N/A QC Batch: 54162 Date Analyzed: 2008-11-11 Analyzed By: TP Prep Batch: 46332 Sample Preparation: 2008-11-11 Prepared By: TP Lubbock Laboratory:

Analysis: Total 8 Metals Analytical Method: E 200.7 Prep Method: N/AQC Batch: 54203 Date Analyzed: 2008-11-13 Analyzed By: RRPrep Batch: 46344 Sample Preparation: 2008-11-12 Prepared By: KV

RLParameter Flag Result Units Dilution RLTotal Silver < 0.00500 mg/L 0.00500 1 Total Arsenic < 0.0100 mg/L1 0.0100Total Barium 0.2471 mg/L 0.00500 Total Cadmium < 0.00200 mg/L 1 0.00200 Total Chromium 0.0350mg/L 1 0.00500Total Mercury 0.000547mg/L 1 0.000200 Total Lead < 0.00500mg/L 1 0.00500 Total Selenium < 0.0200 mg/L 1 0.0200

Work Order: 8110902 GW Sampling

Page Number: 35 of 71 NM-SWD Station #11, Lea Co., NM

RG

RG

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

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Analytical Method: TSS SM 2540D Prep Method: N/A Analysis: QC Batch: 54274 Date Analyzed: 2008-11-13 Analyzed By: Prep Batch: 46431 Sample Preparation: 2008-11-12 Prepared By:

RL

Dilution Parameter Flag Result Units RLTotal Suspended Solids 450 mg/L 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Lubbock Laboratory:

Analysis: Volatiles Analytical Method: E 624 Prep Method: N/A QC Batch: 54142 Date Analyzed: 2008-11-10 Analyzed By: KB Prep Batch: 46318 Sample Preparation: 2008-11-10 Prepared By: KΒ

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		< 1.00	$\mu \mathrm{g/L}$	1	1.00
Dichlorodifluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloromethane (methyl chloride)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Vinyl Chloride		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Bromomethane (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichlorofluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acetone		<10.0	$\mu { m g}/{ m L}$	1	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Carbon Disulfide		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Acrylonitrile		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
2-Hexanone		< 5.00	$\mu { m g}/{ m L}$	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	$\mu { m g}/{ m L}$	1	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Methylene chloride		13.5	$\mu { m g}/{ m L}$	1	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$. 1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$. 1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloropropene		<1.00	$\mu { m g}/{ m L}$	1	1.00

continued ...

Work Order: 8110902 GW Sampling Page Number: 36 of 71 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g/L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	μg/L	1	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	1	5.00

Work Order: 8110902 GW Sampling Page Number: 37 of 71 NM-SWD Station #11, Lea Co., NM

Surrogate	Flag	Result	Units	Dilution	$rac{ ext{Spike}}{ ext{Amount}}$	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.1	$\mu \mathrm{g/L}$	1	50.0	110	86.7 - 111
Toluene-d8		51.5	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		44.7	$\mu { m g}/{ m L}$	1	50.0	89	72.4 - 112.2

Method Blank (1)

QC Batch: 54142

QC Batch: 54142 Prep Batch: 46318 Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10

Analyzed By: KB Prepared By: KB

MDL Flag Parameter Result Units RLBromochloromethane < 0.197 $\mu g/L$ 1 Dichlorodifluoromethane < 0.672 $\mu g/L$ 1 Chloromethane (methyl chloride) < 0.542 $\mu g/L$ 1 Vinyl Chloride < 0.516 $\mu g/L$ 1 Bromomethane (methyl bromide) < 0.446 $\mu g/L$ ă Chloroethane < 0.656 1 $\mu \mathrm{g/L}$ Trichlorofluoromethane < 0.538 $\mu g/L$ 1 Acetone < 1.10 $\mu g/L$ 10 Iodomethane (methyl iodide) < 0.214 $\mu g/L$ 5 Carbon Disulfide < 0.294 $\mu \mathrm{g/L}$ 1 Acrylonitrile < 0.442 $\mu g/L$ 1 2-Butanone (MEK) < 0.420 $\mu \mathrm{g/L}$ 5 4-Methyl-2-pentanone (MIBK) < 0.407 5 $\mu g/L$ 2-Hexanone < 0.486 5 $\mu g/L$ trans 1,4-Dichloro-2-butene < 0.46310 $\mu g/L$ 1.1-Dichloroethene < 0.2371 $\mu g/L$ Methylene chloride < 0.312 $\mu g/L$ 5 MTBE < 0.318 $\mu \mathrm{g/L}$ 1 trans-1,2-Dichloroethene < 0.217 $\mu \mathrm{g/L}$ 1 1,1-Dichloroethane < 0.202 $\mu g/L$ 1 cis-1,2-Dichloroethene < 0.309 $\mu g/L$ 1 2,2-Dichloropropane < 0.318 $\mu \mathrm{g/L}$ 1 1,2-Dichloroethane (EDC) < 0.292 $\mu \mathrm{g/L}$ 1 Chloroform < 0.234 $\mu \mathrm{g/L}$ 1 1,1,1-Trichloroethane < 0.257 $\mu g/L$ 1 1,1-Dichloropropene < 0.286 $\mu g/L$ 1 Benzene < 0.319 $\mu g/L$ 1 Carbon Tetrachloride < 0.223 $\mu g/L$ 1 1,2-Dichloropropane < 0.266 $\mu g/L$ 1 Trichloroethene (TCE) < 0.235 $\mu g/L$ 1 Dibromomethane (methylene bromide) < 0.341 $\mu g/L$ 1 Bromodichloromethane < 0.291 $\mu {\rm g}/{\rm L}$ 1 2-Chloroethyl vinyl ether < 0.293 $\mu g/L$ 5

continued ...

Work Order: 8110902 GW Sampling Page Number: 38 of 71 NM-SWD Station #11, Lea Co., NM

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Devision	Flor	MDL Result	TT:4-	DI
Parameter	Flag	<0.207	Units	RL
cis-1,3-Dichloropropene			$\mu \mathrm{g}/\mathrm{L}$	1
trans-1,3-Dichloropropene		< 0.293	$\mu \mathrm{g}/\mathrm{L}$	1
Toluene		< 0.268	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,2-Trichloroethane		< 0.329	$\mu \mathrm{g}/\mathrm{L}$	1
1,3-Dichloropropane		< 0.316	$\mu \mathrm{g}/\mathrm{L}$	1
Dibromochloromethane		< 0.290	$\mu \mathrm{g/L}$	1
1,2-Dibromoethane (EDB)		< 0.229	$\mu \mathrm{g}/\mathrm{L}$	1
Tetrachloroethene (PCE)		< 0.233	$\mu { m g}/{ m L}$	1
Chlorobenzene		< 0.276	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,1,2-Tetrachloroethane		< 0.226	$\mu \mathrm{g/L}$	1
Ethylbenzene		< 0.245	$\mu \mathrm{g}/\mathrm{L}$	1
m,p-Xylene		< 0.517	$\mu \mathrm{g}/\mathrm{L}$	1
Bromoform		< 0.175	$\mu \mathrm{g/L}$	1
Styrene		< 0.239	$\mu \mathrm{g}/\mathrm{L}$	1
o-Xylene		< 0.247	$\mu \mathrm{g}/\mathrm{L}$	1
1,1,2,2-Tetrachloroethane		< 0.223	$\mu \mathrm{g}/\mathrm{L}$	1
2-Chlorotoluene		< 0.235	$\mu { m g}/{ m L}$	1
1,2,3-Trichloropropane		< 0.230	$\mu { m g}/{ m L}$	1
Isopropylbenzene		< 0.226	$\mu { m g}/{ m L}$	1
Bromobenzene		< 0.245	$\mu { m g}/{ m L}$	1
n-Propylbenzene		< 0.234	$\mu { m g}/{ m L}$	1
1,3,5-Trimethylbenzene		< 0.261	$\mu { m g}/{ m L}$	1
tert-Butylbenzene		< 0.281	$\mu { m g}/{ m L}$	1
1,2,4-Trimethylbenzene		< 0.285	$\mu { m g}/{ m L}$	1
1,4-Dichlorobenzene (para)		< 0.307	$\mu { m g}/{ m L}$	1
sec-Butylbenzene		< 0.312	$\mu { m g}/{ m L}$	1
1,3-Dichlorobenzene (meta)		< 0.284	$\mu { m g}/{ m L}$	1
p-Isopropyltoluene		< 0.244	$\mu { m g}/{ m L}$	1
4-Chlorotoluene		< 0.257	$\mu { m g}/{ m L}$	1
1,2-Dichlorobenzene (ortho)		< 0.294	$\mu { m g}/{ m L}$	1
n-Butylbenzene		< 0.339	$\mu { m g}/{ m L}$	1
1,2-Dibromo-3-chloropropane		< 0.780	$\mu { m g}/{ m L}$	5
1,2,3-Trichlorobenzene		< 0.736	$\mu { m g}/{ m L}$	5
1,2,4-Trichlorobenzene		< 0.432	$\mu { m g}/{ m L}$	5
Naphthalene		< 0.475	$\mu \mathrm{g}/\mathrm{L}$	5
Hexachlorobutadiene		<1.02	$\mu { m g}/{ m L}$	ŏ

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.1	$\mu \mathrm{g/L}$	1	50.0	108	86.7 - 111
Toluene-d8		52.2	$\mu { m g}/{ m L}$	1	50.0	104	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.1	$\mu { m g}/{ m L}$	1	50.0	96	72.4 - 112.2

Report Date: November NMSWD Station #11	er 14, 2008	Work Order: 811090 GW Sampling		Page Number: NM-SWD Station #11, Lea		
Method Blank (1)	QC Batch: 54146					
QC Batch: 54146 Prep Batch: 46320		-	8-11-10 8-11-10		Analyzed By: Prepared By:	R.G R.G
Parameter	Flag	MDL Result		Units	<u> </u>	RL
Hydroxide Alkalinity Carbonate Alkalinity Bicarbonate Alkalinity Total Alkalinity		<1.00 <1.00 <4.00 <4.00		mg/L as CaCo3 mg/L as CaCo3 mg/L as CaCo3 mg/L as CaCo3		1 1 4 4
Method Blank (1)	QC Batch: 54162					
QC Batch: 54162 Prep Batch: 46332		9	8-11-11 8-11-11		Analyzed By: Prepared By:	TP TP
Parameter	Flag	MD Resu		Units		RL
Total Mercury		< 0.000025	51	mg/L	(0.0002
Method Blank (1) QC Batch: 54171 Prep Batch: 46350	QC Batch: 54171	· ·	8-11-12 8-11-11		Analyzed By: Prepared By:	RD RD
Parameter	Flag	MDL Result		Units		RL
Chloride		<1.74		mg/L		
Method Blank (1)	QC Batch: 54171					
QC Batch: 54171 Prep Batch: 46350		=	8-11-12 8-11-11		Analyzed By: Prepared By:	R.D R.D
Parameter	Flag	MDL · Result		Units		RL
Sulfate		< 0.344		mg/L		1
Method Blank (1)	QC Batch: 54184	•				

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 40 of 71 NM-SWD Station #11, Lea Co., NM

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Danamatan	File	MDL Flag Result		Units		RI	
Parameter Total Dissolved Solids			Result < 5.000	mg/L		10	
10tal Dissolved Solids							
Method Blank (1)	QC Batch: 54203						
QC Batch: 54203		Date Analyzed:	2008-11-13		Analyzed By:	RR.	
Prep Batch: 46344		QC Preparation:	2008-11-12		Prepared By:	KV	
			MDL				
Parameter	Flag		esult	Units		RL	
Total Silica		<0.0	0186	mg/L		0.05	
Method Blank (1)	QC Batch: 54203						
QC Batch: 54203		Date Analyzed:	2008-11-13		Analyzed By:	RR	
Prep Batch: 46344		QC Preparation:	2008-11-12		Prepared By:	KV	
			MDL				
Parameter	Flag	.0	Result	Units		RL	
Total Silver Total Arsenic			.000700 0.00850	$_{ m mg/L}$		0.00	
Total Barium			0.00180	mg/L mg/L		0.00	
Total Cadmium			0.00110	mg/L		0.00	
Total Chromium			0.00201	$_{ m mg/L}$		0.003	
Total Lead			0.00460	m mg/L		0.003	
Total Selenium		<u> </u>	< 0.0106	$_{ m mg/L}$		0.02	
Method Blank (1)	QC Batch: 54204				-		
QC Batch: 54204		Date Analyzed:	2008-11-13		Analyzed By:	TP	
Prep Batch: 46313	·	QC Preparation:	2008-11-11		Prepared By:	KV	
	Flag		MDL	**			
Parameter			Result	Units		RI	

Method Blank (1)

QC Batch: 54204

QC Batch: 54204 Prep Batch: 46313 Date Analyzed: 2008-11-13 QC Preparation: 2008-11-11 Analyzed By: TP Prepared By: KV

NMSWD Station #11

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2-Methylphenol

Work Order: 8110902 GW Sampling Page Number: 41 of 71 NM-SWD Station #11, Lea Co., NM

Parameter	Flag	r.	MDL Result	Units		RI
Dissolved Potassium	Га	,	<0.327	mg/L		1 R.I
D ISSOTVECT TO SESSITE IT		 	(0.021	mg/ L		
Method Blank (1) Q	C Batch: 54204					
QC Batch: 54204		Date Analyzed:	2008-11-13			ТР
Prep Batch: 46313		QC Preparation:	2008-11-11		Prepared By:	ΚV
n .	El		MDL	¥7. 1.		
Parameter	Fla	g	Result	Units		R
Dissolved Magnesium			<0.148	${ m mg/L}$		1
Method Blank (1) (2)	C Batch: 54204					
QC Batch: 54204		Date Analyzed:	2008-11-13		Analyzed By:	ΤP
Prep Batch: 46313	•	QC Preparation:	2008-11-11			ΚV
			MDL			
Parameter	Flag		Result	Units		R
Dissolved Sodium			<0.244	mg/L		1
Method Blank (1) Q0	C Batch: 54206					
QC Batch: 54206		Date Analyzed:	2008-11-12		Analyzed By:	DS
Prep Batch: 46379		QC Preparation:	2008-11-10			DS
_			MDL			
Parameter		Flag	Result	Units		RI
Pyridine			< 0.00128	mg/L		0.00
N-Nitrosodimethylamine 2-Picoline			< 0.00192	mg/L		00.0
Z-Ficoline Methyl methanesulfonate			<0.00132 <0.00175	mg/L		00.0
Ethyl methanesulfonate			< 0.00173	ing/L		0.00
Phenol			< 0.00122	mg/L).00).00
Aniline			< 0.00103	$_{ m mg/L}$ $_{ m mg/L}$).00).00
ois(2-chloroethyl)ether			< 0.00138	mg/L mg/L).OC
2-Chlorophenol			< 0.00217	mg/L).00).00
1,3-Dichlorobenzene (meta)			< 0.00166	mg/L).00).00
1,4-Dichlorobenzene (para)			< 0.00156).00)0.0
Benzyl alcohol			0.00285	mg/L		
1,2-Dichlorobenzene (ortho)			< 0.00283	mg/L		00.0
Mothylphonol		•	<0.00104	m mg/L		00.0

< 0.00158

continued ...

0.005

mg/L

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Work Order: 8110902 GW Sampling Page Number: 42 of 71 NM-SWD Station #11, Lea Co., NM

		MDL		
Parameter	Flag	Result	Units	RL
bis(2-chloroisopropyl)ether		< 0.000828	mg/L	0.005
4-Methylphenol / 3-Methylphenol		< 0.00124	m mg/L	0.005
N-Nitrosodi-n-propylamine		< 0.00127	$\mathrm{mg/L}$	0.005
Hexachloroethane		< 0.00198	m ng/L	0.005
Acetophenone		< 0.00127	${ m mg/L}$	0.005
Nitrobenzene		< 0.00193	$\mathrm{mg/L}$	0.005
N-Nitrosopiperidine		< 0.00120	m mg/L	0.005
Isophorone		< 0.00194	mg/L	0.005
2-Nitrophenol		< 0.00140	mg/L	0.005
2,4-Dimethylphenol		< 0.00109	mg/L	0.005
bis(2-chloroethoxy)methane		< 0.00124	mg/L	0.005
2,4-Dichlorophenol		< 0.00134	m mg/L	0.005
1,2,4-Trichlorobenzene		< 0.00193	m mg/L	0.005
Benzoic acid		< 0.00304	mg/L	0.005
Naphthalene		< 0.00165	mg/L	0.005
a,a-Dimethylphenethylamine		< 0.000758	mg/L	0.005
4-Chloroaniline		< 0.00115	mg/L	0.005
2,6-Dichlorophenol		< 0.00120	mg/L	0.01
Hexachlorobutadiene		< 0.00184	mg/L	0.005
N-Nitroso-di-n-butylamine		< 0.00169	mg/L	0.005
4-Chloro-3-methylphenol		< 0.00120	mg/L	0.005
2-Methylnaphthalene		< 0.00145	mg/L	0.005
l-Methylnaphthalene		< 0.00155	mg/L	0.005
1,2,4,5-Tetrachlorobenzene		< 0.00205	$\frac{6}{mg/L}$	0.005
Hexachlorocyclopentadiene		< 0.00385	$^{-1-S}$ / $^{-1}$	0.005
2,4,6-Trichlorophenol		< 0.00152	mg/L	0.01
2,4,5-Trichlorophenol		< 0.00320	mg/L	0.005
2-Chloronaphthalene		< 0.00168	$^{}$ $^{-}$ $^{-}$	0.005
1-Chloronaphthalene		< 0.00181	mg/L	0.005
2-Nitroaniline		< 0.00169	m mg/L	0.005
Dimethylphthalate		< 0.00178	m mg/L	0.005
Acenaphthylene		< 0.00176	$\frac{mg}{L}$	0.005
2,6-Dinitrotoluene		< 0.00139	m mg/L	0.005
3-Nitroaniline		< 0.00124	m mg/L	0.005
Acenaphthene		< 0.00121	mg/L	0.005
2,4-Dinitrophenol		< 0.00392	m mg/L	0.005
Dibenzofuran		< 0.00161	$^{mg/L}$	0.005
Pentachlorobenzene		< 0.00242	m mg/L	0.005
l-Nitrophenol		< 0.00127	m mg/L	0.003
2,4-Dinitrotoluene		< 0.00121	m mg/L	0.025
-Naphthylamine		<0.00139	mg/L mg/L	0.003
2,3,4,6-Tetrachlorophenol		< 0.00120	$\frac{\mathrm{mg/L}}{\mathrm{mg/L}}$	0.005
2-Naphthylamine		< 0.00154	$rac{mg/L}{mg/L}$	0.01
Fluorene		✓0.0010 1	1118/17	0.003

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Work Order: 8110902 GW Sampling Page Number: 43 of 71 NM-SWD Station #11, Lea Co., NM

method blank continued ...

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mentod otatik communa		MDL		
Parameter	Flag	Result	Units	RL
4-Chlorophenyl-phenylether		< 0.00173	m mg/L	0.005
Diethylphthalate		< 0.00161	m mg/L	0.005
4-Nitroaniline		< 0.00101	m mg/L	0.005
Diphenylhydrazine		< 0.00125	$\mathrm{mg/L}$	0.005
4,6-Dinitro-2-methylphenol		< 0.00135	m mg/L	0.005
Diphenylamine		< 0.00159	$\mathrm{mg/L}$	0.005
4-Bromophenyl-phenylether		< 0.00187	$\mathrm{mg/L}$	0.005
Phenacetin		< 0.00139	${ m mg/L}$	0.005
Hexachlorobenzene		< 0.00238	$\mathrm{mg/L}$	0.005
4-Aminobiphenyl		< 0.00134	${ m mg/L}$	0.005
Pentachlorophenol		< 0.000632	$\mathrm{mg/L}$	0.01
Anthracene		< 0.00152	$\mathrm{mg/L}$	0.005
Pentachloronitrobenzene		< 0.00307	$\mathrm{mg/L}$	0.005
Pronamide		< 0.00159	$\mathrm{mg/L}$	0.005
Phenanthrene		< 0.00144	${ m mg/L}$	0.005
Di-n-butylphthalate		< 0.00125	mg/L	0.005
Fluoranthene		< 0.00159	mg/L	0.005
Benzidine		< 0.000845	$\mathrm{mg/L}$	0.025
Pyrene		< 0.00135	m mg/L	0.005
p-Dimethylaminoazobenzene		< 0.000969	m mg/L	0.005
Butylbenzylphthalate		< 0.00110	$\mathrm{mg/L}$	0.005
Benzo(a)anthracene		< 0.00138	$\mathrm{mg/L}$	0.005
3,3-Dichlorobenzidine		< 0.00130	${ m mg/L}$	0.005
Chrysene	•	< 0.00146	$\mathrm{mg/L}$	0.005
bis(2-ethylhexyl)phthalate		< 0.00108	${ m mg/L}$	0.005
Di-n-octylphthalate		< 0.000892	${ m mg/L}$	0.005
Benzo(b)fluoranthene		< 0.00126	${ m mg/L}$	0.005
Benzo(k)fluoranthene		< 0.00149	$\mathrm{mg/L}$	0.005
7,12-Dimethylbenz(a)anthracene		< 0.00134	m mg/L	0.005
Benzo(a)pyrene		< 0.00155	${ m mg/L}$	0.005
3-Methylcholanthrene		< 0.00166	${ m mg/L}$	0.005
Dibenzo(a,j)acridine		< 0.00201	$\mathrm{mg/L}$	0.005
Indeno(1,2,3-cd)pyrene		< 0.00195	m mg/L	0.005
Dibenzo(a,h)anthracene		< 0.00210	m mg/L	0.005
Benzo(g,h,i)perylene		< 0.00207	mg/L	0.005

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorophenol		0.0254	mg/L	1	0.0800	32	10 - 62.8
Phenol-d5		0.0186	$\mathrm{mg/L}$	1	0.0800	23	10 - 41.3
Nitrobenzene-d5		0.0528	$\mathrm{mg/L}$	1	0.0800	66	25.4 - 115
2-Fluorobiphenyl		0.0449	mg/L	1	0.0800	56	18.7 - 125
2,4,6-Tribromophenol		0.0410	mg/L	1	0.0800	51	15.5 - 107
Terphenyl-d14		0.0618	mg/L	1	0.0800	77	23.4 - 151

Work Order: 8110902 Page Number: 44 of 71 Report Date: November 14, 2008 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM QC Batch: 54245 Method Blank (1) QC Batch: 54245Date Analyzed: 2008-11-14 Analyzed By: RD Prep Batch: 46408 QC Preparation: 2008-11-11 Prepared By: RDMDL Flag Result Units RLParameter uMHOS/cm 1.77 Specific Conductance Method Blank (1) QC Batch: 54251 Date Analyzed: QC Batch: 54251 2008-11-14 Analyzed By: RD Prep Batch: 46409 QC Preparation: 2008-11-12 Prepared By: RDMDL Flag Parameter Result Units RL<1.74 Chloride mg/L 3 Method Blank (1) QC Batch: 54251 QC Batch: Date Analyzed: 2008-11-14 Analyzed By: RD 54251 QC Preparation: 2008-11-12 Prep Batch: 46409 Prepared By: RD MDL Parameter Flag Result Units RLSulfate < 0.344 mg/L 1 Method Blank (1) QC Batch: 54274 QC Batch: 54274 Date Analyzed: 2008-11-13 Analyzed By: RG QC Preparation: Prep Batch: 46431 2008-11-12 Prepared By: RGMDLFlag Parameter Result Units RLTotal Suspended Solids <1.00 mg/L 1 Duplicates (1) Duplicated Sample: 178804

Date Analyzed:

QC Preparation:

2008-11-10

2008-11-10

Analyzed By: RG

Prepared By: RG

QC Batch:

Prep Batch: 46320

54146

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 45 of 71 NM-SWD Station #11, Lea Co., NM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	< 1.00	< 1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	244	232	mg/L as CaCo3	1	5	20
Total Alkalinity	244	232	mg/L as CaCo3	1	5	20

Duplicates (1) Duplicated Sample: 178903

QC Batch: 54184 Prep Batch: 46362 Date Analyzed: 2008-11-12 QC Preparation: 2008-11-11 Analyzed By: RD Prepared By: RD

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	$_{ m Limit}$
Total Dissolved Solids	424.0	414.0	${ m mg/L}$	1	2	10

Duplicates (1) Duplicated Sample: 178804

QC Batch: 54245 Prep Batch: 46408

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Date Analyzed: 2008-11-14 QC Preparation: 2008-11-11 Analyzed By: RD Prepared By: RD

Sample Duplicate RPD Result Result Param Units Dilution RPD Limit 81900 81100 uMHOS/cm Specific Conductance 1 1 20

Duplicates (1) Duplicated Sample: 178804

QC Batch: 54274 Prep Batch: 46431 Date Analyzed: 2008-11-13 QC Preparation: 2008-11-12

Analyzed By: RG Prepared By: RG

Duplicate Sample RPD Result Param Result Units Dilution RPD Limit Total Suspended Solids 468 450 mg/L 1 4 10

Duplicates (1) Duplicated Sample: 179314

QC Batch: 54283 Prep Batch: 46439 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-14

Analyzed By: RG Prepared By: RG

Duplicate · Sample RPD Param Result Result Units Dilution RPD Limit \overline{pH} 8.11 8.09 s.u. 1 0 20

Work Order: 8110902 GW Sampling Page Number: 46 of 71 NM-SWD Station #11, Lea Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 54142 Prep Batch: 46318

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Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10 Analyzed By: KB Prepared By: KB

	T 00			6	3.6		~
	LCS	TT 1.	D.:1	Spike	Matrix	ъ	Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Bromochloromethane	51.5	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.197	103	88.6 - 114.8
Dichlorodifluoromethane	55.9	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.672	112	57 - 138.2
Chloromethane (methyl chloride)	50.8	$\mu \mathrm{g/L}$	1	50.0	< 0.542	102	67.3 - 125
Vinyl Chloride	52.9	$\mu { m g}/{ m L}$	1	50.0	< 0.516	106	72.1 - 126.6
Bromomethane (methyl bromide)	48.2	$\mu \mathrm{g/L}$	1	50.0	< 0.446	96	51.4 - 149
Chloroethane	46.1	$\mu \mathrm{g/L}$	1	50.0	< 0.656	92	62.4 - 134
Trichlorofluoromethane	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.538	96	69.8 - 137.8
Acetone	57.0	$\mu { m g}/{ m L}$	1	50.0	<1.10	114	36.8 - 138.7
Iodomethane (methyl iodide)	53.4	$\mu { m g}/{ m L}$	1	50.0	< 0.214	107	84.8 - 123
Carbon Disulfide	52.5	$\mu { m g}/{ m L}$	1	50.0	< 0.294	105	77.3 - 125.6
Acrylonitrile	54.5	$\mu { m g}/{ m L}$	1	50.0	< 0.442	109	80.1 - 130
2-Butanone (MEK)	56.0	$\mu { m g}/{ m L}$	1	50.0	< 0.420	112	40.2 - 152
4-Methyl-2-pentanone (MIBK)	46.9	$\mu { m g}/{ m L}$	1	50.0	< 0.407	94	83.2 - 126.2
2-Hexanone	50.3	$\mu { m g}/{ m L}$	1	50.0	< 0.486	101	61.9 - 152.1
trans 1,4-Dichloro-2-butene	56.9	$\mu { m g}/{ m L}$	1	50.0	< 0.463	114	63.8 - 141.2
1,1-Dichloroethene	50.4	$\mu { m g}/{ m L}$	1	50.0	< 0.237	101	83.9 - 118
Methylene chloride	53.6	$\mu { m g}/{ m L}$	1	50.0	< 0.312	107	74.9 - 121.2
MTBE	48.7	$\mu { m g}/{ m L}$	1	50.0	< 0.318	97	80.3 - 126.4
trans-1,2-Dichloroethene	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.217	109	80 - 118.8
1,1-Dichloroethane	53.8	$\mu { m g}/{ m L}$	1	50.0	< 0.202	108	78.1 - 121.1
cis-1,2-Dichloroethene	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.309	109	84.4 - 120.2
2,2-Dichloropropane	51.7	$\mu { m g}/{ m L}$	1	50.0	< 0.318	103	40 - 148.2
1,2-Dichloroethane (EDC)	52.1	$\mu { m g}/{ m L}$	1	50.0	< 0.292	104	78 - 119.2
Chloroform	51.8	$\mu { m g}/{ m L}$	1	50.0	< 0.234	104	86 - 113.3
1,1,1-Trichloroethane	50.3	$\mu { m g}/{ m L}$	1	50.0	< 0.257	101	66.5 - 132.8
1,1-Dichloropropene	52.3	$\mu { m g}/{ m L}$	1	50.0	< 0.286	105	94.8 - 109.7
Benzene	53.0	$\mu { m g}/{ m L}$	1	50.0	< 0.319	106	88.6 - 114.8
Carbon Tetrachloride	48.8	$\mu { m g}/{ m L}$	1	50.0	< 0.223	98	81.9 - 120.5
1,2-Dichloropropane	53.0	$\mu { m g}/{ m L}$	1	50.0	< 0.266	106	90.9 - 113
Trichloroethene (TCE)	49.2	$\mu { m g}/{ m L}$	1	50.0	< 0.235	98	84.1 - 119.2
Dibromomethane (methylene bromide)	51.0	$\mu { m g}/{ m L}$	1	50.0	< 0.341	102	87.7 - 114.3
Bromodichloromethane	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.291	109	93.1 - 116.2
2-Chloroethyl vinyl ether	40.9	$\mu { m g}/{ m L}$	1	50.0	< 0.293	82	79.8 - 122
cis-1,3-Dichloropropene	49.8	$\mu { m g}/{ m L}$	1	50.0	< 0.207	100	88.7 - 119.8
trans-1,3-Dichloropropene	49.3	$\mu { m g}/{ m L}$	1	50.0	< 0.293	99	84.8 - 124.6
Toluene	51.6	$\mu { m g}/{ m L}$	1	50.0	< 0.268	103	88.1 - 115.3
1,1,2-Trichloroethane	51.4	$\mu { m g}/{ m L}$	1	50.0	< 0.329	103	89.9 - 111.2
1,3-Dichloropropane	52.3	$\mu { m g}/{ m L}$	1	50.0	< 0.316	105	86.9 - 115
Dibromochloromethane	46.3	$\mu { m g}/{ m L}$	1	50.0	< 0.290	93	89 - 122
1,2-Dibromoethane (EDB)	51.7	$\mu { m g}/{ m L}$	1	50.0	< 0.229	103	89.5 - 117

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Work Order: 8110902 GW Sampling Page Number: 47 of 71 NM-SWD Station #11, Lea Co., NM

control spikes continued . . . LCS Spike Matrix Rec. Units Result Dil. Amount Result Limit Param Rec. Tetrachloroethene (PCE) 38.2 $\mu \mathrm{g/L}$ 1 50.0 < 0.233 76 37.6 - 143 Chlorobenzene 49.9 $\mu g/L$ 1 50.0 < 0.276 100 86.6 - 111.2 1,1,1,2-Tetrachloroethane 50.8 89.8 - 114 $\mu g/L$ 1 50.0 < 0.226 102 Ethylbenzene 52.8 $\mu g/L$ 1 50.0 < 0.245106 87.4 - 117 m,p-Xylene 104 $\mu g/L$ 1 100 < 0.517 104 86.1 - 115 Bromoform 44.7 50.0 $\mu g/L$ 1 < 0.17589 84.6 - 132.6 Styrene 48.2 $\mu g/L$ 1 50.0 < 0.239 96 88.3 - 125 54.0 50.0 86.7 - 118.6 o-Xylene $\mu g/L$ 1 < 0.247108 1,1,2,2-Tetrachloroethane 54.8 $\mu g/L$ 1 50.0 < 0.223 73.8 - 127 110 2-Chlorotoluene 50.5 $\mu g/L$ 1 50.0 84.3 - 117 < 0.235101 1.2.3-Trichloropropane 55.6 $\mu \mathrm{g/L}$ 1 50.0 < 0.230 83 - 117.8 111 Isopropylbenzene 52.4 $\mu g/L$ 1 50.0 < 0.226 105 86.2 - 119 Bromobenzene 51.6 $\mu g/L$ 1 50.0 < 0.245 103 84.2 - 115 n-Propylbenzene 49.9 $\mu g/L$ 1 50.0< 0.234 100 80.7 - 1201.3,5-Trimethylbenzene 50.8 $\mu g/L$ 1 50.0 < 0.261 102 85.4 - 115 tert-Butylbenzene 50.250.0 $\mu g/L$ 1 < 0.281 100 85.9 - 115.9 1,2,4-Trimethylbenzene 51.9 $\mu g/L$ 1 50.0 < 0.285 104 87.1 - 116 1,4-Dichlorobenzene (para) 48.8 $\mu g/L$ 1 50.0 < 0.30798 87.2 - 109 50.1 sec-Butylbenzene μg/L 1 50.0 < 0.312 100 82.6 - 118.5 1.3-Dichlorobenzene (meta) 49.7 $\mu g/L$ 1 50.0 < 0.28499 89.5 - 111.3 p-Isopropyltoluene 51.9 $\mu g/L$ 1 50.0 < 0.244 104 86.6 - 118.2 4-Chlorotoluene 51.4 $\mu g/L$ 1 50.0 < 0.257103 87.2 - 114 1,2-Dichlorobenzene (ortho) 51.2 $\mu g/L$ 1 50.0 < 0.294102 92.2 - 111.6 n-Butylbenzene 53.3 $\mu g/L$ 1 50.0 < 0.339 107 82.2 - 120.8 1,2-Dibromo-3-chloropropane 45.2 $\mu g/L$ 1 50.0 < 0.780 90 64.3 - 133 1,2,3-Trichlorobenzene 45.7 $\mu g/L$ 1 50.0 < 0.73691 22.2 - 201.81,2,4-Trichlorobenzene 39.7 $\mu g/L$ 1 50.0 < 0.43279 66 - 135.7 Naphthalene 42.3 $\mu g/L$ 1 50.0 < 0.47585 51.8 - 168.3Hexachlorobutadiene 49.5 $\mu g/L$ 1 50.0 < 1.02 99 70.4 - 130.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

_	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$	RPD	Limit
Bromochloromethane	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.197	109	88.6 - 114.8	6	20
Dichlorodifluoromethane	52.2	$\mu { m g}/{ m L}$	1	50.0	< 0.672	104	57 - 138.2	7	20
Chloromethane (methyl chloride)	49.7	$\mu { m g}/{ m L}$	1	50.0	< 0.542	99	67.3 - 125	2	20
Vinyl Chloride	51.1	$\mu { m g}/{ m L}$	1	50.0	< 0.516	102	72.1 - 126.6	4	20
Bromomethane (methyl bromide)	48.3	$\mu { m g}/{ m L}$	1	50.0	< 0.446	97	51.4 - 149	0	20
Chloroethane	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.656	96	62.4 - 134	4	20
Trichlorofluoromethane	46.8	$\mu { m g}/{ m L}$	1	50.0	< 0.538	94	69.8 - 137.8	3	20
Acetone	64.9	$\mu \mathrm{g/L}$	1	50.0	< 1.10	130	36.8 - 138.7	13	20
Iodomethane (methyl iodide)	56.4	$\mu { m g}/{ m L}$	1	50.0	< 0.214	113	84.8 - 123	6	20
Carbon Disulfide	54.3	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.294	109	77.3 - 125.6	3	20
Acrylonitrile	56.2	$\mu { m g}/{ m L}$	1	50.0	< 0.442	112	80.1 - 130	3	20

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Work Order: 8110902 GW Sampling Page Number: 48 of 71 NM-SWD Station #11, Lea Co., NM

control spikes continued	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
2-Butanone (MEK)	57.6	$\mu \mathrm{g/L}$	1	50.0	< 0.420	115	40.2 - 152	3	20
4-Methyl-2-pentanone (MIBK)	49.0	$\mu { m g}/{ m L}$	1	50.0	< 0.407	98	83.2 - 126.2	4	20
2-Hexanone	52.2	$\mu { m g}/{ m L}$	1	50.0	< 0.486	104	61.9 - 152.1	4	20
trans 1,4-Dichloro-2-butene	58.3	$\mu { m g}/{ m L}$	1	50.0	< 0.463	117	63.8 - 141.2	2	20
1,1-Dichloroethene	51.5	$\mu { m g}/{ m L}$	1	50.0	< 0.237	103	83.9 - 118	2	20
Methylene chloride	54.9	$\mu \mathrm{g/L}$	1	50.0	< 0.312	110	74.9 - 121.2	2	20
MTBE	50.8	$\mu { m g}/{ m L}$	1	50.0	< 0.318	102	80.3 - 126.4	4	20
trans-1,2-Dichloroethene	55.7	$\mu { m g}/{ m L}$	1	50.0	< 0.217	111	80 - 118.8	2	20
1,1-Dichloroethane	55.0	$\mu { m g}/{ m L}$	1	50.0	< 0.202	110	78.1 - 121.1	2	20
cis-1,2-Dichloroethene	55.6	$\mu { m g}/{ m L}$	1	50.0	< 0.309	111	84.4 - 120.2	2	20
2,2-Dichloropropane	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0.318	110	40 - 148.2	6	20
1,2-Dichloroethane (EDC)	52.8	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.292	106	78 - 119.2	1	20
Chloroform	52.8	$\mu { m g}/{ m L}$	1	50.0	< 0.234	106	86 - 113.3	2	20
1,1,1-Trichloroethane	53.1	$\mu { m g}/{ m L}$	1	50.0	< 0.257	106	66.5 - 132.8	5	20
1,1-Dichloropropene	53.8	$\mu { m g}/{ m L}$	1	50.0	< 0.286	108	94.8 - 109.7	3	20
Benzene	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0.319	110	88.6 - 114.8	4	20
Carbon Tetrachloride	51.4	$\mu { m g}/{ m L}$	1	50.0	< 0.223	103	81.9 - 120.5	5	20
1,2-Dichloropropane	55.3	$\mu { m g}/{ m L}$	1	50.0	< 0.266	111	90.9 - 113	4	20
Trichloroethene (TCE)	51.5	$\mu { m g}/{ m L}$	1	50.0	< 0.235	103	84.1 - 119.2	5	20
Dibromomethane (methylene bromide)	53.9	$\mu { m g}/{ m L}$	1	50.0	< 0.341	108	87.7 - 114.3	6	20
Bromodichloromethane	56.8	$\mu { m g}/{ m L}$	1	50.0	< 0.291	114	93.1 - 116.2	4	20
2-Chloroethyl vinyl ether	43.1	$\mu { m g}/{ m L}$	1	50.0	< 0.293	86	79.8 - 122	5	20
cis-1,3-Dichloropropene	52.2	$\mu { m g}/{ m L}$	1	50.0	< 0.207	104	88.7 - 119.8	5	20
trans-1,3-Dichloropropene	51.0	$\mu { m g}/{ m L}$	1	50.0	< 0.293	102	84.8 - 124.6	3	20
Toluene	53.8	$\mu { m g}/{ m L}$	1	50.0	< 0.268	108	88.1 - 115.3	4	20
1,1,2-Trichloroethane	53.6	$\mu { m g}/{ m L}$	1	50.0	< 0.329	107	89.9 - 111.2	4	20
1,3-Dichloropropane	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.316	109	86.9 - 115	4	20
Dibromochloromethane	48.8	$\mu { m g}/{ m L}$	1	50.0	< 0.290	98	89 - 122	5	20
1,2-Dibromoethane (EDB)	55.4	$\mu { m g}/{ m L}$	1	50.0	< 0.229	111	89.5 - 117	7	20
Tetrachloroethene (PCE)	40.8	$\mu { m g}/{ m L}$	1	50.0	< 0.233	82	37.6 - 143	7	20
Chlorobenzene	52.1	$\mu { m g}/{ m L}$	1	50.0	< 0.276	104	86.6 - 111.2	4	20
1,1,1,2-Tetrachloroethane	53.6	$\mu { m g}/{ m L}$	1	50.0	< 0.226	107	89.8 - 114	5	20
Ethylbenzene	54.8	$\mu { m g}/{ m L}$	1	50.0	< 0.245	110	87.4 - 117	4	20
m,p-Xylene	109	$\mu { m g}/{ m L}$	1	100	< 0.517	109	86.1 - 115	5	20
Bromoform	47.1	$\mu { m g}/{ m L}$	1	50.0	< 0.175	94	84.6 - 132.6	5	20
Styrene	50.2	$\mu { m g}/{ m L}$	1	50.0	< 0.239	100	88.3 - 125	4	20
o-Xylene	56.1	$\mu { m g}/{ m L}$	1	50.0	< 0.247	112	86.7 - 118.6	4	20
1,1,2,2-Tetrachloroethane	57.1	$\mu { m g}/{ m L}$	1	50.0	< 0.223	114	73.8 - 127	4	20
2-Chlorotoluene	52.6	$\mu { m g}/{ m L}$	1	50.0	< 0.235	105	84.3 - 117	4	20
1,2,3-Trichloropropane	58.6	$\mu { m g/L}$	1	50.0	< 0.230	117	83 - 117.8	5	20
Isopropylbenzene	54.8	$\mu { m g}/{ m L}$	1	50.0	< 0.226	110	86.2 - 119	4	20
Bromobenzene	54.2	$\mu { m g}/{ m L}$	1	50.0	< 0.245	108	84.2 - 115	5	. 20
n-Propylbenzene	52.0	$\mu { m g}/{ m L}$	1	50.0	< 0.234	104	80.7 - 120	4	20
1,3,5-Trimethylbenzene	53.0	$\mu { m g}/{ m L}$	1	50.0	< 0.261	106	85.4 - 115	4	20

continued . . .

NMSWD Station #11

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control spikes continued . . .

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
tert-Butylbenzene	52.9	$\mu \mathrm{g/L}$	1	50.0	< 0.281	106	85.9 - 115.9	ŏ	20
1,2,4-Trimethylbenzene	54.5	$\mu { m g}/{ m L}$	1	50.0	< 0.285	109	87.1 - 116	5	20
1,4-Dichlorobenzene (para)	51.2	$\mu { m g}/{ m L}$	1	50.0	< 0.307	102	87.2 - 109	5	20
sec-Butylbenzene	52.3	$\mu { m g}/{ m L}$	1	50.0	< 0.312	105	82.6 - 118.5	4	20
1,3-Dichlorobenzene (meta)	52.0	$\mu { m g}/{ m L}$	1	50.0	< 0.284	104	89.5 - 111.3	4	20
p-Isopropyltoluene	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.244	109	86.6 - 118.2	4	20
4-Chlorotoluene	53.7	$\mu { m g}/{ m L}$	1	50.0	< 0.257	107	87.2 - 114	4	20
1,2-Dichlorobenzene (ortho)	53.9	$\mu { m g}/{ m L}$	1	50.0	< 0.294	108	92.2 - 111.6	5	20
n-Butylbenzene	54.8	$\mu { m g}/{ m L}$	1	50.0	< 0.339	110	82.2 - 120.8	3	20
1,2-Dibromo-3-chloropropane	47.7	$\mu { m g}/{ m L}$	1	50.0	< 0.780	95	64.3 - 133	5	20
1,2,3-Trichlorobenzene	50.0	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.736	100	22.2 - 201.8	9	20
1,2,4-Trichlorobenzene	42.5	$\mu \mathrm{g/L}$	1	50.0	< 0.432	85	66 - 135.7	7	20
Naphthalene	46.3	$\mu { m g}/{ m L}$	1	50.0	< 0.475	93	51.8 - 168.3	9	20
Hexachlorobutadiene	52.7	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	<1.02	105	70.4 - 130.9	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	$egin{array}{c} ext{Rec.} \ ext{Limit} \end{array}$
Dibromofluoromethane	52.9	51.8	$\mu \mathrm{g/L}$	1	50.0	106	104	85 - 110.6
Toluene-d8	51.0	50.0	$\mu { m g}/{ m L}$	1	50.0	102	100	86.8 - 109.2
4-Bromofluorobenzene (4-BFB)	51.9	50.8	$\mu { m g}/{ m L}$	1	50.0	104	102	84.4 - 113.2

Laboratory Control Spike (LCS-1)

QC Batch: 54162 Prep Batch: 46332

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Date Analyzed: 2008-11-11 QC Preparation: 2008-11-11 Analyzed By: TP Prepared By: TP

LCS Spike Matrix Rec. Result Param Units Dil. Amount Result Rec. Limit Total Mercury 0.00104 mg/L 0.00100 < 0.0000251 104 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury	0.00104	mg/L	1	0.00100	< 0.0000251	104	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54171 Prep Batch: 46350 Date Analyzed: 2008-11-12 QC Preparation: 2008-11-11

Analyzed By: RD Prepared By: RD

NMSWD Station #11

Work Order: 8110902 GW Sampling

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		LCS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
Chloride	5	11.7	mg/L	1	12.5	<1.74	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	6	12.2	mg/L	1	12.5	<1.74	98	90 - 110	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

Prep Batch: 46350

Date Analyzed: QC Preparation:

2008-11-12 2008-11-11 Analyzed By: RD

Prepared By: RD

LCS Spike Matrix Rec. Result Result Param Units Dil. Amount Limit Rec. 12.1mg/L 12.5< 0.344 97 90 - 110 Sulfate 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
Sulfate	8	11.5	mg/L	1	12.5	< 0.344	92	90 - 110	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54203 Prep Batch: 46344 Date Analyzed: QC Preparation: 2008-11-13

2008-11-12

Analyzed By: RR Prepared By: KV

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Total Silica 1.02 mg/L 1.00 < 0.0186 102 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Silica	1.01	${ m mg/L}$	1	1.00	< 0.0186	101	85 - 115	1	20

⁵Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

⁶Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

⁷Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

⁸Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

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Work Order: 8110902 GW Sampling

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 46344

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54203

Date Analyzed:

2008-11-13

QC Preparation: 2008-11-12 Analyzed By: RR.

Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Total Silver	0.124	mg/L	1	0.125	< 0.000700	99	85 - 115
Total Arsenic	0.505	mg/L	1	0.500	< 0.00850	101	85 - 115
Total Barium	1.06	mg/L	1	1.00	< 0.00180	106	85 - 115
Total Cadmium	0.260	mg/L	1	0.250	< 0.00110	104	85 - 115
Total Chromium	0.0990	$_{ m mg/L}$	1	0.100	< 0.00201	99	85 - 115
Total Lead	0.502	$_{ m mg/L}$	1	0.500	< 0.00460	100	85 - 115
Total Selenium	0.462	mg/L	1	0.500	< 0.0106	92	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	$_{ m Limit}$	R.P.D	Limit
Total Silver	0.124	mg/L	1	0.125	< 0.000700	99	85 - 115	0	20
Total Arsenic	0.498	$\mathrm{mg/L}$	1	0.500	< 0.00850	100	85 - 115	1	20
Total Barium	1.06	mg/L	1	1.00	< 0.00180	106	85 - 115	0	20
Total Cadmium	0.260	mg/L	1	0.250	< 0.00110	104	85 - 115	0	20
Total Chromium	0.100	${ m mg/L}$	1	0.100	< 0.00201	100	85 - 115	1	20
Total Lead	0.511	$\mathrm{mg/L}$	1	0.500	< 0.00460	102	85 - 115	2	20
Total Selenium	0.462	mg/L	1	0.500	< 0.0106	92	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54204 Prep Batch: 46313 Date Analyzed: 2008-11-13 QC Preparation: 2008-11-11

Analyzed By: TP Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Calcium	53.6	mg/L	1	50.0	< 0.175	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
Dissolved Calcium	52.2	mg/L	1	50.0	< 0.175	104	85 - 115	3	20

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Laboratory Control Spike (LCS-1)

QC Batch: 54204 Prep Batch: 46313

Date Analyzed: QC Preparation:

2008-11-13 2008-11-11

Analyzed By: TP

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Potassium	52.2	mg/L	1	50.0	< 0.327	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Potassium	50.4	mg/L	1	50.0	< 0.327	101	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54204 Date Analyzed:

2008-11-13

Analyzed By:

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

LCS Spike Matrix Rec. Result Dil. Param Units Amount Result Rec. Limit 52.8 Dissolved Magnesium mg/L 50.0 < 0.148106 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	RPD	Limit
Dissolved Magnesium	51.4	mg/L	1	50.0	< 0.148	103	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation:

2008-11-11

Prepared By: KV

Rec.

Limit

LCS Spike Matrix Result Dil. Param Units Amount Result Rec. Dissolved Sodium 52.7mg/L < 0.244105 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$_{ m Limit}$
Dissolved Sodium	50.8	$\mathrm{mg/L}$	1	50.0	< 0.244	102	85 - 115	4	20

NMSWD Station #11

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Laboratory Control Spike (LCS-1)

QC Batch: 54206 Prep Batch: 46379 Date Analyzed: 2008-11-12 QC Preparation: 2008-11-10 Analyzed By: DS Prepared By: DS

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Phenol 0.0201 mg/L 0.0800 < 0.00165 25 10 - 37.6 1 2-Chlorophenol 0.0465mg/L 1 0.0800 58 27.4 - 88.1 < 0.00150 1,4-Dichlorobenzene (para) 0.0422mg/L 1 0.0800< 0.00156 53 22.2 - 85.4 N-Nitrosodi-n-propylamine 0.0572mg/L 1 0.0800 72 < 0.00127 15.8 - 1191,2,4-Trichlorobenzene mg/L 1 0.04100.0800< 0.00193 51 25 - 99.5Naphthalene 0.0452mg/L 1 0.0800< 0.00165 56 24.8 - 93.14-Chloro-3-methylphenol 0.0512mg/L 1 0.0800< 0.00120 64 28.4 - 110 Acenaphthylene 0.0544mg/L 33.3 - 110 1 0.0800< 0.00136 68 Acenaphthene 0.0523mg/L 1 31.5 - 1070.0800 < 0.00132 65 4-Nitrophenol 0.0143mg/L 1 < 0.00127 10 - 48.8 0.080018 0.0473 2,4-Dinitrotoluene mg/L 1 0.0800< 0.00139 59 27.8 - 126Fluorene 0.0509mg/L 1 0.0800 < 0.00130 64 25.5 - 124 Pentachlorophenol 0.0210 mg/L 0.0800 26 10 - 119 1 < 0.000632 0.0524Anthracene mg/L 1 0.0800 66 39.5 - 119< 0.00152 Phenanthrene 0.0550mg/L 1 0.0800 < 0.00144 69 41 - 119 Fluoranthene 0.0587mg/L 1 0.0800< 0.00159 73 35.7 - 143Pyrene 0.0561mg/L 1 0.0800 70 < 0.00135 35.8 - 132Benzo(a)anthracene 0.05561 mg/L 0.0800< 0.00138 70 40.1 - 128Chrysene 0.0564mg/L 0.0800 70 1 < 0.00146 40.5 - 128 Benzo(b)fluoranthene 0.0530 mg/L 0.0800 32 - 1341 < 0.00126 66 Benzo(k)fluoranthene 0.0586mg/L 1 73 43.5 - 131 0.0800< 0.00149 Benzo(a)pyrene 0.0630mg/L 1 0.0800< 0.00155 79 43.5 - 140Indeno(1,2,3-cd)pyrene 0.0671 mg/L 1 0.0800< 0.00195 84 39.7 - 159Dibenzo(a,h)anthracene 0.0668 1 mg/L0.0800 < 0.0210 84 39.2 - 1540.0684 0.0800 Benzo(g,h,i)perylene mg/L 1 < 0.00207 86 38 - 157

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Phenol	0.0208	mg/L	1	0.0800	< 0.00165	26	10 - 37.6	3	20
2-Chlorophenol	0.0475	${ m mg/L}$	1	0.0800	< 0.00150	59	27.4 - 88.1	2	20
1,4-Dichlorobenzene (para)	0.0435	${ m mg/L}$	1	0.0800	< 0.00156	54	22.2 - 85.4	3	20
N-Nitrosodi-n-propylamine	0.0594	mg/L	1	0.0800	< 0.00127	74	15.8 - 119	4	20
1,2,4-Trichlorobenzene	0.0419	${ m mg/L}$	1	0.0800	< 0.00193	52	25 - 99.5	2	20
Naphthalene	0.0457	$\mathrm{mg/L}$	1	0.0800	< 0.00165	57	24.8 - 93.1	1	20
4-Chloro-3-methylphenol	0.0523	mg/L	1	0.0800	< 0.00120	65	28.4 - 110	2	20
Acenaphthylene	0.0561	mg/L	1	0.0800	< 0.00136	70	33.3 - 110	3	20
Acenaphthene	0.0540	mg/L	1	0.0800	< 0.00132	68	31.5 - 107	3	20
4-Nitrophenol	0.0133	mg/L	1	0.0800	< 0.00127	. 17	10 - 48.8	7	20

 $continued \dots$

NMSWD Station #11

 Work Order: 8110902 GW Sampling

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control spikes continued . . .

control of successions	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	R.PD	Limit
2,4-Dinitrotoluene	0.0488	mg/L	1	0.0800	< 0.00139	61	27.8 - 126	3	20
Fluorene	0.0528	mg/L	1	0.0800	< 0.00130	66	25.5 - 124	4	20
Pentachlorophenol	0.0212	mg/L	1	0.0800	< 0.000632	26	10 - 119	1	20
Anthracene	0.0532	$\mathrm{mg/L}$	1	0.0800	< 0.00152	66	39.5 - 119	2	20
Phenanthrene	0.0548	$\mathrm{mg/L}$	1	0.0800	< 0.00144	68	41 - 119	0	20
Fluoranthene	0.0588	$\mathrm{mg/L}$	1	0.0800	< 0.00159	74	35.7 - 143	0	20
Pyrene	0.0579	$\mathrm{mg/L}$	1	0.0800	< 0.00135	72	35.8 - 132	3	20
Benzo(a)anthracene	0.0553	mg/L	1	0.0800	< 0.00138	69	40.1 - 128	0	20
Chrysene	0.0576	$\mathrm{mg/L}$	1	0.0800	< 0.00146	72	40.5 - 128	2	20
Benzo(b)fluoranthene	0.0534	$\mathrm{mg/L}$	1	0.0800	< 0.00126	67	32 - 134	1	20
Benzo(k)fluoranthene	0.0576	${ m mg/L}$	1	0.0800	< 0.00149	72	43.5 - 131	2	20
Benzo(a)pyrene	0.0602	mg/L	1	0.0800	< 0.00155	75	43.5 - 140	4	20
Indeno(1,2,3-cd)pyrene	0.0641	$\mathrm{mg/L}$	1	0.0800	< 0.00195	80	39.7 - 159	5	20
Dibenzo(a,h)anthracene	0.0630	$\mathrm{mg/L}$	1	0.0800	< 0.0210	79	39.2 - 154	6	20
Benzo(g,h,i)perylene	0.0643	mg/L	1	0.0800	< 0.00207	80	38 - 157	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
2-Fluorophenol	0.0294	0.0302	${ m mg/L}$	1	0.0800	37	38	10 - 62.8
Phenol-d5	0.0213	0.0222	$_{ m mg/L}$	1	0.0800	27	28	10 - 41.3
Nitrobenzene-d5	0.0531	0.0534	mg/L	1	0.0800	66	67	25.4 - 115
2-Fluorobiphenyl	0.0521	0.0530	$_{ m mg/L}$	1	0.0800	65	66	18.7 - 125
2,4,6-Tribromophenol	0.0467	0.0486	mg/L	1	0.0800	58	61	15.5 - 107
Terphenyl-d14	0.0570	0.0574	${ m mg/L}$	1	0.0800	71	72	23.4 - 151

Laboratory Control Spike (LCS-1)

QC Batch: 54251 Prep Batch: 46409 Date Analyzed: 2008-11-14 QC Preparation:

2008-11-12

Analyzed By: RD Prepared By: RD

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 13.0 Chloride mg/L 12.5 <1.74 104 90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Chloride	12.1	mg/L	1	12.5	< 1.74	97	90 - 110	7	20

⁹Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 55 of 71 NM-SWD Station #11, Lea Co., NM

Laboratory Control Spike (LCS-1)

QC Batch:

54251 Prep Batch: 46409 Date Analyzed:

2008-11-14

QC Preparation: 2008-11-12 Analyzed By: RD

Prepared By: RD

LCS Spike Matrix Rec. Result Param Units Dil. Amount Result Rec. Limit 90 - 110 Sulfate 12.3 mg/L 12.5< 0.34498

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Sulfate	12.5	mg/L	1	12.5	< 0.344	100	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54274 Prep Batch: 46431 Date Analyzed: QC Preparation:

2008-11-13 2008-11-12

Analyzed By: RG Prepared By:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Total Suspended Solids 101 mg/L 100 <1.00 101 91.1 - 109 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Suspended Solids	103	mg/L	1	100	<1.00	103	91.1 - 109	2	6.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Spiked Sample: 178804 Matrix Spike (MS-1)

QC Batch:

54142 Prep Batch: 46318 Date Analyzed: QC Preparation:

2008-11-10 2008-11-10

Analyzed By: KB Prepared By: KB

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Bromochloromethane 45.5 $\mu \mathrm{g/L}$ 1 50.0 < 0.19791 84.8 - 121.5 Dichlorodifluoromethane 38.7 $\mu g/L$ 1 50.0 < 0.672 77 57.4 - 145.5 Chloromethane (methyl chloride) 48.9 $\mu {
m g/L}$ 1 50.0 < 0.54298 73.9 - 126Vinyl Chloride 43.2 $\mu g/L$ 1 50.0 < 0.516 86 71 - 130.3Bromomethane (methyl bromide) 34.5 $\mu g/L$ 1 50.0 < 0.446 64.4 - 138.5 $continued \dots$

¹⁰ Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

Work Order: 8110902 GW Sampling Page Number: 56 of 71 NM-SWD Station #11, Lea Co., NM

matrix spikes continued . . . MS Spike Matrix Rec. Result Units Dil. Result Param AmountRec. Limit Chloroethane 38.1 $\mu g/L$ 1 50.0 < 0.656 76 65.1 - 140 11 36.8 Trichlorofluoromethane 50.0 < 0.538 74 76.7 - 146.9 $\mu g/L$ 1 27.4Acetone $\mu g/L$ 1 50.0 < 1.10 55 10 - 152.112 Iodomethane (methyl iodide) 38.6 50.0 < 0.21477 81.3 - 123.9 $\mu g/L$ 1 81.4 - 123.5 Carbon Disulfide 46.31 50.0 < 0.29493 $\mu g/L$ 53.2 1 50.0 106 Acrylonitrile $\mu g/L$ < 0.44287.3 - 131.1 2-Butanone (MEK) 44.5 $\mu g/L$ 1 50.0 < 0.42089 48.6 - 140.8 4-Methyl-2-pentanone (MIBK) 60.2 $\mu g/L$ 1 50.0 < 0.407120 87.2 - 130.3 2-Hexanone 58.750.0 50.2 - 170.3 1 < 0.486 117 $\mu g/L$ trans 1,4-Dichloro-2-butene 48.71 < 0.463 $\mu g/L$ 50.0 97 65.4 - 129.51.1-Dichloroethene 41.5 $\mu g/L$ 1 50.0 < 0.23783 80.6 - 122.4 69.3 - 120.8 Methylene chloride 59.3 1 50.0 13.592 $\mu g/L$ 13 **MTBE** 27.9 1 50.0 < 0.318 83.9 - 128.7 $\mu g/L$ 56 trans-1,2-Dichloroethene 45.5 $\mu g/L$ 1 50.0 < 0.21779.1 - 122.8 91 1,1-Dichloroethane 44.7 $\mu g/L$ 1 50.0 < 0.202 89 79.1 - 123.4 cis-1,2-Dichloroethene 45.650.0 $\mu g/L$ 1 < 0.30991 80.9 - 126.8 26.3 2,2-Dichloropropane $\mu g/L$ 1 50.0 < 0.31853 10 - 142.9 1,2-Dichloroethane (EDC) 46.6 $\mu g/L$ 1 50.0 < 0.29293 77.4 - 130.143.6 Chloroform $\mu g/L$ 1 50.0 < 0.23487 78 - 12639.0 1,1,1-Trichloroethane $\mu g/L$ 1 50.0 < 0.25778 68.6 - 133.4 1,1-Dichloropropene 42.3< 0.286 $\mu g/L$ 1 50.0 85 77.3 - 127.845.1Benzene $\mu g/L$ 1 50.0 < 0.31990 69.8 - 128.2 14 Carbon Tetrachloride 37.1 $\mu g/L$ 1 50.0 < 0.2237476.3 - 127.1 79.4 - 127.21,2-Dichloropropane 45.1 $\mu \mathrm{g/L}$ 1 50.0 < 0.26690 15 Trichloroethene (TCE) 38.6 $\mu g/L$ 1 50.0 < 0.235 77 79.4 - 121 Dibromomethane (methylene bromide) 46.1 $\mu g/L$ 1 50.0 < 0.341 92 82.6 - 123 Bromodichloromethane 45.5 $\mu g/L$ 1 50.0 < 0.291 91 76.1 - 136.4 16 2-Chloroethyl vinyl ether < 0.293 $\mu g/L$ 1 50.0 < 0.293 0 10 - 191.4 cis-1,3-Dichloropropene 38.9 $\mu g/L$ 1 50.0 < 0.20778 69.2 - 132.4 39.9 trans-1,3-Dichloropropene $\mu g/L$ 1 50.0< 0.29380 72.3 - 132.4 $\mu g/L$ Toluene 42.01 50.0 < 0.26884 76.4 - 1201,1,2-Trichloroethane 46.1 $\mu g/L$ 1 50.0 < 0.329 92 82.3 - 120 1,3-Dichloropropane 47.2 1 50.0 < 0.316 $\mu g/L$ 94 75 - 126.2Dibromochloromethane 39.4 $\mu g/L$ 79 1 50.0< 0.290 71.2 - 143.91,2-Dibromoethane (EDB) 47.8 $\mu g/L$ 1 50.0 < 0.22996 83.4 - 122.5 Tetrachloroethene (PCE) 20.41 50.0 < 0.233 $\mu g/L$ 41 23.6 - 138Chlorobenzene 40.2 $\mu g/L$ 1 50.0 < 0.27680 74 - 119.31,1,1,2-Tetrachloroethane 41.1 $\mu \mathrm{g/L}$ 1 < 0.22680 - 123 50.082

 $continued \dots$

Ethylbenzene

 $\mu g/L$

1

50.0

< 0.245

82

72.3 - 127

40.8

¹¹ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹² Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁵ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

matrix spikes continued . . .

man la opinos se issuidada		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
m,p-Xylene		80.1	$\mu g/L$	1	100	< 0.517	80	73.2 - 128
Bromoform	17	38.8	$\mu { m g}/{ m L}$	1	50.0	< 0.175	78	90.2 - 127.8
Styrene	18	1.07	$\mu { m g}/{ m L}$	1	50.0	< 0.239	2	53.8 - 145.5
o-Xylene		40.5	$\mu { m g}/{ m L}$	1	50.0	< 0.247	81	71.3 - 134.4
1,1,2,2-Tetrachloroethane		55.0	$\mu { m g}/{ m L}$	1	50.0	< 0.223	110	67 - 144
2-Chlorotoluene		39.2	$\mu { m g}/{ m L}$	1	50.0	< 0.235	78	62.7 - 128.9
1,2,3-Trichloropropane		56.2	$\mu { m g}/{ m L}$	1	50.0	< 0.230	112	68.5 - 122.8
Isopropylbenzene		38.9	$\mu { m g}/{ m L}$	1	50.0	< 0.226	78	61.8 - 133.9
Bromobenzene		44.5	$\mu { m g}/{ m L}$	1	50.0	< 0.245	89	67.2 - 123.6
n-Propylbenzene		36.5	$\mu { m g}/{ m L}$	1	50.0	< 0.234	73	61.6 - 128.2
1,3,5-Trimethylbenzene		36.4	$\mu { m g}/{ m L}$	1	50.0	< 0.261	73	66.4 - 125.8
tert-Butylbenzene		34.5	$\mu { m g}/{ m L}$	1	50.0	< 0.281	69	59.8 - 133
1,2,4-Trimethylbenzene	19	38.5	$\mu { m g}/{ m L}$	1	50.0	< 0.285	77	78.2 - 119.1
1,4-Dichlorobenzene (para)		37.4	$\mu { m g}/{ m L}$	1	50.0	< 0.307	75	68 - 118.4
sec-Butylbenzene		34.5	$\mu { m g}/{ m L}$	1	50.0	< 0.312	69	60.6 - 129.5
1,3-Dichlorobenzene (meta)		38.0	$\mu { m g}/{ m L}$	1	50.0	< 0.284	76	69.1 - 122
p-Isopropyltoluene		34.7	$\mu { m g}/{ m L}$	1	50.0	< 0.244	69	60.5 - 132
4-Chlorotoluene		40.0	$\mu { m g}/{ m L}$	1	50.0	< 0.257	80	65.3 - 127.7
1,2-Dichlorobenzene (ortho)		39.7	$\mu { m g}/{ m L}$	1	50.0	< 0.294	79	71.8 - 124.8
n-Butylbenzene		35.3	$\mu { m g}/{ m L}$	1	50.0	< 0.339	71	56.6 - 133.8
1,2-Dibromo-3-chloropropane		54.7	$\mu { m g}/{ m L}$	1	50.0	< 0.780	109	85.4 - 112.2
1,2,3-Trichlorobenzene		35.4	$\mu { m g}/{ m L}$	1	50.0	< 0.736	71	10 - 166.2
1,2,4-Trichlorobenzene		28.4	$\mu { m g}/{ m L}$	1	50.0	< 0.432	57	54.8 - 122.2
Naphthalene		45.6	$\mu { m g}/{ m L}$	1	50.0	< 0.475	91	24 - 169
Hexachlorobutadiene		33.3	$\mu { m g}/{ m L}$	1	50.0	<1.02	67	35.6 - 136.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSI)		Spike	Matrix		Rec.		RPD
Param	Resu	lt Units	Dil.	Amount	Result	${ m Rec.}$	Limit	RPD	Limit
Bromochloromethane	52.	$\mu g/L$	1	50.0	< 0.197	104	84.8 - 121.5	14	20
Dichlorodifluoromethane	49.0	$\mu g/L$	1	50.0	< 0.672	99	57.4 - 145.5	25	20
Chloromethane (methyl chloride)	57.	$\mu g/L$	1	50.0	< 0.542	115	73.9 - 126	16	20
Vinyl Chloride	51.0	$\mu g/L$	1	50.0	< 0.516	102	71 - 130.3	17	20
Bromomethane (methyl bromide)	38.8	$\mu g/L$	1	50.0	< 0.446	78	64.4 - 138.5	12	20
Chloroethane	43.8	$\mu \mathrm{g/L}$	1	50.0	< 0.656	88	65.1 - 140	14	20
Trichlorofluoromethane	55.1	$\mu g/L$	1	50.0	< 0.538	110	76.7 - 146.9	40	20
Acetone	37.5	$\mu g/L$	1	50.0	< 1.10	74	10 - 152.1	30	20
Iodomethane (methyl iodide)	46.0	$\mu g/L$	1	50.0	< 0.214	93	81.3 - 123.9	19	20
Carbon Disulfide	51.0	$\mu g/L$	1	50.0	< 0.294	102	81.4 - 123.5	10	20

 $continued \dots$

¹⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁸ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

²⁰MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²²MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Work Order: 8110902 GW Sampling Page Number: 58 of 71 NM-SWD Station #11, Lea Co., NM

matrix spikes continued ... MSD Matrix Spike Rec. **RPD** Param Result Units Dil. Amount Result RPD Rec. Limit Limit Acrylonitrile 61.6 $\mu g/L$ 1 50.0 < 0.442123 87.3 - 131.1 15 20 2-Butanone (MEK) 54.4 $\mu g/L$ 1 50.0 < 0.420 109 48.6 - 140.8 20 20 4-Methyl-2-pentanone (MIBK) 69.2 1 50.0 $\mu g/L$ < 0.407138 87.2 - 130.314 20 2-Hexanone 70.8 1 50.0 $\mu g/L$ < 0.486142 50.2 - 170.319 20 trans 1.4-Dichloro-2-butene 60.6 50.0 65.4 - 129.5 $\mu g/L$ 1 < 0.463121 22 20 1.1-Dichloroethene 46.350.0 $\mu g/L$ 1 < 0.23793 80.6 - 122.4 20 11 Methylene chloride 66.7 50.0 $\mu g/L$ 1 13.5 106 69.3 - 120.8 20 12 **MTBE** 32.7 83.9 - 128.7 $\mu g/L$ 50.0 < 0.318 1 6520 16 trans-1,2-Dichloroethene 51.550.0 $\mu g/L$ 1 < 0.217103 79.1 - 122.8 12 20 1,1-Dichloroethane 52.0 $\mu g/L$ 1 50.0 < 0.202 104 79.1 - 123.4 15 20 cis-1,2-Dichloroethene 53.0 $\mu g/L$ 1 50.0 < 0.309 106 80.9 - 126.8 20 15 2,2-Dichloropropane 29.6 50.0 $\mu \mathrm{g/L}$ 1 < 0.31859 10 - 142.912 20 1,2-Dichloroethane (EDC) 53.9 $\mu g/L$ 1 50.0 < 0.292108 77.4 - 130.114 20 Chloroform 50.8 < 0.234 $\mu g/L$ 1 50.0 102 78 - 12620 15 1,1,1-Trichloroethane 46.2 $\mu g/L$ 1 50.0 < 0.25792 68.6 - 133.4 20 17 1,1-Dichloropropene 49.8 50.0 $\mu g/L$ 1 < 0.286100 77.3 - 127.816 20 Benzene 52.3 1 50.0 < 0.319 $\mu g/L$ 105 69.8 - 128.2 20 15 Carbon Tetrachloride 44.1 50.0 < 0.223 $\mu g/L$ 1 88 76.3 - 127.117 20 1,2-Dichloropropane 53.5 $\mu \mathrm{g/L}$ 50.0 1 < 0.266 107 79.4 - 127.217 20 Trichloroethene (TCE) 46.7 $\mu g/L$ 1 50.0 < 0.235 93 79.4 - 12119 20 Dibromomethane (methylene bromide) 54.750.0 $\mu g/L$ 1 < 0.341109 82.6 - 12320 17 Bromodichloromethane 53.950.0 < 0.291 108 $\mu g/L$ 1 76.1 - 136.4 20 17 2-Chloroethyl vinyl ether < 0.293 50.0 $\mu g/L$ < 0.2931 0 10 - 191.4 0 20 cis-1,3-Dichloropropene $\mu \mathrm{g/L}$ 46.61 50.0 < 0.20793 69.2 - 132.4 18 20 trans-1,3-Dichloropropene 47.6 $\mu g/L$ 1 50.0 < 0.293 95 72.3 - 132.420 18 Toluene 50.3 $\mu g/L$ 1 50.0 < 0.268101 76.4 - 12018 20 1,1,2-Trichloroethane 54.41 50.0 < 0.329 $\mu \mathrm{g/L}$ 109 82.3 - 12016 20 1.3-Dichloropropane 55.150.0 < 0.316 $\mu \mathrm{g/L}$ 1 110 75 - 126.220 15 Dibromochloromethane 47.4 1 50.0 < 0.290 $\mu \mathrm{g/L}$ 95 71.2 - 143.920 18 1,2-Dibromoethane (EDB) 56.21 50.0< 0.229 $\mu g/L$ 112 83.4 - 122.5 20 16 Tetrachloroethene (PCE) 24.4 1 50.0 < 0.233 23.6 - 138 $\mu g/L$ 49 20 18 Chlorobenzene 47.9 50.0 96 $\mu g/L$ 1 < 0.27674 - 119.318 20 1,1,1,2-Tetrachloroethane 49.6 $\mu g/L$ 1 50.0 < 0.226 99 80 - 123 19 20 Ethylbenzene 48.9 50.0 < 0.245 $\mu g/L$ 1 98 72.3 - 12720 18 m,p-Xylene 96.0 $\mu \mathrm{g}/\mathrm{L}$ 73.2 - 128 1 100 < 0.517 96 20 18 Bromoform 46.8 $\mu g/L$ 1 50.0 < 0.17594 90.2 - 127.8 19 20 27 Styrene 1.26 $\mu g/L$ 50.0 1 < 0.2392 53.8 - 145.520

continued . . .

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²³MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

²⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

²⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

²⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 59 of 71 NM-SWD Station #11, Lea Co., NM

matrix spikes continued . . .

•		MSD			Spike	Matrix F		Rec.	Rec.	
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	R,PD	Limit
o-Xylene		49.0	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.247	98	71.3 - 134.4	19	20
1,1,2,2-Tetrachloroethane		66.8	$\mu { m g}/{ m L}$	1	50.0	< 0.223	134	67 - 144	19	20
2-Chlorotoluene		46.6	$\mu { m g}/{ m L}$	1	50.0	< 0.235	93	62.7 - 128.9	17	20
1,2,3-Trichloropropane	28	67.6	$\mu { m g}/{ m L}$	1	50.0	< 0.230	135	68.5 - 122.8	18	20
Isopropylbenzene		46.9	$\mu { m g/L}$	1	50.0	< 0.226	94	61.8 - 133.9	19	20
Bromobenzene		53.9	$\mu { m g}/{ m L}$	1	50.0	< 0.245	108	67.2 - 123.6	19	20
n-Propylbenzene		43.4	$\mu { m g}/{ m L}$	1	50.0	< 0.234	87	61.6 - 128.2	17	20
1,3,5-Trimethylbenzene		44.0	$\mu { m g}/{ m L}$	1	50.0	< 0.261	88	66.4 - 125.8	19	20
tert-Butylbenzene	29	42.3	$\mu { m g}/{ m L}$	1	50.0	< 0.281	85	59.8 - 133	20	20
1,2,4-Trimethylbenzene		45.9	$\mu { m g/L}$	1	50.0	< 0.285	92	78.2 - 119.1	18	20
1,4-Dichlorobenzene (para)		44.9	$\mu { m g}/{ m L}$	1	50.0	< 0.307	90	68 - 118.4	18	20
sec-Butylbenzene		42.1	$\mu { m g}/{ m L}$	1	50.0	< 0.312	84	60.6 - 129.5	20	20
1,3-Dichlorobenzene (meta)		45.6	$\mu { m g}/{ m L}$. 1	50.0	< 0.284	91	69.1 - 122	18	20
p-Isopropyltoluene		42.1	$\mu { m g/L}$	1	50.0	< 0.244	84	60.5 - 132	19	20
4-Chlorotoluene		47.8	$\mu { m g}/{ m L}$	1	50.0	< 0.257	96	65.3 - 127.7	18	20
1,2-Dichlorobenzene (ortho)		48.4	$\mu { m g}/{ m L}$	1	50.0	< 0.294	97	71.8 - 124.8	20	20
n-Butylbenzene		42.9	$\mu { m g}/{ m L}$	1	50.0	< 0.339	86	56.6 - 133.8	19	20
1,2-Dibromo-3-chloropropane	30	67.0	$\mu { m g}/{ m L}$	1	50.0	< 0.780	134	85.4 - 112.2	20	20
1,2,3-Trichlorobenzene	31	46.1	$\mu { m g}/{ m L}$	1	50.0	< 0.736	92	10 - 166.2	26	20
1,2,4-Trichlorobenzene	32	36.4	$\mu { m g}/{ m L}$	1	50.0	< 0.432	73	54.8 - 122.2	25	20
Naphthalene	33	58.4	$\mu { m g}/{ m L}$	1	50.0	< 0.475	117	24 - 169	25	20
Hexachlorobutadiene	34	42.3	$\mu { m g/L}$	1	50.0	<1.02	85	35.6 - 136.3	24	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	54.1	53.3	$\mu { m g}/{ m L}$	1	50	108	107	83.9 - 120
Toluene-d8	50.0	49.8	$\mu { m g}/{ m L}$	1	50	100	100	86.8 - 111
4-Bromofluorobenzene (4-BFB)	47.9	47.9	$\mu { m g}/{ m L}$	1	50	96	96	82.2 - 117

Matrix Spike (MS-1) Spiked Sample: 178800

QC Batch: 54162 Prep Batch: 46332

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Date Analyzed:

2008-11-11 QC Preparation: 2008-11-11 Analyzed By: TP Prepared By: TP

²⁸MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

²⁹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³⁰MSD analyte out of range. RPD outside RPD limits.

³¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³²MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³³MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 60 of 71 NM-SWD Station #11, Lea Co., NM

		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Total Mercury	35	0.000715	mg/L	1	0.00100	< 0.0000251	72	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury	0.000748	${ m mg/L}$	1	0.00100	< 0.0000251	75	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spi

Spiked Sample: 178087

QC Batch: 54203 Prep Batch: 46344 Date Analyzed: 2008-11-13 QC Preparation: 2008-11-12 Analyzed By: RR Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Total Silica	1.02	mg/L	1	1.00	< 0.0186	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Total Silica	1.03	mg/L	1	1.00	< 0.0186	103	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spike

Spiked Sample: 178087

QC Batch: 54203 Prep Batch: 46344

(

Date Analyzed: 2008-11-13 QC Preparation: 2008-11-12 Analyzed By: RR Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Total Silver	0.121	mg/L	1	0.125	< 0.000700	97	75 - 125
Total Arsenic	0.501	${ m mg/L}$	1	0.500	< 0.00850	100	75 - 125
Total Barium	1.07	mg/L	1	1.00	< 0.00180	107	75 - 125
Total Cadmium	0.251	$_{ m mg/L}$	1	0.250	< 0.00110	100	75 - 125
Total Chromium	0.0960	mg/L	1	0.100	< 0.00201	96	75 - 125
Total Lead	0.493	${ m mg/L}$	1	0.500	< 0.00460	99	75 - 125
Total Selenium	0.466	mg/L	1	0.500	< 0.0106	93	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

³⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

NMSWD Station #11

(1)

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Work Order: 8110902 GW Sampling

Page Number: 61 of 71 NM-SWD Station #11, Lea Co., NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Total Silver	0.120	mg/L	1	0.125	< 0.000700	96	75 - 125	1	20
Total Arsenic	0.502	$\mathrm{mg/L}$	1	0.500	< 0.00850	100	75 - 125	0	20
Total Barium	1.05	$\mathrm{mg/L}$	1	1.00	< 0.00180	105	75 - 125	2	20
Total Cadmium	0.250	$\mathrm{mg/L}$	1	0.250	< 0.00110	100	75 - 125	0	20
Total Chromium	0.0950	$\mathrm{mg/L}$	1	0.100	< 0.00201	95	75 - 125	1	20
Total Lead	0.492	$\mathrm{mg/L}$	1	0.500	< 0.00460	98	75 - 125	0	20
Total Selenium	0.466	$\mathrm{mg/L}$	1	0.500	< 0.0106	93	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch:

54204 Prep Batch: 46313 Date Analyzed: QC Preparation:

2008-11-13 2008-11-11

Analyzed By: TP

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Calcium	262	${ m mg/L}$	1	50.0	211	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

•	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Dissolved Calcium	261	mg/L	1	50.0	211	100	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch: 54204 Prep Batch: 46313

Date Analyzed:

2008-11-13

QC Preparation: 2008-11-11 Analyzed By: TP

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit
Dissolved Potassium	55.5	${ m mg/L}$	1	50.0	5.53	100	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	$_{ m Limit}$
Dissolved Potassium	56.2	mg/L	1	50.0	5.53	101	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 62 of 71 NM-SWD Station #11, Lea Co., NM

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch:

0

54204 Prep Batch: 46313 Date Analyzed:

2008 - 11 - 13

QC Preparation: 2008-11-11 Analyzed By: TP

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Dissolved Magnesium	83.8	${ m mg/L}$	1	50.0	31.6	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		R.P.D
Param	Result	Units	Dil.	${ m Amount}$	Result	Rec.	Limit	RPD	$_{ m Limit}$
Dissolved Magnesium	84.8	m mg/L	1	50.0	31.6	106	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch: 54204 Prep Batch: 46313

Date Analyzed: QC Preparation: 2008-11-11

2008-11-13

Analyzed By: TP

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Sodium	171	mg/L	1	50.0	119	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}	R.PD	Limit
Dissolved Sodium	169	mg/L	1	50.0	119	100	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1)

QC Batch: 54142

Date Analyzed: 2008-11-10

Analyzed By: KB

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Bromochloromethane	= "	$\mu { m g}/{ m L}$	50.0	50.9	102	70 - 130	2008-11-10
Dichlorodifluoromethane		$\mu { m g}/{ m L}$	50.0	49.9	100	70 - 130	2008-11-10
Chloromethane (methyl chloride)		$\mu { m g}/{ m L}$	50.0	51.4	103	70 - 130	2008-11-10
Vinyl Chloride		$\mu { m g}/{ m L}$	50.0	52.7	105	80 - 120	2008-11-10
Bromomethane (methyl bromide)		$\mu { m g}/{ m L}$	50.0	48.6	97	70 - 130	2008-11-10
Chloroethane		$\mu { m g}/{ m L}$	50.0	50.2	100	70 - 130	2008-11-10
Trichlorofluoromethane		$_{ m \mu g/L}$	50.0	49.3	99	70 - 130	2008-11-10

continued ...

Work Order: 8110902 GW Sampling Page Number: 63 of 71 NM-SWD Station #11, Lea Co., NM

 $standard\ continued\ \dots$

standard continued			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Acetone		$\frac{\mu g/L}{\mu}$	50.0	52.0	104	70 - 130	2008-11-10
Iodomethane (methyl iodide)		$\mu \mathrm{g}/\mathrm{L}$	50.0	49.3	99	70 - 130	2008-11-10
Carbon Disulfide		$\mu \mathrm{g}/\mathrm{L}$	50.0	52.4	105	70 - 130	2008-11-10
Acrylonitrile		$\mu \mathrm{g}/\mathrm{L}$	50.0	53.3	107	70 - 130	2008-11-10
2-Butanone (MEK)		$\mu \mathrm{g}/\mathrm{L}$	50.0	55.4	111	70 - 130	2008-11-10
4-Methyl-2-pentanone (MIBK)		$\mu \mathrm{g/L}$	50.0	44.8	90	70 - 130	2008-11-10
2-Hexanone		$\mu { m g/L}$	50.0	50.0	100	70 - 130	2008-11-10
trans 1,4-Dichloro-2-butene		$\mu { m g}/{ m L}$	50.0	57.0	114	70 - 130	2008-11-10
1,1-Dichloroethene		$\mu { m g}/{ m L}$	50.0	49.3	99	80 - 120	2008-11-10
Methylene chloride		$\mu { m g}/{ m L}$	50.0	52.7	105	70 - 130	2008-11-10
MTBE		$\mu \mathrm{g}/\mathrm{L}$	50.0	48.6	97	70 - 130	2008-11-10
trans-1,2-Dichloroethene		$\mu \mathrm{g}/\mathrm{L}$	50.0	52.8	106	70 - 130	2008-11-10
1,1-Dichloroethane		$\mu { m g}/{ m L}$	50.0	52.9	106	70 - 130	2008-11-10
cis-1,2-Dichloroethene		$\mu { m g}/{ m L}$	50.0	52.8	106	70 - 130	2008-11-10
2,2-Dichloropropane		$\mu { m g}/{ m L}$	50.0	51.6	103	70 - 130	2008-11-10
1,2-Dichloroethane (EDC)		$\mu { m g}/{ m L}$	50.0	51.0	102	70 - 130	2008-11-10
Chloroform		$\mu { m g}/{ m L}$	50.0	51.0	102	80 - 120	2008-11-10
1,1,1-Trichloroethane		$\mu { m g}/{ m L}$	50.0	49.3	99	70 - 130	2008-11-10
1,1-Dichloropropene		$\mu { m g}/{ m L}$	50.0	51.0	102	70 - 130	2008-11-10
Benzene		$\mu { m g}/{ m L}$	50.0	51.4	103	70 - 130	2008-11-10
Carbon Tetrachloride		$\mu { m g}/{ m L}$	50.0	46.3	93	70 - 130	2008-11-10
1,2-Dichloropropane		$\mu \mathrm{g}/\mathrm{L}$	50.0	52.4	105	80 - 120	2008-11-10
Trichloroethene (TCE)		$\mu { m g}/{ m L}$	50.0	46.3	93	70 - 130	2008-11-10
Dibromomethane (methylene bromide)		$\mu { m g}/{ m L}$	50.0	49.7	99	70 - 130	2008-11-10
Bromodichloromethane		$\mu { m g/L}$	50.0	52.1	104	70 - 130	2008-11-10
2-Chloroethyl vinyl ether		$\mu { m g}/{ m L}$	50.0	39.0	78	70 - 130	2008-11-10
cis-1,3-Dichloropropene		$\mu { m g}/{ m L}$	50.0	48.5	97	70 - 130	2008-11-10
trans-1,3-Dichloropropene		$\mu { m g/L}$	50.0	48.4	97	70 - 130	2008-11-10
Toluene		$\mu { m g}/{ m L}$	50.0	50.3	101	80 - 120	2008-11-10
1,1,2-Trichloroethane		$\mu { m g}/{ m L}$	50.0	49.4	99	70 - 130	2008-11-10
1,3-Dichloropropane		$\mu { m g}/{ m L}$	50.0	50.1	100	70 - 130	2008-11-10
Dibromochloromethane		$\mu { m g}/{ m L}$	50.0	44.0	88	70 - 130	2008-11-10
1,2-Dibromoethane (EDB)		$\mu { m g}/{ m L}$	50.0	49.4	99	70 - 130	2008-11-10
Tetrachloroethene (PCE)	36	$\mu { m g}/{ m L}$	50.0	34.0	68	70 - 130	2008-11-10
Chlorobenzene		$\mu { m g}/{ m L}$	50.0	47.4	95	80 - 120	2008-11-10
1,1,1,2-Tetrachloroethane		$\mu { m g}/{ m L}$	50.0	47.9	96	70 - 130	2008-11-10
Ethylbenzene		$\mu { m g}/{ m L}$	50.0	50.8	102	80 - 120	2008-11-10
m,p-Xylene		$\mu \mathrm{g/L}$	100	101	101	70 - 130	2008-11-10
Bromoform		$\mu \mathrm{g/L}$	50.0	42.1	84	70 - 130	2008-11-10
Styrene		$\mu \mathrm{g/L}$	50.0	46.4	93	70 - 130	2008-11-10
o-Xylene		$\mu { m g}/{ m L}$	50.0	52.1	104	70 - 130	2008-11-10

³⁶Tetrachloroethene outside of control limits on CCV(ICV). CCV(ICV) component average is 99 which is within acceptable range. This is acceptable by Method 8000.

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 64 of 71 NM-SWD Station #11, Lea Co., NM

standard continued						
<u></u>		CCVs	CCVs	CCVs	Percent	
		True	Found	Percent	Recovery	Date
Param	Flag Unit	s Conc.	Conc.	Recovery	Limits	Analyzed
1,1,2,2-Tetrachloroethane	$\mu \mathrm{g}/\mathrm{I}$	50.0	53.0	106	70 - 130	2008-11-10
2-Chlorotoluene	$\mu { m g}/{ m I}$	50.0	47.8	96	70 - 130	2008-11-10
1,2,3-Trichloropropane	$\mu\mathrm{g}/\mathrm{I}$	50.0	52.2	104	70 - 130	2008-11-10
Isopropylbenzene	$\mu { m g}/{ m I}$	50.0	49.7	99	70 - 130	2008-11-10
Bromobenzene	$\mu\mathrm{g}/\mathrm{I}$		49.4	99	70 - 130	2008-11-10
n-Propylbenzene	$\mu \mathrm{g}/\mathrm{I}$	50.0	47.5	95	70 - 130	2008-11-10
1,3,5-Trimethylbenzene	$\mu\mathrm{g}/\mathrm{I}$	50.0	48.7	97	70 - 130	2008-11-10
tert-Butylbenzene	$\mu\mathrm{g}/\mathrm{I}$	50.0	47.5	95	70 - 130	2008-11-10
1,2,4-Trimethylbenzene	$\mu { m g}/{ m I}$	50.0	50.0	100	70 - 130	2008-11-10
1,4-Dichlorobenzene (para)	$\mu { m g}/{ m I}$	50.0	46.3	93	70 - 130	2008-11-10
sec-Butylbenzene	$\mu { m g/I}$	50.0	47.9	96	70 - 130	2008-11-10
1,3-Dichlorobenzene (meta)	$\mu { m g}/{ m I}$	$_{1}$ 50.0	47.3	95	70 - 130	2008-11-10
p-Isopropyltoluene	$\mu { m g}/{ m I}$	50.0	49.0	98	70 - 130	2008-11-10
4-Chlorotoluene	$\mu\mathrm{g}/\mathrm{I}$	50.0	48.6	97	70 - 130	2008-11-10
1,2-Dichlorobenzene (ortho)	$\mu\mathrm{g}/\mathrm{I}$	50.0	48.2	96	70 - 130	2008-11-10
n-Butylbenzene	$\mu { m g}/{ m I}$	50.0	50.6	101	70 - 130	2008-11-10
1,2-Dibromo-3-chloropropane	$\mu { m g}/{ m I}$		41.1	82	70 - 130	2008-11-10
1,2,3-Trichlorobenzene	$\mu \mathrm{g}/\mathrm{I}$		41.8	84	70 - 130	2008-11-10
1,2,4-Trichlorobenzene	$\mu \mathrm{g}/\mathrm{I}$	50.0	36.7	73	70 - 130	2008-11-10
Naphthalene	$\mu \mathrm{g}/\mathrm{I}$		39.0	78	70 - 130	2008-11-10
Hexachlorobutadiene	$\mu \mathrm{g}/\mathrm{I}$		45.0	90	70 - 130	2008-11-10

Standard (ICV-1)

0

QC Batch: 54146

Date Analyzed: 2008-11-10

Analyzed By: RG

			ICVs True	ICVs Found	${ m ICVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Alkalinity		mg/L as CaCo3	250	238	95	95 - 105	2008-11-10

Standard (CCV-1)

QC Batch: 54146

Date Analyzed: 2008-11-10

Analyzed By: RG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	95 - 105	2008-11-10

Work Order: 8110902 GW Sampling Page Number: 65 of 71 NM-SWD Station #11, Lea Co., NM

Standard (ICV-1)

QC Batch: 54162

0

Date Analyzed: 2008-11-11

Analyzed By: TP

			ICVs True	ICVs Found	${ m ICVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		$\mathrm{mg/L}$	0.00100	0.00101	101	90 - 110	2008-11-11

Standard (CCV-1)

QC Batch: 54162

Date Analyzed: 2008-11-11

Analyzed By: TP

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		mg/L	0.00100	0.00104	104	90 - 110	2008-11-11

Standard (ICV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		$\mathrm{mg/L}$	12.5	11.8	94	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	· Analyzed
Sulfate		mg/L	12.5	12.1	97	90 - 110	2008-11-12

Standard (CCV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			CCVs True	CCVs Found	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		m mg/L	12.5	12.1	97	90 - 110	2008-11-12

Work Order: 8110902 GW Sampling Page Number: 66 of 71 NM-SWD Station #11, Lea Co., NM

Standard (CCV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			CCVs True	CCVs Found	$\begin{array}{c} { m CCVs} \\ { m Percent} \end{array}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		mg/L	12.5	11.5	92	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54184

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	933.0	93	90 - 110	2008-11-12

Standard (CCV-1)

QC Batch: 54184

Date Analyzed: 2008-11-12

Analyzed By: RD

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	980.0	98	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54203

Date Analyzed: 2008-11-13

Analyzed By: RR

Danasa	Ella -	T I m i de ce	ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag_	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silica		mg/L	5.00	4.86	97	95 - 105	2008-11-13

Standard (ICV-1)

QC Batch: 54203

Date Analyzed: 2008-11-13

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silver		mg/L	0.125	0.124	99	90 - 110	2008-11-13
Total Arsenic		mg/L	1.00	1.00	100	95 - 105	2008-11-13

continued ...

Work Order: 8110902 GW Sampling

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standard continued ...

			ICVs True	ICVs Found	$rac{ ext{ICVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Barium		mg/L	1.00	1.04	104	95 - 105	2008-11-13
Total Cadmium		mg/L	1.00	0.998	100	95 - 105	2008-11-13
Total Chromium		mg/L	1.00	1.02	102	95 - 105	2008-11-13
Total Lead		mg/L	1.00	0.990	99	95 - 105	2008-11-13
Total Selenium		mg/L	1.00	1.01	101	95 - 105	2008-11-13

Standard (CCV-1)

QC Batch: 54203

Date Analyzed: 2008-11-13

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silica		mg/L	5.00	5.04	101	90 - 110	2008-11-13

Standard (CCV-1)

QC Batch: 54203

Date Analyzed: 2008-11-13

Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.126	101	90 - 110	2008-11-13
Total Arsenic		m mg/L	1.00	1.04	104	90 - 110	2008-11-13
Total Barium		$\mathrm{mg/L}$	1.00	1.05	105	90 - 110	2008-11-13
Total Cadmium		mg/L	1.00	1.03	103	90 - 110	2008-11-13
Total Chromium		mg/L	1.00	1.04	104	90 - 110	2008-11-13
Total Lead		${ m mg/L}$	1.00	1.01	101	90 - 110	2008-11-13
Total Selenium		${ m mg/L}$	1.00	1.04	104	90 - 110	2008-11-13

Standard (ICV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Calcium		mg/L	50.0	52.1	104	95 - 105	2008-11-13

Standard (ICV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

Report Date: November 14, 2008 NMSWD Station #11			Work Order: GW Samp		Page Number: 68 of 71 NM-SWD Station #11, Lea Co., NM			
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Dissolved Potassium		mg/L	50.0	50.4	101	95 - 105	2008-11-13	
Standard (ICV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Anal	yzed By: TP	
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Dissolved Magnesium	riag	mg/L		52.3	105	95 - 105	2008-11-13	
QC Batch: 54204			Date Analyzed: ICVs True	2008-11-13 ICVs Found	ICVs Percent	Analy Percent Recovery	yzed By: TP Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Sodium		mg/L	50.0	51.9	104	95 - 105	2008-11-13	
Standard (CCV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Analy	zed By: TP	
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Dissolved Calcium		mg/L	50.0	54.5	109	90 - 110	2008-11-13	
Standard (CCV-1) QC Batch: 54204			Date Analyzed:	2008-11-13		Analy	vzed By: TP	
			CCVs	CCVs	CCVs	Percent	D	

Standard (CCV-1)

Dissolved Potassium

Param

Flag

Units

mg/L

QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP

Found

Conc.

51.1

Percent

Recovery

102

Recovery

Limits

90 - 110

Date

Analyzed

2008-11-13

True

Conc.

50.0

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NMSWD Station #11

GW Sampling

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Magnesium		mg/L	50.0	54.7	109	90 - 110	2008-11-13

Standard (CCV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		mg/L	50.0	53.7	107	90 - 110	2008-11-13

Standard (CCV-1)

QC Batch: 54206

Date Analyzed: 2008-11-12

Analyzed By: DS

			CCVs	CCVs	CCVs	$\operatorname{Percent}$	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Phenol		mg/L	60.0	60.4	101	80 - 120	2008-11-12
1,4-Dichlorobenzene (para)		${ m mg/L}$	60.0	60.9	102	80 - 120	2008-11-12
2-Nitrophenol		$_{ m mg/L}$	60.0	63.0	105	80 - 120	2008-11-12
2,4-Dichlorophenol		mg/L	60.0	56.0	93	80 - 120	2008-11-12
Hexachlorobutadiene		${ m mg/L}$	60.0	61.9	103	80 - 120	2008-11-12
4-Chloro-3-methylphenol		${ m mg/L}$	60.0	64.0	107	80 - 120	2008-11-12
2,4,6-Trichlorophenol		${ m mg/L}$	60.0	60.8	101	80 - 120	2008-11-12
Acenaphthene		$_{ m mg/L}$	60.0	60.4	101	80 - 120	2008-11-12
Diphenylamine		${ m mg/L}$	60.0	61.8	103	80 - 120	2008-11-12
Pentachlorophenol	37	$\mathrm{mg/L}$	60.0	45.8	76	80 - 120	2008-11-12
Fluoranthene		${ m mg/L}$	60.0	57.1	95	80 - 120	2008-11-12
Di-n-octylphthalate	38	${ m mg/L}$	60.0	73.6	123	80 - 120	2008-11-12
Benzo(a)pyrene		mg/L	60.0	62.2	104	80 - 120	2008-11-12

					Spike	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	$\mathbf{A}\mathbf{mount}$	Recovery	$_{ m Limit}$
2-Fluorophenol		60.4	mg/L	1	60.0	101	80 - 120
Phenol-d5		58.7	$\mathrm{mg/L}$	1	60.0	98	80 - 120
Nitrobenzene-d5		66.3	${ m mg/L}$	1	60.0	110	80 - 120
2-Fluorobiphenyl		56.9	${ m mg/L}$	1	60.0	95	80 - 120
2,4,6-Tribromophenol		62.0	$\mathrm{mg/L}$	1	60.0	103	80 - 120

continued . . .

³⁷Pentachlorophenol outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is

acceptable by Method 8000.

38 Di-n-octylphthalate outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is acceptable by Method 8000.

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 70 of 71 NM-SWD Station #11, Lea Co., NM

				Cailea	Dansant	D		
Flag	Result	Units	Dilution			Recovery Limit		
11005	62.2		1	60.0	104	80 - 120		
	Date	Analyzed: 20	008-11-14		Analy	zed By: R.D		
		ICVs	ICVs	ICVs	Percent			
		True	Found	Percent	Recovery	Date		
Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
	uMHOS/cm	1410	1440	102	90 - 110	2008-11-14		
	Date	Analyzed: 20	08-11-14		Analy	zed By: RD		
		CCVs	CCVs	CCVs	Percent			
		True	Found	Percent	Recovery	Date		
Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed		
	uMHOS/cm	1410	1360	96	90 - 110	2008-11-14		
	Date	Analyzed: 20	08-11-14		Analys	zed By: RD		
	ICVs	ICVs		ICVs	Percent			
	True	Found		Percent	Recovery	Date		
Units	Conc.	Conc.		Recovery	Limits	Analyzed		
mg/L	12.5	12.1		97	90 - 110	2008-11-14		
	Flag	Date Flag Units uMHOS/cm Date Flag Units uMHOS/cm Date	Date Analyzed: 20 ICVs True Flag Units Conc. uMHOS/cm 1410 Date Analyzed: 20 CCVs True Flag Units Conc. uMHOS/cm 1410 Date Analyzed: 20 ICVs ICVs ICVs ICVs ICVs	Date Analyzed: 2008-11-14 ICVs ICVs True Found Flag Units Conc. Conc. UMHOS/cm 1410 1440	Date Analyzed: 2008-11-14 ICVs ICVs ICVs ICVs ICVs True Found Percent Recovery IMHOS/cm 1410 1440 102 ICVs ICV	Flag Result Units Dilution Amount Recovery 62.2 mg/L 1 60.0 104 Date Analyzed: 2008-11-14 Analyzed: 2008-11-14 Analyzed: Percent Recovery Flag Units Conc. Conc. Recovery Limits Limits uMHOS/cm 1410 1440 102 90 - 110 Date Analyzed: 2008-11-14 Analyzed: Percent Recovery Flag Units Conc. Conc. Recovery Limits uMHOS/cm 1410 1360 96 90 - 110 Date Analyzed: 2008-11-14 Analyzed: Analyzed: 2008-11-14 Analyzed: 2008-11-14		

Standard (CCV-1)

Param

Sulfate

QC Batch: 54251

Flag

Units

mg/L

Date Analyzed: 2008-11-14

ICVs

Found

Conc.

12.2

ICVs

Percent

Recovery

98

Percent

Recovery

Limits

90 - 110

Date

Analyzed

2008-11-14

Analyzed By: RD

ICVs

True

Conc.

12.5

Work Order: 8110902 GW Sampling Page Number: 71 of 71 NM-SWD Station #11, Lea Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.2	98	90 - 110	2008-11-14

Standard (CCV-1)

QC Batch: 54251

Date Analyzed: 2008-11-14

Analyzed By: RD

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		$_{ m mg/L}$	12.5	12.4	99	90 - 110	2008-11-14

Standard (ICV-1)

QC Batch: 54283

Date Analyzed: 2008-11-14

Analyzed By: RG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
pН		s.u.	7.00	7.16	102	98 - 102	2008-11-14

Standard (CCV-1)

QC Batch: 54283

Date Analyzed: 2008-11-14

Analyzed By: RG

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$\mathbf{U}_{ ext{nits}}$	Conc.	Conc.	Recovery	Limits	Analyzed
pН		s.u.	7.00	7.12	102	98 - 102	2008-11-14

7.01/01/18

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LAB Order ID

Frace Analysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suile 9 Lubbock, Texas 79424 Tel (805) 794-1296 Fax (806) 794-1298 1 (800) 378-1298

5002 Basin Street, Suite A1 Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313

200

0 East Sunset Rd., Suite El Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite Ft. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336

180

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Page

ANALYSIS REQUEST

3xrome vor's w/ lace Š 1x 500 mc 1p / Hivor, Dry Weight Basis Required Circle or Specify Method REMARKS: 58mp/e Moisture Content (HD)6SD 008 Pesticides 8081A / 608 PCB's 8082 / 608 GC/MS Semi. Vol. 8510C / 625 CC/W2 (01' 8560B / 624 TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles LAB USE TCLP Metals Ag As Ba Cd Cr Pb Se Hg XIZ O

Turn Around Time if different from standard

Total Metais Ag As Ba Cd Cr Pb Se Hg 6010B/200.7

TPH 418.1 / TX1005 / TX1005 Ext(C35) BTEX 8021B / 602 / 8260B / 624

8021B / 602 / 8260B / 624

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Ath.

RORUMCMING

88507-1518

Rosnell, AM

BOX 1518

Station

UMSMU

(If different from above)

Project #:

Invoice to:

Minn

MC 0

YORY

Contact Person

Project Name:

Sampler

B

Ġ

Project Location (including state):

575-622-8805

575-622-8800

Phone #:

B

Water Disposal

MexILO Salt

'on

Fax #:

Roswell, NM 88202

Bax 1213

Street, City, Zip)

E-mail 5/2/2

PAH 8270C / 625

MTBE

LIME

3TA

NONE

HOBN

OS2H

HNO3

HCI

ЯІА

SOIF **MATER**

Station

0MBM/ 1088

AB USE)

LAB#

1-10/10

NIMSWO STATIONA !!

13mg

803 NMSWD STELON #11 MW. 80 NMSWO STATION #

SCUDGE

Volume \ Amount

CONTAINERS

FIELD CODE

ICE

TPH 8015 GRO / DRO / TVHC

SAMPLING

PRESERVATIVE

METHOD

MATRIX

Ċ Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O.

7)

Check If Special Reporting Limits Are Needed TRRP Report Required

W/212

og-in-Review

20

9.30

11.5-08

Temp°c:

Time:

Date:

Company:

Received by:

Time:

Date:

Company

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Relinquished

Temp°c:

Time:

Date:

Company:

ģ

Received

Time:

Date:

Company

Temp²

Time:

Date:

Company:

Received by:

Time:

Company

Carrier # Follex 66757606976



6701 Aberdeen Avenue, Suite 9 200 East Sunset Road, Suite E 5002 Basin Street, Suite A1 6015 Harris Parkway, Suite 110

Lubbock, Texas 79424 El Paso, Texas 79922 Midland Texas 79703 Ft. Worth, Texas 76132

888 • 689 • 3440

915 * 585 * 3443 432 • 669 • 6301

FAX 806 • 794 • 1298 FAX 915 • 585 • 4944 FAX 432 • 689 • 6313

817 * 201 * 5260

E-Mail, lahs@traceanalysis.com

Certifications

WBENC: 237019

HUB:

1752439743100-86536

DBE: VN 20657

NCTRCA WFWB38444Y0909

LELAP-02002

NELAP Certifications

Lubbock: T104704219-08-TX

El Paso:

T104704221-08-TX

Midland: T104704392-08-TX

LELAP-02003 Kansas E-10317

Analytical and Quality Control Report

Rory McMinn

New Mexico Salt Water Disposal Co.

P. O. Box 1213

Roswell, NM, 88202

Report Date: November 21, 2008

Work Order: 8110902

NM-SWD Station #11, Lea Co., NM Project Location:

Project Name:

GW Sampling

Project Number:

NMSWD Station #11

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
178801	NMSWD Station #11 MW-3	water	2008-11-06	11:41	2008-11-08
178802	NMSWD Station #11 MW-1	water	2008-11-06	12.55	2008-11-08
178803	NMSWD Station #11 MW-2	water	2008-11-06	13:45	2008-11-08
178804	NMSWD Station #11 RW-1	water	2008-11-06	14:15	2008-11-08

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 94 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.

Michael april

Dr. Blair Leftwich, Director

Standard Flags

 $\, B \,$ - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project GW Sampling were received by TraceAnalysis, Inc. on 2008-11-08 and assigned to work order 8110902. Samples for work order 8110902 were received intact without headspace and at a temperature of 5.9 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
Ag, Dissolved	E 200.7
Ag, Total	E 200.7
Alkalinity	SM 2320B
As, Dissolved	E 200.7
As, Total	E 200.7
Ba, Dissolved	E 200.7
Ba, Total	E 200.7
Ca, Dissolved	E 200.7
Cd, Dissolved	E 200.7
Cd, Total	E 200.7
Chloride (IC)	E 300.0
Conductivity	E 120.1
Cr, Dissolved	E 200.7
Cr, Total	E 200.7
Hg, Dissolved	S 7470A
Hg, Total	E 245.2
K, Dissolved	E 200.7
Mg, Dissolved	E 200.7
Na, Dissolved	$\to 200.7$
Pb, Dissolved	E 200.7
Pb, Total	E 200.7
pН	SM 4500-H+
Se, Dissolved	E 200.7
Semivolatiles	$\to 625$
Se, Total	E 200.7
Si, Dissolved	E 200.7
Si, Total	E 200.7
SO4 (IC)	E 300.0
TDS	SM 2540C
TSS	SM 2540D
Volatiles	E 624

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8110902 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 5 of 94 NM-SWD Station #11, Lea Co., NM

Analytical Report

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Ag, Dissolved Analysis: QC Batch: 54521 46614 Prep Batch:

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: S 3005A Analyzed By: RRPrepared By:

RL

Parameter Flag Result Units Dilution RL< 0.00500 Dissolved Silver mg/L 0.00500

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Alkalinity Analysis: QC Batch: 54146 Prep Batch: 46320

Analytical Method: SM 2320B Date Analyzed: 2008-11-10 Sample Preparation: 2008-11-10

Prep Method: N/AAnalyzed By: Prepared By:

RG RG

RLFlag Result Units Parameter Dilution RLmg/L as CaCo3 Hydroxide Alkalinity < 1.001.00 1 Carbonate Alkalinity < 1.00 mg/L as CaCo3 1 1.00 Bicarbonate Alkalinity 218 mg/L as CaCo3 4.00 1 218 mg/L as CaCo3 Total Alkalinity 1 4.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: As, Dissolved QC Batch: 54521 Prep Batch: 46614

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By: KV

RL

Flag Result Units Dilution Parameter RL< 0.00500 Dissolved Arsenic mg/L 0.00500

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Ba. Dissolved Analysis: QC Batch: 54521 Prep Batch: 46614

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 6 of 94 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Barium		0.0220	${ m mg/L}$	1	0.0100

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

0

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Lubbock

46313

Ca, Dissolved Analysis: 54204 QC Batch: Prep Batch:

Analytical Method: Date Analyzed:

E 200.7 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: TP

RL

Prepared By: KV

Parameter Flag Result Units Dilution RLDissolved Calcium 65.3 mg/L 1.00 1

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Prep Batch:

Lubbock

46614

Analysis: QC Batch: Cd. Dissolved 54521

Analytical Method: Date Analyzed:

E 200.7 2008-11-21 Prep Method: N/AAnalyzed By: RR

Sample Preparation: 2008-11-21

Prepared By: KV

RLFlag Result Parameter Units Dilution RL< 0.00100 Dissolved Cadmium mg/L 0.00100

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

46350

Analysis: QC Batch: Prep Batch: Chloride (IC) 54171

Analytical Method: Date Analyzed:

E 300.0 2008-11-12 Prep Method: N/A Analyzed By: RD

Sample Preparation: 2008-11-11

Prepared By: RD

RLParameter Flag Result Units Dilution RL2343.00 Chloride mg/L50

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Prep Batch:

Lubbock

46408

Analysis: Conductivity QC Batch: 54245

Analytical Method: Date Analyzed: Sample Preparation:

E 120.1 2008-11-14 2008-11-11

Prep Method: N/AAnalyzed By: RD

RD

Prepared By:

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 7 of 94 NM-SWD Station #11, Lea Co., NM

RL

Parameter Flag Result Units Dilution RL1530uMHOS/cm 0.00 Specific Conductance

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Prep Batch: 46614

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Cr, Dissolved Analysis: QC Batch: 54521

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/AAnalyzed By: RRPrepared By: KV

RL

Result Parameter Flag Units Dilution RLDissolved Chromium 0.01500.00100 mg/L

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Hg, Dissolved Analysis: QC Batch: 54436 Prep Batch: 46545

Analytical Method: S 7470A Date Analyzed: 2008-11-19 Sample Preparation: 2008-11-19

Prep Method: N/A Analyzed By: TP Prepared By: TP

RL

Result Parameter Flag Units Dilution RL 0.000585Dissolved Mercury mg/L 0.000200

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: K, Dissolved OC Batch: 54204 Prep Batch: 46313

Analytical Method: $E_{200.7}$ Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: TP Prepared By: KV

RL

Flag Result Parameter Units Dilution RLDissolved Potassium 10.6mg/L1 1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Mg, Dissolved Analysis: QC Batch: 54204Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: TP Prepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 8 of 94 NM-SWD Station #11, Lea Co., NM

		RL	•		
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Magnesium		13.3	mg/L	1	1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: QC Batch:

Na, Dissolved

54204 Prep Batch: 46313

Analytical Method: Date Analyzed:

E 200.7

2008-11-13 Sample Preparation: 2008-11-11

Prep Method: S 3005A

Analyzed By: TP Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Sodium		332	mg/L	ō	1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: QC Batch:

Pb, Dissolved 54521

Analytical Method: Date Analyzed:

E 200.7 2008-11-21 Prep Method: N/AAnalyzed By: R.R.

Prep Batch: 46614 Sample Preparation: 2008-11-21 Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Dissolved Lead		< 0.00500	m mg/L	1	0.00500

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: рΗ QC Batch: 54283 Prep Batch: 46439

Analytical Method: SM 4500-H+ Date Analyzed: 2008-11-14 Sample Preparation: 2008-11-14

Prep Method: N/AAnalyzed By: RG Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	RL
pН		7.91	s.u.	1	0.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Se, Dissolved QC Batch: 5452146614 Prep Batch:

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By:

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 9 of 94 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	R.L
Dissolved Selenium		< 0.0100	m mg/L	1	0.0100

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

0

Analysis: Semivolatiles Analytical Method: E 625 Prep Method: N/A QC Batch: 54206 Date Analyzed: 2008-11-12 Analyzed By: DS Prep Batch: 46379 Sample Preparation: 2008-11-10 Prepared By: DS

		RL			
Parameter	· Flag	Result	Units	Dilution	RL
Pyridine		< 0.00458	mg/L	0.917	0.00500
N-Nitrosodimethylamine		< 0.00458	mg/L	0.917	0.00500
2-Picoline		< 0.00458	mg/L	0.917	0.00500
Methyl methanesulfonate		< 0.00458	m mg/L	0.917	0.00500
Ethyl methanesulfonate		< 0.00458	mg/L	0.917	0.00500
Phenol		< 0.00458	mg/L	0.917	0.00500
Aniline		< 0.00458	mg/L	0.917	0.00500
bis(2-chloroethyl)ether		< 0.00458	mg/L	0.917	0.00500
2-Chlorophenol		< 0.00458	m mg/L	0.917	0.00500
1,3-Dichlorobenzene (meta)		< 0.00458	mg/L	0.917	0.00500
1,4-Dichlorobenzene (para)		< 0.00458	mg/L	0.917	0.00500
Benzyl alcohol		< 0.00458	mg/L	0.917	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
2-Methylphenol		< 0.00458	mg/L	0.917	0.00500
bis(2-chloroisopropyl)ether		< 0.00458	${ m mg/L}$	0.917	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00458	mg/L	0.917	0.00500
N-Nitrosodi-n-propylamine		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Hexachloroethane		< 0.00458	mg/L	0.917	0.00500
Acetophenone		< 0.00458	${ m mg/L}$	0.917	0.00500
Nitrobenzene		< 0.00458	mg/L	0.917	0.00500
N-Nitrosopiperidine		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Isophorone		< 0.00458	mg/L	0.917	0.00500
2-Nitrophenol		< 0.00458	${ m mg/L}$	0.917	0.00500
2,4-Dimethylphenol		< 0.00458	${ m mg/L}$	0.917	0.00500
bis(2-chloroethoxy)methane		< 0.00458	${ m mg/L}$	0.917	0.00500
2,4-Dichlorophenol		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
1,2,4-Trichlorobenzene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Benzoic acid		< 0.00458	${ m mg/L}$	0.917	0.00500
Naphthalene		< 0.00458	${ m mg/L}$	0.917	0.00500
a,a-Dimethylphenethylamine		< 0.00458	${ m mg/L}$	0.917	0.00500
4-Chloroaniline		< 0.00458	mg/L	0.917	0.00500
2,6-Dichlorophenol		< 0.00917	m mg/L	0.917	0.0100
Hexachlorobutadiene		< 0.00458	$_{ m mg/L}$	0.917	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 10\ of\ 94} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178801 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
N-Nitroso-di-n-butylamine		< 0.00458	mg/L	0.917	0.00500
4-Chloro-3-methylphenol		< 0.00458	m mg/L	0.917	0.00500
2-Methylnaphthalene		< 0.00458	m mg/L	0.917	0.00500
1-Methylnaphthalene		< 0.00458	m mg/L	0.917	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00458	mg/L	0.917	0.00500
Hexachlorocyclopentadiene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
2,4,6-Trichlorophenol		< 0.00917	mg/L	0.917	0.0100
2,4,5-Trichlorophenol		< 0.00458	mg/L	0.917	0.00500
2-Chloronaphthalene		< 0.00458	mg/L	0.917	0.00500
1-Chloronaphthalene		< 0.00458	m mg/L	0.917	0.00500
2-Nitroaniline		< 0.00458	mg/L	0.917	0.00500
Dimethylphthalate		< 0.00458	mg/L	0.917	0.00500
Acenaphthylene		< 0.00458	m mg/L	0.917	0.00500
2,6-Dinitrotoluene		< 0.00458	mg/L	0.917	0.00500
3-Nitroaniline		< 0.00458	m mg/L	0.917	0.00500
Acenaphthene		< 0.00458	m mg/L	0.917	0.00500
2,4-Dinitrophenol		< 0.00458	mg/L	0.917	0.00500
Dibenzofuran		< 0.00458	mg/L	0.917	0.00500
Pentachlorobenzene		< 0.00458	m mg/L	0.917	0.00500
4-Nitrophenol	•	< 0.0229	mg/L	0.917	0.0250
2,4-Dinitrotoluene		< 0.00458	mg/L	0.917	0.00500
1-Naphthylamine		< 0.00458	mg/L	0.917	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00917	mg/L	0.917	0.0100
2-Naphthylamine		< 0.00458	m mg/L	0.917	0.00500
Fluorene		< 0.00458	mg/L	0.917	0.00500
4-Chlorophenyl-phenylether		< 0.00458	m mg/L	0.917	0.00500
Diethylphthalate		< 0.00458	mg/L	0.917	0.00500
4-Nitroaniline		< 0.00458	mg/L	0.917	0.00500
Diphenylhydrazine		< 0.00458	mg/L	0.917	0.00500
4,6-Dinitro-2-methylphenol		< 0.00458	m mg/L	0.917	0.00500
Diphenylamine		< 0.00458	${ m mg/L}$	0.917	0.00500
4-Bromophenyl-phenylether		< 0.00458	m mg/L	0.917	0.00500
Phenacetin		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Hexachlorobenzene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
4-Aminobiphenyl		< 0.00458	${ m mg/L}$	0.917	0.00500
Pentachlorophenol		< 0.00917	${ m mg/L}$	0.917	0.0100
Anthracene		< 0.00458	${ m mg/L}$	0.917	0.00500
Pentachloronitrobenzene		< 0.00458	m mg/L	0.917	0.00500
Pronamide		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Phenanthrene		< 0.00458	m mg/L	0.917	0.00500
Di-n-butylphthalate		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Fluoranthene		< 0.00458	m mg/L	0.917	0.00500
Benzidine		< 0.0229	mg/L	0.917	0.0250

continued ...

Work Order: 8110902 GW Sampling Page Number: 11 of 94 NM-SWD Station #11, Lea Co., NM

sample 178801 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyrene		< 0.00458	mg/L	0.917	0.00500
p-Dimethylaminoazobenzene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Butylbenzylphthalate		< 0.00458	m mg/L	0.917	0.00500
Benzo(a)anthracene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
3,3-Dichlorobenzidine		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Chrysene		< 0.00458	${ m mg/L}$	0.917	0.00500
bis(2-ethylhexyl)phthalate		< 0.00458	$\mathrm{mg/L}$.	0.917	0.00500
Di-n-octylphthalate		< 0.00458	m mg/L	0.917	0.00500
Benzo(b)fluoranthene		< 0.00458	${ m mg/L}$	0.917	0.00500
Benzo(k)fluoranthene		< 0.00458	${ m mg/L}$	0.917	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00458	m mg/L	0.917	0.00500
Benzo(a)pyrene		< 0.00458	${ m mg/L}$	0.917	0.00500
3-Methylcholanthrene		< 0.00458	$\mathrm{mg/L}$	0.917	0.00500
Dibenzo(a,j)acridine		< 0.00458	${ m mg/L}$	0.917	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00458	${ m mg/L}$	0.917	0.00500
Dibenzo(a,h)anthracene		< 0.00458	${ m mg/L}$	0.917	0.00500
Benzo(g,h,i)perylene		< 0.00458	mg/L_	0.917	0.00500

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	${f Amount}$	Recovery	Limits
2-Fluorophenol		0.0161	mg/L	0.917	0.0800	20	10 - 62.8
Phenol-d5		0.0125	mg/L	0.917	0.0800	16	10 - 41.3
Nitrobenzene-d5		0.0436	${ m mg/L}$	0.917	0.0800	54	25.4 - 115
2-Fluorobiphenyl		0.0442	${ m mg/L}$	0.917	0.0800	55	18.7 - 125
2,4,6-Tribromophenol		0.0409	${ m mg/L}$	0.917	0.0800	51	15.5 - 107
Terphenyl-d14		0.0616	${ m mg/L}$	0.917	0.0800	77	23.4 - 151

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analysis: Si, Dissolved Analytical Method: E 200.7 QC Batch: 54521 Date Analyzed: 2008-11-21 Prep Batch: 46614 Sample Preparation: 2008-11-21

Analytical Method: E 200.7 Prep Method: N/A
Date Analyzed: 2008-11-21 Analyzed By: RR
Sample Preparation: 2008-11-21 Prepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 12 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

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Lubbock

Si. Total Analysis: 54523 QC Batch:

Analytical Method: Date Analyzed:

E 200.7

2008-11-21

Prep Method: N/AAnalyzed By: RR

Prep Batch: 46344 Sample Preparation:

2008-11-12

Prepared By: KV

R.L

Parameter Total Silica Flag

Result Units 35.4 mg/L Dilution

1

RL0.0500

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: QC Batch: SO4 (IC) 54171

Analytical Method:

E 300.0

Prep Method:

N/A

Prep Batch:

46350

Date Analyzed: Sample Preparation:

2008-11-12 2008-11-11 Analyzed By: RD RD

RLResult

Prepared By:

Parameter Sulfate

Flag

446

Units mg/L Dilution 50

RL1.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

QC Batch:

Lubbock

Analysis:

TDS Analytical Method: 54184 Date Analyzed:

Flag

SM 2540C 2008-11-12

Prep Method: N/A Analyzed By:

RD

Prep Batch:

46362

Sample Preparation:

2008-11-11

Prepared By: RD

RL

Parameter Total Dissolved Solids Result 1122

Units mg/L

2

Dilution

RL

10.00

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory:

Lubbock

Analysis: QC Batch: Total 8 Metals 54162

Analytical Method: Date Analyzed: Sample Preparation:

E 245.2 2008-11-11 2008-11-11 Prep Method: N/AAnalyzed By: TP

Prep Batch:

46332

Lubbock

E 200.7

Prepared By: TP

Laboratory: Analysis:

54523

Total 8 Metals

Analytical Method: Date Analyzed: Sample Preparation:

2008-11-21 2008-11-12 Prep Method: N/A Analyzed By: R.R. Prepared By: KV

QC Batch: Prep Batch:

46344

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 13 of 94 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.00500	mg/L	1	0.00500
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	1	0.0100
Total Barium		0.0630	mg/L	1	0.00500
Total Cadmium		< 0.00200	${ m mg/L}$	1	0.00200
Total Chromium		0.0160	$\mathrm{mg/L}$	1	0.00500
Total Mercury		< 0.000200	$\mathrm{mg/L}$	1	0.000200
Total Lead		< 0.00500	m mg/L	1	0.00500
Total Selenium		< 0.0200	mg/L	1	0.0200

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock

Analytical Method: Analysis: TSS SM 2540D Prep Method: N/A Date Analyzed: QC Batch: 542742008-11-13 Analyzed By: RG Sample Preparation: Prep Batch: 46431 2008-11-12 Prepared By: RG

RLFlag Result Units Dilution RLParameter Total Suspended Solids 546 1.00 mg/L

Sample: 178801 - NMSWD Station #11 MW-3

Laboratory: Lubbock Analysis: Volatiles Analytical Method: E 624 QC Batch: 54142Date Analyzed: 2008-11-10 Prep Batch: 46318

Prep Method: N/A Analyzed By: KΒ Sample Preparation: 2008-11-10 Prepared By: KΒ

		RL			•
Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		<1.00	$\mu { m g/L}$	1	1.00
Dichlorodifluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloromethane (methyl chloride)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Vinyl Chloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromomethane (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichlorofluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acetone		< 10.0	$\mu { m g}/{ m L}$	1	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Carbon Disulfide		< 1.00	$\mu { m g}/{ m L}$	1 .	1.00
Acrylonitrile		<1.00	$\mu { m g}/{ m L}$	1	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
2-Hexanone	_	< 5.00	$\mu { m g}/{ m L}$	1	5.00

continued ...

Work Order: 8110902 GW Sampling Page Number: 14 of 94 NM-SWD Station #11, Lea Co., NM

sample 178801 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	R.L
trans 1,4-Dichloro-2-butene		<10.0	$\mu \mathrm{g/L}$	1	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Methylene chloride		< 5.00	$\mu { m g}/{ m L}$	1	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Benzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		<1.00	$\mu \mathrm{g/L}$	1	1.00

continued ...

Work Order: 8110902 GW Sampling

Page Number: 15 of 94 NM-SWD Station #11, Lea Co., NM

RR

KV

sample 178801 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
1,4-Dichlorobenzene (para)		<1.00	$\mu \mathrm{g/L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g/L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g/L}$	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.1	$\mu g/L$	1	50.0	104	86.7 - 111
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.8	$\mu { m g}/{ m L}$	1	50.0	98	72.4 - 112.2

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analytical Method: Analysis: Ag, Dissolved E 200.7 Prep Method: N/A Analyzed By: QC Batch: 54521Date Analyzed: 2008-11-21 Sample Preparation: Prep Batch: 46614 2008-11-21 Prepared By:

RLFlag Dilution Parameter Result Units RLDissolved Silver < 0.00500 mg/L 0.00500

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analytical Method: Analysis: Alkalinity SM 2320B Prep Method: N/AQC Batch: 54146 Date Analyzed: 2008-11-10 Analyzed By: RG Sample Preparation: Prep Batch: 46320 2008-11-10 Prepared By: RG

RLFlag Result Parameter Units Dilution RLHydroxide Alkalinity <1.00 mg/L as CaCo3 1.00 1 Carbonate Alkalinity < 1.00 mg/L as CaCo3 1.00 1

Work Order: 8110902 GW Sampling

Page Number: 16 of 94 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

		RL			
Parameter	Flag	Result	$\mathbf{U}\mathbf{nits}$	Dilution	RL
Bicarbonate Alkalinity		188	mg/L as CaCo3	1	4.00
Total Alkalinity		188	mg/L as CaCo3	1	4.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Prep Batch: 46614

Dissolved Arsenic

As, Dissolved Analysis: QC Batch: 54521

Analytical Method: $\to 200.7$ Date Analyzed: 2008-11-21

RL

< 0.00500

Prep Method: N/A Analyzed By: RR Sample Preparation: 2008-11-21 Prepared By: KV

1

FlagParameter Result

Units

mg/L

Dilution RL

0.00500

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Ba, Dissolved QC Batch: 54521 Prep Batch: 46614

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/AAnalyzed By: RRPrepared By: KV

RLFlag Result Units Dilution Parameter RLDissolved Barium 0.0200mg/L 0.0100 1

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Ca, Dissolved QC Batch: 54204 Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: TPPrepared By: KV

RLFlagResult Units Dilution Parameter RL64.4 Dissolved Calcium mg/L 1.00

46614

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 17 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Prep Batch:

• 1

1

0

Cd. Dissolved Analysis: QC Batch: 54521

Analytical Method:

E 200.7

Date Analyzed: Sample Preparation: 2008-11-21

Prep Method: N/A 2008-11-21

Analyzed By: RR. Prepared By: KV

RL

Result Flag Parameter Units Dilution RL< 0.00100Dissolved Cadmium mg/L0.00100

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: Chloride (IC) QC Batch: 54171 46350 Prep Batch:

Analytical Method: Date Analyzed:

Sample Preparation:

E 300.0 2008-11-12 2008-11-11 Prep Method: N/A Analyzed By: RD

Prepared By: R.D

RL

Flag Result Units Parameter Dilution RL325 Chloride mg/L 50 3.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Conductivity Analysis: QC Batch: 54245 Prep Batch: 46408

Analytical Method: E 120.1 Date Analyzed: 2008-11-14 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: RDPrepared By: RD

RL

Flag Parameter Result Units Dilution RLSpecific Conductance 1590 uMHOS/cm 0.00

Sample: 178802 - NMSWD Station #11 MW-1

Lubbock Laboratory:

Cr. Dissolved Analysis: QC Batch: 54521 Prep Batch: 46614

Analytical Method: $\to 200.7$ Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By: KV

RL

Parameter Flag Result Units Dilution RLDissolved Chromium 0.00200 $\overline{\mathrm{mg/L}}$ 0.00100

Work Order: 8110902 Report Date: November 21, 2008 Page Number: 18 of 94 GW Sampling NM-SWD Station #11, Lea Co., NM NMSWD Station #11 Sample: 178802 - NMSWD Station #11 MW-1 Laboratory: Lubbock Hg, Dissolved Analytical Method: S 7470A Prep Method: Analysis: 54436 Date Analyzed: QC Batch: 2008-11-19 Analyzed By: 46545 Sample Preparation: Prepared By: Prep Batch: 2008-11-19 RLResult Flag Units Dilution Parameter 0.000208Dissolved Mercury mg/L Sample: 178802 - NMSWD Station #11 MW-1 Laboratory: Lubbock Analysis: K. Dissolved Analytical Method: E 200.7 Prep Method: QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: Sample Preparation: Prep Batch: 46313 2008-11-11 Prepared By: RL Flag Result Dilution Parameter Units Dissolved Potassium 9.47mg/LSample: 178802 - NMSWD Station #11 MW-1 Lubbock Laboratory: Analysis: Mg, Dissolved Analytical Method: E 200.7 Prep Method: QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: Sample Preparation: 2008-11-11 Prep Batch: 46313 Prepared By: RLParameter Flag Result Units Dilution Dissolved Magnesium 16.3 mg/L Sample: 178802 - NMSWD Station #11 MW-1 Laboratory: Lubbock Analytical Method: Analysis: Na. Dissolved E 200.7 Prep Method: QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: Sample Preparation: Prep Batch: 46313 2008-11-11 Prepared By: RLParameter Flag Result Units Dilution Dissolved Sodium 334 mg/L 5

N/A

TP

TP

RL

N/A

TP

KV

RL

1.00

N/A

TP

KV

RL

1.00

N/A

TP

KV

RL

1.00

0.000200

0

0

9

0

1

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 19 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Prep Batch:

(

Lubbock Pb, Dissolved

Analysis: Pb, D QC Batch: 54521 Analytical Method: Date Analyzed:

E 200.7

Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21 Prep Method: N/A Analyzed By: RR

Prepared By: KV

RL

Parameter Flag
Dissolved Lead

46614

Result < 0.00500

Units mg/L Dilution

1

RL 0.00500

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Analysis: QC Batch: Prep Batch:

pH 54283 46439 Analytical Method: Date Analyzed:

Sample Preparation:

SM 4500-H+ 2008-11-14 2008-11-14 Prep Method: N/A Analyzed By: RG

Prepared By:

RG RG

RL

Parameter Flag

Result 7.89

Units s.u. Dilution

RL 0.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Prep Batch:

Lubbock

46614

Analysis: SQC Batch:

Se, Dissolved 54521

Analytical Method:
Date Analyzed:
Sample Preparation:

E 200.7 2008-11-21 2008-11-21

11-21 Ana

Prep Method: N/A Analyzed By: RR

Prepared By:

KV

meter Flag R

Parameter
Dissolved Selenium

| Result | <0.0100

RL

Units mg/L Dilution

RL 0.0100

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

46379

Analysis: QC Batch:

Prep Batch:

Semivolatiles 54206

Analytical Method: Date Analyzed:

Sample Preparation:

E 625

2008-11-12 2008-11-10 Prep Method: N/A

Analyzed By: DS Prepared By: DS

RL

Result Parameter Flag Units Dilution RLPyridine < 0.00465 mg/L 0.93 0.00500 N-Nitrosodimethylamine < 0.00465 mg/L0.93 0.00500

Work Order: 8110902 GW Sampling Page Number: 20 of 94 NM-SWD Station #11, Lea Co., NM

sample 178802 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
2-Picoline		< 0.00465	mg/L	0.93	0.00500
Methyl methanesulfonate		< 0.00465	mg/L	0.93	0.00500
Ethyl methanesulfonate		< 0.00465	mg/L	0.93	0.00500
Phenol		< 0.00465	mg/L	0.93	0.00500
Aniline		< 0.00465	mg/L	0.93	0.00500
bis(2-chloroethyl)ether		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
2-Chlorophenol		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
1,3-Dichlorobenzene (meta)		< 0.00465	${ m mg/L}$	0.93	0.00500
1,4-Dichlorobenzene (para)		< 0.00465	${ m mg/L}$	0.93	0.00500
Benzyl alcohol		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
2-Methylphenol		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
bis(2-chloroisopropyl) ether		< 0.00465	${ m mg/L}$	0.93	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00465	mg/L	0.93	0.00500
N-Nitrosodi-n-propylamine		< 0.00465	mg/L	0.93	0.00500
Hexachloroethane		< 0.00465	mg/L	0.93	0.00500
Acetophenone		< 0.00465	m mg/L	0.93	0.00500
Nitrobenzene		< 0.00465	mg/L	0.93	0.00500
N-Nitrosopiperidine		< 0.00465	mg/L	0.93	0.00500
Isophorone		< 0.00465	mg/L	0.93	0.00500
2-Nitrophenol		< 0.00465	mg/L	0.93	0.00500
2,4-Dimethylphenol		< 0.00465	m mg/L	0.93	0.00500
bis(2-chloroethoxy)methane		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
2,4-Dichlorophenol		< 0.00465	m mg/L	0.93	0.00500
1,2,4-Trichlorobenzene		< 0.00465	m mg/L	0.93	0.00500
Benzoic acid		< 0.00465	mg/L	0.93	0.00500
Naphthalene		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
a,a-Dimethylphenethylamine		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
4-Chloroaniline		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
2,6-Dichlorophenol		< 0.00930	${ m mg/L}$	0.93	0.0100
Hexachlorobutadiene		< 0.00465	${ m mg/L}$	0.93	0.00500
N-Nitroso-di-n-butylamine		< 0.00465	${ m mg/L}$	0.93	0.00500
4-Chloro-3-methylphenol		< 0.00465	${ m mg/L}$	0.93	0.00500
2-Methylnaphthalene		< 0.00465	${ m mg/L}$	0.93	0.00500
1-Methylnaphthalene		< 0.00465	${ m mg/L}$	0.93	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00465	${ m mg/L}$	0.93	0.00500
Hexachlorocyclopentadiene		< 0.00465	${ m mg/L}$	0.93	0.00500
2,4,6-Trichlorophenol		< 0.00930	${ m mg/L}$	0.93	0.0100
2,4,5-Trichlorophenol		< 0.00465	${ m mg/L}$	0.93	0.00500
2-Chloronaphthalene		< 0.00465	${ m mg/L}$	0.93	0.00500
1-Chloronaphthalene		< 0.00465	${ m mg/L}$	0.93	0.00500
2-Nitroaniline		< 0.00465	m mg/L	0.93	0.00500
Dimethylphthalate		< 0.00465	mg/L	0.93	0.00500

Work Order: 8110902 GW Sampling Page Number: 21 of 94 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Acenaphthylene		< 0.00465	mg/L	0.93	0.00500
2,6-Dinitrotoluene		< 0.00465	m mg/L	0.93	0.00500
3-Nitroaniline		< 0.00465	mg/L	0.93	0.00500
Acenaphthene		< 0.00465	$_{ m mg/L}$	0.93	0.00500
2,4-Dinitrophenol		< 0.00465	mg/L	0.93	0.00500
Dibenzofuran		< 0.00465	m mg/L	0.93	0.00500
Pentachlorobenzene		< 0.00465	m mg/L	0.93	0.00500
4-Nitrophenol		< 0.0232	m mg/L	0.93	0.0250
2,4-Dinitrotoluene		< 0.00465	mg/L	0.93	0.00500
1-Naphthylamine		< 0.00465	m mg/L	0.93	0.00500
2,3,4,6-Tetrachlorophenol	*	< 0.00930	mg/L	0.93	0.0100
2-Naphthylamine		< 0.00465	m mg/L	0.93	0.00500
Fluorene		< 0.00465	mg/L	0.93	0.00500
4-Chlorophenyl-phenylether		< 0.00465	m mg/L	0.93	0.00500
Diethylphthalate		< 0.00465	mg/L	0.93	0.00500
4-Nitroaniline		< 0.00465	m mg/L	0.93	0.00500
Diphenylhydrazine		< 0.00465	mg/L	0.93	0.00500
4,6-Dinitro-2-methylphenol		< 0.00465	$_{ m mg/L}$	0.93	0.00500
Diphenylamine		< 0.00465	m mg/L	0.93	0.00500
4-Bromophenyl-phenylether		< 0.00465	mg/L	0.93	0.00500
Phenacetin		< 0.00465	$_{ m mg/L}$	0.93	0.00500
Hexachlorobenzene		< 0.00465	$_{ m mg/L}$	0.93	0.00500
4-Aminobiphenyl	•	< 0.00465	mg/L	0.93	0.00500
Pentachlorophenol		< 0.00930	$_{ m mg/L}$	0.93	0.0100
Anthracene		< 0.00465	mg/L	0.93	0.00500
Pentachloronitrobenzene		< 0.00465	mg/L	0.93	0.00500
Pronamide		< 0.00465	$_{ m mg/L}$	0.93	0.00500
Phenanthrene		< 0.00465	$_{ m mg/L}$	0.93	0.00500
Di-n-butylphthalate		< 0.00465	mg/L	0.93	0.00500
Fluoranthene		< 0.00465	$_{ m mg/L}$	0.93	0.00500
Benzidine		< 0.0232	$_{ m mg/L}$	0.93	0.0250
Pyrene		< 0.00465	m mg/L	0.93	0.00500
p-Dimethylaminoazobenzene		< 0.00465	${ m mg/L}$	0.93	0.00500
Butylbenzylphthalate		< 0.00465	mg/L	0.93	0.00500
Benzo(a)anthracene		< 0.00465	mg/L	0.93	0.00500
3,3-Dichlorobenzidine		< 0.00465	m mg/L	0.93	0.00500
Chrysene		< 0.00465	m mg/L	0.93	0.00500
bis(2-ethylhexyl)phthalate		< 0.00465	$\mathrm{mg/L}$	0.93	0.00500
Di-n-octylphthalate		< 0.00465	m mg/L	0.93	0.00500
Benzo(b)fluoranthene		< 0.00465	m mg/L	0.93	0.00500
Benzo(k)fluoranthene		< 0.00465	mg/L	0.93	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00465	m mg/L	0.93	0.00500
Benzo(a)pyrene		< 0.00465	${ m mg/L}$	0.93	0.00500

Work Order: 8110902 GW Sampling

Page Number: 22 of 94 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
3-Methylcholanthrene		< 0.00465	mg/L	0.93	0.00500
Dibenzo(a,j)acridine		< 0.00465	mg/L	0.93	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00465	mg/L	0.93	0.00500
Dibenzo(a,h)anthracene		< 0.00465	mg/L	0.93	0.00500
Benzo(g,h,i)perylene		< 0.00465	mg/L	0.93	0.00500

					$_{ m Spike}$	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	${ m Amount}$	Recovery	Limits
2-Fluorophenol		0.0229	mg/L	0.93	0.0800	29	10 - 62.8
Phenol-d5		0.0174	$_{ m mg/L}$	0.93	0.0800	22	10 - 41.3
Nitrobenzene-d5		0.0568	mg/L	0.93	0.0800	71	25.4 - 115
2-Fluorobiphenyl		0.0591	$\mathrm{mg/L}$	0.93	0.0800	74	18.7 - 125
2,4,6-Tribromophenol		0.0465	$\mathrm{mg/L}$	0.93	0.0800	58	15.5 - 107
Terphenyl-d14		0.0635	mg/L	0.93	0.0800	79	23.4 - 151

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Si, Dissolved

Analysis: QC Batch: 54521 Analytical Method: Date Analyzed:

E 200.7 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By: KV

Prep Batch: 46614

Parameter

Dissolved Silica

Sample Preparation: 2008-11-21

RLResult Units Dilution RL14.2mg/L 0.0500

Sample: 178802 - NMSWD Station #11 MW-1

Flag

Laboratory: Lubbock

Analysis: Si, Total 54523QC Batch: Prep Batch: 46344

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-12

Prep Method: N/A Analyzed By: RRPrepared By: KV

RLParameter Flag Result Units Dilution RLTotal Silica 18.7mg/L 0.0500

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 23 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

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Lubbock

Analysis: QC Batch: Prep Batch:

SO4 (IC) 5417146350

Analytical Method: Date Analyzed:

E 300.0

2008-11-12 2008-11-11

Prep Method: N/A Analyzed By: RD

Sample Preparation:

Prepared By: RD

RL

Parameter Flag Sulfate

Result Units 385 mg/L

RLDilution 50 1.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Analysis: QC Batch: TDS 54184

Analytical Method: Date Analyzed:

SM 2540C 2008-11-12 Prep Method: Analyzed By:

N/ARD

Prep Batch: 46362 Sample Preparation:

2008-11-11

Prepared By: RD

RL

Parameter Flag Result Units Total Dissolved Solids 1154mg/L Dilution RL10.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory:

Lubbock

Analysis: Total 8 Metals QC Batch:

5416246332

Date Analyzed: Sample Preparation:

Analytical Method:

E 245.2 2008-11-11 2008-11-11 Prep Method: N/A Analyzed By: TP

Prepared By: TP

Prep Batch: Laboratory: Analysis:

Lubbock

Total 8 Metals QC Batch: 54523Prep Batch: 46344

Analytical Method: Date Analyzed:

E 200.7 2008-11-21

2008-11-12

Prep Method: N/AAnalyzed By: RRPrepared By: KV

RL

Sample Preparation:

Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.00500	mg/L	1	0.00500
Total Arsenic		< 0.0100	$\mathrm{mg/L}$	1	0.0100
Total Barium		0.0280	$\mathrm{mg/L}$	1	0.00500
Total Cadmium		< 0.00200	mg/L	1	0.00200
Total Chromium		< 0.00500	mg/L	1	0.00500
Total Mercury		< 0.000200	mg/L	1	0.000200
Total Lead		< 0.00500	m mg/L	1	0.00500
Total Selenium		< 0.0200	mg/L	11	0.0200

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 24 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

Analysis: TSS QC Batch: 54274 Prep Batch: 46431 Analytical Method: SM 2540D Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-12

Prep Method: N/A Analyzed By: RG Prepared By: RG

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Suspended Solids		414	mg/L	1	1.00

Sample: 178802 - NMSWD Station #11 MW-1

Laboratory: Lubbock

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Analysis: Volatiles QC Batch: 54142 Prep Batch: 46318 Analytical Method: E 624
Date Analyzed: 2008-11-10
Sample Preparation: 2008-11-10

Prep Method: N/A Analyzed By: KB Prepared By: KB

RL Parameter Flag Result Units Dilution RLBromochloromethane < 1.00 $\mu g/L$ 1 1.00 Dichlorodifluoromethane < 1.00 $\mu g/L$ 1 1.00 Chloromethane (methyl chloride) $\mu g/L$ < 1.001 1.00 Vinvl Chloride < 1.00 $\mu g/L$ 1.00 1 Bromomethane (methyl bromide) < 5.00 $\mu g/L$ 1 5.00 Chloroethane < 1.00 $\mu \mathrm{g/L}$ 1 1.00 Trichlorofluoromethane < 1.00 $\mu g/L$ 1 1.00 Acetone < 10.0 $\mu g/L$ 1 10.0 Iodomethane (methyl iodide) < 5.00 $\mu \mathrm{g/L}$ 1 5.00 Carbon Disulfide < 1.00 $\mu g/L$ 1 1.00 Acrylonitrile < 1.00 $\mu g/L$ 1.00 1 2-Butanone (MEK) < 5.00 $\mu g/L$ 1 5.00 4-Methyl-2-pentanone (MIBK) $\mu \mathrm{g/L}$ < 5.001 5.00 2-Hexanone < 5.00 $\mu \mathrm{g/L}$ 1 5.00trans 1,4-Dichloro-2-butene < 10.0 $\mu \mathrm{g/L}$ 1 10.0 1,1-Dichloroethene < 1.00 $\mu g/L$ 1 1.00 Methylene chloride $\mu \mathrm{g/L}$ < 5.00 1 5.00 MTBE < 1.00 $\mu g/L$ 1 1.00 trans-1,2-Dichloroethene < 1.00 $\mu \mathrm{g}/\mathrm{L}$ 1.00 1 1,1-Dichloroethane < 1.00 $\mu g/L$ 1 1.00 cis-1,2-Dichloroethene < 1.00 $\mu g/L$ 1 1.00 2,2-Dichloropropane < 1.00 $\mu g/L$ 1 1.00 1,2-Dichloroethane (EDC) < 1.00 $\mu g/L$ 1 1.00 Chloroform < 1.00 $\mu g/L$ 1 1.00 1,1,1-Trichloroethane < 1.00 $\mu g/L$ 1 1.00 1,1-Dichloropropene < 1.00 $\mu \mathrm{g/L}$ 1 1.00

continued ...

Work Order: 8110902 GW Sampling

Page Number: 25 of 94 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		<1.00	$\mu \mathrm{g/L}$	 1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g/L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	1	5.00

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 26 of 94 NM-SWD Station #11, Lea Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.4	$\mu { m g/L}$	1	50.0	105	86.7 - 111
Toluene-d8		51.6	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.3	$\mu { m g/L}$	1	50.0	97	72.4 - 112.2

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: Ag, Dissolved

QC Batch: 54521 Prep Batch: 46614 Analytical Method: E 200.7 Date Analyzed: 2008-11-21

Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RR Prepared By: KV

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: Alkalinity QC Batch: 54146 Prep Batch: 46320 Analytical Method: SM 2320B Date Analyzed: 2008-11-10 Sample Preparation: 2008-11-10

Prep Method: N/A Analyzed By: RG Prepared By: RG

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		208	mg/L as CaCo3	1	4.00
Total Alkalinity		208	mg/L as CaCo3	1	4.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: As, Dissolved QC Batch: 54521 Prep Batch: 46614 Analytical Method: E 200.7
Date Analyzed: 2008-11-21
Sample Preparation: 2008-11-21

Prep Method: N/A
Analyzed By: RR
Prepared By: KV

Report Date: November 21, 2008 Work Order: 8110902 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: Ba, Dissolved Analytical Method: E 200.7 Analysis: Date Analyzed: QC Batch: 54521 2008-11-21 Sample Preparation: 2008-11-21 Prep Batch: 46614 0 RLResult Units Dilution Parameter Flag 0 Dissolved Barium 0.0200 mg/L Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock **(** Ca, Dissolved Analytical Method: Analysis: $\to 200.7$ QC Batch: 54204 Date Analyzed: 2008-11-13 Sample Preparation: Prep Batch: 46313 2008-11-11 RLResult Parameter Flag Units Dilution 54.5Dissolved Calcium mg/L 0 Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Cd, Dissolved Analytical Method: E 200.7 Analysis: 54521 Date Analyzed: QC Batch: 2008-11-21 Prep Batch: Sample Preparation: 46614 2008-11-21 0 RLParameter Flag Result Units Dilution Dissolved Cadmium < 0.00100 mg/L Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: Analysis: Chloride (IC) Analytical Method: E 300.0 Date Analyzed: OC Batch: 54171 2008-11-12 Sample Preparation: Prep Batch: 46350 2008-11-11 RLResult Parameter Flag Units Dilution • Chloride 241mg/L

Page Number: 27 of 94

Prep Method: N/A

RR

RL

0.0100

N/A

TP

KV

RL

1.00

N/A

RR

KV

RL

0.00100

N/A

RD

RD

RL

3.00

Analyzed By:

Prepared By:

Prep Method:

Analyzed By:

Prepared By:

Prep Method:

Analyzed By:

Prepared By:

Prep Method:

Analyzed By:

Prepared By:

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Parameter

Dissolved Potassium

Work Order: 8110902 Page Number: 28 of 94 Report Date: November 21, 2008 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Analysis: Conductivity Analytical Method: E 120.1 Prep Method: N/A QC Batch: 54245Date Analyzed: 2008-11-14Analyzed By: RDSample Preparation: 2008-11-11 Prepared By: Prep Batch: 46408 R.D RLParameter Flag Result Units Dilution RL1350 Specific Conductance uMHOS/cm 0.00 Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Analytical Method: Analysis: Cr, Dissolved E 200.7 Prep Method: N/AQC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: R.R. Prep Batch: 46614 Sample Preparation: 2008-11-21 Prepared By: KVRLParameter Flag Result Units Dilution R.LDissolved Chromium < 0.00100 mg/L0.00100 Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Hg, Dissolved Analytical Method: Analysis: S 7470A Prep Method: N/A QC Batch: 54436 Date Analyzed: 2008-11-19 Analyzed By: TP Prep Batch: 46545 Sample Preparation: 2008-11-19 Prepared By: TPRLParameter Flag Result Units Dilution RL0.00161Dissolved Mercury mg/L 0.000200 Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: Analytical Method: Analysis: K, Dissolved $\to 200.7$ Prep Method: N/AQC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: TP Prep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: KV

> RL Result

> > 9.14

Units

mg/L

Dilution

RL

1.00

Flag

Report Date: November 21, 2008 Work Order: 8110902 Page Number: 29 of 94 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Mg, Dissolved Analytical Method: Prep Method: Analysis: E 200.7 QC Batch: 54204 Date Analyzed: 2008-11-13 Analyzed By: Sample Preparation: Prep Batch: 46313 2008-11-11 Prepared By: RL Parameter Flag Result Units Dilution Dissolved Magnesium 10.2mg/L 1 Sample: 178803 - NMSWD Station #11 MW-2 Lubbock Laboratory: Na, Dissolved Analytical Method: Analysis: E 200.7 Prep Method: 54204 QC Batch: Date Analyzed: 2008-11-13 Analyzed By: Prep Batch: 46313 Sample Preparation: 2008-11-11 Prepared By: RLFlag Result Parameter Units Dilution 309 Dissolved Sodium mg/L 5 Sample: 178803 - NMSWD Station #11 MW-2 Laboratory: Lubbock Analysis: Pb, Dissolved Analytical Method: E 200.7 Prep Method: QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: 46614 Sample Preparation: Prep Batch: 2008-11-21 Prepared By: RLFlag Parameter Result Units Dilution < 0.00500 Dissolved Lead mg/L Sample: 178803 - NMSWD Station #11 MW-2

N/A

TP

KV

R.L

1.00

N/A

TP

KV

RL

1.00

N/A

RR

KV

RL

0.00500

N/A

RG

Prep Method:

Analyzed By:

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Laboratory:

Analysis:

QC Batch:

Lubbock

рΗ

54283

Prep Batch:	46439	Sample Preparation:	2008-11-14	Prepared By:	RG
		RL			
Parameter	Flag	Result	Units	Dilution	RL
pH		7.68	s.u.	1	0.00

SM 4500-H+

2008-11-14

Analytical Method:

Date Analyzed:

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 30 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

9

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Lubbock

46614

Analysis: QC Batch: Prep Batch:

Se, Dissolved 54521

Analytical Method: Date Analyzed:

E 200.7

2008-11-21 Sample Preparation: 2008-11-21

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Prep Method: N/AAnalyzed By: RR

Prepared By: KV

RL

Parameter	Flag	Result	Units	Dilution	RL
Dissolved Selenium		< 0.0100	$\mathrm{mg/L}$	1	0.0100

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory:

Semivolatiles

Analytical Method:

E 625

Prep Method: N/AAnalyzed By:

DS DS

Lubbock

Analysis: QC Batch: Prep Batch:

54206 46379

Date Analyzed: Sample Preparation: 2008-11-10

2008-11-12

Prepared By:

		RL			
Parameter	Flag	Result	Units	Dilution	$^{\cdot}$ RL
Pyridine		< 0.00468	mg/L	0.935	0.00500
N-Nitrosodimethylamine		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
2-Picoline		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Methyl methanesulfonate		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Ethyl methanesulfonate		< 0.00468	${ m mg/L}$	0.935	0.00500
Phenol		< 0.00468	${ m mg/L}$	0.935	0.00500
Aniline		< 0.00468	m mg/L	0.935	0.00500
bis(2-chloroethyl)ether		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
2-Chlorophenol		< 0.00468	m mg/L	0.935	0.00500
1,3-Dichlorobenzene (meta)		< 0.00468	mg/L	0.935	0.00500
1,4-Dichlorobenzene (para)		< 0.00468	mg/L	0.935	0.00500
Benzyl alcohol		< 0.00468	${ m mg/L}$	0.935	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00468	${ m mg/L}$	0.935	0.00500
2-Methylphenol		< 0.00468	${ m mg/L}$	0.935	0.00500
bis(2-chloroisopropyl)ether		< 0.00468	${ m mg/L}$	0.935	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00468	${ m mg/L}$	0.935	0.00500
N-Nitrosodi-n-propylamine		< 0.00468	${ m mg/L}$	0.935	0.00500
Hexachloroethane		< 0.00468	${ m mg/L}$	0.935	0.00500
Acetophenone		< 0.00468	${ m mg/L}$	0.935	0.00500
Nitrobenzene		< 0.00468	${ m mg/L}$	0.935	0.00500
N-Nitrosopiperidine		< 0.00468	${ m mg/L}$	0.935	0.00500
Isophorone		< 0.00468	${ m mg/L}$	0.935	0.00500
2-Nitrophenol		< 0.00468	${ m mg/L}$	0.935	0.00500
2,4-Dimethylphenol		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
bis(2-chloroethoxy)methane	•	< 0.00468	${ m mg/L}$	0.935	0.00500
2,4-Dichlorophenol	_	< 0.00468	$\mathrm{mg/L}$	0.935	0.00500

 $continued \dots$

Work Order: 8110902 GW Sampling Page Number: 31 of 94 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

		RL			
Parameter	Flag	Result	Units	Dilution	RL
1,2,4-Trichlorobenzene		< 0.00468	mg/L	0.935	0.00500
Benzoic acid		< 0.00468	m mg/L	0.935	0.00500
Naphthalene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
a,a-Dimethylphenethylamine		< 0.00468	$_{ m mg/L}$	0.935	0.00500
4-Chloroaniline		< 0.00468	$_{ m mg/L}$	0.935	0.00500
2,6-Dichlorophenol		< 0.00935	m mg/L	0.935	0.0100
Hexachlorobutadiene		< 0.00468	m mg/L	0.935	0.00500
N-Nitroso-di-n-butylamine		< 0.00468	mg/L	0.935	0.00500
4-Chloro-3-methylphenol		< 0.00468	mg/L	0.935	0.00500
2-Methylnaphthalene		< 0.00468	mg/L	0.935	0.00500
1-Methylnaphthalene		< 0.00468	m mg/L	0.935	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00468	mg/L	0.935	0.00500
Hexachlorocyclopentadiene		< 0.00468	m mg/L	0.935	0.00500
2,4,6-Trichlorophenol		< 0.00935	mg/L	0.935	0.0100
2,4,5-Trichlorophenol		< 0.00468	m mg/L	0.935	0.00500
2-Chloronaphthalene		< 0.00468	mg/L	0.935	0.00500
1-Chloronaphthalene		< 0.00468	m mg/L	0.935	0.00500
2-Nitroaniline		< 0.00468	mg/L	0.935	0.00500
Dimethylphthalate		< 0.00468	mg/L	0.935	0.00500
Acenaphthylene		< 0.00468	mg/L	0.935	0.00500
2,6-Dinitrotoluene		< 0.00468	mg/L	0.935	0.00500
3-Nitroaniline		< 0.00468	mg/L	0.935	0.00500
Acenaphthene		< 0.00468	m mg/L	0.935	0.00500
2,4-Dinitrophenol		< 0.00468	mg/L	0.935	0.00500
Dibenzofuran		< 0.00468	mg/L	0.935	0.00500
Pentachlorobenzene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
4-Nitrophenol		< 0.0234	mg/L	0.935	0.0250
2,4-Dinitrotoluene		< 0.00468	m mg/L	0.935	0.00500
1-Naphthylamine		< 0.00468	mg/L	0.935	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00935	m mg/L	0.935	0.0100
2-Naphthylamine		< 0.00468	mg/L	0.935	0.00500
Fluorene		< 0.00468	m mg/L	0.935	0.00500
4-Chlorophenyl-phenylether		< 0.00468	m mg/L	0.935	0.00500
Diethylphthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
4-Nitroaniline		< 0.00468	${ m mg/L}$	0.935	0.00500
Diphenylhydrazine		< 0.00468	${ m mg/L}$	0.935	0.00500
4,6-Dinitro-2-methylphenol		< 0.00468	${ m mg/L}$	0.935	0.00500
Diphenylamine		< 0.00468	${ m mg/L}$	0.935	0.00500
4-Bromophenyl-phenylether		< 0.00468	${ m mg/L}$	0.935	0.00500
Phenacetin		< 0.00468	${ m mg/L}$	0.935	0.00500
Hexachlorobenzene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
4-Aminobiphenyl		< 0.00468	${ m mg/L}$	0.935	0.00500
Pentachlorophenol		< 0.00935	mg/L	0.935	0.0100

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Work Order: 8110902 **GW** Sampling

Page Number: 32 of 94 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Anthracene		< 0.00468	mg/L	0.935	0.00500
Pentachloronitrobenzene		< 0.00468	mg/L	0.935	0.00500
Pronamide		< 0.00468	mg/L	0.935	0.00500
Phenanthrene		< 0.00468	mg/L	0.935	0.00500
Di-n-butylphthalate		< 0.00468	mg/L	0.935	0.00500
Fluoranthene		< 0.00468	mg/L	0.935	0.00500
Benzidine		< 0.0234	mg/L	0.935	0.0250
Pyrene		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
p-Dimethylaminoazobenzene		< 0.00468	${ m mg/L}$	0.935	0.00500
Butylbenzylphthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(a)anthracene		< 0.00468	m mg/L	0.935	0.00500
3,3-Dichlorobenzidine		< 0.00468	$\mathrm{mg/L}$	0.935	0.00500
Chrysene		< 0.00468	${ m mg/L}$	0.935	0.00500
bis(2-ethylhexyl)phthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
Di-n-octylphthalate		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(b)fluoranthene		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(k)fluoranthene		< 0.00468	${ m mg/L}$	0.935	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(a)pyrene		< 0.00468	$_{ m mg/L}$	0.935	0.00500
3-Methylcholanthrene		< 0.00468	m mg/L	0.935	0.00500
Dibenzo(a,j)acridine		< 0.00468	${ m mg/L}$	0.935	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00468	${ m mg/L}$	0.935	0.00500
Dibenzo(a,h)anthracene		< 0.00468	${ m mg/L}$	0.935	0.00500
Benzo(g,h,i)perylene		< 0.00468	mg/L	0.935	0.00500

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorophenol	1	0.00110	mg/L	0.935	0.0800	1	10 - 62.8
Phenol-d5	2	0.00230	mg/L	0.935	0.0800	3	10 - 41.3
Nitrobenzene-d5	3	0.00690	mg/L	0.935	0.0800	9	25.4 - 115
2-Fluorobiphenyl		0.0208	${ m mg/L}$	0.935	0.0800	26	18.7 - 125
2,4,6-Tribromophenol		0.0380	${ m mg/L}$	0.935	0.0800	48	15.5 - 107
Terphenyl-d14		0.0664	mg/L	0.935	0.0800	83	23.4 - 151

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: Si, Dissolved Analytical Method: E 200.7 Prep Method: N/A QC Batch: 54521Date Analyzed: 2008-11-21 Analyzed By: RRPrep Batch: 46614 Sample Preparation: 2008-11-21 Prepared By:

¹8270 Only - Two acidic surrogates are out of control limits. The other acidic surrogate shows extraction was performed properly. ²8270 Only - Two acidic surrogates are out of control limits. The other acidic surrogate shows extraction was performed properly.
³8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

Report Date: November 21, 2008 NMSWD Station #11 F1Parameter Dissolved Silica Lubbock Laboratory: Si, Total Analysis: 54523QC Batch: Prep Batch: 46344 Parameter Flag Total Silica

Work Order: 8110902 GW Sampling

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RL

Sample: 178803 - NMSWD Station #11 MW-2

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-12

Prep Method: N/AAnalyzed By: RRPrepared By: KV

RLResult Units Dilution RL77.8 mg/L0.0500 1

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock Analysis: SO4 (IC)

QC Batch: 54171Prep Batch: 46350

Analytical Method: E 300.0 Date Analyzed: 2008-11-12 Sample Preparation:

Prep Method: N/AAnalyzed By: RD 2008-11-11 Prepared By: RD

RLFlag Result Units Dilution RLParameter 358 mg/L 1.00 Sulfate 50

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analysis: TDS QC Batch: 54184 Prep Batch: 46362 Analytical Method: SM 2540C Date Analyzed: 2008-11-12 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: RDPrepared By: RD

RLParameter Flag Result Units Dilution RLTotal Dissolved Solids 1018 mg/L 2 10.00

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 34 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analytical Method: Analysis: Total 8 Metals E 245.2 Prep Method: N/A 54162 Date Analyzed: QC Batch: 2008-11-11 Analyzed By: TP 46332 Sample Preparation: Prep Batch: 2008-11-11 Prepared By: TP

Lubbock Laboratory:

Total 8 Metals Analytical Method: E 200.7 Prep Method: N/A Analysis: Date Analyzed: 2008-11-21 QC Batch: 54523Analyzed By: RR46344 Sample Preparation: 2008-11-12 Prep Batch: Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Silver		< 0.00500	mg/L	1	0.00500
Total Arsenic		0.0610	mg/L	1	0.0100
Total Barium		0.682	mg/L	1	0.00500
Total Cadmium		< 0.00200	mg/L	1	0.00200
Total Chromium		0.148	m mg/L	1	0.00500
Total Mercury		< 0.000400	mg/L	2	0.000200
Total Lead		< 0.00500	m mg/L	1	0.00500
Total Selenium		< 0.0200	m mg/L	1	0.0200

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

TSS Analytical Method: Prep Method: N/A Analysis: SM 2540D QC Batch: 54274 Date Analyzed: 2008-11-13 Analyzed By: RG 46431 Sample Preparation: Prep Batch: 2008-11-12 Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Suspended Solids		7140	${ m mg/L}$	1	1.00

Sample: 178803 - NMSWD Station #11 MW-2

Laboratory: Lubbock

Analytical Method: Analysis: Volatiles E 624 Prep Method: N/A QC Batch: 54142 Date Analyzed: 2008-11-10 Analyzed By: KB Sample Preparation: Prep Batch: 46318 2008-11-10 Prepared By:

RL

Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		< 1.00	$\mu { m g/L}$	1	1.00
Dichlorodifluoromethane		< 1.00	$\mu { m g/L}$	1	1.00
Chloromethane (methyl chloride)	_	<1.00	$\mu { m g/L}$	1	1.00

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Work Order: 8110902 GW Sampling Page Number: 35 of 94 NM-SWD Station #11, Lea Co., NM

sample 178803 continued ...

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Vinyl Chloride		<1.00	$\mu \mathrm{g/L}$	1	1.00
Bromomethane (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichlorofluoromethane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Acetone		<10.0	$\mu { m g}/{ m L}$	1	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Carbon Disulfide		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acrylonitrile		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
2-Hexanone		< 5.00	$\mu { m g}/{ m L}$	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	$\mu { m g}/{ m L}$	1	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Methylene chloride		< 5.00	$\mu { m g}/{ m L}$	1	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Benzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		<1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		<1.00	$\mu { m g/L}$	ntinu ad	1.00

 $continued \dots$

Work Order: 8110902 GW Sampling Page Number: 36 of 94 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Styrene		<1.00	$\mu { m g/L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	1	5.00

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
Dibromofluoromethane		53.8	$\mu { m g/L}$	1	50.0	108	86.7 - 111
Toluene-d8		52.2	$\mu { m g}/{ m L}$	1	50.0	104	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.2	$\mu { m g}/{ m L}$	1	50.0	96	72.4 - 112.2

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Ag, Dissolved Analytical Method: E 200.7 Prep Method: N/A QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RRPrep Batch: 46614 Sample Preparation: 2008-11-21 Prepared By: KV

		RL	•		
Parameter	$\operatorname{Flag}_{\cdot}$	Result	Units	Dilution	RL
Dissolved Silver		< 0.00500	mg/L	1	0.00500

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 37 of 94 NM-SWD Station #11, Lea Co., NM

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

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Analysis: Alkalinity QC Batch: 54146 Prep Batch: 46320 Analytical Method: SM 2320B Date Analyzed: 2008-11-10 Sample Preparation: 2008-11-10

Prep Method: N/A Analyzed By: RG Prepared By: RG

RLFlag Result Units Parameter Dilution RLmg/L as CaCo3 Hydroxide Alkalinity < 1.00 1.00 1 mg/L as CaCo3 Carbonate Alkalinity < 1.00 1.00 1 mg/L as CaCo3 Bicarbonate Alkalinity 232 1 4.00232 mg/L as CaCo3 Total Alkalinity 1 4.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: As, Dissolved QC Batch: 54521 Prep Batch: 46614 Analytical Method: E 200.7
Date Analyzed: 2008-11-21
Sample Preparation: 2008-11-21

Prep Method: N/A
Analyzed By: RR
Prepared By: KV

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Ba, Dissolved QC Batch: 54521 Prep Batch: 46614 Analytical Method: E 200.7
Date Analyzed: 2008-11-21
Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RR Prepared By: KV

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Ca, Dissolved QC Batch: 54204 Prep Batch: 46313 Analytical Method: E 200.7
Date Analyzed: 2008-11-13
Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: TP Prepared By: KV

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 38 of 94 NM-SWD Station #11, Lea Co., NM

		RL
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Units Dilution RLParameter Flag 5810 1.00 Dissolved Calcium mg/L 50

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Prep Batch: 46614

Cd, Dissolved Analysis: QC Batch: 54521

Analytical Method: Date Analyzed:

E 200.7 2008-11-21 Sample Preparation: 2008-11-21

mg/L

Prep Method: N/AAnalyzed By: RRPrepared By: KV

RLParameter Flag Result Dissolved Cadmium < 0.00100

Units Dilution

RL0.00100

RD

0.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Chloride (IC) Analysis: QC Batch: 54251 Prep Batch: 46409

Analytical Method: E 300.0 Date Analyzed:

2008-11-14

Prep Method: N/AAnalyzed By: RD

Prepared By:

Sample Preparation: 2008-11-12

RL

81100

Units RLParameter Flag Result Dilution 51600mg/L 5000 Chloride 3.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Conductivity QC Batch: 54245 Prep Batch: 46408

Specific Conductance

Analytical Method: E 120.1 Date Analyzed: 2008-11-14 Sample Preparation: 2008-11-11

Prep Method: N/AAnalyzed By: RDPrepared By: RD

Result Parameter Flag

RL

Units

uMHOS/cm

Dilution RL

Sample: 178804 - NMSWD Station #11 RW-1

Lubbock Laboratory:

Analysis: Cr, Dissolved QC Batch: 54521Prep Batch: 46614

Analytical Method: $\to 200.7$ Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21

Prep Method: N/A Analyzed By: RRPrepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

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RL

Units Flag Result Dilution RLParameter < 0.00100 Dissolved Chromium mg/L 0.00100

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

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Hg, Dissolved Analysis: QC Batch: 54436 Prep Batch: 46545

Analytical Method: S 7470A Date Analyzed:

2008-11-19 Sample Preparation: 2008-11-19 Prep Method: N/AAnalyzed By: TP Prepared By: TP

RL

Parameter Flag Result Units Dilution RLDissolved Mercury 0.00105 mg/L 0.000200

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: K, Dissolved QC Batch: 54204 Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed:

2008-11-13 Sample Preparation: 2008-11-11 Prep Method: N/A Analyzed By: TP Prepared By: KV

Parameter Flag

R.LResult 157

Units mg/L Dilution RL5 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Mg, Dissolved QC Batch: 54204 Prep Batch: 46313

Dissolved Potassium

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: TP Prepared By: KV

RLParameter Flag Result Units Dilution RLDissolved Magnesium 719mg/L 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Na, Dissolved QC Batch: 54204 Prep Batch: 46313

Analytical Method: E 200.7 Date Analyzed: 2008-11-13 Sample Preparation: 2008-11-11

Prep Method: N/A Analyzed By: TP Prepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

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RL

Flag Units Parameter Result Dilution RL22200 Dissolved Sodium mg/L 500 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Pb, Dissolved Analysis: QC Batch: 54521 Prep Batch: 46614

Analytical Method: E 200.7 Date Analyzed:

2008-11-21 Sample Preparation: 2008-11-21 Prep Method: N/A Analyzed By: RR

Prepared By: ΚV

RL

Parameter Flag Result Units Dilution R.L< 0.00500 0.00500 Dissolved Lead mg/L 1

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: рΗ 54283 QC Batch: Prep Batch: 46439 Analytical Method: SM 4500-H+Date Analyzed: 2008-11-14 Sample Preparation: 2008-11-14

Prep Method: N/A Analyzed By: RGPrepared By: RG

RL

Flag Result Parameter Units Dilution RL \overline{Hq} 6.17 0.00 s.u.

Sample: 178804 - NMSWD Station #11 RW-1

Lubbock Laboratory:

Analysis: QC Batch:

Se, Dissolved

54521 Prep Batch: 46614 Analytical Method: Date Analyzed:

E 200.7 2008-11-21 Sample Preparation: 2008-11-21 Prep Method: N/A Analyzed By: R.R. Prepared By: ΚV

RL

Flag Parameter Result Units Dilution RLDissolved Selenium < 0.0100 mg/L 0.0100 1

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Semivolatiles QC Batch: 54206 Prep Batch: 46379

Analytical Method: E 625 Date Analyzed: 2008-11-12 Sample Preparation: 2008-11-10

Prep Method: N/AAnalyzed By: DS Prepared By: DS

Work Order: 8110902 GW Sampling Page Number: 41 of 94 NM-SWD Station #11, Lea Co., NM

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Pyridine		< 0.00461	mg/L	0.922	0.00500
N-Nitrosodimethylamine		< 0.00461	mg/L	0.922	0.00500
2-Picoline		< 0.00461	mg/L	0.922	0.00500
Methyl methanesulfonate		< 0.00461	mg/L	0.922	0.00500
Ethyl methanesulfonate		< 0.00461	m mg/L	0.922	0.00500
Phenol		< 0.00461	mg/L	0.922	0.00500
Aniline		< 0.00461	$^{}$ $^{-}$ $^{-}$	0.922	0.00500
bis(2-chloroethyl)ether		< 0.00461	$\frac{1-3}{mg/L}$	0.922	0.00500
2-Chlorophenol		< 0.00461	$_{ m mg/L}$	0.922	0.00500
1,3-Dichlorobenzene (meta)		< 0.00461	$\frac{1-3}{\mathrm{mg/L}}$	0.922	0.00500
1,4-Dichlorobenzene (para)		< 0.00461	mg/L	0.922	0.00500
Benzyl alcohol		< 0.00461	${ m mg/L}$	0.922	0.00500
1,2-Dichlorobenzene (ortho)		< 0.00461	m mg/L	0.922	0.00500
2-Methylphenol		< 0.00461	$_{ m mg/L}$	0.922	0.00500
bis(2-chloroisopropyl)ether		< 0.00461	$_{ m mg/L}$	0.922	0.00500
4-Methylphenol / 3-Methylphenol		< 0.00461	m mg/L	0.922	0.00500
N-Nitrosodi-n-propylamine		< 0.00461	$_{ m mg/L}$	0.922	0.00500
Hexachloroethane		< 0.00461	$_{ m mg/L}$	0.922	0.00500
Acetophenone		< 0.00461	mg/L	0.922	0.00500
Nitrobenzene		< 0.00461	m mg/L	0.922	0.00500
N-Nitrosopiperidine		< 0.00461	${ m mg/L}$	0.922	0.00500
Isophorone		< 0.00461	mg/L	0.922	0.00500
2-Nitrophenol		< 0.00461	mg/L	0.922	0.00500
2,4-Dimethylphenol		< 0.00461	mg/L	0.922	0.00500
bis(2-chloroethoxy)methane		< 0.00461	m mg/L	0.922	0.00500
2,4-Dichlorophenol		< 0.00461	m mg/L	0.922	0.00500
1,2,4-Trichlorobenzene		< 0.00461	mg/L	0.922	0.00500
Benzoic acid		< 0.00461	mg/L	0.922	0.00500
Naphthalene		< 0.00461	mg/L	0.922	0.00500
a,a-Dimethylphenethylamine		< 0.00461	mg/L	0.922	0.00500
4-Chloroaniline		< 0.00461	mg/L	0.922	0.00500
2,6-Dichlorophenol		< 0.00922	$\mathrm{mg/L}$	0.922	0.0100
Hexachlorobutadiene		< 0.00461	mg/L	0.922	0.00500
N-Nitroso-di-n-butylamine		< 0.00461	mg/L	0.922	0.00500
4-Chloro-3-methylphenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
2-Methylnaphthalene		< 0.00461	m mg/L	0.922	0.00500
1-Methylnaphthalene		< 0.00461	m mg/L	0.922	0.00500
1,2,4,5-Tetrachlorobenzene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Hexachlorocyclopentadiene		< 0.00461	$_{ m mg/L}$	0.922	0.00500
2,4,6-Trichlorophenol		< 0.00922	m mg/L	0.922	0.0100
2,4,5-Trichlorophenol		< 0.00461	m mg/L	0.922	0.00500
2-Chloronaphthalene		< 0.00461	mg/L	0.922	0.00500
1-Chloronaphthalene		< 0.00461	m mg/L	0.922	0.00500
2-Nitroaniline		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Dimethylphthalate		< 0.00461	mg/L	0.922	0.00500

continued ...

Work Order: 8110902 GW Sampling NMSWD Station #11

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sample 178804 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Acenaphthylene		< 0.00461	mg/L	0.922	0.00500
2,6-Dinitrotoluene		< 0.00461	mg/L	0.922	0.00500
3-Nitroaniline		< 0.00461	mg/L	0.922	0.00500
Acenaphthene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500°
2,4-Dinitrophenol		< 0.00461	mg/L	0.922	0.00500
Dibenzofuran		< 0.00461	${ m mg/L}$	0.922	0.00500
Pentachlorobenzene		< 0.00461	m mg/L	0.922	0.00500
4-Nitrophenol		< 0.0230	$\mathrm{mg/L}$	0.922	0.0250
2,4-Dinitrotoluene		< 0.00461	m mg/L	0.922	0.00500
1-Naphthylamine		< 0.00461	m mg/L	0.922	0.00500
2,3,4,6-Tetrachlorophenol		< 0.00922	mg/L	0.922	0.0100
2-Naphthylamine		< 0.00461	m mg/L	0.922	0.00500
Fluorene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
4-Chlorophenyl-phenylether		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Diethylphthalate		< 0.00461	m mg/L	0.922	0.00500
4-Nitroaniline		< 0.00461	mg/L	0.922	0.00500
Diphenylhydrazine		< 0.00461	m mg/L	0.922	0.00500
4,6-Dinitro-2-methylphenol		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Diphenylamine		< 0.00461	${ m mg/L}$	0.922	0.00500
4-Bromophenyl-phenylether		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Phenacetin		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Hexachlorobenzene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
4-Aminobiphenyl		< 0.00461	m mg/L	0.922	0.00500
Pentachlorophenol		< 0.00922	m mg/L	0.922	0.0100
Anthracene		< 0.00461	m mg/L	0.922	0.00500
Pentachloronitrobenzene		< 0.00461	mg/L	0.922	0.00500
Pronamide		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Phenanthrene		< 0.00461	m mg/L	0.922	0.00500
Di-n-butylphthalate		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Fluoranthene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzidine		< 0.0230	$\mathrm{mg/L}$	0.922	0.0250
Pyrene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
p-Dimethylaminoazobenzene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Butylbenzylphthalate		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(a)anthracene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
3,3-Dichlorobenzidine		< 0.00461	${ m mg/L}$	0.922	0.00500
Chrysene		< 0.00461	m mg/L	0.922	0.00500
bis(2-ethylhexyl)phthalate		< 0.00461	${ m mg/L}$	0.922	0.00500
Di-n-octylphthalate		< 0.00461	${ m mg/L}$	0.922	0.00500
Benzo(b)fluoranthene		< 0.00461	mg/L	0.922	0.00500
Benzo(k)fluoranthene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
7,12-Dimethylbenz(a)anthracene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(a)pyrene		< 0.00461	mg/L	0.922	0.00500

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NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 43 of 94 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

		RL			
Parameter	Flag	Result	Units	Dilution	RL
3-Methylcholanthrene		< 0.00461	mg/L	0.922	0.00500
Dibenzo(a,j)acridine		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Indeno(1,2,3-cd)pyrene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Dibenzo(a,h)anthracene		< 0.00461	$\mathrm{mg/L}$	0.922	0.00500
Benzo(g,h,i)perylene		< 0.00461	mg/L	0.922	0.00500

					Spike	Percent	Recovery
Surrogate	Flag	Result	$_{ m Units}$	Dilution	Amount	Recovery	Limits
2-Fluorophenol		0.00980	mg/L	0.922	0.0800	12	10 - 62.8
Phenol-d5		0.0111	${ m mg/L}$	0.922	0.0800	14	10 - 41.3
Nitrobenzene-d5	4	0.0198	${ m mg/L}$	0.922	0.0800	25	25.4 - 115
2-Fluorobiphenyl		0.0343	mg/L	0.922	0.0800	43	18.7 - 125
2,4,6-Tribromophenol		0.0516	mg/L	0.922	0.0800	64	15.5 - 107
Terphenyl-d14		0.0539	mg/L	0.922	0.0800	67	23.4 - 151

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Prep Batch: 46614

Analysis: Si, Dissolved 54521QC Batch:

Analytical Method: E 200.7 Date Analyzed: 2008-11-21 Sample Preparation: 2008-11-21 Prep Method: N/A Analyzed By: RRPrepared By: KV

RLParameter Flag Result Units Dilution RLDissolved Silica 33.6 mg/L 0.0500

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Si, Total QC Batch: 54523Prep Batch: 46344

Analytical Method: $\to 200.7$ Date Analyzed: Sample Preparation: 2008-11-12

Prep Method: N/A 2008-11-21 Analyzed By: RRPrepared By: KV

RLParameter Flag Result Units Dilution RL54.0Total Silica mg/L 0.0500

⁴8270 Only - One basic surrogate is out of control limits. The other two basic surrogates show extraction was performed properly.

NMSWD Station #11

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Work Order: 8110902 **GW** Sampling

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Sample: 178804 - NMSWD Station #11 RW-1

Lubbock Laboratory:

Analysis: SO4 (IC) QC Batch: 54251 Prep Batch: 46409

Analytical Method: Date Analyzed:

E 300.0 2008-11-14 Sample Preparation: 2008-11-12

Prep Method: Analyzed By: RD Prepared By: R,D

N/A

RL

Result Units Dilution Parameter Flag RL1270 Sulfate mg/L 50 1.00

Sample: 178804 - NMSWD Station #11 RW-1

Lubbock Laboratory:

Analysis: TDS QC Batch: 54362 Prep Batch: 46502

Analytical Method: Date Analyzed:

SM 2540C 2008-11-18 Prep Method: N/A Analyzed By: RD

Sample Preparation: 2008-11-17 Prepared By: R,D

RL

Flag Result Dilution Parameter Units RLTotal Dissolved Solids 43150 mg/L 50 10.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Total 8 Metals QC Batch: 54162 Prep Batch: 46332 Laboratory: Lubbock

Analytical Method: E 245.2 Date Analyzed: 2008-11-11 Sample Preparation: 2008-11-11 Analytical Method: E 200.7

Prep Method: N/A Analyzed By: TP Prepared By: TP

Analysis: Total 8 Metals QC Batch: 54523 Date Analyzed: 2008-11-21 Sample Preparation: Prep Batch: 46344 2008-11-12 Prep Method: N/AAnalyzed By: RRPrepared By: KV

RLParameter Flag Result Units Dilution RLTotal Silver < 0.00500 mg/L 1 0.00500 Total Arsenic 0.0170mg/L 1 0.0100 Total Barium 0.307mg/L 1 0.00500 Total Cadmium < 0.00200 mg/L 1 0.00200 Total Chromium 0.0460mg/L 1 0.00500 Total Mercury 0.000547mg/L 1 0.000200 Total Lead 0.0130mg/L 1 0.00500 Total Selenium < 0.0200 1 mg/L 0.0200

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: TSS QC Batch: 54274 Prep Batch: 46431

Analytical Method: Date Analyzed:

SM 2540D 2008-11-13 Sample Preparation: 2008-11-12

Prep Method: N/A Analyzed By: RG Prepared By: RG

RL

Parameter	Flag	Result	Units	Dilution	RL
Total Suspended Solids		450	mg/L	1	1.00

Sample: 178804 - NMSWD Station #11 RW-1

Laboratory: Lubbock

Analysis: Volatiles QC Batch: 54142 Prep Batch: 46318

Analytical Method: E 624 Date Analyzed:

2008-11-10 Sample Preparation: 2008-11-10 Prep Method: N/A Analyzed By: KΒ Prepared By: KB

		RL			
Parameter	Flag	Result	Units	Dilution	RL
Bromochloromethane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Dichlorodifluoromethane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Chloromethane (methyl chloride)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Vinyl Chloride		<1.00	$\mu { m g}/{ m L}$	1	1.00
Bromomethane (methyl bromide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Chloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichlorofluoromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acetone		<10.0	$\mu { m g}/{ m L}$	1	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Carbon Disulfide		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Acrylonitrile		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	1	5.00
2-Hexanone		< 5.00	$\mu { m g}/{ m L}$	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	$\mu { m g}/{ m L}$	1	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Methylene chloride		13.5	$\mu { m g}/{ m L}$	1	5.00
MTBE		<1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2,2-Dichloropropane		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloroethane (EDC)		<1.00	$\mu { m g}/{ m L}$	1	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1-Dichloropropene		<1:00	$\mu { m g}/{ m L}$	1	1.00

continued ...

Work Order: 8110902 GW Sampling Page Number: 46 of 94 NM-SWD Station #11, Lea Co., NM

sample 178804 continued . . .

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		RL			
Parameter	Flag	Result	Units	Dilution	RL
Benzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu { m g}/{ m L}$	1	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
trans-1,3-Dichloropropene		<1.00	$\mu { m g}/{ m L}$	1	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,3-Trichloropropane		<1.00	$\mu { m g}/{ m L}$	1	1.00
Isopropylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,3,5-Trimethylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
tert-Butylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
1,4-Dichlorobenzene (para)		<1.00	$\mu { m g}/{ m L}$	1	1.00
sec-Butylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,3-Dichlorobenzene (meta)		<1.00	$\mu { m g}/{ m L}$	1	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1	1.00
4-Chlorotoluene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1	1.00
n-Butylbenzene		<1.00	$\mu { m g}/{ m L}$	1	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	1	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g/L}$	1	5.00

Work Order: 8110902 GW Sampling Page Number: 47 of 94 NM-SWD Station #11, Lea Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.1	$\mu { m g/L}$	1	50.0	110	86.7 - 111
Toluene-d8		51.5	$\mu { m g}/{ m L}$	1	50.0	103	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		44.7	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	89	72.4 - 112.2

Method Blank (1)

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QC Batch: 54142

QC Batch: 54142 Prep Batch: 46318 Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10 Analyzed By: KB Prepared By: KB

		MDL		
Parameter	Flag	Result	$\mathbf{U}\mathbf{nits}$	RL
Bromochloromethane		< 0.197	$\mu { m g}/{ m L}$	1
Dichlorodifluoromethane		< 0.672	$\mu { m g}/{ m L}$	1
Chloromethane (methyl chloride)		< 0.542	$\mu \mathrm{g}/\mathrm{L}$	1
Vinyl Chloride		< 0.516	$\mu { m g}/{ m L}$	1
Bromomethane (methyl bromide)		< 0.446	$\mu { m g}/{ m L}$	5
Chloroethane		< 0.656	$\mu { m g}/{ m L}$	1
Trichlorofluoromethane		< 0.538	$\mu { m g}/{ m L}$	1
Acetone		< 1.10	$\mu { m g}/{ m L}$	10
Iodomethane (methyl iodide)		< 0.214	$\mu { m g}/{ m L}$	5
Carbon Disulfide		< 0.294	$\mu { m g}/{ m L}$	1
Acrylonitrile		< 0.442	$\mu { m g}/{ m L}$	1
2-Butanone (MEK)		< 0.420	$\mu { m g}/{ m L}$	5
4-Methyl-2-pentanone (MIBK)		< 0.407	$\mu { m g}/{ m L}$	5
2-Hexanone		< 0.486	$\mu { m g}/{ m L}$	5
trans 1,4-Dichloro-2-butene		< 0.463	$\mu { m g}/{ m L}$	10
1,1-Dichloroethene		< 0.237	$\mu { m g}/{ m L}$	1
Methylene chloride		< 0.312	$\mu { m g}/{ m L}$	5
MTBE		< 0.318	$\mu { m g}/{ m L}$	1
trans-1,2-Dichloroethene		< 0.217	$\mu { m g}/{ m L}$	1
1,1-Dichloroethane		< 0.202	$\mu { m g}/{ m L}$	1
cis-1,2-Dichloroethene		< 0.309	$\mu { m g}/{ m L}$	1
2,2-Dichloropropane	,	< 0.318	$\mu \mathrm{g}/\mathrm{L}$	1
1,2-Dichloroethane (EDC)		< 0.292	$\mu { m g}/{ m L}$	1
Chloroform		< 0.234	$\mu { m g}/{ m L}$	1
1,1,1-Trichloroethane		< 0.257	$\mu { m g}/{ m L}$	1
1,1-Dichloropropene		< 0.286	$\mu { m g}/{ m L}$	1
Benzene		< 0.319	$\mu { m g}/{ m L}$	1
Carbon Tetrachloride		< 0.223	$\mu { m g}/{ m L}$	1
1,2-Dichloropropane		< 0.266	$\mu { m g}/{ m L}$	1
Trichloroethene (TCE)		< 0.235	$\mu { m g}/{ m L}$	1
Dibromomethane (methylene bromide)		< 0.341	$\mu { m g}/{ m L}$	1
Bromodichloromethane		< 0.291	$\mu { m g}/{ m L}$	1
2-Chloroethyl vinyl ether		< 0.293	$\mu { m g}/{ m L}$	5

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Work Order: 8110902 GW Sampling Page Number: 48 of 94 NM-SWD Station #11, Lea Co., NM

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Parameter	Flag	Result	Units	RL
cis-1,3-Dichloropropene		<0.207	$\mu \mathrm{g/L}$	1
trans-1,3-Dichloropropene		< 0.293	$\mu \mathrm{g}/\mathrm{L}$	1
Toluene		< 0.268	$\mu { m g/L}$	1
1,1,2-Trichloroethane		< 0.329	$\mu \mathrm{g}/\mathrm{L}$	1
1,3-Dichloropropane		< 0.316	$\mu { m g/L}$	1
Dibromochloromethane		< 0.290	$\mu { m g}/{ m L}$	1
1,2-Dibromoethane (EDB)		< 0.229	$\mu { m g}/{ m L}$	1
Tetrachloroethene (PCE)		< 0.233	$\mu { m g}/{ m L}$	1
Chlorobenzene		< 0.276	$\mu { m g}/{ m L}$	1
1,1,1,2-Tetrachloroethane		< 0.226	$\mu { m g}/{ m L}$	1
Ethylbenzene		< 0.245	$\mu { m g}/{ m L}$	1
m,p-Xylene		< 0.517	$\mu { m g}/{ m L}$	1
Bromoform		< 0.175	$\mu { m g}/{ m L}$	1
Styrene		< 0.239	$\mu { m g}/{ m L}$	1
o-Xylene		< 0.247	$\mu { m g}/{ m L}$	1
1,1,2,2-Tetrachloroethane		< 0.223	$\mu { m g}/{ m L}$	1
2-Chlorotoluene		< 0.235	$\mu { m g}/{ m L}$	1
1,2,3-Trichloropropane		< 0.230	$\mu { m g}/{ m L}$	1
Isopropylbenzene		< 0.226	$\mu { m g}/{ m L}$	1
Bromobenzene		< 0.245	$\mu { m g}/{ m L}$	1
n-Propylbenzene		< 0.234	$\mu { m g}/{ m L}$	1
1,3,5-Trimethylbenzene		< 0.261	$\mu { m g}/{ m L}$	1
tert-Butylbenzene		< 0.281	$\mu { m g}/{ m L}$	1
1,2,4-Trimethylbenzene		< 0.285	$\mu { m g}/{ m L}$	1
1,4-Dichlorobenzene (para)		< 0.307	$\mu { m g}/{ m L}$	1
sec-Butylbenzene		< 0.312	$\mu { m g}/{ m L}$	1
1,3-Dichlorobenzene (meta)		< 0.284	$\mu { m g}/{ m L}$	1
p-Isopropyltoluene		< 0.244	$\mu { m g}/{ m L}$	1
4-Chlorotoluene		< 0.257	$\mu { m g}/{ m L}$	1
1,2-Dichlorobenzene (ortho)		< 0.294	$\mu { m g}/{ m L}$	1
n-Butylbenzene		< 0.339	$\mu { m g}/{ m L}$	1
1,2-Dibromo-3-chloropropane		< 0.780	$\mu { m g}/{ m L}$	5
1,2,3-Trichlorobenzene		< 0.736	$\mu { m g}/{ m L}$	5
1,2,4-Trichlorobenzene		< 0.432	$\mu \mathrm{g}/\mathrm{L}$	5
Naphthalene		< 0.475	$\mu \mathrm{g}/\mathrm{L}$	5
Hexachlorobutadiene	·	<1.02	$\mu \mathrm{g/L}$	5

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.1	$\mu { m g}/{ m L}$	1	50.0	108	86.7 - 111
Toluene-d8		52.2	$\mu { m g}/{ m L}$	1	50.0	104	86.1 - 117.4
4-Bromofluorobenzene (4-BFB)		48.1	$\mu { m g}/{ m L}$	1	50.0	96	72.4 - 112.2

Report Date: November NMSWD Station #11	er 21, 2008 Work Order: 8110902 GW Sampling		Page NM-SWD Station	Number: 49 of 94 #11, Lea Co., NM
Method Blank (1)	QC Batch: 54146			
QC Batch: 54146		Date Analyzed: 2008-11	-10 Aı	nalyzed By: RG
Prep Batch: 46320		QC Preparation: 2008-11		epared By: RG
		MDL		
Parameter	Flag		Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	· 1
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		< 4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4
Method Blank (1)	QC Batch: 54162			
QC Batch: 54162		Date Analyzed: 2008-11	-11 A	nalyzed By: TP
Prep Batch: 46332		QC Preparation: 2008-11		repared By: TP
		MDL		,
Parameter	Flag	Result	Units	RL
Total Mercury	Trag	<0.0000251	mg/L	0.0002
Method Blank (1) QC Batch: 54171 Prep Batch: 46350	QC Batch: 54171	Date Analyzed: 2008-11-QC Preparation: 2008-11-		nalyzed By: RD epared By: RD
110p 2 0001		-		opared by. Tub
Parameter	Flag	MDL Result	Units	RL
Chloride		<1.74	mg/L	3
Method Blank (1)	QC Batch: 54171			
QC Batch: 54171		Date Analyzed: 2008-11-	-12 Ar	nalyzed By: RD
Prep Batch: 46350		QC Preparation: 2008-11-	-11 Pr	epared By: RD
Danamatan	Flag	MDL Result	TT. the	DI
Parameter Sulfate	riag	<0.344	Units mg/L	RL 1
		V0.011	mg/ D	1
Method Blank (1)	QC Batch: 54184			
QC Batch: 54184		Date Analyzed: 2008-11-	-12 Ar	nalyzed By: RD
Prep Batch: 46362		QC Preparation: 2008-11-		epared By: RD

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Work Order: 8110902 GW Sampling Page Number: 50 of 94 NM-SWD Station #11, Lea Co., NM

NMSWD Station #11	GW Sam	pling	NM-SWD Station #11, Lea Co.,		
Parameter	Flag	MDL Result	Units	RL	
Total Dissolved Solids		< 5.000	mg/L	10	
Method Blank (1)	QC Batch: 54204				
QC Batch: 54204 Prep Batch: 46313	Date Analyzed: QC Preparation		Analyzed By Prepared By		
Parameter Dissolved Calcium	Flag	MDL Result <0.175	Units mg/L	RL 1	
			37		
Method Blank (1)	QC Batch: 54204				
QC Batch: 54204 Prep Batch: 46313	Date Analyzed: QC Preparation		Analyzed By Prepared By		
Parameter Dissolved Potassium	Flag	MDL Result <0.327	Units	RL	
Dissolved Potassium		<0.327	mg/L	1	
Method Blank (1)	QC Batch: 54204		•		
QC Batch: 54204 Prep Batch: 46313	Date Analyzed: QC Preparation	2008-11-13 a: 2008-11-11	Analyzed By Prepared By		
Parameter	Flag	MDL Result	Units	RL	
Dissolved Magnesium		<0.148	mg/L	1	
Method Blank (1)	QC Batch: 54204				
QC Batch: 54204 Prep Batch: 46313	Date Analyzed: QC Preparation		Analyzed By Prepared By		
Parameter	Flag	MDL Result	Units	RL	
Dissolved Sodium		< 0.244	mg/L	1	

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 51 of 94 NM-SWD Station #11, Lea Co., NM

Method Blank (1)

QC Batch: 54206

QC Batch: 54206 Prep Batch: 46379 Date Analyzed: 2008-11-12 QC Preparation: 2008-11-10 Analyzed By: DS Prepared By: DS

	MDL		
Parameter	Flag Result	Units	RL
Pyridine	< 0.00128	mg/L	0.005
N-Nitrosodimethylamine	< 0.00192	mg/L	0.005
2-Picoline	< 0.00132	m mg/L	0.005
Methyl methanesulfonate	< 0.00175	mg/L	0.005
Ethyl methanesulfonate	< 0.00122	mg/L	0.005
Phenol	< 0.00165	mg/L	0.005
Aniline	< 0.00138	mg/L	0.005
bis(2-chloroethyl)ether	< 0.00217	mg/L	0.005
2-Chlorophenol	< 0.00150	mg/L	0.005
1,3-Dichlorobenzene (meta)	< 0.00166	mg/L	0.005
1,4-Dichlorobenzene (para)	< 0.00156	m mg/L	0.005
Benzyl alcohol	0.00285	mg/L	0.005
1,2-Dichlorobenzene (ortho)	< 0.00164	mg/L	0.005
2-Methylphenol	< 0.00158	mg/L	0.005
bis(2-chloroisopropyl)ether	< 0.000828	mg/L	0.005
4-Methylphenol / 3-Methylphenol	< 0.00124	mg/L	0.005
N-Nitrosodi-n-propylamine	< 0.00127	mg/L	0.005
Hexachloroethane	< 0.00198	mg/L	0.005
Acetophenone	< 0.00127	mg/L	0.005
Nitrobenzene	< 0.00193	mg/L	0.005
N-Nitrosopiperidine	< 0.00120	mg/L	0.005
Isophorone	< 0.00194	mg/L	0.005
2-Nitrophenol	< 0.00140	mg/L	0.005
2,4-Dimethylphenol	< 0.00109	mg/L	0.005
bis(2-chloroethoxy)methane	< 0.00124	mg/L	0.005
2,4-Dichlorophenol	< 0.00134	mg/L	0.005
1,2,4-Trichlorobenzene	< 0.00193	mg/L	0.005
Benzoic acid	< 0.00304	$_{ m mg/L}$	0.005
Naphthalene	< 0.00165	m mg/L	0.005
a,a-Dimethylphenethylamine	< 0.000758	mg/L	0.005
4-Chloroaniline	< 0.00115	$\mathrm{mg/L}$	0.005
2,6-Dichlorophenol	< 0.00120	m mg/L	0.01
Hexachlorobutadiene	< 0.00184	m mg/E	0.005
N-Nitroso-di-n-butylamine	< 0.00169	$\mathrm{mg/L}$	0.005
4-Chloro-3-methylphenol	< 0.00120	m mg/L	0.005
2-Methylnaphthalene	< 0.00145	m mg/L	0.005
1-Methylnaphthalene	< 0.00155	m mg/L	0.005
1,2,4,5-Tetrachlorobenzene	< 0.00205	mg/L	0.005
Hexachlorocyclopentadiene	< 0.00385	$\mathrm{mg/L}$	0.005
2,4,6-Trichlorophenol	< 0.00152	$\mathrm{mg/L}$	0.01
2,4,5-Trichlorophenol	< 0.00320	mg/L	0.005

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Work Order: 8110902 GW Sampling Page Number: 52 of 94 NM-SWD Station #11, Lea Co., NM

D	Flor	MDL	TI:	DI
Parameter	Flag	Result	Units	RL
2-Chloronaphthalene		< 0.00168	mg/L	0.005
1-Chloronaphthalene		< 0.00181	mg/L	0.005
2-Nitroaniline		< 0.00169	mg/L	0.005
Dimethylphthalate		< 0.00178	mg/L	0.005
Acenaphthylene		< 0.00136	$_{ m mg/L}$	0.005
2,6-Dinitrotoluene		< 0.00139	mg/L	0.005
3-Nitroaniline		< 0.00124	mg/L	0.005
Acenaphthene		< 0.00132	mg/L	0.005
2,4-Dinitrophenol		< 0.00392	mg/L	0.005
Dibenzofuran		< 0.00161	mg/L	0.005
Pentachlorobenzene		< 0.00242	mg/L	0.005
4-Nitrophenol		< 0.00127	$\mathrm{mg/L}$	0.025
2,4-Dinitrotoluene		< 0.00139	m mg/L	0.005
1-Naphthylamine		< 0.00128	$\mathrm{mg/L}$	0.005
2,3,4,6-Tetrachlorophenol		< 0.00130	${ m mg/L}$	0.01
2-Naphthylamine		< 0.00154	$\mathrm{mg/L}$	0.005
Fluorene		< 0.00130	m mg/L	0.005
4-Chlorophenyl-phenylether	•	< 0.00173	mg/L	0.005
Diethylphthalate		< 0.00161	m mg/L	0.005
4-Nitroaniline		< 0.00101	mg/L	0.005
Diphenylhydrazine		< 0.00125	mg/L	0.005
4,6-Dinitro-2-methylphenol	•	< 0.00135	$_{ m mg/L}$	0.005
Diphenylamine		< 0.00159	m mg/L	0.005
4-Bromophenyl-phenylether		< 0.00187	mg/L	0.005
Phenacetin		< 0.00139	mg/L	0.005
Hexachlorobenzene		< 0.00238	mg/L	0.005
4-Aminobiphenyl		< 0.00134	mg/L	0.005
Pentachlorophenol		< 0.000632	mg/L	0.01
Anthracene		< 0.00152	mg/L	0.005
Pentachloronitrobenzene		< 0.00307	mg/L	0.005
Pronamide		< 0.00159	mg/L	0.005
Phenanthrene		< 0.00144	mg/L	0.005
Di-n-butylphthalate		< 0.00125	mg/L	0.005
Fluoranthene		< 0.00159	mg/L	0.005
Benzidine		< 0.000845	$\frac{mg}{L}$	0.025
Pyrene		< 0.00135	mg/L	0.005
p-Dimethylaminoazobenzene		< 0.000969	m mg/L	0.005
Butylbenzylphthalate		< 0.00110	$\frac{mg/L}{mg/L}$	0.005
Benzo(a)anthracene		<0.00118	mg/L mg/L	0.005
3,3-Dichlorobenzidine		< 0.00130	m mg/L	0.005
Chrysene		< 0.00146		0.003
omysene bis(2-ethylhexyl)phthalate			mg/L	
		<0.00108	mg/L	0.005
Di-n-octylphthalate		< 0.000892	mg/L	0.005
Benzo(b)fluoranthene		< 0.00126	mg/L	0.005

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Report Date: November 21, 2008

NMSWD Station #11

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Work Order: 8110902 GW Sampling

 $\begin{array}{c} {\rm Page\ Number:\ 53\ of\ 94} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

		MDL		
Parameter	Flag	Result	Units	RL
Benzo(k)fluoranthene		< 0.00149	m mg/L	0.005
7,12-Dimethylbenz(a)anthracene		< 0.00134	$\mathrm{mg/L}$	0.005
Benzo(a)pyrene		< 0.00155	$\mathrm{mg/L}$	0.005
3-Methylcholanthrene		< 0.00166	mg/L	0.005
Dibenzo(a,j)acridine		< 0.00201	$\mathrm{mg/L}$	0.005
Indeno(1,2,3-cd)pyrene		< 0.00195	$\mathrm{mg/L}$	0.005
Dibenzo(a,h)anthracene		< 0.00210	m mg/L	0.005
Benzo(g,h,i)perylene		< 0.00207	m mg/L	0.005

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	Amount	Recovery	Limits
2-Fluorophenol		0.0254	mg/L	1	0.0800	32	10 - 62.8
Phenol-d5		0.0186	mg/L	1	0.0800	23	10 - 41.3
Nitrobenzene-d5		0.0528	mg/L	1	0.0800	66	25.4 - 115
2-Fluorobiphenyl		0.0449	mg/L	1	0.0800	56	18.7 - 125
2,4,6-Tribromophenol		0.0410	$\mathrm{mg/L}$	1	0.0800	51	15.5 - 107
Terphenyl-d14		0.0618	mg/L	1	0.0800	77	23.4 - 151

Method Blank (1)

QC Batch: 54245

QC Batch: 54245 Prep Batch: 46408 Date Analyzed: 2008-1 QC Preparation: 2008-1

2008-11-14 2008-11-11 Analyzed By: RD Prepared By: RD

MDL
Parameter Flag Result Units RL
Specific Conductance 1.77 uMHOS/cm

Method Blank (1)

QC Batch: 54251

QC Batch: 54251 Prep Batch: 46409 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-12

Analyzed By: RD Prepared By: RD

Method Blank (1)

QC Batch: 54251

QC Batch: 54251 Prep Batch: 46409 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-12

Analyzed By: RD Prepared By: RD

Report Date: November 21, 2008 Work Order: 8110902 Page Number: 54 of 94 NMSWD Station #11 GW Sampling NM-SWD Station #11, Lea Co., NM MDL Parameter Flag Result Units RL< 0.344Sulfate mg/L 1 Method Blank (1) QC Batch: 54274 QC Batch: Date Analyzed: 2008-11-13 Analyzed By: 54274 RG Prep Batch: 46431 QC Preparation: 2008-11-12 Prepared By: MDL Result Units Parameter Flag RLTotal Suspended Solids <1.00 mg/L 1 Method Blank (1) QC Batch: 54362 QC Batch: Date Analyzed: Analyzed By: RD 54362 2008-11-18 Prep Batch: 46502 QC Preparation: Prepared By: 2008-11-17 MDL Parameter Flag Result Units RLTotal Dissolved Solids < 5.000 mg/L 10 Method Blank (1) QC Batch: 54436 QC Batch: Date Analyzed: 54436 2008-11-19 Analyzed By: TP Prep Batch: 46545 QC Preparation: 2008-11-19 Prepared By: TP MDL Flag Parameter Result Units RLDissolved Mercury < 0.0000251 mg/L0.0002 Method Blank (1) QC Batch: 54521 QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RR Prep Batch: 46614QC Preparation: 2008-11-21 Prepared By: KV MDL Flag Result Parameter Units R.LDissolved Silver < 0.000700 0.005 mg/L

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Report Date: November NMSWD Station #11	er 21, 2008	Work Order: 8110902 GW Sampling			Page Number: 55 of 94 NM-SWD Station #11, Lea Co., NM			
Method Blank (1)	QC Batch: 54521							
QC Batch: 54521 Prep Batch: 46614		Date Analyzed: QC Preparation:	2008-11-21 2008-11-21		Analyzed By: Prepared By:	RR KV		
			MDL					
Parameter	Flag		Result	Units		RL		
Dissolved Arsenic			0.00850	m mg/L		0.005		
Method Blank (1)	QC Batch: 54521							
QC Batch: 54521		Date Analyzed:	2008-11-21		Analyzed By:	RR		
Prep Batch: 46614		QC Preparation:	2008-11-21		Prepared By:	KV		
			MDL					
Parameter	Flag		Result	Units		RL		
Dissolved Barium		<	(0.00180	mg/L		0.01		
QC Batch: 54521 Prep Batch: 46614		Date Analyzed: QC Preparation:	2008-11-21 2008-11-21 MDL		Analyzed By: Prepared By:	RR KV		
Parameter	Flag		Result	Units		RL		
Dissolved Cadmium	2.700	<	<0.00110	mg/L		0.001		
Method Blank (1)	QC Batch: 54521							
QC Batch: 54521		Date Analyzed:	2008-11-21		Analyzed By:	RR		
Prep Batch: 46614		QC Preparation:	2008-11-21		Prepared By:	KV		
Parameter	Flag		MDL Result	Units		RL		
						0.001		
Parameter Dissolved Chromium Method Blank (1)	Flag QC Batch: 54521		Result <0.00200	Units mg/L				
QC Batch: 54521		Date Analyzed:	2008-11-21		Analyzed By:	RI		
Prep Batch: 46614		QC Preparation:	2008-11-21		Prepared By:	ΚV		

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Report Date: Novemb NMSWD Station #11	er 21, 2008	Work Order: 8110 GW Sampling			Page Number: 5 ion #11, Lea Co			
Parameter	Flag		DL sult	Units		RL		
Dissolved Lead	1 lag	< 0.00		mg/L		0.005		
Method Blank (1)	QC Batch: 54521							
QC Batch: 54521		•	008-11-21		Analyzed By:	RR		
Prep Batch: 46614		QC Preparation: 20	008-11-21		Prepared By:	KV		
			MDL					
Parameter	Flag		Result	Units		RL		
Dissolved Selenium		<0	.0106	$_{ m mg/L}$		0.01		
Method Blank (1)	QC Batch: 54521							
QC Batch: 54521		Date Analyzed: 20	008-11-21		Analyzed By:	RR		
Prep Batch: 46614		QC Preparation: 20	008-11-21		Prepared By:	KV		
			DL					
Parameter	Flag		sult	Units		RL		
Dissolved Silica		<0.0	186	m mg/L		0.05		
7.6 d. 1.70 1.7d.	OO Detab. 74700							
Method Blank (1)	QC Batch: 54523							
QC Batch: 54523		5	008-11-21		Analyzed By:	RR		
Prep Batch: 46344		QC Preparation: 20	008-11-12		Prepared By:	KV		
		$_{\rm MD}$						
Parameter	Flag	Resul		Units		RL		
Total Silica		< 0.018	66	mg/L		0.05		
Method Blank (1)	QC Batch: 54523							
QC Batch: 54523		Date Analyzed: 20	008-11-21		Analyzed By:	RR		
Prep Batch: 46344		QC Preparation: 20	008-11-12		Prepared By:	KV		
Parameter	Flag		vIDL esult	Units		RL		
Total Silver	riag	<0.00		mg/L		0.005		
Total Arsenic		<0.0		m mg/L		0.003		
Total Barium		< 0.0		m mg/L		0.005		
Total Cadmium		< 0.0	0110	m mg/L		0.002		

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NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 57 of 94 NM-SWD Station #11, Lea Co., NM

method blank continued . . .

		MDL		
Parameter	Flag	Result	Units	RL
Total Chromium		< 0.00201	mg/L	0.005
Total Lead		< 0.00460	m mg/L	0.005
Total Selenium		< 0.0106	m mg/L	0.02

Duplicates (1) Duplicated Sample: 178804

QC Batch: 54146 Prep Batch: 46320 Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10

Analyzed By: RG Prepared By: RG

Duplicate Sample RPD Param Result Result Units Dilution RPD Limit Hydroxide Alkalinity <1.00 <1.00 mg/L as CaCo3 1 0 20 Carbonate Alkalinity < 1.00 < 1.00 mg/L as CaCo3 1 0 20 Bicarbonate Alkalinity 244232 mg/L as CaCo3 1 5 20 232 mg/L as CaCo3 Total Alkalinity 244 1 5 20

Duplicates (1) Duplicated Sample: 178903

QC Batch: 54184 Prep Batch: 46362 Date Analyzed: 2008-11-12 QC Preparation: 2008-11-11 Analyzed By: RD Prepared By: RD

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	424.0	414.0	mg/L	1	2	10

Duplicates (1) Duplicated Sample: 178804

QC Batch: 54245 Prep Batch: 46408 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-11 Analyzed By: RD Prepared By: RD

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Specific Conductance	81900	81100	uMHOS/cm	1	1	20

Duplicates (1) Duplicated Sample: 178804

QC Batch: 54274 Prep Batch: 46431 Date Analyzed: 2008-11-13 QC Preparation: 2008-11-12

Analyzed By: RG Prepared By: RG

NMSWD Station #11

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Work Order: 8110902 GW Sampling

Page Number: 58 of 94 NM-SWD Station #11, Lea Co., NM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	$egin{array}{c} ext{RPD} \ ext{Limit} \end{array}$
Total Suspended Solids	468	450	mg/L	1	4	10

Duplicated Sample: 179314 Duplicates (1)

QC Batch: 54283 Prep Batch: 46439 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-14

Analyzed By: RG Prepared By: RG

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	$_{ m Limit}$
pН	8.11	8.09	s.u.	1	0	20

Duplicated Sample: 179496 Duplicates (1)

QC Batch: Prep Batch: 46502

54362

Date Analyzed: 2008-11-18 QC Preparation: 2008-11-17

Analyzed By: RD Prepared By: RD

	Duplicate	Sample				RPD
Param	Result	Result	Units	Dilution	RPD	Limit
Total Dissolved Solids	98200	98000	mg/L	200	0	10

Laboratory Control Spike (LCS-1)

QC Batch: 54142 Prep Batch: 46318 Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10 Analyzed By: KB Prepared By: KB

	LCS	T7 1.	77.11	Spike	Matrix	т.	Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Bromochloromethane	51.5	$\mu { m g/L}$	1	50.0	< 0.197	103	88.6 - 114.8
Dichlorodifluoromethane	55.9	$\mu { m g}/{ m L}$	1	50.0	< 0.672	112	57 - 138.2
Chloromethane (methyl chloride)	50.8	$\mu { m g}/{ m L}$	1	50.0	< 0.542	102	67.3 - 125
Vinyl Chloride	52.9	$\mu { m g}/{ m L}$	1	50.0	< 0.516	106	72.1 - 126.6
Bromomethane (methyl bromide)	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.446	96	51.4 - 149
Chloroethane	46.1	$\mu { m g}/{ m L}$	1	50.0	< 0.656	92	62.4 - 134
Trichlorofluoromethane	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.538	96	69.8 - 137.8
Acetone	57.0	$\mu { m g}/{ m L}$	1	50.0	< 1.10	114	36.8 - 138.7
Iodomethane (methyl iodide)	53.4	$\mu { m g}/{ m L}$	1	50.0	< 0.214	107	84.8 - 123
Carbon Disulfide	52.5	$\mu { m g}/{ m L}$	1	50.0	< 0.294	105	77.3 - 125.6
Acrylonitrile	54.5	$\mu { m g}/{ m L}$	1	50.0	< 0.442	109	80.1 - 130
2-Butanone (MEK)	56.0	$\mu { m g}/{ m L}$	1	50.0	< 0.420	112	40.2 - 152
4-Methyl-2-pentanone (MIBK)	46.9	$\mu { m g}/{ m L}$	1	50.0	< 0.407	94	83.2 - 126.2
2-Hexanone	50.3	μ g/L	1	50.0	< 0.486	101	61.9 - 152.1

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Work Order: 8110902 GW Sampling Page Number: 59 of 94 NM-SWD Station #11, Lea Co., NM

control spikes continued	LCS			Spike	Matrix	_	Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
trans 1,4-Dichloro-2-butene	56.9	$\mu \mathrm{g/L}$	1	50.0	< 0.463	114	63.8 - 141.2
1,1-Dichloroethene	50.4	$\mu { m g/L}$	1	50.0	< 0.237	101	83.9 - 118
Methylene chloride	53.6	$\mu { m g/L}$	1	50.0	< 0.312	107	74.9 - 121.2
MTBE	48.7	$\mu \mathrm{g/L}$	1	50.0	< 0.318	97	80.3 - 126.4
trans-1,2-Dichloroethene	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.217	109	80 - 118.8
1,1-Dichloroethane	53.8	$\mu \mathrm{g/L}$	1	50.0	< 0.202	108	78.1 - 121.
cis-1,2-Dichloroethene	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.309	109	84.4 - 120.
2,2-Dichloropropane	51.7	$\mu { m g}/{ m L}$	1	50.0	< 0.318	103	40 - 148.2
1,2-Dichloroethane (EDC)	52.1	$\mu { m g}/{ m L}$	1	50.0	< 0.292	104	78 - 119.2
Chloroform	51.8	$\mu { m g}/{ m L}$	1	50.0	< 0.234	104	86 - 113.3
1,1,1-Trichloroethane	50.3	$\mu { m g}/{ m L}$	1	50.0	< 0.257	101	66.5 - 132.8
1,1-Dichloropropene	52.3	$\mu { m g}/{ m L}$	1	50.0	< 0.286	105	94.8 - 109.
Benzene	53.0	$\mu { m g}/{ m L}$	1	50.0	< 0.319	106	88.6 - 114.8
Carbon Tetrachloride	48.8	$\mu { m g}/{ m L}$	1	50.0	< 0.223	98	81.9 - 120.
1,2-Dichloropropane	53.0	$\mu { m g}/{ m L}$	1	50.0	< 0.266	106	90.9 - 113
Trichloroethene (TCE)	49.2	$\mu { m g}/{ m L}$	1	50.0	< 0.235	98	84.1 - 119.
Dibromomethane (methylene bromide)	51.0	$\mu { m g}/{ m L}$	1	50.0	< 0.341	102	87.7 - 114.
Bromodichloromethane	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.291	109	93.1 - 116.
2-Chloroethyl vinyl ether	40.9	$\mu { m g}/{ m L}$	1	50.0	< 0.293	82	79.8 - 122
cis-1,3-Dichloropropene	49.8	$\mu { m g}/{ m L}$	1	50.0	< 0.207	100	88.7 - 119.
crans-1,3-Dichloropropene	49.3	$\mu { m g}/{ m L}$	1	50.0	< 0.293	99	84.8 - 124.
Γ oluene	51.6	$\mu { m g}/{ m L}$	1	50.0	< 0.268	103	88.1 - 115.
1,1,2-Trichloroethane	51.4	$\mu { m g}/{ m L}$	1	50.0	< 0.329	103	89.9 - 111.
1,3-Dichloropropane	52.3	$\mu { m g}/{ m L}$	1	50.0	< 0.316	105	86.9 - 115
Dibromochloromethane	46.3	$\mu { m g}/{ m L}$	1	50.0	< 0.290	93	89 - 122
1,2-Dibromoethane (EDB)	51.7	$\mu { m g}/{ m L}$	1	50.0	< 0.229	103	89.5 - 117
Tetrachloroethene (PCE)	38.2	$\mu { m g}/{ m L}$	1	50.0	< 0.233	76	37.6 - 143
Chlorobenzene	49.9	$\mu { m g}/{ m L}$	1	50.0	< 0.276	100	86.6 - 111.
1,1,1,2-Tetrachloroethane	50.8	$\mu { m g}/{ m L}$	1	50.0	< 0.226	102	89.8 - 114
Ethylbenzene	52.8	$\mu { m g}/{ m L}$	1	50.0	< 0.245	106	87.4 - 117
n,p-Xylene	104	$\mu { m g}/{ m L}$	1	100	< 0.517	104	86.1 - 115
Bromoform	44.7	$\mu { m g}/{ m L}$	1	50.0	< 0.175	89	84.6 - 132.
Styrene	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.239	96	88.3 - 125
o-Xylene	54.0	$\mu { m g}/{ m L}$	1	50.0	< 0.247	108	86.7 - 118.
1,1,2,2-Tetrachloroethane	54.8	$\mu { m g}/{ m L}$	1	50.0	< 0.223	110	73.8 - 127
2-Chlorotoluene	50.5	$\mu { m g}/{ m L}$	1	50.0	< 0.235	101	84.3 - 117
1,2,3-Trichloropropane	55.6	$\mu { m g}/{ m L}$	1	50.0	< 0.230	111	83 - 117.8
sopropylbenzene	52.4	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.226	105	86.2 - 119
Bromobenzene	51.6	$\mu { m g}/{ m L}$	1	50.0	< 0.245	103	84.2 - 115
n-Propylbenzene	49.9	$\mu { m g}/{ m L}$	1	50.0	< 0.234	100	80.7 - 120
1,3,5-Trimethylbenzene	50.8	$\mu { m g}/{ m L}$	1	50.0	< 0.261	102	85.4 - 115
ert-Butylbenzene	50.2	$\mu g/L$	1	50.0	< 0.281	100	85.9 - 115.
1,2,4-Trimethylbenzene	51.9	$\mu g/L$	1	50.0	< 0.285	104	87.1 - 116
1,4-Dichlorobenzene (para)	48.8	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.307	98	87.2 - 109

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NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 60 of 94 NM-SWD Station #11, Lea Co., NM

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
sec-Butylbenzene	50.1	$\mu \mathrm{g/L}$	1	50.0	< 0.312	100	82.6 - 118.5
1,3-Dichlorobenzene (meta)	49.7	$\mu { m g}/{ m L}$	1	50.0	< 0.284	99	89.5 - 111.3
p-Isopropyltoluene	51.9	$\mu { m g}/{ m L}$	1	50.0	< 0.244	104	86.6 - 118.2
4-Chlorotoluene	51.4	$\mu { m g}/{ m L}$	1	50.0	< 0.257	103	87.2 - 114
1,2-Dichlorobenzene (ortho)	51.2	$\mu { m g}/{ m L}$	1	50.0	< 0.294	102	92.2 - 111.6
n-Butylbenzene	53.3	$\mu { m g}/{ m L}$	1	50.0	< 0.339	107	82.2 - 120.8
1,2-Dibromo-3-chloropropane	45.2	$\mu { m g}/{ m L}$	1	50.0	< 0.780	90	64.3 - 133
1,2,3-Trichlorobenzene	45.7	$\mu { m g}/{ m L}$	1	50.0	< 0.736	91	22.2 - 201.8
1,2,4-Trichlorobenzene	39.7	$\mu { m g}/{ m L}$	1	50.0	< 0.432	79	66 - 135.7
Naphthalene	42.3	$\mu { m g}/{ m L}$	1	50.0	< 0.475	85	51.8 - 168.3
Hexachlorobutadiene	49.5	$\mu { m g}/{ m L}$	1	50.0	< 1.02	99	70.4 - 130.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Bromochloromethane	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.197	109	88.6 - 114.8	6	20
Dichlorodifluoromethane	52.2	$\mu { m g}/{ m L}$	1	50.0	< 0.672	104	57 - 138.2	7	20
Chloromethane (methyl chloride)	49.7	$\mu { m g}/{ m L}$	1	50.0	< 0.542	99	67.3 - 125	2	20
Vinyl Chloride	51.1	$\mu { m g}/{ m L}$	1	50.0	< 0.516	102	72.1 - 126.6	4	20
Bromomethane (methyl bromide)	48.3	$\mu { m g}/{ m L}$	1	50.0	< 0.446	97	51.4 - 149	0	20
Chloroethane	48.2	$\mu { m g}/{ m L}$	1	50.0	< 0.656	96	62.4 - 134	4	20
Trichlorofluoromethane	46.8	$\mu { m g}/{ m L}$	1	50.0	< 0.538	94	69.8 - 137.8	3	20
Acetone	64.9	$\mu { m g}/{ m L}$	1	50.0	<1.10	130	36.8 - 138.7	13	20
Iodomethane (methyl iodide)	56.4	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.214	113	84.8 - 123	6	20
Carbon Disulfide	54.3	$\mu { m g}/{ m L}$	1	50.0	< 0.294	109	77.3 - 125.6	3	20
Acrylonitrile	56.2	$\mu { m g}/{ m L}$	1	50.0	< 0.442	112	80.1 - 130	3	20
2-Butanone (MEK)	57.6	$\mu { m g}/{ m L}$	1	50.0	< 0.420	115	40.2 - 152	3	20
4-Methyl-2-pentanone (MIBK)	49.0	$\mu { m g}/{ m L}$	1	50.0	< 0.407	98	83.2 - 126.2	4	20
2-Hexanone	52.2	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.486	104	61.9 - 152.1	4	20
trans 1,4-Dichloro-2-butene	58.3	$\mu { m g}/{ m L}$	1	50.0	< 0.463	117	63.8 - 141.2	2	20
1,1-Dichloroethene	51.5	$\mu { m g}/{ m L}$	1	50.0	< 0.237	103	83.9 - 118	2	20
Methylene chloride	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0.312	110	74.9 - 121.2	2	20
MTBE	50.8	$\mu { m g}/{ m L}$	1	50.0	< 0.318	102	80.3 - 126.4	4	20
trans-1,2-Dichloroethene	55.7	$\mu { m g}/{ m L}$	1	50.0	< 0.217	111	80 - 118.8	2	20
1,1-Dichloroethane	55.0	$\mu { m g}/{ m L}$	1	50.0	< 0.202	110	78.1 - 121.1	2	20
cis-1,2-Dichloroethene	55.6	$\mu { m g}/{ m L}$	1	50.0	< 0.309	111	84.4 - 120.2	2	20
2,2-Dichloropropane	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0.318	110	40 - 148.2	6	20
1,2-Dichloroethane (EDC)	52.8	$\mu { m g/L}$	1	50.0	< 0.292	106	78 - 119.2	1	20
Chloroform	52.8	$\mu { m g}/{ m L}$	1	50.0	< 0.234	106	86 - 113.3	2	20
1,1,1-Trichloroethane	53.1	$\mu { m g}/{ m L}$	1	50.0	< 0.257	106	66.5 - 132.8	5	20
1,1-Dichloropropene	53.8	$\mu { m g/L}$	1	50.0	< 0.286	108	94.8 - 109.7	3	20
Benzene	54.9	$\mu { m g}/{ m L}$	1	50.0	< 0.319	110	88.6 - 114.8	4	20
Carbon Tetrachloride	51.4	$\mu { m g}/{ m L}$	1	50.0	< 0.223	103	81.9 - 120.5	5	20
1,2-Dichloropropane	55.3	$\mu { m g}/{ m L}$	1	50.0	< 0.266	111	90.9 - 113	4	20

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Work Order: 8110902 GW Sampling Page Number: 61 of 94 NM-SWD Station #11, Lea Co., NM

**	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Trichloroethene (TCE)	51.5	$\mu \mathrm{g/L}$	1	50.0	< 0.235	103	84.1 - 119.2	5	20
Dibromomethane (methylene bromide)	53.9	$\mu { m g}/{ m L}$	1	50.0	< 0.341	108	87.7 - 114.3	6	20
Bromodichloromethane	56.8	$\mu { m g}/{ m L}$	1	50.0	< 0.291	114	93.1 - 116.2	4	20
2-Chloroethyl vinyl ether	43.1	$\mu { m g/L}$	1	50.0	< 0.293	86	79.8 - 122	5	20
cis-1,3-Dichloropropene	52.2	$\mu { m g}/{ m L}$	1	50.0	< 0.207	104	88.7 - 119.8	5	20
trans-1,3-Dichloropropene	51.0	$\mu { m g/L}$	1	50.0	< 0.293	102	84.8 - 124.6	3	20
Toluene	53.8	$\mu { m g}/{ m L}$	1	50.0	< 0.268	108	88.1 - 115.3	4	20
1,1,2-Trichloroethane	53.6	$\mu { m g}/{ m L}$	1	50.0	< 0.329	107	89.9 - 111.2	4	20
1,3-Dichloropropane	54.4	$\mu { m g}/{ m L}$	1	50.0	< 0.316	109	86.9 - 115	4	20
Dibromochloromethane	48.8	$\mu { m g}/{ m L}$	1	50.0	< 0.290	98	89 - 122	5	20
1,2-Dibromoethane (EDB)	55.4	$\mu { m g}/{ m L}$	1	50.0	< 0.229	111	89.5 - 117	7	20
Tetrachloroethene (PCE)	40.8	$\mu \mathrm{g/L}$	1	50.0	< 0.233	82	37.6 - 143	7	20
Chlorobenzene	52.1	$\mu { m g}/{ m L}$	1	50.0	< 0.276	104	86.6 - 111.2	4	20
1,1,1,2-Tetrachloroethane	53.6	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.226	107	89.8 - 114	5	20
Ethylbenzene	54.8	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.245	110	87.4 - 117	4	20
m,p-Xylene	109	$\mu \mathrm{g}/\mathrm{L}$	1	100	< 0.517	109	86.1 - 115	5	20
Bromoform	47.1	$\mu { m g}/{ m L}$	1	50.0	< 0.175	94	84.6 - 132.6	5	20
Styrene	50.2	$\mu { m g}/{ m L}$	1	50.0	< 0.239	100	88.3 - 125	4	20
o-Xylene	56.1	$\mu { m g}/{ m L}$	1	50.0	< 0.247	112	86.7 - 118.6	4	20
1,1,2,2-Tetrachloroethane	57.1	$\mu { m g}/{ m L}$	1	50.0	< 0.223	114	73.8 - 127	4	20
2-Chlorotoluene	52.6	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.235	105	84.3 - 117	4	20
1,2,3-Trichloropropane	58.6	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.230	117	83 - 117.8	5	20
Isopropylbenzene	54.8	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.226	110	86.2 - 119	4	20
Bromobenzene	54.2	$\mu { m g}/{ m L}$	1	50.0	< 0.245	108	84.2 - 115	5	20
n-Propylbenzene	52.0	$\mu { m g/L}$	1	50.0	< 0.234	104	80.7 - 120	4	20
1,3,5-Trimethylbenzene	53.0	$\mu \mathrm{g/L}$	1	50.0	< 0.261	106	85.4 - 115	4	20
tert-Butylbenzene	52.9	$\mu \mathrm{g}/\mathrm{L}$	1.	50.0	< 0.281	106	85.9 - 115.9	5	20
1,2,4-Trimethylbenzene	54.5	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.285	109	87.1 - 116	5	20
1,4-Dichlorobenzene (para)	51.2	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.307	102	87.2 - 109	5	20
sec-Butylbenzene	52.3	$\mu \mathrm{g/L}$	1	50.0	< 0.312	105	82.6 - 118.5	4	20
1,3-Dichlorobenzene (meta)	52.0	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.284	104	89.5 - 111.3	4	20
p-Isopropyltoluene	54.3	$\mu { m g/L}$	1	50.0	< 0.244	109	86.6 - 118.2	4	20
4-Chlorotoluene	53.7	$\mu \mathrm{g/L}$	1	50.0	< 0.257	107	87.2 - 114	$\overline{4}$	20
1,2-Dichlorobenzene (ortho)	53.9	$\mu \mathrm{g/L}$	1	50.0	< 0.294	108	92.2 - 111.6	5	20
n-Butylbenzene	54.8	$\mu g/L$	1	50.0	< 0.339	110	82.2 - 120.8	3	20
1,2-Dibromo-3-chloropropane	47.7	$\mu \mathrm{g/L}$	1	50.0	< 0.780	95	64.3 - 133	5	20
1,2,3-Trichlorobenzene	50.0	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.736	100	22.2 - 201.8	9	20
1,2,4-Trichlorobenzene	42.5	$\mu \mathrm{g/L}$	1	50.0	< 0.432	85	66 - 135.7	7	20
Naphthalene	46.3	$\mu g/L$	1	50.0	< 0.475	93	51.8 - 168.3	9	20
Hexachlorobutadiene	52.7	$\mu g/L$	1	50.0	<1.02	105	70.4 - 130.9	6	20

NMSWD Station #11

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Work Order: 8110902 GW Sampling

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control spikes continued								
	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
Dibromofluoromethane	52.9	51.8	$\mu \mathrm{g/L}$	1	50.0	106	104	85 - 110.6
Toluene-d8	51.0	50.0	$\mu { m g}/{ m L}$	1	50.0	102	100	86.8 - 109.2
4-Bromofluorobenzene (4-BFB)	51.9	50.8	$\mu { m g}/{ m L}$	1	50.0	104	102	84.4 - 113.2

Laboratory Control Spike (LCS-1)

QC Batch: 54162 Prep Batch: 46332 Date Analyzed: QC Preparation: 2008-11-11

2008-11-11

Analyzed By: TP Prepared By:

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 0.00104 0.00100 < 0.0000251 104 85 - 115 Total Mercury mg/L 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury	0.00104	m mg/L	1	0.00100	< 0.0000251	104	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54171 Prep Batch: 46350 Date Analyzed: QC Preparation:

2008-11-12 2008-11-11

Analyzed By: RDPrepared By:

		LCS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Chloride	5	11.7	mg/L	1	12.5	<1.74	94	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	6	12.2	mg/L	1	12.5	<1.74	98	90 - 110	4	20

⁵Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

⁶Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 46350

54171

Date Analyzed:

2008-11-12

QC Preparation: 2008-11-11

Analyzed By: RD

Prepared By: RD

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Sulfate 7	12.1	mg/L	1	12.5	< 0.344	97	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		LCSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Sulfate	- 8	11.5	mg/L	1	12.5	< 0.344	92	90 - 110	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54204 Prep Batch: 46313 Date Analyzed:

2008-11-13 QC Preparation: 2008-11-11 Analyzed By: TP

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Calcium	53.6	mg/L	1	50.0	< 0.175	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Calcium	52.2	mg/L	1	50.0	< 0.175	104	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Dissolved Potassium	52.2	mg/L	1	50.0	< 0.327	104	85 - 115

⁷Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

⁸Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

NMSWD Station #11

Work Order: 8110902 GW Sampling

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	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	\mathbf{Amount}	Result	Rec.	Limit	RPD	Limit
Dissolved Potassium	50.4	$\mathrm{mg/L}$	1	50.0	< 0.327	101	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Dissolved Magnesium	52.8	mg/L	1	50.0	< 0.148	106	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit	RPD	Limit
Dissolved Magnesium	51.4	mg/L	1	50.0	< 0.148	103	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By:

Prep Batch: 46313

QC Preparation: 2008-11-11 Prepared By: KV

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Dissolved Sodium 52.7 mg/L 50.0 < 0.244 85 - 115 1 105

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	$\mathbf{L}_{\mathbf{i}\mathbf{m}\mathbf{i}\mathbf{t}}$
Dissolved Sodium	50.8	mg/L	1	50.0	< 0.244	102	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

OC Batch:

54206

Date Analyzed:

2008-11-12

Analyzed By: DS

Prep Batch:

46379

QC Preparation: 2008-11-10

Prepared By: DS

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control spikes continued . . . LCS Spike Matrix Rec. Result Units Dil. Amount Result Rec. Limit Param LCS Spike Matrix Rec. Result Units Dil. Param Amount Result Rec. Limit 0.0201 Phenol mg/L 1 0.0800< 0.00165 25 10 - 37.62-Chlorophenol 0.0465mg/L 1 0.0800 < 0.00150 58 27.4 - 88.1 1,4-Dichlorobenzene (para) 0.0422mg/L 1 0.0800 < 0.00156 53 22.2 - 85.4 N-Nitrosodi-n-propylamine 0.0572mg/L 1 0.0800 < 0.00127 72 15.8 - 119 1,2,4-Trichlorobenzene 0.0410mg/L 1 0.0800 < 0.00193 51 25 - 99.5 Naphthalene 0.0452mg/L1 0.0800 < 0.00165 56 24.8 - 93.14-Chloro-3-methylphenol 0.0512mg/L 1 0.0800< 0.0012064 28.4 - 110Acenaphthylene 0.0544mg/L 1 0.0800< 0.00136 68 33.3 - 110 Acenaphthene 0.0523mg/L 1 0.0800< 0.00132 6531.5 - 1074-Nitrophenol 0.0143mg/L 1 18 10 - 48.8 0.0800< 0.00127 2,4-Dinitrotoluene 0.0473mg/L1 0.0800< 0.00139 59 27.8 - 126 Fluorene 0.0509 mg/L 1 0.0800 < 0.00130 64 25.5 - 124 Pentachlorophenol 0.0210 mg/L 1 < 0.000632 26 0.080010 - 119Anthracene 0.0524mg/L 1 0.0800 < 0.00152 66 39.5 - 119Phenanthrene 0.0550 mg/L 1 0.0800< 0.0014469 41 - 119 Fluoranthene 0.0587mg/L 1 0.0800< 0.00159 73 35.7 - 143Pyrene 0.0561mg/L 1 0.0800< 0.00135 70 35.8 - 132Benzo(a)anthracene 0.0556mg/L 1 < 0.00138 70 0.080040.1 - 128Chrysene 0.0564 mg/L 1 0.0800< 0.00146 70 40.5 - 128Benzo(b)fluoranthene 0.0530mg/L 1 < 0.00126 66 0.080032 - 134 Benzo(k)fluoranthene 0.0586mg/L73 1 0.0800< 0.0014943.5 - 131Benzo(a)pyrene 0.0630mg/L 1 0.0800< 0.00155 79 43.5 - 140 Indeno(1,2,3-cd)pyrene 0.0671 mg/L 1 0.0800< 0.0019584 39.7 - 159Dibenzo(a,h)anthracene 0.0668mg/L 1 0.0800< 0.0210 84 39.2 - 154Benzo(g,h,i)perylene 0.0684

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

mg/L

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Phenol	0.0208	mg/L	1	0.0800	< 0.00165	26	10 - 37.6	3	20
2-Chlorophenol	0.0475	${ m mg/L}$	1	0.0800	< 0.00150	59	27.4 - 88.1	2	20
1,4-Dichlorobenzene (para)	0.0435	${ m mg/L}$	1	0.0800	< 0.00156	54	22.2 - 85.4	3	20
N-Nitrosodi-n-propylamine	0.0594	$\mathrm{mg/L}$	1	0.0800	< 0.00127	74	15.8 - 119	4	20
1,2,4-Trichlorobenzene	0.0419	${ m mg/L}$	1	0.0800	< 0.00193	52	25 - 99.5	2	20
Naphthalene	0.0457	$\mathrm{mg/L}$	1	0.0800	< 0.00165	- 57	24.8 - 93.1	1	20
4-Chloro-3-methylphenol	0.0523	${ m mg/L}$	1	0.0800	< 0.00120	65	28.4 - 110	2	20
Acenaphthylene	0.0561	${ m mg/L}$	1	0.0800	< 0.00136	70	33.3 - 110	3	20
Acenaphthene	0.0540	${ m mg/L}$	1	0.0800	< 0.00132	68	31.5 - 107	3	20
4-Nitrophenol	0.0133	mg/L	1	0.0800	< 0.00127	17	10 - 48.8	7	20
2,4-Dinitrotoluene	0.0488	mg/L	1	0.0800	< 0.00139	61	27.8 - 126	3	20
Fluorene	0.0528	mg/L	1	0.0800	< 0.00130	66	25.5 - 124	4	20

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0.0800

< 0.00207

86

38 - 157

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NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 66 of 94 NM-SWD Station #11, Lea Co., NM

control spikes continued . . .

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Pentachlorophenol	0.0212	mg/L	1	0.0800	< 0.000632	26	10 - 119	1	20
Anthracene	0.0532	$\mathrm{mg/L}$	1	0.0800	< 0.00152	66	39.5 - 119	2	20
Phenanthrene	0.0548	$\mathrm{mg/L}$	1	0.0800	< 0.00144	68	41 - 119	0	20
Fluoranthene	0.0588	${ m mg/L}$	1	0.0800	< 0.00159	74	35.7 - 143	0	20
Pyrene	0.0579	$\mathrm{mg/L}$	1	0.0800	< 0.00135	72	35.8 - 132	3	20
Benzo(a)anthracene	0.0553	${ m mg/L}$	1	0.0800	< 0.00138	69	40.1 - 128	0	20
Chrysene	0.0576	mg/L	1	0.0800	< 0.00146	72	40.5 - 128	2	20
Benzo(b)fluoranthene	0.0534	mg/L	1	0.0800	< 0.00126	67	32 - 134	1	20
Benzo(k)fluoranthene	0.0576	$\mathrm{mg/L}$	1	0.0800	< 0.00149	72	43.5 - 131	2	20
Benzo(a)pyrene	0.0602	${ m mg/L}$	1	0.0800	< 0.00155	75	43.5 - 140	4	20
Indeno(1,2,3-cd)pyrene	0.0641	$_{ m mg/L}$	1	0.0800	< 0.00195	80	39.7 - 159	5	20
Dibenzo(a,h)anthracene	0.0630	$\mathrm{mg/L}$	1	0.0800	< 0.0210	79	39.2 - 154	6	20
Benzo(g,h,i)perylene	0.0643	mg/L	1	0.0800	< 0.00207	80	38 - 157	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCS	LCSD			Spike	LCS	LCSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	Limit
2-Fluorophenol	0.0294	0.0302	mg/L	1	0.0800	37	38	10 - 62.8
Phenol-d5	0.0213	0.0222	$\mathrm{mg/L}$	1	0.0800	27	28	10 - 41.3
Nitrobenzene-d5	0.0531	0.0534	$\mathrm{mg/L}$	1	0.0800	66	67	25.4 - 115
2-Fluorobiphenyl	0.0521	0.0530	$\mathrm{mg/L}$	1	0.0800	65	66	18.7 - 125
2,4,6-Tribromophenol	0.0467	0.0486	mg/L	1	0.0800	58	61	15.5 - 107
Terphenyl-d14	0.0570	0.0574	$\mathrm{mg/L}$	1	0.0800	71	72	23.4 - 151

Laboratory Control Spike (LCS-1)

QC Batch: 54251 Prep Batch: 46409 Date Analyzed: 2008-11-14 QC Preparation: 2008-11-12 Analyzed By: RD Prepared By: RD

		LCS			Spike	Matrix		Rec.
Param		Result_	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Chloride	9	13.0	mg/L	1	12.5	<1.74	104	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Chloride	12.1	mg/L	1	12.5	< 1.74	97	90 - 110	7	20

⁹Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control. •

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 46409

54251

Date Analyzed:

2008-11-14

QC Preparation: 2008-11-12 Analyzed By: RD

Prepared By: RD

		LCS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
Sulfate	-10	12.3	mg/L	1	12.5	< 0.344	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Sulfate	12.5	mg/L	1	12.5	< 0.344	100	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54274

Date Analyzed:

2008-11-13

Analyzed By: RG

Prepared By: RG

Prep Batch: 46431

QC Preparation: 2008-11-12

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	${f Amount}$	Result	Rec.	Limit
Total Suspended Solids	101	mg/L	1	100	<1.00	101	91.1 - 109

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Suspended Solids	103	mg/L	1	100	<1.00	103	91.1 - 109	2	6.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54436

Date Analyzed:

2008-11-19

Analyzed By: TP

TP

Prep Batch: 46545

QC Preparation: 2008-11-19

Prepared By:

LCS

Spike Matrix Rec. Result Units Dil. Amount Result Param Rec. Limit Dissolved Mercury 0.000958 mg/L 0.00100 < 0.0000251 96 85 - 115

¹⁰ Matrix spikes run with batch, but spiked sample reran in another batch. Use LCS/LCSD to show analysis is in control.

NMSWD Station #11

Work Order: 8110902 GW Sampling

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control spikes continued . . .

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	$rac{ ext{RPD}}{ ext{Limit}}$
Laram	16650110	Omis	<u>D</u> 11.	Amount	Hestin	nec.	Diffile	N.F.D	
	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Mercury	0.000963	mg/L	1	0.00100	< 0.0000251	96	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54521

Date Analyzed:

2008-11-21

Analyzed By: RR

85 - 115

Prep Batch:

46614

QC Preparation:

2008-11-21

Prepared By: KV

Rec.

94

Param

LCS Result 0.118 Dissolved Silver

Spike Units Dil. Amount

Matrix Result < 0.000700

Rec. Limit

0.125 mg/L 1 Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Silver	0.118	mg/L	1	0.125	< 0.000700	94	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54521

Date Analyzed:

2008-11-21

Prepared By: KV

Analyzed By: RR

Prep Batch: 46614

QC Preparation: 2008-11-21

LCS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit 0.487 Dissolved Arsenic mg/L 0.500 < 0.00850 97 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Arsenic	0.491	mg/L	1	0.500	< 0.00850	98	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: Prep Batch: 5452146614

Date Analyzed:

2008-11-21

Analyzed By: RR

QC Preparation: 2008-11-21 Prepared By: KV

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Param	LCS Result	Units	Dil.	Spike Amount	$rac{ ext{Matrix}}{ ext{Result}}$	Rec.	Rec. Limit
Dissolved Barium	1.01	${ m mg/L}$	1	1.00	< 0.00180	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			$_{ m Spike}$	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Barium	1.02	mg/L	1	1.00	< 0.00180	102	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54521 Prep Batch: 46614 Date Analyzed:

2008-11-21 QC Preparation: 2008-11-21

Analyzed By: RR Prepared By: KV

LCS Spike Matrix Rec. Result Units Dil. Result Param Amount Rec. Limit Dissolved Cadmium 0.257 0.250 mg/L < 0.00110 103 85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Cadmium	0.256	mg/L	1	0.250	< 0.00110	102	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54521

Date Analyzed:

2008-11-21

Prep Batch: 46614

QC Preparation:

2008-11-21

Analyzed By: RR Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Dissolved Chromium	0.0960	${ m mg/L}$	1	0.100	< 0.00200	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Chromium	0.0960	${ m mg/L}$	1	0.100	< 0.00200	96	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

54521

Date Analyzed:

2008-11-21

2008-11-21

Analyzed By: RR

Prepared By: KV

Prep Batch: 46614

QC Preparation:

NMSWD Station #11

Work Order: 8110902 GW Sampling

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	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Dissolved Lead	0.512	m mg/L	1	0.500	< 0.00460	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Lead	0.512	mg/L	1	0.500	< 0.00460	102	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch:

1

54521 Prep Batch: 46614 Date Analyzed:

2008-11-21 QC Preparation: 2008-11-21 Analyzed By: RR

Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	${f Limit}$
Dissolved Selenium	0.479	mg/L	1	0.500	< 0.0131	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil .	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Selenium	0.477	mg/L	1	0.500	< 0.0131	95	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54521 Prep Batch: 46614 Date Analyzed: 2008-11-21 QC Preparation: 2008-11-21

Analyzed By: RR Prepared By: KV

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Silica	1.08	${ m mg/L}$	1	1.00	< 0.0186	108	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	R.P.D	Limit
Dissolved Silica	1.05	mg/L	1	1.00	< 0.0186	105	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54523 Prep Batch: 46344 Date Analyzed: 2008-11-21 QC Preparation: 2008-11-12

Analyzed By: RR Prepared By: KV

NMSWD Station #11

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	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Total Silica	1.08	$\mathrm{mg/L}$	1	1.00	< 0.0186	108	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	$\mathbf{Dil}.$	\mathbf{A} mount	Result	Rec.	${f Limit}$	RPD	Limit
Total Silica	1.05	mg/L	1	1.00	< 0.0186	105	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 54523

1

Date Analyzed: 2

2008-11-21 Analyzed By: RR

Prepared By: KV

Prep Batch: 46344

QC Preparation: 2008-11-12

	LCS			Spike	Matrix		Rec.
Param	Result	$_{ m Units}$	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Total Silver	0.118	mg/L	1	0.125	< 0.000700	94	85 - 115
Total Arsenic	0.487	${ m mg/L}$	1	0.500	< 0.00850	97	85 - 115
Total Barium	1.01	${ m mg/L}_{\scriptscriptstyle .}$	1	1.00	< 0.00180	101	85 - 115
Total Cadmium	0.257	$_{ m mg/L}$	1	0.250	< 0.00110	103	85 - 115
Total Chromium	0.0960	${ m mg/L}$	1	0.100	< 0.00201	96	85 - 115
Total Lead	0.512	${ m mg/L}$	1	0.500	< 0.00460	102	85 - 115
Total Selenium	0.479	mg/L	1	0.500	< 0.0106	96	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Total Silver	0.118	mg/L	1	0.125	< 0.000700	94	85 - 115	0	20
Total Arsenic	0.491	${ m mg/L}$	1	0.500	< 0.00850	98	85 - 115	1	20
Total Barium	1.02	${ m mg/L}$	1	1.00	< 0.00180	102	85 - 115	1	20
Total Cadmium	0.256	${ m mg/L}$	1	0.250	< 0.00110	102	85 - 115	0	20
Total Chromium	0.0960	m mg/L	1	0.100	< 0.00201	96	85 - 115	0	20
Total Lead	0.512	m mg/L	1	0.500	< 0.00460	102	85 - 115	0	20
Total Selenium	0.477	m mg/L	1	0.500	< 0.0106	95	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 178804

QC Batch: 54142 Prep Batch: 46318 Date Analyzed: 2008-11-10 QC Preparation: 2008-11-10 Analyzed By: KB Prepared By: KB

continued ...

NMSWD Station #11

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matrix spikes continued								
		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
		MS			Cmiles	Matuin		Das
n .			I I i d. a.	Da	Spike	Matrix	D	Rec.
Param		Result	Units		Amount	Result	Rec.	Limit
Bromochloromethane		45.5	$\mu \mathrm{g/L}$	1	50.0	< 0.197	91	84.8 - 121.5
Dichlorodifluoromethane		38.7	$\mu \mathrm{g/L}$	1	50.0	< 0.672	77	57.4 - 145.5
Chloromethane (methyl chloride)		48.9	$\mu \mathrm{g/L}$	1	50.0	< 0.542	98	73.9 - 126
Vinyl Chloride		43.2	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.516	86	71 - 130.3
Bromomethane (methyl bromide)		34.5	$\mu { m g}/{ m L}$	1	50.0	< 0.446	69	64.4 - 138.5
Chloroethane		38.1	$\mu { m g}/{ m L}$	1	50.0	< 0.656	76	65.1 - 140
Trichlorofluoromethane	11	36.8	$\mu { m g}/{ m L}$	1	50.0	< 0.538	74	76.7 - 146.9
Acetone		27.4	$\mu { m g}/{ m L}$	1	50.0	<1.10	55	10 - 152.1
Iodomethane (methyl iodide)	12	38.6	$\mu { m g}/{ m L}$	1	50.0	< 0.214	77	81.3 - 123.9
Carbon Disulfide		46.3	$\mu { m g}/{ m L}$	1	50.0	< 0.294	93	81.4 - 123.5
Acrylonitrile		53.2	$\mu { m g}/{ m L}$	1	50.0	< 0.442	106	87.3 - 131.1
2-Butanone (MEK)		44.5	$\mu { m g}/{ m L}$	1	50.0	< 0.420	89	48.6 - 140.8
4-Methyl-2-pentanone (MIBK)		60.2	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.407	120	87.2 - 130.3
2-Hexanone		58.7	$\mu { m g}/{ m L}$	1	50.0	< 0.486	117	50.2 - 170.3
trans 1,4-Dichloro-2-butene		48.7	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.463	97	65.4 - 129.5
1,1-Dichloroethene		41.5	$\mu { m g}/{ m L}$	1	50.0	< 0.237	83	80.6 - 122.4
Methylene chloride		59.3	$\mu { m g}/{ m L}$	1	50.0	13.5	92	69.3 - 120.8
MTBE	13	27.9	$\mu { m g}/{ m L}$	1	50.0	< 0.318	56	83.9 - 128.7
trans-1,2-Dichloroethene		45.5	$\mu \mathrm{g}/\mathrm{L}$	$\overline{1}$	50.0	< 0.217	91	79.1 - 122.8
1,1-Dichloroethane		44.7	$\mu g/L$	1	50.0	< 0.202	89	79.1 - 123.4
cis-1.2-Dichloroethene		45.6	μg/L	1	50.0	< 0.309	91	80.9 - 126.8
2,2-Dichloropropane		26.3	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.318	53	10 - 142.9
1,2-Dichloroethane (EDC)		46.6	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.292	93	77.4 - 130.1
Chloroform		43.6	$\mu \mathrm{g}/\mathrm{L}$	1	5 0.0	< 0.232	87	78 - 126
1,1,1-Trichloroethane		39.0	$\mu g/L$ $\mu g/L$	1	50.0	< 0.254	78	68.6 - 133.4
1,1-Dichloropropene		42.3	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.286	85	77.3 - 127.8
Benzene		42.3 45.1	$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.230	90	69.8 - 128.2
Carbon Tetrachloride	14	37.1		1	50.0	< 0.223	74	76.3 - 127.1
		45.1	$\mu \mathrm{g/L}$	1	50.0	< 0.223	90	79.4 - 127.2
1,2-Dichloropropane	15	38.6	$\mu g/L$		50.0 50.0		90 77	
Trichloroethene (TCE)		46.1	$\mu \mathrm{g}/\mathrm{L}$	1		< 0.235	92	79.4 - 121
Dibromomethane (methylene bromide)			$\mu \mathrm{g/L}$	1	50.0	< 0.341		82.6 - 123
Bromodichloromethane	16	45.5	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.291	91	76.1 - 136.4
2-Chloroethyl vinyl ether		< 0.293	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.293	0	10 - 191.4
cis-1,3-Dichloropropene		38.9	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.207	78	69.2 - 132.4
trans-1,3-Dichloropropene		39.9	$\mu \mathrm{g/L}$	1	50.0	< 0.293	80	72.3 - 132.4
Toluene		42.0	$\mu { m g}/{ m L}$	1	50.0	< 0.268	84	76.4 - 120

 $continued \dots$

¹¹ Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹²Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹³Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁴Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
¹⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

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matrix spikes continued . . .

muita spines continuea	MC			G 11	3.5		D
D.	MS	TT **	D.11	Spike	Matrix	ъ	Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
1,1,2-Trichloroethane	46.1	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.329	92	82.3 - 120
1,3-Dichloropropane	47.2	$\mu \mathrm{g/L}$	1	50.0	< 0.316	94	75 - 126.2
Dibromochloromethane	39.4	$\mu { m g}/{ m L}$	1	50.0	< 0.290	79	71.2 - 143.9
1,2-Dibromoethane (EDB)	47.8	$\mu { m g}/{ m L}$	1	50.0	< 0.229	96	83.4 - 122.5
Tetrachloroethene (PCE)	20.4	$\mu { m g}/{ m L}$	1	50.0	< 0.233	41	23.6 - 138
Chlorobenzene	40.2	$\mu { m g}/{ m L}$	1	50.0	< 0.276	80	74 - 119.3
1,1,1,2-Tetrachloroethane	41.1	$\mu { m g}/{ m L}$	1	50.0	< 0.226	82	80 - 123
Ethylbenzene	40.8	$\mu { m g}/{ m L}$	1	50.0	< 0.245	82	72.3 - 127
m,p-Xylene	80.1	$\mu { m g}/{ m L}$	1	100	< 0.517	80	73.2 - 128
Bromoform 17	38.8	$\mu { m g}/{ m L}$	1	50.0	< 0.175	78	90.2 - 127.8
Styrene 18	1.07	$\mu { m g}/{ m L}$	1	50.0	< 0.239	2	53.8 - 145.5
o-Xylene	40.5	$\mu { m g}/{ m L}$	1	50.0	< 0.247	81	71.3 - 134.4
1,1,2,2-Tetrachloroethane	55.0	$\mu { m g}/{ m L}$	1	50.0	< 0.223	110	67 - 144
2-Chlorotoluene	39.2	$\mu { m g}/{ m L}$	1	50.0	< 0.235	78	62.7 - 128.9
1,2,3-Trichloropropane	56.2	$\mu { m g}/{ m L}$	1	50.0	< 0.230	112	68.5 - 122.8
Isopropylbenzene	38.9	$\mu { m g}/{ m L}$	1	50.0	< 0.226	78	61.8 - 133.9
Bromobenzene	44.5	$\mu { m g}/{ m L}$	1	50.0	< 0.245	89	67.2 - 123.6
n-Propylbenzene	36.5	$\mu { m g}/{ m L}$	1	50.0	< 0.234	73	61.6 - 128.2
1,3,5-Trimethylbenzene	36.4	$\mu { m g}/{ m L}$	1	50.0	< 0.261	73	66.4 - 125.8
tert-Butylbenzene	34.5	$\mu { m g}/{ m L}$	1	50.0	< 0.281	69	59.8 - 133
1,2,4-Trimethylbenzene	38.5	$\mu { m g}/{ m L}$	1	50.0	< 0.285	77	78.2 - 119.1
1,4-Dichlorobenzene (para)	37.4	$\mu { m g}/{ m L}$	1	50.0	< 0.307	75	68 - 118.4
sec-Butylbenzene	34.5	$\mu { m g}/{ m L}$	1	50.0	< 0.312	69	60.6 - 129.5
1,3-Dichlorobenzene (meta)	38.0	$\mu { m g}/{ m L}$	1	50.0	< 0.284	76	69.1 - 122
p-Isopropyltoluene	34.7	$\mu { m g}/{ m L}$	1	50.0	< 0.244	69	60.5 - 132
4-Chlorotoluene	40.0	$\mu { m g}/{ m L}$	1	50.0	< 0.257	80	65.3 - 127.7
1,2-Dichlorobenzene (ortho)	39.7	$\mu { m g}/{ m L}$	1	50.0	< 0.294	79	71.8 - 124.8
n-Butylbenzene	35.3	$\mu { m g/L}$	$\overline{1}$	50.0	< 0.339	71	56.6 - 133.8
1,2-Dibromo-3-chloropropane	54.7	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.780	109	85.4 - 112.2
1,2,3-Trichlorobenzene	35.4	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.736	71	10 - 166.2
1,2,4-Trichlorobenzene	28.4	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.432	57	54.8 - 122.2
Naphthalene	45.6	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	< 0.475	91	24 - 169
Hexachlorobutadiene	33.3	$\mu \mathrm{g}/\mathrm{L}$	1	50.0	<1.02	67	35.6 - 136.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	R.PD	$_{ m Limit}$
Bromochloromethane		52.1	$\mu \mathrm{g/L}$	1	50.0	< 0.197	104	84.8 - 121.5	14	20
Dichlorodifluoromethane	20	49.6	$\mu { m g}/{ m L}$	1	50.0	< 0.672	99	57.4 - 145.5	25	20
Chloromethane (methyl chloride)		57.5	$\mu { m g}/{ m L}$	1	50.0	< 0.542	115	73.9 - 126	16	20

continued ...

¹⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

¹⁸Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. ¹⁹Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

²⁰MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

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matrix spikes continued ... MSD RPD Spike Matrix Rec. Result Units Dil. Amount Result R.P.D Param Rec. Limit Limit Vinyl Chloride 51.0 $\mu g/L$ 50.0 71 - 130.3 20 < 0.516102 17 1 Bromomethane (methyl bromide) 38.8 $\mu g/L$ 1 50.0 < 0.446 78 64.4 - 138.520 12 43.8 Chloroethane $\mu g/L$ 1 50.0 < 0.656 88 65.1 - 14014 20 21 Trichlorofluoromethane 55.1 $\mu g/L$ 1 50.0 < 0.538 110 76.7 - 146.9 40 20 37.2 Acetone $\mu g/L$ 1 50.0 < 1.10 74 10 - 152.130 20 $\mu g/L$ Iodomethane (methyl iodide) 46.6 1 50.0 < 0.21493 81.3 - 123.9 19 20 Carbon Disulfide 51.0 $\mu g/L$ 1 50.0 < 0.294102 81.4 - 123.5 10 20 Acrylonitrile 61.6 $\mu g/L$ 1 50.0 < 0.442 123 87.3 - 131.1 15 20 2-Butanone (MEK) 54.4 $\mu g/L$ 1 50.0 < 0.420109 48.6 - 140.8 20 20 23 69.2 4-Methyl-2-pentanone (MIBK) 50.0 138 20 $\mu g/L$ 1 < 0.40787.2 - 130.314 70.8 2-Hexanone $\mu g/L$ 1 50.0 < 0.486 142 50.2 - 170.319 20 trans 1.4-Dichloro-2-butene 60.6 $\mu g/L$ 1 50.0 < 0.463 121 65.4 - 129.522 20 46.3 1,1-Dichloroethene 50.0 < 0.237 80.6 - 122.4 20 $\mu g/L$ 1 93 11 66.7 50.0 Methylene chloride $\mu g/L$ 1 13.5106 69.3 - 120.8 12 20 32.7 50.0 MTBE $\mu g/L$ 1 < 0.3186583.9 - 128.7 16 20 51.5 trans-1,2-Dichloroethene 50.0 < 0.217 103 79.1 - 122.8 12 20 $\mu g/L$ 7 1,1-Dichloroethane 52.0 $\mu g/L$ 1 50.0 < 0.202 104 79.1 - 123.4 15 20 cis-1,2-Dichloroethene 53.0 $\mu g/L$ 1 50.0 < 0.309 106 80.9 - 126.8 20 15 29.6 2,2-Dichloropropane 1 50.0 < 0.318 10 - 142.9 20 $\mu g/L$ 59 12 1,2-Dichloroethane (EDC) 53.9 $\mu g/L$ 1 50.0 < 0.292 108 77.4 - 130.1 14 20 Chloroform 50.8 $\mu g/L$ 1 50.0 < 0.234 102 78 - 126 15 20 1.1.1-Trichloroethane 46.2 $\mu \mathrm{g/L}$ 1 50.0 < 0.25792 68.6 - 133.4 17 20 1,1-Dichloropropene 49.8 50.0 100 20 $\mu g/L$ 1 < 0.28677.3 - 127.816 Benzene 52.3 $\mu g/L$ 1 50.0 < 0.319 105 69.8 - 128.2 15 20 Carbon Tetrachloride 44.1 $\mu g/L$ 1 50.0 < 0.223 88 76.3 - 127.1 17 20 1.2-Dichloropropane 53.5 $\mu g/L$ 50.0 < 0.266 107 79.4 - 127.220 1 17 Trichloroethene (TCE) 46.7 $\mu g/L$ 1 50.0 < 0.235 93 79.4 - 12119 20 Dibromomethane (methylene bromide) 54.7 $\mu g/L$ 1 50.0 < 0.341 109 82.6 - 123 17 20 Bromodichloromethane 53.9 $\mu g/L$ 1 50.0 < 0.291 108 76.1 - 136.4 20 17 2-Chloroethyl vinyl ether < 0.29350.0 $\mu g/L$ 1 < 0.2930 10 - 191.40 20 cis-1,3-Dichloropropene 46.6 $\mu g/L$ 1 50.0 < 0.20793 69.2 - 132.418 20 trans-1,3-Dichloropropene 47.6 $\mu \mathrm{g}/\mathrm{L}$ 1 50.0 < 0.293 72.3 - 132.420 95 18 Toluene 50.3 50.0 < 0.268 76.4 - 12020 $\mu g/L$ 1 101 18 1,1,2-Trichloroethane 54.4 μ g/L 1 50.0 < 0.329 109 82.3 - 12016 20 1,3-Dichloropropane 55.150.0 $\mu g/L$ 1 < 0.316 110 75 - 126.215 20 Dibromochloromethane 47.4 50.0 20 $\mu g/L$ 1 < 0.29095 71.2 - 143.918 1,2-Dibromoethane (EDB) 56.2 $\mu g/L$ 1 50.0< 0.229 112 83.4 - 122.5 16 20

continued ...

²¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²²MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²³MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occured properly.

 $^{^{24}}$ MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

²⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

²⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

1

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matrix spikes continued . . . **MSD** Spike Matrix Rec. RPD Param Result Units Dil. Amount Result Limit RPD Rec. Limit Tetrachloroethene (PCE) 24.4 $\mu g/L$ 1 50.0 < 0.23349 23.6 - 13818 20 Chlorobenzene 47.9 $\mu g/L$ 1 50.0 < 0.276 96 74 - 119.320 18 1,1,1,2-Tetrachloroethane 49.6 $\mu g/L$ 1 50.0 < 0.226 80 - 123 99 19 20 48.9 1 72.3 - 127Ethylbenzene $\mu g/L$ 50.0 < 0.24598 18 20 m.p-Xvlene 96.0 1 100 73.2 - 128 $\mu g/L$ < 0.51796 18 20 90.2 - 127.8 Bromoform 46.8 $\mu g/L$ 1 50.0 94 20 < 0.17519 Styrene 1.26 $\mu g/L$ 1 50.0 < 0.2392 53.8 - 145.5 20 16 o-Xylene 49.0 $\mu g/L$ 1 50.0 < 0.24798 71.3 - 134.419 20 1,1,2,2-Tetrachloroethane 66.8 50.0 $\mu g/L$ 1 < 0.223 134 67 - 144 19 20 2-Chlorotoluene 46.6 50.0 < 0.235 62.7 - 128.9 $\mu g/L$ 1 93 17 20 28 1,2,3-Trichloropropane 67.6 $\mu g/L$ 1 50.0 < 0.230 135 68.5 - 122.8 18 20 Isopropylbenzene 46.9 $\mu g/L$ 50.0 < 0.226 94 61.8 - 133.9 20 1 19 Bromobenzene 53.9 $\mu g/L$ 1 50.0 < 0.245 108 67.2 - 123.6 20 19 n-Propylbenzene 43.4 $\mu g/L$ 1 50.0 < 0.234 87 61.6 - 128.220 17 1,3,5-Trimethylbenzene 44.0 $\mu g/L$ 1 50.0 < 0.26188 66.4 - 125.8 19 20 tert-Butylbenzene 42.3 $\mu g/L$ 1 50.0 < 0.281 85 59.8 - 133 20 20 1,2,4-Trimethylbenzene 45.9 50.0 78.2 - 119.1 $\mu g/L$ 1 < 0.285 92 20 18 1.4-Dichlorobenzene (para) 44.9 $\mu g/L$ 1 50.0 < 0.307 90 68 - 118.4 20 18 42.1 sec-Butylbenzene $\mu g/L$ 1 50.0 < 0.312 84 60.6 - 129.5 20 20 1,3-Dichlorobenzene (meta) 45.6 $\mu \mathrm{g/L}$ 1 50.0 < 0.28491 69.1 - 12218 20 p-Isopropyltoluene 42.150.0 $\mu \mathrm{g/L}$ 1 < 0.24484 60.5 - 13219 20 4-Chlorotoluene 47.8 50.0 < 0.25765.3 - 127.7 $\mu g/L$ 1 96 18 20 1,2-Dichlorobenzene (ortho) 48.4 $\mu g/L$ 50.0 < 0.294 71.8 - 124.8 20 1 97 20 42.9 50.0 n-Butylbenzene $\mu g/L$ < 0.33956.6 - 133.8 20 1 86 19 30 1,2-Dibromo-3-chloropropane 67.0 $\mu \mathrm{g/L}$ 1 50.0 < 0.780 134 85.4 - 112.2 20 20 31 1,2,3-Trichlorobenzene 46.1 $\mu g/L$ 50.0 < 0.736 92 10 - 166.2 20 1 26 32 1,2,4-Trichlorobenzene 36.450.0 < 0.43273 $\mu g/L$ 1 54.8 - 122.2 25 20 33 Naphthalene 58.4 $\mu g/L$ 1 50.0 < 0.475117 24 - 16925 20 Hexachlorobutadiene 42.3 50.0 $\mu g/L$ 1 < 1.02 85 35.6 - 136.3 24 20

	MS	MSD			Spike	MS	MSD	Rec.
Surrogate	Result	Result	Units	Dil.	Amount	Rec.	Rec.	\mathbf{Limit}
Dibromofluoromethane	54.1	53.3	$\mu { m g}/{ m L}$	1	50	108	107	83.9 - 120
Toluene-d8	50.0	49.8	$\mu { m g}/{ m L}$	1	50	100	100	86.8 - 111
4-Bromofluorobenzene (4-BFB)	47.9	47.9	$\mu { m g}/{ m L}$	1	50	96	96	82.2 - 117

²⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

²⁸MSD analyte out of range. MS/MSD has a RPD within limits. Therfore, MS shows extraction occurred properly.

²⁹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

 $^{^{30}\}mathrm{MSD}$ analyte out of range. RPD outside RPD limits.

³¹MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

 $^{^{32}}$ MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³³MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

³⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Matrix Spike (MS-1)

Spiked Sample: 178800

QC Batch:

54162Prep Batch: 46332 Date Analyzed:

2008-11-11

QC Preparation: 2008-11-11 Analyzed By: TP

Prepared By: TP

		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	\mathbf{Limit}
Total Mercury	35	0.000715	mg/L	1	0.00100	< 0.0000251	72	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Mercury	0.000748	mg/L	1	0.00100	< 0.0000251	75	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch: 54204Prep Batch: 46313 Date Analyzed:

2008-11-13 QC Preparation: 2008-11-11 Analyzed By: TP

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Calcium	262	mg/L	1	50.0	211	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Calcium	261	mg/L	1	50.0	211	100	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1) Spiked Sample:

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Potassium	55.5	mg/L	1	50.0	5.53	100	75 - 125

³⁵Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

NMSWD Station #11

Work Order: 8110902 GW Sampling

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matrix spikes continued ...

	MSD			$_{ m Spike}$	Matrix		${ m Rec.}$		R,PD
Param	Result	Unitș	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
	MSD	•		Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Potassium	56.2	mg/L	1	50.0	5.53	101	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Magnesium	83.8	$\mathrm{mg/L}$	1	50.0	31.6	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Magnesium	84.8	mg/L	1	50.0	31.6	106	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch:

54204

Date Analyzed:

2008-11-13

Analyzed By: TP

Prep Batch: 46313

QC Preparation: 2008-11-11

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Dissolved Sodium	171	mg/L	1	50.0	119	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$	RPD	Limit
Dissolved Sodium	169	${ m mg/L}$	1	50.0	119	100	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 178800

QC Batch:

54436

Date Analyzed:

2008-11-19

Analyzed By: TP

Prep Batch: 46545

QC Preparation: 2008-11-19

Prepared By: TP

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 78 of 94 NM-SWD Station #11, Lea Co., NM

		MS			Spike	Matrix		Rec.
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Mercury	36	0.000625	${ m mg/L}$	1	0.00100	5.8e-05	57	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

		MSD			Spike	Matrix		Rec.		RPD
Param		Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Mercury	37	0.000653	m mg/L	1	0.00100	5.8e-05	60	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 178803

QC Batch: 54521 Prep Batch: 46614 Date Analyzed: 2008-11-21 QC Preparation: 2008-11-21

Analyzed By: RR
Prepared By: KV

MS Spike Matrix Rec. Dil. Result Units Amount Result Limit Param Rec Dissolved Silver 0.119 mg/L 0.125< 0.000700 75 - 125 95

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Silver	0.118	mg/L	1	0.125	< 0.000700	94	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 178803

QC Batch: 54521 Prep Batch: 46614 Date Analyzed: 2008-11-21 QC Preparation: 2008-11-21

Analyzed By: RR Prepared By: KV

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Limit Rec. Dissolved Arsenic 0.518 mg/L 0.500 < 0.00850 1 104 75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Arsenic	0.508	${ m mg/L}$	1	0.500	< 0.00850	102	75 - 125	2	20

³⁶Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

³⁷Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch:

54521 Prep Batch: 46614 Date Analyzed:

2008-11-21

QC Preparation: 2008-11-21 Analyzed By: RR

Prepared By:

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Barium	0.998	${ m mg/L}$	1	1.00	0.02	98	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Barium	0.997	mg/L	1	1.00	0.02	98	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch:

54521

Date Analyzed:

2008-11-21

Analyzed By: RR

Prep Batch: 46614

QC Preparation: 2008-11-21

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Dissolved Cadmium	0.259	mg/L	1	0.250	< 0.00110	104	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Cadmium	0.257	mg/L	1	0.250	< 0.00110	103	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch:

54521

Date Analyzed:

2008-11-21

Analyzed By: RR.

Prep Batch: 46614

QC Preparation: 2008-11-21

Prepared By: KV

MSSpike Matrix Rec. Result Units Dil. Amount Result Limit Rec. Dissolved Chromium 0.0950 mg/L 0.100 < 0.00200 95 75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	\mathbf{Dil} .	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Chromium	0.0950	mg/L	1	0.100	< 0.00200	95	75 - 125	0	20

NMSWD Station #11

Work Order: 8110902 GW Sampling

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Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch: Prep Batch:

54521 46614 Date Analyzed:

2008-11-21

QC Preparation: 2008-11-21 Analyzed By: RR

Prepared By: KV

MS Spike Matrix Rec. Param Result Units Dil Amount Result Rec. Limit Dissolved Lead 0.498 mg/L 0.500 < 0.00460 100 75 - 125 1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Lead	0.495	$\mathrm{mg/L}$	1	0.500	< 0.00460	99	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch: Prep. Batch:

54521 46614 Date Analyzed: QC Preparation:

2008-11-21 2008-11-21 Analyzed By: RR

Prepared By: KV

MS Spike Matrix

Rec. Result Param Units Dil. Amount Result Limit Rec. Dissolved Selenium 0.523 mg/L 0.500< 0.0106 105 75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec .		RPD
Param	Result	Units	Dil .	\mathbf{A} mount	Result	Rec.	Limit	R.PD	Limit
Dissolved Selenium	0.509	mg/L	1	0.500	< 0.0106	102	75 - 125	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1)

Spiked Sample: 178803

QC Batch:

54521

Date Analyzed:

2008-11-21

Analyzed By: RR

KV

Prep Batch: 46614

QC Preparation:

2008-11-21

Prepared By:

MS Spike Matrix Rec. Param Result Units Dil. Amount Result Rec. Limit Dissolved Silica 14.2 mg/L 1 1.00 13.1110 75 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Dissolved Silica	14.0	mg/L	1	1.00	13.1	90	75 - 115	1	20

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 81 of 94 NM-SWD Station #11, Lea Co., NM

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch: 54523 Prep Batch: 46344

1

1

Date Analyzed:

2008-11-21

QC Preparation: 2008-11-12

Analyzed By: RR

Prepared By: KV

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit
Total Silica	1.02	mg/L	1	1.00	< 0.0186	102	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Silica	1.03	mg/L	1	1.00	< 0.0186	103	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1)

Spiked Sample:

QC Batch: 54523 Prep Batch: 46344

Date Analyzed: 2008-11-21 QC Preparation: 2008-11-12 Analyzed By: RR

Prepared By: KV

Analyzed By: KB

	MS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	Rec.	$_{ m Limit}$
Total Silver	0.121	mg/L	1	0.125	< 0.000700	97	75 - 125
Total Arsenic	0.501	${ m mg/L}$	1	0.500	< 0.00850	100	75 - 125
Total Barium	1.07	mg/L	1	1.00	< 0.00180	107	75 - 125
Total Cadmium	0.251	${ m mg/L}$	1	0.250	< 0.00110	100	75 - 125
Total Chromium	0.0960	$\mathrm{mg/L}$	1	0.100	< 0.00201	96	75 - 125
Total Lead	0.493	${ m mg/L}$	1	0.500	< 0.00460	99	75 - 125
Total Selenium	0.466	mg/L	1	0.500	< 0.0106	93	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

	MSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit
Total Silver	0.120	mg/L	1	0.125	< 0.000700	96	75 - 125	1	20
Total Arsenic	0.502	mg/L	1	0.500	< 0.00850	100	75 - 125	0	20
Total Barium	1.05	$\mathrm{mg/L}$	1	1.00	< 0.00180	105	75 - 125	2	20
Total Cadmium	0.250	mg/L	1	0.250	< 0.00110	100	75 - 125	0	20
Total Chromium	0.0950	m mg/L	1	0.100	< 0.00201	95	75 - 125	1	20
Total Lead	0.492	${ m mg/L}$	1	0.500	< 0.00460	98	75 - 125	0	20
Total Selenium	0.466	mg/L	1	0.500	< 0.0106	93	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (CCV-1)

QC Batch: 54142

Date Analyzed: 2008-11-10

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 82 of 94 NM-SWD Station #11, Lea Co., NM

			CCVs	CCVs	CCVs	Percent	.
D.	TD1	**	True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Bromochloromethane		$\mu \mathrm{g/L}$	50.0	50.9	102	70 - 130	2008-11-10
Dichlorodiffuoromethane		$\mu \mathrm{g}/\mathrm{L}$	50.0	49.9	100	70 - 130	2008-11-10
Chloromethane (methyl chloride)		$\mu { m g/L}$	50.0	51.4	103	70 - 130	2008-11-10
Vinyl Chloride		$\mu \mathrm{g/L}$	50.0	52.7	105	80 - 120	2008-11-10
Bromomethane (methyl bromide)		$\mu \mathrm{g/L}$	50.0	48.6	97	70 - 130	2008-11-10
Chloroethane		$\mu { m g}/{ m L}$	50.0	50.2	100	70 - 130	2008-11-10
Trichlorofluoromethane		$\mu { m g}/{ m L}$	50.0	49.3	99	70 - 130	2008-11-10
Acetone		$\mu { m g}/{ m L}$	50.0	52.0	104	70 - 130	2008-11-10
Iodomethane (methyl iodide)		$\mu { m g/L}$	50.0	49.3	99	70 - 130	2008-11-10
Carbon Disulfide		$\mu { m g}/{ m L}$	50.0	52.4	105	70 - 130	2008-11-10
Acrylonitrile		$\mu { m g}/{ m L}$	50.0	53.3	107	70 - 130	2008-11-10
2-Butanone (MEK)		$\mu { m g}/{ m L}$	50.0	55.4	111	70 - 130	2008-11-10
4-Methyl-2-pentanone (MIBK)		$\mu { m g}/{ m L}$	50.0	44.8	90	70 - 130	2008-11-10
2-Hexanone		$\mu { m g}/{ m L}$	50.0	50.0	100	70 - 130	2008-11-10
trans 1,4-Dichloro-2-butene		$\mu { m g}/{ m L}$	50.0	57.0	114	70 - 130	2008-11-10
1,1-Dichloroethene		$\mu { m g}/{ m L}$	50.0	49.3	99	80 - 120	2008-11-10
Methylene chloride		$\mu { m g}/{ m L}$	50.0	52.7	105	70 - 130	2008-11-10
MTBE		$\mu { m g/L}$	50.0	48.6	97	70 - 130	2008-11-10
trans-1,2-Dichloroethene		$\mu \mathrm{g}/\mathrm{L}$	50.0	52.8	106	70 - 130	2008-11-10
1,1-Dichloroethane		$\mu { m g}/{ m L}$	50.0	52.9	106	70 - 130	2008-11-10
cis-1,2-Dichloroethene		$\mu { m g}/{ m L}$	50.0	52.8	106	70 - 130	2008-11-10
2,2-Dichloropropane		$\mu { m g}/{ m L}$	50.0	51.6	103	70 - 130	2008-11-10
1,2-Dichloroethane (EDC)		$\mu \mathrm{g}/\mathrm{L}$	50.0	51.0	102	70 - 130	2008-11-10
Chloroform		$\mu \mathrm{g}/\mathrm{L}$	50.0	51.0	102	80 - 120	2008-11-10
1,1,1-Trichloroethane		$\mu \mathrm{g}/\mathrm{L}$	50.0	49.3	99	70 - 130	2008-11-10
1,1-Dichloropropene		$\mu \mathrm{g}/\mathrm{L}$	50.0	51.0	102	70 - 130	2008-11-10
Benzene		$\mu \mathrm{g}/\mathrm{L}$	50.0	51.4	103	70 - 130	2008-11-10
Carbon Tetrachloride		$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	50.0	46.3	93	70 - 130	2008-11-10
1,2-Dichloropropane		$\mu \mathrm{g}/\mathrm{L}$	50.0	52.4	105	80 - 120	2008-11-10
Trichloroethene (TCE)		$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	50.0	46.3	93	70 - 130	2008-11-10
Dibromomethane (methylene bromide)		$\mu_{\rm g}/{ m L}$ $\mu_{\rm g}/{ m L}$	50.0	49.7	99	70 - 130	2008-11-10
Bromodichloromethane		$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	50.0	52.1	99 104	70 - 130	2008-11-10
2-Chloroethyl vinyl ether		$\mu \mathrm{g}/\mathrm{L}$	50.0	39.0	78	70 - 130	2008-11-10
cis-1,3-Dichloropropene		$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	50.0	48.5	97	70 - 130 70 - 130	
trans-1,3-Dichloropropene		$\mu_{\rm g}/{ m L}$	50.0	48.4	97 97	70 - 130 70 - 130	2008-11-10
Toluene			50.0	50.3	= -		2008-11-10
1,1,2-Trichloroethane		$\mu g/L$	50.0 50.0	$\frac{50.3}{49.4}$	101	80 - 120	2008-11-10
1,3-Dichloropropane		μg/L			99	70 - 130	2008-11-10
Dibromochloromethane		$\mu \mathrm{g}/\mathrm{L}$	50.0	50.1	100	70 - 130	2008-11-10
		$\mu \mathrm{g}/\mathrm{L}$	50.0	44.0	88	70 - 130	2008-11-10
1,2-Dibromoethane (EDB)	38	$\mu \mathrm{g}/\mathrm{L}$	50.0	49.4	99	70 - 130	2008-11-10
Tetrachloroethene (PCE)	00	$\mu \mathrm{g}/\mathrm{L}$	50.0	34.0	68	70 - 130	2008-11-10
Chlorobenzene		$\mu { m g}/{ m L}$	50.0	47.4	95	80 - 120	2008-11-10

continued . .

³⁸Tetrachloroethene outside of control limits on CCV(ICV). CCV(ICV) component average is 99 which is within acceptable range. This is acceptable by Method 8000.

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 83 of 94 NM-SWD Station #11, Lea Co., NM

$standard\ continued\ \dots$			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
1,1,1,2-Tetrachloroethane	Trag	$\mu g/L$	50.0	47.9	96	70 - 130	2008-11-10
		$\mu \mathrm{g}/\mathrm{L}$	50.0	50.8	102	80 - 120	2008-11-10
Ethylbenzene		$\mu \mathrm{g}/\mathrm{L}$	100	101	101	70 - 130	2008-11-10
m,p-Xylene Bromoform			50.0	42.1	84	70 - 130	2008-11-10
		$\mu { m g}/{ m L} \ \mu { m g}/{ m L}$	50.0	46.4	93	70 - 130 70 - 130	2008-11-10
Styrene			50.0 50.0	52.1	93 104	70 - 130 70 - 130	2008-11-10
o-Xylene 1,1,2,2-Tetrachloroethane		$ m \mu g/L \ \mu g/L$	50.0 50.0	52.1 53.0	104	70 - 130 70 - 130	2008-11-10
2-Chlorotoluene			50.0 50.0	47.8	96	70 - 130 70 - 130	2008-11-10
		$\mu \mathrm{g/L}$	50.0	52.2	104	70 - 130 70 - 130	2008-11-10
1,2,3-Trichloropropane		μg/L					
Isopropylbenzene		$\mu \mathrm{g/L}$	50.0	49.7	99	70 - 130	2008-11-10
Bromobenzene		$\mu \mathrm{g/L}$	50.0	49.4	99	70 - 130	2008-11-10
n-Propylbenzene		$\mu g/L$	50.0	47.5	95 07	70 - 130	2008-11-10
1,3,5-Trimethylbenzene		$\mu \mathrm{g/L}$	50.0	48.7	97	70 - 130	2008-11-10
tert-Butylbenzene		$\mu \mathrm{g}/\mathrm{L}$	50.0	47.5	95	70 - 130	2008-11-10
1,2,4-Trimethylbenzene		$\mu \mathrm{g/L}$	50.0	50.0	100	70 - 130	2008-11-10
1,4-Dichlorobenzene (para)		$\mu \mathrm{g/L}$	50.0	46.3	93	70 - 130	2008-11-10
sec-Butylbenzene		$\mu \mathrm{g/L}$	50.0	47.9	96	70 - 130	2008-11-10
1,3-Dichlorobenzene (meta)		$\mu \mathrm{g/L}$	50.0	47.3	95	70 - 130	2008-11-10
p-Isopropyltoluene		$\mu \mathrm{g/L}$	50.0	49.0	98	70 - 130	2008-11-10
4-Chlorotoluene		$\mu \mathrm{g/L}$	50.0	48.6	97	70 - 130	2008-11-10
1,2-Dichlorobenzene (ortho)		$\mu \mathrm{g/L}$	50.0	48.2	96	70 - 130	2008-11-10
n-Butylbenzene		$\mu { m g}/{ m L}$	50.0	50.6	101	70 - 130	2008-11-10
1,2-Dibromo-3-chloropropane		$\mu { m g}/{ m L}$	50.0	41.1	82	70 - 130	2008-11-10
1,2,3-Trichlorobenzene		$\mu { m g}/{ m L}$	50.0	41.8	84	70 - 130	2008-11-10
1,2,4-Trichlorobenzene		$\mu { m g}/{ m L}$	50.0	36.7	73	70 - 130	2008-11-10
Naphthalene		$\mu { m g}/{ m L}$	50.0	39.0	78	70 - 130	2008-11-10
Hexachlorobutadiene		$\mu { m g/L}$	50.0	45.0	90	70 - 130	2008-11-10

Standard (ICV-1)

QC Batch: 54146

Date Analyzed: 2008-11-10

Analyzed By: RG

Analyzed By: R.G

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Data
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	238	95	95 - 105	2008-11-10

Standard (CCV-1)

QC Batch: 54146

Date Analyzed: 2008-11-10

Work Order: 8110902

Page Number: 84 of 94

NMSWD Station #11

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GW Sampling

NM-SWD Station #11, Lea Co., NM

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Alkalinity		mg/L as CaCo3	250	242	97	95 - 105	2008-11-10

Standard (ICV-1)

QC Batch: 54162

Date Analyzed: 2008-11-11

Analyzed By: TP

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		$\mathrm{mg/L}$	0.00100	0.00101	101	90 - 110	2008-11-11

Standard (CCV-1)

QC Batch: 54162

Date Analyzed: 2008-11-11

Analyzed By: TP

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Mercury		m mg/L	0.00100	0.00104	104	90 - 110	2008-11-11

Standard (ICV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		${ m mg/L}$	12.5	11.8	94	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		${ m mg/L}$	12.5	12.1	97	90 - 110	2008-11-12

Standard (CCV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 85 of 94 NM-SWD Station #11, Lea Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2008-11-12

Standard (CCV-1)

QC Batch: 54171

Date Analyzed: 2008-11-12

Analyzed By: RD

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		$\mathrm{mg/L}$	12.5	11.5	92	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54184

Date Analyzed: 2008-11-12

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	\mathbf{Date}
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		mg/L	1000	933.0	93	90 - 110	2008-11-12

Standard (CCV-1)

QC Batch: 54184

Date Analyzed: 2008-11-12

Analyzed By: RD

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		m mg/L	1000	980.0	98	90 - 110	2008-11-12

Standard (ICV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Calcium		$\mathrm{mg/L}$	50.0	52.1	104	95 - 105	2008-11-13

Standard (ICV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

GW Sampling

Work Order: 8110902

Page Number: 86 of 94 NM-SWD Station #11, Lea Co., NM

NIVIS WD Station #11			G W Dain	Jimg	14141-13	WW-5WD Station #11, Lea Co., WW		
			ICVs	ICVs	ICVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Potassium		mg/L	50.0	50.4	101	95 - 105	2008-11-13	
Standard (ICV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Anal	yzed By: TP	
			ICVs	ICVs	ICVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units		Conc.	Recovery	Limits	Analyzed	
Dissolved Magnesium		mg/L		52.3	105	95 - 105	2008-11-13	
Standard (ICV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Anal	yzed By: TP	
			ICVs	ICVs	ICVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Sodium		${ m mg/L}$	50.0	51.9	104	95 - 105	2008-11-13	
Standard (CCV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Analy	yzed By: TP	
			CCVs	CCVs	CCVs	Percent		
			True	Found	Percent	Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Calcium		mg/L	50.0	54.5	109	90 - 110	2008-11-13	
Standard (CCV-1)								
QC Batch: 54204			Date Analyzed:	2008-11-13		Analy	yzed By: TP	
			CCVs		COL		, , ·	
			True	CCVs Found	CCVs Percent	Percent	Data	
Danama	Elo m	Timita	Cone	Cond	Percent	Recovery	Date	

Standard (CCV-1)

Dissolved Potassium

Param

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QC Batch: 54204 Date Analyzed: 2008-11-13

Conc.

50.0

Conc.

51.1

Recovery

102

Limits

90 - 110

Analyzed

2008-11-13

Analyzed By: TP

Units

mg/L

Flag

NMSWD Station #11

Work Order: 8110902 GW Sampling

Page Number: 87 of 94 NM-SWD Station #11, Lea Co., NM

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Magnesium		mg/L	50.0	54.7	109	90 - 110	2008-11-13

Standard (CCV-1)

QC Batch: 54204

Date Analyzed: 2008-11-13

Analyzed By: TP

			CCVs True	CCVs Found	$rac{ ext{CCVs}}{ ext{Percent}}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Sodium		$\mathrm{mg/L}$	50.0	53.7	107	90 - 110	2008-11-13

Standard (CCV-1)

QC Batch: 54206

Date Analyzed: 2008-11-12

Analyzed By: DS

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Phenol		mg/L	60.0	60.4	101	80 - 120	2008-11-12
1,4-Dichlorobenzene (para)		${ m mg/L}$	60.0	60.9	102	80 - 120	2008-11-12
2-Nitrophenol		${ m mg/L}$	60.0	63.0	105	80 - 120	2008-11-12
2,4-Dichlorophenol		mg/L	60.0	56.0	93	80 - 120	2008-11-12
Hexachlorobutadiene		mg/L	60.0	61.9	103	80 - 120	2008-11-12
4-Chloro-3-methylphenol		$\mathrm{mg/L}$	60.0	64.0	107	80 - 120	2008-11-12
2,4,6-Trichlorophenol		mg/L	60.0	60.8	101	80 - 120	2008-11-12
Acenaphthene		${ m mg/L}$	60.0	60.4	101	80 - 120	2008-11-12
Diphenylamine		mg/L	60.0	61.8	103	80 - 120	2008-11-12
Pentachlorophenol	39	mg/L	60.0	45.8	76	80 - 120	2008-11-12
Fluoranthene		mg/L	60.0	57.1	95	80 - 120	2008-11-12
Di-n-octylphthalate	40	mg/L	60.0	73.6	123	80 - 120	2008-11-12
Benzo(a)pyrene		mg/L	60.0	62.2	104	80 - 120	2008-11-12

Surrogate	Flag	Result	Units	Dilution	$egin{array}{c} ext{Spike} \ ext{Amount} \end{array}$	Percent Recovery	Recovery Limit
2-Fluorophenol		60.4	mg/L	1	60.0	101	80 - 120
Phenol-d5		58.7	${ m mg/L}$	1	60.0	98	80 - 120
Nitrobenzene-d5		66.3	mg/L	1	60.0	110	80 - 120
2-Fluorobiphenyl		56.9	mg/L	1	60.0	95	80 - 120
2,4,6-Tribromophenol		62.0	mg/L	1	60.0	103	80 - 120

 $continued \dots$

³⁹Pentachlorophenol outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is

acceptable by Method 8000.

40 Di-n-octylphthalate outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is acceptable by Method 8000.

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 88 of 94 NM-SWD Station #11, Lea Co., NM

					Spike	Percent	Recovery
Surrogate	Flag	Result	Units	Dilution	${f Amount}$	Recovery	Limit
Terphenyl-d14		62.2	mg/L	1	60.0	104	80 - 120

Standard (ICV-1)

QC Batch: 54245

Date Analyzed: 2008-11-14

Analyzed By: RD

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Specific Conductance		uMHOS/cm	1410	1440	102	90 - 110	2008-11-14

Standard (CCV-1)

QC Batch: 54245

Date Analyzed: 2008-11-14

Analyzed By: RD

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Specific Conductance		uMHOS/cm	1410	1360	96	90 - 110	2008-11-14

Standard (ICV-1)

QC Batch: 54251

Date Analyzed: 2008-11-14

Analyzed By: RD

			ICVs True	$\begin{array}{c} \rm ICVs \\ \rm Found \end{array}$	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Chloride		mg/L	12.5	12.1	97	90 - 110	2008-11-14

Standard (ICV-1)

QC Batch: 54251

Date Analyzed: 2008-11-14

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		mg/L	12.5	12.2	98	90 - 110	2008-11-14

Standard (CCV-1)

QC Batch: 54251

Date Analyzed: 2008-11-14

Analyzed By: RD

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 89 of 94 NM-SWD Station #11, Lea Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.2	98	90 - 110	2008-11-14

Standard (CCV-1)

QC Batch: 54251

Date Analyzed: 2008-11-14

Analyzed By: RD

			CCVs True	$\begin{array}{c} { m CCVs} \\ { m Found} \end{array}$	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	$\mathbf{U}\mathbf{nits}$	Conc.	Conc.	Recovery	Limits	Analyzed
Sulfate		mg/L	12.5	12.4	99	90 - 110	2008-11-14

Standard (ICV-1)

QC Batch: 54283

Date Analyzed: 2008-11-14

Analyzed By: RG

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
pН		s.u.	7.00	7.16	102	98 - 102	2008-11-14

Standard (CCV-1)

QC Batch: 54283

Date Analyzed: 2008-11-14

Analyzed By: RG

			CCVs True	CCVs Found	${ m CCVs}$ ${ m Percent}$	Percent Recovery	Date
Param	Flag	$\mathbf{U}_{\mathbf{nits}}$	Conc.	Conc.	Recovery	Limits	Analyzed
pН		s.u.	7.00	7.12	102	98 - 102	2008-11-14

Standard (ICV-1)

QC Batch: 54362

Date Analyzed: 2008-11-18

Analyzed By: RD

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	_Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Dissolved Solids		m mg/L	1000	978.0	98	90 - 110	2008-11-18

Standard (CCV-1)

QC Batch: 54362

Date Analyzed: 2008-11-18

Analyzed By: RD

Work Order: 8110902 GW Sampling Page Number: 90 of 94 NM-SWD Station #11, Lea Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	941.0	94	90 - 110	2008-11-18

Standard (ICV-1)

1

QC Batch: 54436

Date Analyzed: 2008-11-19

Analyzed By: TP

			ICVs	ICV_S	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	$_{ m Units}$	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Mercury		m mg/L	0.00100	0.000943	94	90 - 110	2008-11-19

Standard (CCV-1)

QC Batch: 54436

Date Analyzed: 2008-11-19

Analyzed By: TP

			CCVs	CCVs	CCVs	Percent	
•			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Mercury		mg/L	0.00100	0.000973	97	90 - 110	2008-11-19

Standard (ICV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Silver		$\mathrm{mg/L}$	0.125	0.123	98	90 - 110	2008-11-21

Standard (ICV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Arsenic		mg/L	1.00	0.997	100	95 - 105	2008-11-21

Standard (ICV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

Work Order: 8110902 Page Number: 91 of 94 Report Date: November 21, 2008 GW Sampling NM-SWD Station #11, Lea Co., NM NMSWD Station #11 ICVs**ICVs ICVs** Percent True Found Percent Recovery Date Flag Units Conc. Limits Analyzed Conc. Recovery Param 1.00 2008-11-21 Dissolved Barium mg/L1.01 101 95 - 105 Standard (ICV-1) QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RR. **ICVs ICVs** ICVsPercent Recovery True Found Percent Date Flag Units Conc. Conc. Param Recovery Limits Analyzed 1.00 Dissolved Cadmium mg/L1.00 100 95 - 1052008-11-21 Standard (ICV-1) QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RR **ICVs ICVs ICVs** Percent True Found Percent Recovery Date Conc. Param Flag Units Conc. Recovery Limits Analyzed Dissolved Chromium mg/L 1.001.01 101 95 - 105 2008-11-21 Standard (ICV-1) QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RR **ICVs** ICVs**ICVs** Percent True Found Percent Recovery Date Units Conc. Conc. Recovery Analyzed Param Flag Limits Dissolved Lead mg/L 1.00 0.999 $\overline{100}$ 95 - 105 2008-11-21

Standard (ICV-1)

(1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

Analyzed By: RR

			ICVs True	ICVs Found	ICVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Selenium		${ m mg/L}$	1.00	0.999	100	95 - 105	2008-11-21

Standard (ICV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

	Report Date: November 21, 2008 NMSWD Station #11			8110902 pling	Page Number: 92 of 94 NM-SWD Station #11, Lea Co., NM			
Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Dissolved Silica		mg/L	5.00	4.76	95	95 - 105	2008-11-21	
Standard (CCV-1)								
QC Batch: 54521			Date Analyzed:	2008-11-21		Analy	yzed By: RR	
Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	
Dissolved Silver		$\mathrm{mg/L}$	0.125	0.121	97	90 - 110	2008-11-21	
Standard (CCV-1) QC Batch: 54521			Date Analyzed:	2008-11-21		Analy	vzed By: RR	
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Arsenic		mg/L	1.00	0.959	96	90 - 110	2008-11-21	
Standard (CCV-1)								
QC Batch: 54521			Date Analyzed:	2008-11-21		Analy	zed By: RR	
_		** .	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed	
Dissolved Barium		mg/L	1.00	1.03	103	90 - 110	2008-11-21	
Standard (CCV-1)								
QC Batch: 54521			Date Analyzed:	2008-11-21		Analy	zed By: RR.	
D	Elo m	TY:-	CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date	

Standard (CCV-1)

Dissolved Cadmium

Flag

Units

mg/L

Param

1

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QC Batch: 54521 Date Analyzed: 2008-11-21 Analyzed By: RR

Conc.

0.992

Recovery

99

Limits

90 - 110

Analyzed

2008-11-21

Conc.

1.00

NMSWD Station #11

Work Order: 8110902 GW Sampling Page Number: 93 of 94 NM-SWD Station #11, Lea Co., NM

CCVs CCVs **CCVs** Percent True Found Percent Recovery Date Recovery Param Flag Units Conc. Conc. Limits Analyzed 90 - 110 Dissolved Chromium mg/L 1.00 1.00 100 2008-11-21

Standard (CCV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Lead		m mg/L	1.00	0.972	97	90 - 110	2008-11-21

Standard (CCV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Selenium		mg/L	1.00	0.962	96	90 - 110	2008-11-21

Standard (CCV-1)

QC Batch: 54521

Date Analyzed: 2008-11-21

Analyzed By: RR

			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Dissolved Silica		m mg/L	5.00	4.65	93	90 - 110	2008-11-21

Standard (ICV-1)

QC Batch: 54523

Date Analyzed: 2008-11-21

Analyzed By: RR

			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silica		mg/L	5.00	4.76	95	95 - 105	2008-11-21

Standard (ICV-1)

QC Batch: 54523

Date Analyzed: 2008-11-21

Analyzed By: RR

NMSWD Station #11

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Work Order: 8110902 GW Sampling Page Number: 94 of 94 NM-SWD Station #11, Lea Co., NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/L	0.125	0.123	98	90 - 110	2008-11-21
Total Arsenic		${ m mg/L}$	1.00	0.997	100	95 - 105	2008-11-21
Total Barium		mg/L	1.00	1.01	101	95 - 105	2008-11-21
Total Cadmium		mg/L	1.00	1.00	100	95 - 105	2008-11-21
Total Chromium		mg/L	1.00	1.01	101	95 - 105	2008-11-21
Total Lead		mg/L	1.00	0.999	100	95 - 105	2008-11-21
Total Selenium		mg/L	1.00	0.999	100	95 - 105	2008-11-21

Standard (CCV-1)

QC Batch: 54523

Date Analyzed: 2008-11-21

Analyzed By: RR

			CCVs True	CCVs Found	${ m CCVs} \ { m Percent}$	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silica		mg/L	5.00	4.68	94	90 - 110	2008-11-21

Standard (CCV-1)

QC Batch: 54523

Date Analyzed: 2008-11-21

Analyzed By: RR

			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
Total Silver		m mg/L	0.125	0.120	96	90 - 110	2008-11-21
Total Arsenic		${ m mg/L}$	1.00	0.954	95	90 - 110	2008-11-21
Total Barium		m mg/L	1.00	1.01	101	90 - 110	2008-11-21
Total Cadmium		${ m mg/L}$	1.00	0.994	99	90 - 110	2008-11-21
Total Chromium		mg/L	1.00	0.991	99	90 - 110	2008-11-21
Total Lead		mg/L	1.00	0.966	97	90 - 110	2008-11-21
Total Selenium		${ m mg/L}$	1.00	0.959	96	90 - 110	2008-11-21

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LAB Order ID

Taccanalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (806) 794-1296 Fax (806) 794-1298 1 (800) 378-1298

5002 Basin Street, Suite A1. Midland, Texas 79703 Tel (432) 689-6301 Fax (432) 689-6313

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8808 Camp Bowie Blvd. West, Suite Ft. Worth, Texas 76/16 Tel (817) 201-5260 Fax (817) 560-4336 Page

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00 East Sunset Rd., Suite E F Paso, Texas 79922 Tel (915) 585-3443 Fax (915) 585-4944 1 (888) 588-3443

ANALYSIS REQUEST

2 Method Circle or Specify GC/MS Semi. Vol. 8270C / 625

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RORUMCMINIO

8151-10788

Rosmell, NA

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(If different from above)

Project #:

Invoice to:

Status

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Contact Person

Project Name:

Sampler

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Lea

Project Location (including state)

575-612-8805

575-612-8800

Phone #:

Disposal Co.

Water

MexILO Salt

Name So.

Company

Fax #:

ROSWELL, NIM 88202

Bax 1213

Street, City, Zip)

Address

TCLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Total Metais Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C / 625 TPH 8015 GRO / DRO / TVHC TPH 418.1 / TX1005 / TX1005 Ext(C35) BTEX 8021B / 602 / 8260B / 624

Turn Around Time if different from standard

8021B / 602 / 8260B / 624

SAMPLING

PRESERVATIVE

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MTBE

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Station

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1-14/20

NMSWD Station # 11

and

803 NMSWD STETO, #11 MW-2

802 NMSWD STATION # 1980 NM SWO Statton9

MATER

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CONTAINERS

FIELD CODE

AB USE) ONLY

LAB#

STADGE

TCLP Semi Volatiles

BCI

Pesticides 8081A / 608

PCB's 8082 / 608

PIOH

Moisture Content

HOSE DOB

CC/W2 A91 8580B / 624

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1×500 AL 1P,

REMARKS: 58mp/e

LAB USE

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Check If Special Reporting Limits Are Needed TRRP Report Required

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Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O.

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Company:

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196000025008 X7100

Carrier #

TCLP Pesticides

Report Date: November 14, 2008

Work Order: 8110902 NMSWD Station #11 GW Sampling

Page Number: 1 of 17 NM-SWD Station #11, Lea Co., NM

Summary Report

Rory McMinn

New Mexico Salt Water Disposal Co.

P.O. box 1213

Roswell, NM 88202

Report Date: November 14, 2008

Work Order: 8110902

Project Location: NM-SWD Station #11, Lea Co., NM

Project Name:

GW Sampling

Project Number: NMSWD Station #11

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
178801	NMSWD Station #11 MW-3	water	2008-11-06	11:41	2008-11-08
178802	NMSWD Station #11 MW-1	water	2008-11-06	12:55	2008-11-08
178803	NMSWD Station #11 MW-2	water	2008-11-06	13:45	2008-11-08
178804	NMSWD Station #11 RW-1	water	2008-11-06	14:15	2008-11-08

Sample: 178801 - NMSWD Station #11 MW-3

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		< 1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		218	mg/L as CaCo3	4.00
Total Alkalinity	•	218	mg/L as CaCo3	4.00
Dissolved Calcium		65.3	${ m mg/L}$	1.00
Chloride		234	mg/L	3.00
Specific Conductance		1530	uMHOS/cm	0.00
Dissolved Potassium		10.6	mg/L	1.00
Dissolved Magnesium		13.3	mg/L	1.00
Dissolved Sodium		332	${ m mg/L}$	1.00
pН		7.91	s.u.	0.00
Pyridine		< 0.00458	$\mathrm{mg/L}$	0.00500
N-Nitrosodimethylamine		< 0.00458	mg/L	0.00500
2-Picoline		< 0.00458	mg/L	0.00500
Methyl methanesulfonate	•	< 0.00458	mg/L	0.00500
Ethyl methanesulfonate		< 0.00458	mg/L	0.00500
Phenol		< 0.00458	mg/L	0.00500
Aniline	_	< 0.00458	mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 2 of 17 NM-SWD Station #11, Lea Co., NM

sample 178801 continued . . .

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Param	Flag Result	Units	RL
bis(2-chloroethyl)ether	< 0.00458	mg/L	0.00500
2-Chlorophenol	< 0.00458	m mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00458	m mg/L	0.00500
1,4-Dichlorobenzene (para)	< 0.00458	m mg/L	0.00500
Benzyl alcohol	< 0.00458	m mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00458	mg/L	0.00500
2-Methylphenol	< 0.00458	${ m mg/L}$	0.00500
bis(2-chloroisopropyl)ether	< 0.00458	m mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00458	mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00458	m mg/L	0.00500
Hexachloroethane	< 0.00458	m mg/L	0.00500
Acetophenone	< 0.00458	mg/L	0.00500
Nitrobenzene	< 0.00458	m mg/L	0.00500
N-Nitrosopiperidine	< 0.00458	mg/L	0.00500
Isophorone	< 0.00458	mg/L	0.00500
2-Nitrophenol	< 0.00458	m mg/L	0.00500
2,4-Dimethylphenol	< 0.00458	mg/L	0.00500
bis(2-chloroethoxy)methane	< 0.00458	$^{\prime\prime}_{ m mg/L}$	0.00500
2,4-Dichlorophenol	< 0.00458	mg/L	0.00500
1,2,4-Trichlorobenzene	< 0.00458	mg/L	0.00500
Benzoic acid	< 0.00458	$_{ m mg/L}$	0.00500
Naphthalene	< 0.00458	mg/L	0.00500
a,a-Dimethylphenethylamine	< 0.00458	mg/L	0.00500
4-Chloroaniline	< 0.00458	mg/L	0.00500
2,6-Dichlorophenol	< 0.00917	mg/L	0.0100
Hexachlorobutadiene	< 0.00458	mg/L	0.00500
N-Nitroso-di-n-butylamine	< 0.00458	mg/L	0.00500
4-Chloro-3-methylphenol	< 0.00458	$_{ m mg/L}$	0.00500
2-Methylnaphthalene	< 0.00458	mg/L	0.00500
1-Methylnaphthalene	< 0.00458	m mg/L	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00458	m mg/L	0.00500
Hexachlorocyclopentadiene	< 0.00458	m mg/L	0.00500
2,4,6-Trichlorophenol	< 0.00917	$\frac{mg}{L}$	0.0100
2,4,5-Trichlorophenol	< 0.00458	m mg/L	0.00500
2-Chloronaphthalene	< 0.00458	m mg/L	0.00500
1-Chloronaphthalene	< 0.00458	$_{ m mg/L}$	0.00500
2-Nitroaniline	< 0.00458	m mg/L	0.00500
Dimethylphthalate	< 0.00458	m mg/L	0.00500
Acenaphthylene	< 0.00458	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00458	m mg/L	0.00500
3-Nitroaniline	< 0.00458	$_{ m mg/L}$	0.00500
Acenaphthene	< 0.00458	m mg/L	0.00500
2,4-Dinitrophenol	< 0.00458	mg/L	0.00500
Dibenzofuran	< 0.00458	m mg/L	0.00500
Pentachlorobenzene	< 0.00458	mg/L	0.00500
4-Nitrophenol	< 0.0229	mg/L	0.0250
2,4-Dinitrotoluene	< 0.00458	mg/L	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 3\ of\ 17} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178801 continued ...

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Param	Flag Result	Units	RL
1-Naphthylamine	< 0.00458	mg/L	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00917	$\mathrm{mg/L}$	0.0100
2-Naphthylamine	< 0.00458	$\mathrm{mg/L}$	0.00500
Fluorene	< 0.00458	mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00458	mg/L	0.00500
Diethylphthalate	< 0.00458	mg/L	0.00500
4-Nitroaniline	< 0.00458	m mg/L	0.00500
Diphenylhydrazine	< 0.00458	mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00458	mg/L	0.00500
Diphenylamine	< 0.00458	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00458	mg/L	0.00500
Phenacetin	< 0.00458	m mg/L	0.00500
Hexachlorobenzene	< 0.00458	m mg/L	0.00500
4-Aminobiphenyl	< 0.00458	m mg/L	0.00500
Pentachlorophenol	< 0.00917	$m_{ m g}/L$	0.0100
Anthracene	< 0.00458	mg/L	0.00500
Pentachloronitrobenzene	< 0.00458	m mg/L	0.00500
Pronamide	< 0.00458	mg/L	0.00500
Phenanthrene	< 0.00458	mg/L	0.00500
Di-n-butylphthalate	< 0.00458	mg/L	0.00500
Fluoranthene	< 0.00458	mg/L	0.00500
Benzidine	< 0.0229		0.0250
Pyrene	<0.0229	$^{ m mg/L}$ $^{ m mg/L}$	0.00500
p-Dimethylaminoazobenzene	< 0.00458		0.00500
Butylbenzylphthalate		mg/L	
	<0.00458	mg/L	0.00500
Benzo(a)anthracene	<0.00458	mg/L	0.00500
3,3-Dichlorobenzidine	<0.00458	mg/L	0.00500
Chrysene	< 0.00458	mg/L	0.00500
bis(2-ethylhexyl)phthalate	<0.00458	mg/L	0.00500
Di-n-octylphthalate	< 0.00458	mg/L	0.00500
Benzo(b)fluoranthene	< 0.00458	mg/L	0.00500
Benzo(k)fluoranthene	<0.00458	mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00458	m mg/L	0.00500
Benzo(a)pyrene	< 0.00458	mg/L	0.00500
3-Methylcholanthrene	< 0.00458	m mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00458	m mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00458	m mg/L	0.00500
Dibenzo(a,h)anthracene	< 0.00458	mg/L	0.00500
Benzo(g,h,i)perylene	< 0.00458	m mg/L	0.00500
Total Silica	< 0.0500	m mg/L	0.0500
Sulfate	446	m mg/L	1.00
Total Dissolved Solids	1122	$\mathrm{mg/L}$	10.00
Total Silver	< 0.00500	$\mathrm{mg/L}$	0.00500
Total Arsenic	< 0.0100	${ m mg/L}$	0.0100
Total Barium	0.0890	$\mathrm{mg/L}$	0.00500
Total Cadmium	< 0.00200	$\mathrm{mg/L}$	0.00200
Total Chromium	0.0150	$\mathrm{mg/L}$	0.00500

Work Order: 8110902 GW Sampling Page Number: 4 of 17 NM-SWD Station #11, Lea Co., NM

sample 178801 continued ...

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Param	Flag Result	Units	RL
Total Mercury	< 0.000200	mg/L	0.000200
Total Lead	< 0.00500	m mg/L	0.00500
Total Selenium	< 0.0200	mg/L	0.0200
Total Suspended Solids	546	m mg/L	1.00
Bromochloromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Dichlorodifluoromethane	<1.00	$\mu { m g}/{ m L}$	1.00
Chloromethane (methyl chloride)	<1.00	$\mu { m g}/{ m L}$	1.00
Vinyl Chloride	< 1.00	$\mu { m g}/{ m L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Chloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Trichlorofluoromethane	<1.00	$\mu { m g}/{ m L}$	1.00
Acetone	<10.0	$\mu { m g}/{ m L}$	10.0
Iodomethane (methyl iodide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Carbon Disulfide	<1.00	$\mu { m g}/{ m L}$	1.00
Acrylonitrile	<1.00	$\mu { m g/L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu \mathrm{g/L}$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
2-Hexanone	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu \mathrm{g}/\mathrm{L}$	10.0
1,1-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Methylene chloride	<5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
MTBE	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
trans-1,2-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1-Dichloroethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
cis-1,2-Dichloroethene	<1.00	$\mu_{ m g/L}$	1.00
2,2-Dichloropropane	<1.00	$\mu_{ m g/L}$	1.00
1,2-Dichloroethane (EDC)	<1.00	$\mu_{ m g/L}$	1.00
Chloroform	<1.00	$\mu_{ m g/L}$	1.00
1,1,1-Trichloroethane	<1.00	$\mu_{ m g/L}$	1.00
1,1-Dichloropropene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Benzene	<1.00	$_{ m \mu g/L}^{ m \mu g/L}$	1.00
Carbon Tetrachloride	<1.00	$\mu_{ m g/L} \ \mu_{ m g/L}$	1.00
1,2-Dichloropropane	<1.00	$\mu_{ m g/L}$ $\mu_{ m g/L}$	1.00
Trichloroethene (TCE)	<1.00	$\mu_{ m g}/ m L$	1.00
Dibromomethane (methylene bromide)	<1.00	$\mu_{ m g/L}$	1.00
Bromodichloromethane	<1.00	$\mu { m g}/{ m L}$	1.00
2-Chloroethyl vinyl ether	<5.00	$\mu_{ m g/L}$	5.00
cis-1,3-Dichloropropene	<1.00	$\mu_{ m g/L} \ \mu_{ m g/L}$	1.00
trans-1,3-Dichloropropene	<1.00		1.00
Toluene	<1.00	$ m \mu g/L \ \mu g/L$	1.00
1,1,2-Trichloroethane	<1.00		1.00
1,3-Dichloropropane	<1.00	$\mu \mathrm{g/L}$	1.00
Dibromochloromethane	<1.00	$\mu \mathrm{g/L}$	
1,2-Dibromoethane (EDB)		$\mu \mathrm{g}/\mathrm{L}$	1.00
Tetrachloroethene (PCE)	<1.00	$\mu g/L$	1.00
Chlorobenzene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,1,2-Tetrachloroethane	<1.00	$\mu \mathrm{g/L}$	1.00

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 5\ of\ 17} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178801 continued ...

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Param	Flag	Result	Units	RL
Ethylbenzene		<1.00	$\mu \mathrm{g/L}$	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromoform		<1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		<1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		<1.00	$\mu { m g}/{ m L}$	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3,5-Trimethylbenzene		<1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		<1.00	$\mu { m g}/{ m L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g/L}$	1.00
sec-Butylbenzene		<1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	5.00

Sample: 178802 - NMSWD Station #11 MW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		188	mg/L as CaCo3	4.00
Total Alkalinity		188	mg/L as CaCo3	4.00
Dissolved Calcium		64.4	m mg/L	1.00
Chloride		$\bf 325$	$\mathrm{mg/L}$	3.00
Specific Conductance		1590	uMHOS/cm	0.00
Dissolved Potassium		9.47	mg/L	1.00
Dissolved Magnesium		16.3	m mg/L	1.00
Dissolved Sodium		334	$_{ m mg/L}$	1.00
рH		7.89	s.u.	0.00
Pyridine		< 0.00465	m mg/L	0.00500
N-Nitrosodimethylamine		< 0.00465	mg/L	0.00500
2-Picoline		< 0.00465	mg/L	0.00500
Methyl methanesulfonate		< 0.00465	mg/L	0.00500
Ethyl methanesulfonate		< 0.00465	m mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 6 of 17 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

Param	Flag Result	Units	RL
Phenol	< 0.00465	mg/L	0.00500
Aniline	< 0.00465	$\mathrm{mg/L}$	0.00500
bis(2-chloroethyl)ether	< 0.00465	$\mathrm{mg/L}$	0.00500
2-Chlorophenol	< 0.00465	mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00465	mg/L	0.00500
1,4-Dichlorobenzene (para)	< 0.00465	mg/L	0.00500
Benzyl alcohol	< 0.00465	mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00465	${ m mg/L}$	0.00500
2-Methylphenol	< 0.00465	mg/L	0.00500
bis(2-chloroisopropyl)ether	< 0.00465	mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00465	$\mathrm{mg/L}$	0.00500
N-Nitrosodi-n-propylamine	< 0.00465	mg/L	0.00500
Hexachloroethane	< 0.00465	mg/L	0.00500
Acetophenone	< 0.00465	mg/L	0.00500
Nitrobenzene	< 0.00465	mg/L	0.00500
N-Nitrosopiperidine	< 0.00465	mg/L	0.00500
Isophorone	< 0.00465	$\mathrm{mg/L}$	0.00500
2-Nitrophenol	< 0.00465	m mg/L	0.00500
2,4-Dimethylphenol	< 0.00465	mg/L	0.00500
bis(2-chloroethoxy)methane	< 0.00465	$\mathrm{mg/L}$	0.00500
2,4-Dichlorophenol	< 0.00465	mg/L	0.00500
1,2,4-Trichlorobenzene	< 0.00465	m mg/L	0.00500
Benzoic acid	< 0.00465	$\mathrm{mg/L}$	0.00500
Naphthalene	< 0.00465	$\mathrm{mg/L}$	0.00500
a,a-Dimethylphenethylamine	< 0.00465	m mg/L	0.00500
4-Chloroaniline	< 0.00465	$\mathrm{mg/L}$	0.00500
2,6-Dichlorophenol	< 0.00930	m mg/L	0.0100
Hexachlorobutadiene	< 0.00465	${ m mg/L}$	0.00500
N-Nitroso-di-n-butylamine	< 0.00465	$\mathrm{mg/L}$	0.00500
4-Chloro-3-methylphenol	< 0.00465	m mg/L	0.00500
2-Methylnaphthalene	< 0.00465	$\mathrm{mg/L}$	0.00500
1-Methylnaphthalene	< 0.00465	${ m mg/L}$	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00465	${ m mg/L}$	0.00500
Hexachlorocyclopentadiene	< 0.00465	${ m mg/L}$	0.00500
2,4,6-Trichlorophenol	< 0.00930	${ m mg/L}$	0.0100
2,4,5-Trichlorophenol	< 0.00465	${ m mg/L}$	0.00500
2-Chloronaphthalene	< 0.00465	m mg/L	0.00500
1-Chloronaphthalene	< 0.00465	m mg/L	0.00500
2-Nitroaniline	< 0.00465	mg/L	0.00500
Dimethylphthalate	< 0.00465	m mg/L	0.00500
Acenaphthylene	< 0.00465	$\mathrm{mg/L}$	0.00500
2,6-Dinitrotoluene	< 0.00465	m mg/L	0.00500
3-Nitroaniline	< 0.00465	mg/L	0.00500
Acenaphthene	< 0.00465	mg/L	0.00500
2,4-Dinitrophenol	< 0.00465	m mg/L	0.00500
Dibenzofuran	< 0.00465	mg/L	0.00500
Pentachlorobenzene	< 0.00465	${ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling Page Number: 7 of 17 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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Param	Flag Result_	Units	RL
4-Nitrophenol	< 0.0232	$\mathrm{mg/L}$	0.0250
2,4-Dinitrotoluene	< 0.00465	$\mathrm{mg/L}$	0.00500
1-Naphthylamine	< 0.00465	$\mathrm{mg/L}$	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00930	${ m mg/L}$	0.0100
2-Naphthylamine	< 0.00465	$_{ m mg/L}$	0.00500
Fluorene	< 0.00465	$\mathrm{mg/L}$	0.00500
4-Chlorophenyl-phenylether	< 0.00465	$\mathrm{mg/L}$	0.00500
Diethylphthalate	< 0.00465	$_{ m mg/L}$	0.00500
4-Nitroaniline	< 0.00465	$\mathrm{mg/L}$	0.00500
Diphenylhydrazine	< 0.00465	$\mathrm{mg/L}$	0.00500
4,6-Dinitro-2-methylphenol	< 0.00465	$\mathrm{mg/L}$	0.00500
Diphenylamine	< 0.00465	mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00465	m mg/L	0.00500
Phenacetin	< 0.00465	mg/L	0.00500
Hexachlorobenzene	< 0.00465	m mg/L	0.00500
4-Aminobiphenyl	< 0.00465	mg/L	0.00500
Pentachlorophenol	< 0.00930	${ m mg/L}$	0.0100
Anthracene	< 0.00465	$_{ m mg/L}$	0.00500
Pentachloronitrobenzene	< 0.00465	m mg/L	0.00500
Pronamide	< 0.00465	m mg/L	0.00500
Phenanthrene	< 0.00465	mg/L	0.00500
Di-n-butylphthalate	< 0.00465	$_{ m mg/L}$	0.00500
Fluoranthene	< 0.00465	mg/L	0.00500
Benzidine	< 0.0232	mg/L	0.0250
Pyrene	< 0.00465	mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00465	m mg/L	0.00500
Butylbenzylphthalate	< 0.00465	m mg/L	0.00500
Benzo(a)anthracene	< 0.00465	mg/L	0.00500
3,3-Dichlorobenzidine	< 0.00465	m mg/L	0.00500
Chrysene	< 0.00465	$_{ m mg/L}$	0.00500
bis(2-ethylhexyl)phthalate	< 0.00465	mg/L	0.00500
Di-n-octylphthalate	< 0.00465	mg/L	0.00500
Benzo(b)fluoranthene	< 0.00465	mg/L	0.00500
Benzo(k)fluoranthene	< 0.00465	mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00465	mg/L	0.00500
Benzo(a)pyrene	< 0.00465	m mg/L	0.00500
3-Methylcholanthrene	< 0.00465	mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00465	m mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00465	mg/L	0.00500
Dibenzo(a,h)anthracene	< 0.00465	m mg/L	0.00500
Benzo(g,h,i)perylene	< 0.00465	mg/L	0.00500
Total Silica	< 0.0500	mg/L	0.0500
Sulfate	385	$\frac{m_{ m g}/L}{{ m mg/L}}$	1.00
Total Dissolved Solids	1154		10.00
Total Silver	<0.00500	$_{ m mg/L}$	0.00500
Total Arsenic	<0.0100		0.00300
		mg/L	0.0100
Total Barium	0.0400	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling Page Number: 8 of 17 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

Total Cadmittm	Param	Flag Result	Units	RL
Total Lead <0,000200 mg/L 0,000200 Total Lead <0,00500				
Total Selenium <0.00500 mg/L 0.00500 Total Supended Solids 414 mg/L 1.00 Bromochloromethane <1.00				
Total Suspended Solids 414 mg/L 1.00 Bromochloromethane <1.00			${ m mg/L}$	0.000200
Total Suspended Solids		< 0.00500	$\mathrm{mg/L}$	0.00500
Demonchoromethane		< 0.0200	$\mathrm{mg/L}$	0.0200
Dichlorodiffuoromethane			${ m mg/L}$	1.00
Chloromethane (methyl chloride)	Bromochloromethane	<1.00	$\mu { m g}/{ m L}$	1.00
Vinyl Chloride	Dichlorodifluoromethane	<1.00	$\mu { m g}/{ m L}$	1.00
Bromomethane (methyl bromide) <5.00	Chloromethane (methyl chloride)	. <1.00	$\mu { m g}/{ m L}$	1.00
Chloroethane		<1.00	$\mu { m g}/{ m L}$	1.00
Trichlorofluoromethane	Bromomethane (methyl bromide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Acetone		<1.00	$\mu { m g}/{ m L}$	1.00
Iodomethane (methyl iodide)	Trichlorofluoromethane	<1.00	$\mu { m g}/{ m L}$	1.00
Carbon Disulfide <1.00 μg/L 1.00 Acrylonitrile <1.00	Acetone	<10.0	$\mu { m g}/{ m L}$	10.0
Carbon Disulfide <1.00	Iodomethane (methyl iodide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Acrylonitrile < 1.00	Carbon Disulfide	<1.00		1.00
2-Butanone (MEK) \$5.00 \mug/L 5.00 4-Methyl-2-pentanone (MIBK) \$5.00 \mug/L 5.00 2-Hexanone \$5.00 \mug/L 5.00 trans 1,4-Dichloro-2-butene \$10.0 \mug/L 10.0 1,1-Dichloroethene \$1.00 \mug/L 1.00 Methylene chloride \$5.00 \mug/L 5.00 MTBE \$1.00 \mug/L 1.00 trans-1,2-Dichloroethene \$1.00 \mug/L 1.00 1,1-Dichloroethene \$1.00 \mug/L 1.00 2,2-Dichloropropane \$1.00 \mug/L 1.00 1,2-Dichloroethane (EDC) \$1.00 \mug/L 1.00 1,1-Trichloroethane (EDC) \$1.00 \mug/L 1.00 1,1-Trichloroethane \$1.00 \mug/L 1.00 1,1-Trichloroethane \$1.00 \mug/L 1.00 1,1-Trichloroethane \$1.00 \mug/L 1.00 1,1-Dichloropropane \$1.00 \mug/L 1.00 1,2-Dichloropropane \$1.00 \mug/L 1.00 1,2-Dichloropropane	Acrylonitrile	<1.00		1.00
4-Methyl-2-pentanone (MIBK) <5.00	2-Butanone (MEK)	< 5.00		
2-Hexanone	4-Methyl-2-pentanone (MIBK)	< 5.00		
trans 1,4-Dichloro-2-butene <10.0 µg/L 10.0 1,1-Dichloroethene <1.00	2-Hexanone	< 5.00		
1,1-Dichloroethene <1.00	trans 1,4-Dichloro-2-butene	<10.0		
Methylene chloride <5.00 μg/L 5.00 MTBE <1.00 μg/L 1.00 trans-1,2-Dichloroethene <1.00 μg/L 1.00 1,1-Dichloroethane <1.00 μg/L 1.00 cis-1,2-Dichloroethane <1.00 μg/L 1.00 2,2-Dichloropropane <1.00 μg/L 1.00 1,2-Dichloroethane (EDC) <1.00 μg/L 1.00 1,2-Dichloroethane (EDC) <1.00 μg/L 1.00 1,1-Trichloroethane <1.00 μg/L 1.00 1,1-Dichloropropene <1.00 μg/L 1.00 1,1-Dichloropropene <1.00 μg/L 1.00 1,1-Dichloropropene <1.00 μg/L 1.00 2-Dichloropropane <1.00 μg/L 1.00 1,2-Dichloropropane <1.00 μg/L 1.00 1,2-Dichloropropene <1.00 μg/L 1.00 2-Chloroethyl vinyl ether <5.00 μg/L 1.00 2-Chloroethyl vinyl ether <5.00<	· · · · · · · · · · · · · · · · · · ·			
MTBE <1.00 µg/L 1.00 trans-1,2-Dichloroethene <1.00 µg/L 1.00 1,1-Dichloroethane <1.00 µg/L 1.00 cis-1,2-Dichloroethene <1.00 µg/L 1.00 2,2-Dichloropropane <1.00 µg/L 1.00 1,2-Dichloroethane (EDC) <1.00 µg/L 1.00 Chloroform <1.00 µg/L 1.00 1,1-Trichloroethane <1.00 µg/L 1.00 1,1-Trichloroethane <1.00 µg/L 1.00 1,1-Dichloropropene <1.00 µg/L 1.00 1,1-Dichloropropene <1.00 µg/L 1.00 Benzene <1.00 µg/L 1.00 Carbon Tetrachloride <1.00 µg/L 1.00 1,2-Dichloropropane <1.00 µg/L 1.00 1,2-Dichloropropane <1.00 µg/L 1.00 Bromodichloromethane (methylene bromide) <1.00 µg/L 1.00 2-Chloroethyl vinyl ether <5.00				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<u>.</u>			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	trans-1,2-Dichloroethene			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	· · · · · · · · · · · · · · · · · · ·			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1,1,1-Trichloroethane			
Benzene <1.00 $\mu g/L$ 1.00 Carbon Tetrachloride <1.00 $\mu g/L$ 1.00 $1,2$ -Dichloropropane <1.00 $\mu g/L$ 1.00 Trichloroethene (TCE) <1.00 $\mu g/L$ 1.00 Dibromomethane (methylene bromide) <1.00 $\mu g/L$ 1.00 Bromodichloromethane <1.00 $\mu g/L$ 1.00 2-Chloroethyl vinyl ether <5.00 $\mu g/L$ 5.00 cis-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 trans-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 Toluene <1.00 $\mu g/L$ 1.00 $1,1,2$ -Trichloroethane <1.00 $\mu g/L$ 1.00 $1,3$ -Dichloropropane <1.00 $\mu g/L$ 1.00 Dibromochloromethane <1.00 $\mu g/L$ 1.00 $1,2$ -Dibromoethane (EDB) <1.00 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0	· ·			
Carbon Tetrachloride <1.00 μ g/L 1.00 1,2-Dichloropropane <1.00 μ g/L 1.00 Trichloroethene (TCE) <1.00 μ g/L 1.00 Dibromomethane (methylene bromide) <1.00 μ g/L 1.00 Bromodichloromethane <1.00 μ g/L 1.00 2-Chloroethyl vinyl ether <5.00 μ g/L 5.00 cis-1,3-Dichloropropene <1.00 μ g/L 1.00 trans-1,3-Dichloropropene <1.00 μ g/L 1.00 Toluene <1.00 μ g/L 1.00 1,1,2-Trichloroethane <1.00 μ g/L 1.00 1,3-Dichloropropane <1.00 μ g/L 1.00 Dibromochloromethane <1.00 μ g/L 1.00 1,2-Dibromoethane (EDB) <1.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00				
1,2-Dichloropropane <1.00 $\mu g/L$ 1.00 Trichloroethene (TCE) <1.00 $\mu g/L$ 1.00 Dibromomethane (methylene bromide) <1.00 $\mu g/L$ 1.00 Bromodichloromethane <1.00 $\mu g/L$ 1.00 2-Chloroethyl vinyl ether <5.00 $\mu g/L$ 5.00 cis-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 trans-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 Toluene <1.00 $\mu g/L$ 1.00 1,1,2-Trichloroethane <1.00 $\mu g/L$ 1.00 1,3-Dichloropropane <1.00 $\mu g/L$ 1.00 Dibromochloromethane <1.00 $\mu g/L$ 1.00 1,2-Dibromoethane (EDB) <1.00 <1.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <td>Carbon Tetrachloride</td> <td>< 1.00</td> <td></td> <td></td>	Carbon Tetrachloride	< 1.00		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1,2-Dichloropropane	< 1.00		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Trichloroethene (TCE)	< 1.00		
Bromodichloromethane <1.00 $\mu g/L$ 1.00 2-Chloroethyl vinyl ether <5.00 $\mu g/L$ 5.00 cis-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 trans-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 Toluene <1.00 $\mu g/L$ 1.00 1,1,2-Trichloroethane <1.00 $\mu g/L$ 1.00 1,3-Dichloropropane <1.00 $\mu g/L$ 1.00 Dibromochloromethane <1.00 $\mu g/L$ 1.00 1,2-Dibromoethane (EDB) <1.00 $\mu g/L$ 1.00	Dibromomethane (methylene bromide)	< 1.00		
2-Chloroethyl vinyl ether <5.00 $\mu g/L$ 5.00 cis-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 trans-1,3-Dichloropropene <1.00 $\mu g/L$ 1.00 Toluene <1.00 $\mu g/L$ 1.00 1,1,2-Trichloroethane <1.00 $\mu g/L$ 1.00 1,3-Dichloropropane <1.00 $\mu g/L$ 1.00 Dibromochloromethane <1.00 $\mu g/L$ 1.00 1,2-Dibromoethane (EDB) <1.00 $\mu g/L$ 1.00	Bromodichloromethane	< 1.00	$\mu { m g}/{ m L}$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2-Chloroethyl vinyl ether	< 5.00		5.00
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	cis-1,3-Dichloropropene			
Toluene <1.00 μ g/L 1.00 1,1,2-Trichloroethane <1.00	trans-1,3-Dichloropropene	< 1.00		1.00
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Toluene	< 1.00		
1,3-Dichloropropane <1.00 $\mu g/L$ 1.00 Dibromochloromethane <1.00 $\mu g/L$ 1.00 1,2-Dibromoethane (EDB) <1.00 $\mu g/L$ 1.00	1,1,2-Trichloroethane			
Dibromochloromethane <1.00 $\mu g/L$ 1.00 $1,2$ -Dibromoethane (EDB) <1.00 $\mu g/L$ 1.00				
1,2-Dibromoethane (EDB) <1.00 $\mu g/L$ 1.00				
10)				
		< 1.00	$\mu \mathrm{g/L}$	1.00

Work Order: 8110902 GW Sampling Page Number: 9 of 17 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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Param	Flag	Result	Units	RL
Chlorobenzene		<1.00	$\mu \mathrm{g/L}$	1.00
1,1,1,2-Tetrachloroethane		<1.00	$\mu { m g}/{ m L}$	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
m,p-Xylene		< 1.00	$\mu\mathrm{g/L}$	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g/L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu { m g/L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Butylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	5.00

Sample: 178803 - NMSWD Station #11 MW-2

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as $CaCo3$	1.00
Bicarbonate Alkalinity		208	mg/L as CaCo3	4.00
Total Alkalinity		208	mg/L as CaCo3	4.00
Dissolved Calcium		54.5	mg/L	1.00
Chloride		241	$\mathrm{mg/L}$	3.00
Specific Conductance		1350	uMHOS/cm	0.00
Dissolved Potassium		9.14	$\mathrm{mg/L}$	1.00
Dissolved Magnesium	•	10.2	mg/L	1.00
Dissolved Sodium		309	mg/L	1.00
pH		7.68	s.u.	0.00
Pyridine		< 0.00468	${ m mg/L}$	0.00500
N-Nitrosodimethylamine		< 0.00468	m mg/L	0.00500
2-Picoline		< 0.00468	mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 10 of 17 NM-SWD Station #11, Lea Co., NM

sample 178803 continued ...

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Param	Flag Result	Units	RL
Methyl methanesulfonate	< 0.00468	mg/L	0.00500
Ethyl methanesulfonate	< 0.00468	mg/L	0.00500
Phenol	< 0.00468	$\mathrm{mg/L}$	0.00500
Aniline	< 0.00468	$\mathrm{mg/L}$	0.00500
bis(2-chloroethyl)ether	< 0.00468	mg/L	0.00500
2-Chlorophenol	< 0.00468	mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00468	mg/L	0.00500
1,4-Dichlorobenzene (para)	< 0.00468	m mg/L	0.00500
Benzyl alcohol	< 0.00468	m mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00468	$\mathrm{mg/L}$	0.00500
2-Methylphenol	< 0.00468	mg/L	0.00500
bis(2-chloroisopropyl)ether	< 0.00468	$_{ m mg/L}$	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00468	m mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00468	m mg/L	0.00500
Hexachloroethane	< 0.00468	$_{ m mg/L}$	0.00500
Acetophenone	< 0.00468	m mg/L	0.00500
Nitrobenzene	< 0.00468	m mg/L	0.00500
N-Nitrosopiperidine	< 0.00468	mg/L	0.00500
Isophorone	< 0.00468	mg/L	0.00500
2-Nitrophenol	< 0.00468	$\frac{mg}{L}$	0.00500
2,4-Dimethylphenol	< 0.00468	m mg/L	0.00500
bis(2-chloroethoxy)methane	<0.00468	mg/L	0.00500
2,4-Dichlorophenol	< 0.00468	$\frac{mg/L}{mg/L}$	0.00500
1,2,4-Trichlorobenzene	< 0.00468	$\frac{mg}{L}$	0.00500
Benzoic acid	< 0.00468	mg/L	0.00500
Naphthalene	< 0.00468	$\frac{mg}{L}$	0.00500
a,a-Dimethylphenethylamine	< 0.00468	m mg/L	0.00500
4-Chloroaniline	< 0.00468	mg/L	0.00500
2,6-Dichlorophenol	< 0.00935	mg/L	0.0100
Hexachlorobutadiene	< 0.00468	$\frac{mg/L}{mg/L}$	0.00500
N-Nitroso-di-n-butylamine	< 0.00468	$_{ m mg/L}$	0.00500
4-Chloro-3-methylphenol	< 0.00468	$\frac{m_{\rm g}/L}{m_{ m g}/L}$	0.00500
2-Methylnaphthalene	< 0.00468	$_{ m mg/L}$	0.00500
1-Methylnaphthalene	< 0.00468	m mg/L	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00468	$_{ m mg/L}$	0.00500
Hexachlorocyclopentadiene	< 0.00468	$_{ m mg/L}$	0.00500
2,4,6-Trichlorophenol	< 0.00935	$\frac{\mathrm{mg}/\mathrm{L}}{\mathrm{mg}/\mathrm{L}}$	0.0100
2,4,5-Trichlorophenol	< 0.00468	$\frac{\mathrm{mg}/\mathrm{L}}{\mathrm{mg}/\mathrm{L}}$	0.00500
2-Chloronaphthalene	< 0.00468	mg/L	0.00500
1-Chloronaphthalene	< 0.00468	mg/L	0.00500
2-Nitroaniline	< 0.00468	$\frac{\mathrm{mg}/\mathrm{L}}{\mathrm{mg}/\mathrm{L}}$	0.00500
Dimethylphthalate	< 0.00468	mg/L	0.00500
Acenaphthylene	< 0.00468	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00468		0.00500
3-Nitroaniline	<0.00468	mg/L	
Acenaphthene	<0.00468 <0.00468	mg/L	0.00500
Acenaphthene 2,4-Dinitrophenol	< 0.00468	mg/L	0.00500
2,4-Dimirophenor	<0.00408	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling Page Number: 11 of 17 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

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Param	Flag Result	Units	RL
Dibenzofuran	< 0.00468	mg/L	0.00500
Pentachlorobenzene	< 0.00468	m mg/L	0.00500
4-Nitrophenol	< 0.0234	m mg/L	0.0250
2,4-Dinitrotoluene	< 0.00468	${ m mg/L}$	0.00500
1-Naphthylamine	< 0.00468	${ m mg/L}$	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00935	m mg/L	0.0100
2-Naphthylamine	< 0.00468	$\mathrm{mg/L}$	0.00500
Fluorene	< 0.00468	m mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00468	${ m mg/L}$	0.00500
Diethylphthalate	< 0.00468	m mg/L	0.00500
4-Nitroaniline	< 0.00468	$\mathrm{mg/L}$	0.00500
Diphenylhydrazine	< 0.00468	$\mathrm{mg/L}$	0.00500
4,6-Dinitro-2-methylphenol	< 0.00468	$\mathrm{mg/L}$	0.00500
Diphenylamine	< 0.00468	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00468	m mg/L	0.00500
Phenacetin	< 0.00468	m mg/L	0.00500
Hexachlorobenzene	< 0.00468	$_{ m mg/L}$	0.00500
4-Aminobiphenyl	< 0.00468	m mg/L	0.00500
Pentachlorophenol	< 0.00935	m mg/L	0.0100
Anthracene	< 0.00468	mg/L	0.00500
Pentachloronitrobenzene	< 0.00468	$\frac{8}{mg/L}$	0.00500
Pronamide	< 0.00468	mg/L	0.00500
Phenanthrene	< 0.00468	mg/L	0.00500
Di-n-butylphthalate	< 0.00468	mg/L	0.00500
Fluoranthene	< 0.00468	mg/L	0.00500
Benzidine	< 0.0234	mg/L	0.0250
Pyrene	< 0.00468	mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00468	$_{ m mg/L}$	0.00500
Butylbenzylphthalate	< 0.00468	mg/L	0.00500
Benzo(a)anthracene	< 0.00468	m mg/L	0.00500
3,3-Dichlorobenzidine	< 0.00468	$\frac{mg}{L}$	0.00500
Chrysene	< 0.00468	m mg/L	0.00500
bis(2-ethylhexyl)phthalate	< 0.00468	m mg/L	0.00500
Di-n-octylphthalate	< 0.00468	m mg/L	0.00500
Benzo(b)fluoranthene	< 0.00468	mg/L	0.00500
Benzo(k)fluoranthene	< 0.00468	m mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00468	mg/L	0.00500
Benzo(a)pyrene	<0.00468	m mg/L	0.00500
3-Methylcholanthrene	< 0.00468	$_{ m mg/L}$	0.00500
Dibenzo(a,j)acridine	<0.00468	mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00468	mg/L	0.00500
Dibenzo(a,h)anthracene	<0.00468		
Benzo(g,h,i)perylene		mg/L	0.00500
Total Silica	< 0.00468	mg/L	0.00500
Sulfate	104	mg/L	0.0500
Sunate Total Dissolved Solids	358	m mg/L	1.00
	1018	mg/L	10.00
Total Silver	< 0.00500	m mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 12 of 17 NM-SWD Station #11, Lea Co., NM

sample 178803 continued ...

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Param	Flag Result	Units	RL
Total Arsenic	0.0840	mg/L	0.0100
Total Barium	0.987	$\mathrm{mg/L}$	0.00500
Total Cadmium	0.00300	${ m mg/L}$	0.00200
Total Chromium	0.218	m mg/L	0.00500
Total Mercury	< 0.000400	mg/L	0.000200
Total Lead	< 0.00500	$\mathrm{mg/L}$	0.00500
Total Selenium	< 0.0200	m mg/L	0.0200
Total Suspended Solids	7140	m mg/L	1.00
Bromochloromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Dichlorodifluoromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Chloromethane (methyl chloride)	< 1.00	$\mu { m g}/{ m L}$	1.00
Vinyl Chloride	<1.00	$\mu { m g}/{ m L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Chloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Trichlorofluoromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Acetone	<10.0	$\mu { m g}/{ m L}$	10.0
Iodomethane (methyl iodide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Carbon Disulfide	< 1.00	$\mu { m g}/{ m L}$	1.00
Acrylonitrile	< 1.00	$\mu { m g}/{ m L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu m g/L$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu { m g}/{ m L}$	5.00
2-Hexanone	< 5.00	$\mu { m g}/{ m L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu { m g}/{ m L}$	10.0
1,1-Dichloroethene	<1.00	$\mu { m g}/{ m L}$	1.00
Methylene chloride	< 5.00	$\mu { m g}/{ m L}$	5.00
MTBE	<1.00	$\mu { m g}/{ m L}$	1.00
trans-1,2-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloroethane	<1.00	$\mu \mathrm{g/L}$	1.00
cis-1,2-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2,2-Dichloropropane	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dichloroethane (EDC)	<1.00	$\mu { m g}/{ m L}$	1.00
Chloroform	<1.00	$\mu { m g}/{ m L}$	1.00
1,1,1-Trichloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloropropene	< 1.00	$\mu { m g}/{ m L}$	1.00
Benzene	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Carbon Tetrachloride	< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloropropane	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Trichloroethene (TCE)	< 1.00	$\mu { m g}/{ m L}$	1.00
Dibromomethane (methylene bromide)	< 1.00	$\mu { m g}/{ m L}$	1.00
Bromodichloromethane	< 1.00	$\mu m g/L$	1.00
2-Chloroethyl vinyl ether	< 5.00	$\mu { m g}/{ m L}$	5.00
cis-1,3-Dichloropropene	< 1.00	$\mu { m g}/{ m L}$	1.00
trans-1,3-Dichloropropene	<1.00	$\mu{ m g}/{ m L}$	1.00
Toluene	<1.00	$\mu \mathrm{g/L}$	1.00
1,1,2-Trichloroethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3-Dichloropropane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Dibromochloromethane	<1.00	$\mu \mathrm{g/L}$	1.00

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 13\ of\ 17} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178803 continued . . .

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Param	Flag	Result	Units	RL
1,2-Dibromoethane (EDB)		<1.00	$\mu { m g/L}$	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Butylbenz <i>e</i> ne		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu\mathrm{g}/\mathrm{L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	5.00

Sample: 178804 - NMSWD Station #11 RW-1

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		${\bf 232}$	mg/L as CaCo3	4.00
Total Alkalinity		${\bf 232}$	mg/L as CaCo3	4.00
Dissolved Calcium		5810	m mg/L	1.00
Chloride		51600	$\mathrm{mg/L}$	3.00
Specific Conductance		81100	$_{ m uMHOS/cm}$	0.00
Dissolved Potassium		157	${\sf mg/L}$	1.00
Dissolved Magnesium		719	m mg/L	1.00
Dissolved Sodium		22200	m mg/L	1.00
pН		6.17	s.u.	0.00
Pyridine		< 0.00461	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling Page Number: 14 of 17 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

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Param	Flag Result	Units	RL
N-Nitrosodimethylamine	< 0.00461	$\mathrm{mg/L}$	0.00500
2-Picoline	< 0.00461	$\mathrm{mg/L}$	0.00500
Methyl methanesulfonate	< 0.00461	mg/L	0.00500
Ethyl methanesulfonate	< 0.00461	m mg/L	0.00500
Phenol	< 0.00461	${ m mg/L}$	0.00500
Aniline	< 0.00461	mg/L	0.00500
bis(2-chloroethyl)ether	< 0.00461	$\mathrm{mg/L}$	0.00500
2-Chlorophenol	< 0.00461	m mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00461	mg/L	0.00500
1,4-Dichlorobenzene (para)	< 0.00461	m mg/L	0.00500
Benzyl alcohol	< 0.00461	m mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00461	mg/L	0.00500
2-Methylphenol	< 0.00461	mg/L	0.00500
bis(2-chloroisopropyl)ether	< 0.00461	m mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00461	mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00461	m mg/L	0.00500
Hexachloroethane	< 0.00461	mg/L	0.00500
Acetophenone	< 0.00461	mg/L	0.00500
Nitrobenzene	< 0.00461	mg/L	0.00500
N-Nitrosopiperidine	< 0.00461	mg/L	0.00500
Isophorone	< 0.00461	mg/L	0.00500
2-Nitrophenol	< 0.00461	mg/L	0.00500
2,4-Dimethylphenol	< 0.00461	mg/L	0.00500
bis(2-chloroethoxy)methane	< 0.00461	mg/L	0.00500
2,4-Dichlorophenol	< 0.00461	m mg/L	0.00500
1,2,4-Trichlorobenzene	< 0.00461	m mg/L	0.00500
Benzoic acid	< 0.00461	mg/L	0.00500
Naphthalene	< 0.00461	mg/L	0.00500
a,a-Dimethylphenethylamine	< 0.00461	mg/L	0.00500
4-Chloroaniline	< 0.00461	$^{ m mg/L}_{ m L}$	0.00500
2,6-Dichlorophenol	< 0.00922	m mg/L	0.0100
Hexachlorobutadiene	< 0.00461	$\frac{\mathrm{mg}/\mathrm{L}}{\mathrm{mg}/\mathrm{L}}$	0.00500
N-Nitroso-di-n-butylamine	< 0.00461	mg/L	0.00500
4-Chloro-3-methylphenol	< 0.00461	mg/L	0.00500
2-Methylnaphthalene	< 0.00461	mg/L	0.00500
1-Methylnaphthalene	< 0.00461	mg/L	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00461	mg/L	0.00500
Hexachlorocyclopentadiene	< 0.00461		0.00500
2,4,6-Trichlorophenol	< 0.00922	$_{ m mg/L}$	0.00300
2,4,5-Trichlorophenol	< 0.00322	$_{ m mg/L}$ $_{ m mg/L}$	0.0100
2-Chloronaphthalene	< 0.00461		
1-Chloronaphthalene	<0.00461	mg/L	0.00500
2-Nitroaniline	<0.00461	mg/L	0.00500
Dimethylphthalate	<0.00461	mg/L	0.00500
Acenaphthylene		mg/L	0.00500
2,6-Dinitrotoluene	<0.00461 <0.00461	mg/L	0.00500
3-Nitroaniline		m mg/L	0.00500
9-111108011111e	< 0.00461	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 15\ of\ 17} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178804 continued ...

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Param	Flag Result	Units	RL
Acenaphthene	< 0.00461	m mg/L	0.00500
2,4-Dinitrophenol	< 0.00461	${ m mg/L}$	0.00500
Dibenzofuran	< 0.00461	m mg/L	0.00500
Pentachlorobenzene	< 0.00461	m mg/L	0.00500
4-Nitrophenol	< 0.0230	m mg/L	0.0250
2,4-Dinitrotoluene	< 0.00461	${ m mg/L}$	0.00500
1-Naphthylamine	< 0.00461	m mg/L	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00922	m mg/L	0.0100
2-Naphthylamine	< 0.00461	m mg/L	0.00500
Fluorene	< 0.00461	m mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00461	m mg/L	0.00500
Diethylphthalate	< 0.00461	mg/L	0.00500
4-Nitroaniline	< 0.00461	m mg/L	0.00500
Diphenylhydrazine	< 0.00461	mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00461	m mg/L	0.00500
Diphenylamine	< 0.00461	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00461	$^{}$ $^{-}$ $^{-}$	0.00500
Phenacetin	< 0.00461	m mg/L	0.00500
Hexachlorobenzene	< 0.00461	m mg/L	0.00500
4-Aminobiphenyl	< 0.00461	m mg/L	0.00500
Pentachlorophenol	< 0.00922	m mg/L	0.0100
Anthracene	< 0.00461	m mg/L	0.00500
Pentachloronitrobenzene	< 0.00461	mg/L	0.00500
Pronamide	< 0.00461	mg/L	0.00500
Phenanthrene	< 0.00461	mg/L	0.00500
Di-n-butylphthalate	< 0.00461	mg/L	0.00500
Fluoranthene	< 0.00461	mg/L	0.00500
Benzidine	< 0.0230	$\frac{mg}{L}$	0.00300
Pyrene	< 0.0230	$\frac{mg/L}{mg/L}$	0.0230
p-Dimethylaminoazobenzene	< 0.00461		0.00500
	< 0.00401	$\frac{\text{mg/L}}{\text{mg/L}}$	0.00500
Butylbenzylphthalate Benzo(a)anthracene	< 0.00461	mg/L	0.00500
3,3-Dichlorobenzidine	< 0.00461	$rac{ ext{mg/L}}{ ext{mg/L}}$	0.00500
Chrysene	< 0.00461	mg/L	0.00500
bis(2-ethylhexyl)phthalate	<0.00461	$\frac{mg}{L}$	0.00500
Di-n-octylphthalate	< 0.00461	mg/L	0.00500
Benzo(b)fluoranthene	< 0.00461	$\frac{mg}{L}$	0.00500
Benzo(k)fluoranthene	<0.00401 <0.00461	mg/L mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00461	$\frac{mg}{L}$	0.00500
Benzo(a)pyrene	< 0.00461	mg/L	0.00500
3-Methylcholanthrene	< 0.00461	mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00461	$\frac{mg}{L}$	0.00500
Indeno(1,2,3-cd)pyrenė	< 0.00461		0.00500
* · · · · · · · · · · · · · · · · · · ·	< 0.00461	mg/L	
Dibenzo(a,h)anthracene Benzo(g,h,i)perylene		mg/L	0.00500
(0. 1/2 +	<0.00461 41.7	mg/L	0.00500
Total Silica		mg/L	0.0500
Sulfate	1270	$_{ m mg/L}$	1.00

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 16\ of\ 17} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178804 continued . . .

Param	Flag Result	Units	RL
Total Dissolved Solids	. 38100	mg/L	10.00
Total Silver	< 0.00500	mg/L	0.00500
Total Arsenic	< 0.0100	$\mathrm{mg/L}$	0.0100
Total Barium	0.247	mg/L	0.00500
Total Cadmium	< 0.00200	mg/L	0.00200
Total Chromium	0.0350	${ m mg/L}$	0.00500
Total Mercury	0.000547	$\mathrm{mg/L}$	0.000200
Total Lead	< 0.00500	m mg/L	0.00500
Total Selenium	< 0.0200	mg/L	0.0200
Total Suspended Solids	450	$\mathrm{mg/L}$	1.00
Bromochloromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Dichlorodifluoromethane	< 1.00	$\mu { m g/L}$	1.00
Chloromethane (methyl chloride)	< 1.00	$\mu { m g}/{ m L}$	1.00
Vinyl Chloride	< 1.00	$\mu { m g}/{ m L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Chloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Trichlorofluoromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Acetone	<10.0	$\mu { m g}/{ m L}$	10.0
Iodomethane (methyl iodide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Carbon Disulfide	< 1.00	$\mu { m g}/{ m L}$	1.00
Acrylonitrile	< 1.00	$\mu { m g}/{ m L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu { m g}/{ m L}$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu { m g}/{ m L}$	5.00
2-Hexanone	< 5.00	$\mu { m g}/{ m L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu { m g}/{ m L}$	10.0
1,1-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
Methylene chloride	13.5	$\mu { m g}/{ m L}$	5.00
MTBE	< 1.00	$\mu { m g}/{ m L}$	1.00
trans-1,2-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
cis-1,2-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
2,2-Dichloropropane	< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloroethane (EDC)	< 1.00	$\mu { m g}/{ m L}$	1.00
Chloroform	<1.00	$\mu { m g}/{ m L}$	1.00
1,1,1-Trichloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloropropene	<1.00	$\mu { m g}/{ m L}$	1.00
Benzene	<1.00	$\mu { m g}/{ m L}$	1.00
Carbon Tetrachloride	< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloropropane	<1.00	$\mu { m g}/{ m L}$	1.00
Trichloroethene (TCE)	< 1.00	$\mu { m g}/{ m L}$	1.00
Dibromomethane (methylene bromide)	<1.00	$\mu { m g}/{ m L}$	1.00
Bromodichloromethane	<1.00	$\mu { m g}/{ m L}$	1.00
2-Chloroethyl vinyl ether	< 5.00	$\mu { m g}/{ m L}$	5.00
cis-1,3-Dichloropropene	<1.00	$\mu { m g}/{ m L}$	1.00
trans-1,3-Dichloropropene	< 1.00	$\mu { m g}/{ m L}$	1.00
Toluene	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2-Trichloroethane	<1.00	$\mu { m g}/{ m L}$	1.00

Work Order: 8110902 GW Sampling Page Number: 17 of 17 NM-SWD Station #11, Lea Co., NM

sample 178804 continued . . .

Param	Flag	Result	Units	RL
1,3-Dichloropropane		< 1.00	$\mu \mathrm{g/L}$	1:.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
Ethylbenzene		< 1.00	$\mu\mathrm{g}/\mathrm{L}$	1.00
m,p-Xylene		< 1.00	$\mu { m g/L}$	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g/L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g/L}$	1.00
n-Propylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g}/{ m L}$	1.00
sec-Butylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g/L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g/L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		<5.00	$\mu { m g/L}$	5.00

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 1\ of\ 18} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

Report Date: November 21, 2008

Summary Report

Rory McMinn

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New Mexico Salt Water Disposal Co.

Work Order: 8110902

P. O. Box 1213 Roswell, NM 88202

Project Location: NM-SWD Station #11, Lea Co., NM

Project Name: GW Sampling

Project Number: NMSWD Station #11

			$_{ m Date}$	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
178801	NMSWD Station #11 MW-3	water	2008-11-06	11:41	2008-11-08
178802	NMSWD Station #11 MW-1	water	2008-11-06	12.55	2008-11-08
178803	NMSWD Station #11 MW-2	water	2008-11-06	13:45	2008-11-08
178804	NMSWD Station #11 RW-1	water	2008-11-06	14:15	2008-11-08

Sample: 178801 - NMSWD Station #11 MW-3

Param	Flag	Result	Units	RL
Dissolved Silver		< 0.00500	mg/L	0.00500
Hydroxide Alkalinity		< 1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		218	mg/L as CaCo3	4.00
Total Alkalinity		218	mg/L as CaCo3	4.00
Dissolved Arsenic		< 0.00500	$\mathrm{mg/L}$	0.00500
Dissolved Barium		0.0220	$\mathrm{mg/L}$	0.0100
Dissolved Calcium		65.3	m mg/L	1.00
Dissolved Cadmium		< 0.00100	$\mathrm{mg/L}$	0.00100
Chloride		234	m mg/L	3.00
Specific Conductance		1530	uMHOS/cm	0.00
Dissolved Chromium		0.0150	m mg/L	0.00100
Dissolved Mercury		0.000585	$\mathrm{mg/L}$	0.000200
Dissolved Potassium		10.6	m mg/L	1.00
Dissolved Magnesium		13.3	$\mathrm{mg/L}$	1.00
Dissolved Sodium		332	mg/L	1.00
Dissolved Lead		< 0.00500	m mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 2 of 18 NM-SWD Station #11, Lea Co., NM

sample 178801 continued . . .

Param	Flag Result	Units	RL
pH	7.91	s.u.	0.00
Dissolved Selenium	< 0.0100	mg/L	0.0100
Pyridine	< 0.00458	${ m mg/L}$	0.00500
N-Nitrosodimethylamine	< 0.00458	mg/L	0.00500
2-Picoline	< 0.00458	mg/L	0.00500
Methyl methanesulfonate	< 0.00458	m mg/L	0.00500
Ethyl methanesulfonate	< 0.00458	mg/L	0.00500
Phenol	< 0.00458	mg/L	0.00500
Aniline	< 0.00458	mg/L	0.00500
bis(2-chloroethyl)ether	< 0.00458	mg/L	0.00500
2-Chlorophenol	< 0.00458	mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00458	mg/L	0.00500
1,4-Dichlorobenzene (para)	< 0.00458	mg/L	0.00500
Benzyl alcohol	< 0.00458	mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00458	mg/L	0.00500
2-Methylphenol	< 0.00458	mg/L	0.00500
bis(2-chloroisopropyl)ether	< 0.00458	m mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00458	mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00458	$^{}$ 8/ $^{-}$ mg/L	0.00500
Hexachloroethane	< 0.00458	mg/L	0.00500
Acetophenone	< 0.00458	mg/L	0.00500
Nitrobenzene	< 0.00458	mg/L	0.00500
N-Nitrosopiperidine	< 0.00458	mg/L	0.00500
Isophorone	< 0.00458	mg/L	0.00500
2-Nitrophenol	< 0.00458	m mg/L	0.00500
2,4-Dimethylphenol	< 0.00458	$^{3/}_{ m mg/L}$	0.00500
bis(2-chloroethoxy)methane	< 0.00458	mg/L	0.00500
2,4-Dichlorophenol	< 0.00458	mg/L	0.00500
1,2,4-Trichlorobenzene	< 0.00458	mg/L	0.00500
Benzoic acid	< 0.00458	mg/L	0.00500
Naphthalene	< 0.00458	mg/L	0.00500
a,a-Dimethylphenethylamine	< 0.00458	mg/L	0.00500
4-Chloroaniline	< 0.00458	mg/L	0.00500
2,6-Dichlorophenol	< 0.00917	m mg/L	0.0100
Hexachlorobutadiene	< 0.00458	m mg/L	0.00500
N-Nitroso-di-n-butylamine	< 0.00458	mg/L	0.00500
4-Chloro-3-methylphenol	< 0.00458	mg/L	0.00500
2-Methylnaphthalene	< 0.00458	mg/L	0.00500
1-Methylnaphthalene	< 0.00458	m mg/L	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00458	mg/L	0.00500
Hexachlorocyclopentadiene	< 0.00458	mg/L	0.00500
2,4,6-Trichlorophenol	< 0.00917	mg/L	0.0100
2,4,5-Trichlorophenol	< 0.00458	mg/L	0.00500
2-Chloronaphthalene	< 0.00458	$\frac{mg}{L}$	0.00500
1-Chloronaphthalene	< 0.00458	mg/L	0.00500
2-Nitroaniline	< 0.00458	mg/L	0.00500
Dimethylphthalate	< 0.00458	mg/L	0.00500
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Work Order: 8110902 GW Sampling Page Number: 3 of 18 NM-SWD Station #11, Lea Co., NM

 $sample~178801~continued~\dots$

Param	Flag Result	Units	RL
Acenaphthylene	< 0.00458	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00458	m mg/L	0.00500
3-Nitroaniline	< 0.00458	$\mathrm{mg/L}$	0.00500
Acenaphthene	< 0.00458	$\mathrm{mg/L}$	0.00500
2,4-Dinitrophenol	< 0.00458	$\mathrm{mg/L}$	0.00500
Dibenzofuran	< 0.00458	mg/L	0.00500
Pentachlorobenzene	< 0.00458	$\mathrm{mg/L}$	0.00500
4-Nitrophenol	< 0.0229	m mg/L	0.0250
2,4-Dinitrotoluene	< 0.00458	$\mathrm{mg/L}$	0.00500
1-Naphthylamine	< 0.00458	$\mathrm{mg/L}$	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00917	m mg/L	0.0100
2-Naphthylamine	< 0.00458	mg/L	0.00500
Fluorene	< 0.00458	$\mathrm{mg/L}$	0.00500
4-Chlorophenyl-phenylether	< 0.00458	m mg/L	0.00500
Diethylphthalate	< 0.00458	m mg/L	0.00500
4-Nitroaniline	< 0.00458	mg/L	0.00500
Diphenylhydrazine	< 0.00458	m mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00458	m mg/L	0.00500
Diphenylamine	< 0.00458	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00458	mg/L	0.00500
Phenacetin	< 0.00458	mg/L	0.00500
Hexachlorobenzene	< 0.00458	m mg/L	0.00500
4-Aminobiphenyl	< 0.00458	m mg/L	0.00500
Pentachlorophenol	< 0.00917	m mg/L	0.0100
Anthracene	< 0.00458	m mg/L	0.00500
Pentachloronitrobenzene	< 0.00458	m mg/L	0.00500
Pronamide	< 0.00458	mg/L	0.00500
Phenanthrene	< 0.00458	mg/L	0.00500
Di-n-butylphthalate	< 0.00458	m mg/L	0.00500
Fluoranthene	< 0.00458	mg/L	0.00500
Benzidine	< 0.0229	mg/L	0.0250
Pyrene	< 0.00458	m mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00458	m mg/L	0.00500
Butylbenzylphthalate	< 0.00458	mg/L	0.00500
Benzo(a)anthracene	< 0.00458	$_{ m mg/L}$	0.00500
3,3-Dichlorobenzidine	< 0.00458	${ m mg/L}$	0.00500
Chrysene	< 0.00458	$_{ m mg/L}$	0.00500
bis(2-ethylhexyl)phthalate	< 0.00458	mg/L	0.00500
Di-n-octylphthalate	< 0.00458	mg/L	0.00500
Benzo(b)fluoranthene	< 0.00458	m mg/L	0.00500
Benzo(k)fluoranthene	< 0.00458	mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00458	$_{ m mg/L}$	0.00500
Benzo(a)pyrene	< 0.00458	m mg/L	0.00500
3-Methylcholanthrene	< 0.00458	m mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00458	mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00458	$_{ m mg/L}$	0.00500
Dibenzo(a,h)anthracene	< 0.00458	mg/L	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 4\ of\ 18} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178801 continued ...

Param	Flag Result	Units	RL
Benzo(g,h,i)perylene	< 0.00458	mg/L	0.00500
Dissolved Silica	16.8	mg/L	0.0500
Total Silica	35.4	m mg/L	0.0500
Sulfate	446	m mg/L	1.00
Total Dissolved Solids	1122	mg/L	10.00
Total Silver	< 0.00500	mg/L	0.00500
Total Arsenic	< 0.0100	m mg/L	0.0100
Total Barium	0.0630	m mg/L	0.00500
Total Cadmium	< 0.00200	m mg/L	0.00200
Total Chromium	0.0160	$_{ m mg/L}$	0.00500
Total Mercury	< 0.000200	$_{ m mg/L}$	0.000200
Total Lead	< 0.00500	mg/L	0.00500
Total Selenium	< 0.0200	mg/L	0.0200
Total Suspended Solids	546	mg/L	1.00
Bromochloromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Dichlorodifluoromethane	<1.00	$\mu \mathrm{g/L}$	1.00
Chloromethane (methyl chloride)	<1.00	$\mu { m g/L}$	1.00
Vinyl Chloride	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu \mathrm{g/L}$	5.00
Chloroethane	<1.00	$\mu \mathrm{g/L}$	1.00
Trichlorofluoromethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Acetone	<10.0	$\mu \mathrm{g}/\mathrm{L}$	10.0
Iodomethane (methyl iodide)	<5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
Carbon Disulfide	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Acrylonitrile	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
2-Hexanone	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu \mathrm{g}/\mathrm{L}$	10.0
1,1-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Methylene chloride	<5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
MTBE	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
trans-1,2-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1-Dichloroethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
cis-1,2-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2,2-Dichloropropane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dichloroethane (EDC)	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Chloroform	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,1-Trichloroethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1-Dichloropropene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Benzene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Carbon Tetrachloride	<1.00	$\mu \mathrm{g/L}$	1.00
1,2-Dichloropropane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Trichloroethene (TCE)	<1.00	$\mu_{ m g/L}$	1.00
Dibromomethane (methylene bromide)	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromodichloromethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2-Chloroethyl vinyl ether	<5.00		
2-Omoroediyi viliyi edler	< 9.00	$\mu \mathrm{g/L}$	5.00

Work Order: 8110902 GW Sampling Page Number: 5 of 18 NM-SWD Station #11, Lea Co., NM

sample 178801 continued . . .

Param	Flag	Result	${ m Units}$	RL
cis-1,3-Dichloropropene		<1.00	$\mu_{ m g/L}$	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1.00
Toluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu { m g}/{ m L}$	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromoform .		< 1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,3-Trichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Propylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g/L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu { m g/L}$	1.00
sec-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu { m g}/{ m L}$	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g/L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g/L}$	5.00

Sample: 178802 - NMSWD Station #11 MW-1

Param	Flag	Result	Units	RL
Dissolved Silver		< 0.00500	mg/L	0.00500
Hydroxide Alkalinity		< 1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		188	mg/L as CaCo3	4.00
Total Alkalinity		188	mg/L as CaCo3	4.00
Dissolved Arsenic		< 0.00500	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 6\ of\ 18} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178802 continued ...

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(b)

Param	Flag Result	Units	RL
Dissolved Barium	0.0200	mg/L	0.0100
Dissolved Calcium	64.4	${ m mg/L}$	1.00
Dissolved Cadmium	< 0.00100	$\mathrm{mg/L}$	0.00100
Chloride	325	m mg/L	3.00
Specific Conductance	1590	uMHOS/cm	0.00
Dissolved Chromium	0.00200	m mg/L	0.00100
Dissolved Mercury	0.000208	m mg/L	0.000200
Dissolved Potassium	9.47	m mg/L	1.00
Dissolved Magnesium	16.3	mg/L	1.00
Dissolved Sodium	334	mg/L	1.00
Dissolved Lead	< 0.00500	m mg/L	0.00500
Hq	7.89	s.u.	0.00
Dissolved Selenium	< 0.0100	m mg/L	0.0100
Pyridine	< 0.00465	m mg/L	0.00500
N-Nitrosodimethylamine	< 0.00465	m mg/L	0.00500
2-Picoline	< 0.00465	m mg/L	0.00500
Methyl methanesulfonate	< 0.00465	$^{-}$ mg/L	0.00500
Ethyl methanesulfonate	< 0.00465	mg/L	0.00500
Phenol	< 0.00465	m mg/L	0.00500
Aniline	< 0.00465	m mg/L	0.00500
bis(2-chloroethyl)ether	< 0.00465	m mg/L	0.00500
2-Chlorophenol	< 0.00465	$_{ m mg/L}$	0.00500
1,3-Dichlorobenzene (meta)	< 0.00465	$_{ m mg/L}$	0.00500
1,4-Dichlorobenzene (para)	< 0.00465	m mg/L	0.00500
Benzyl alcohol	< 0.00465	m mg/L	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00465	${ m mg/L}$	0.00500
2-Methylphenol	< 0.00465	m mg/L	0.00500
bis(2-chloroisopropyl)ether	< 0.00465	m mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00465	m mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00465	$_{ m mg/L}$	0.00500
Hexachloroethane	< 0.00465	m mg/L	0.00500
Acetophenone	< 0.00465	$\frac{\mathrm{mg}/\mathrm{L}}{\mathrm{mg}/\mathrm{L}}$	0.00500
Nitrobenzene	< 0.00465	m mg/L	0.00500
N-Nitrosopiperidine	< 0.00465	mg/L	0.00500
Isophorone	< 0.00465	$\frac{mg}{L}$	0.00500
2-Nitrophenol	< 0.00465	m mg/L	0.00500
2,4-Dimethylphenol	< 0.00465	mg/L	0.00500
bis(2-chloroethoxy)methane	< 0.00465	m mg/L	0.00500
2,4-Dichlorophenol	< 0.00465	${ m mg/L}$	0.00500
1,2,4-Trichlorobenzene	< 0.00465	m mg/L	0.00500
Benzoic acid	< 0.00465	m mg/L	0.00500
Naphthalene	< 0.00465	m mg/L	0.00500
a,a-Dimethylphenethylamine	< 0.00465		
4-Chloroaniline	< 0.00465	mg/L	0.00500
2,6-Dichlorophenol	<0.00403	m mg/L	0.00500
Hexachlorobutadiene	<0.00930 <0.00465	mg/L	0.0100
N-Nitroso-di-n-butylamine		mg/L	0.00500
TV-TVTG1OSO-GII-11-DULYTAIIIIIIE	< 0.00465	mg/L	0.00500

Work Order: 8110902 GW Sampling

Page Number: 7 of 18 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

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4-Chloro-3-methylphenol 2-Methylnaphthalene	=0.0046=		
2 Methylnanhthalene	< 0.00465	m mg/L	0.00500
2-Meany maphananene	< 0.00465	$\mathrm{mg/L}$	0.00500
1-Methylnaphthalene	< 0.00465	$\mathrm{mg/L}$	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00465	$\mathrm{mg/L}$	0.00500
Hexachlorocyclopentadiene	< 0.00465	m mg/L	0.00500
2,4,6-Trichlorophenol	< 0.00930	$\mathrm{mg/L}$	0.0100
2,4,5-Trichlorophenol	< 0.00465	m mg/L	0.00500
2-Chloronaphthalene	< 0.00465	${ m mg/L}$	0.00500
1-Chloronaphthalene	< 0.00465	m mg/L	0.00500
2-Nitroaniline	< 0.00465	mg/L	0.00500
Dimethylphthalate	< 0.00465	m mg/L	0.00500
Acenaphthylene	< 0.00465	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00465	m mg/L	0.00500
3-Nitroaniline	< 0.00465	m mg/L	0.00500
Acenaphthene	< 0.00465	mg/L	0.00500
2,4-Dinitrophenol	< 0.00465	mg/L	0.00500
Dibenzofuran	< 0.00465	mg/L	0.00500
Pentachlorobenzene	< 0.00465	mg/L	0.00500
4-Nitrophenol	< 0.0232	mg/L	0.0250
2,4-Dinitrotoluene	< 0.00465	$_{ m mg/L}$	0.00500
1-Naphthylamine	< 0.00465	mg/L	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00930	m mg/L	0.0100
2-Naphthylamine	< 0.00465	$\frac{1-2}{mg/L}$	0.00500
Fluorene	< 0.00465	mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00465	m mg/L	0.00500
Diethylphthalate	< 0.00465	m mg/L	0.00500
4-Nitroaniline	< 0.00465	m mg/L	0.00500
Diphenylhydrazine	< 0.00465	m mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00465	m mg/L	0.00500
Diphenylamine	< 0.00465	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00465	mg/L	0.00500
Phenacetin	< 0.00465	mg/L	0.00500
Hexachlorobenzene	< 0.00465	m mg/L	0.00500
4-Aminobiphenyl	< 0.00465	m mg/L	0.00500
Pentachlorophenol	< 0.00930	mg/L	0.0100
Anthracene	< 0.00465	m mg/L	0.00500
Pentachloronitrobenzene	< 0.00465	m mg/L	0.00500
Pronamide	< 0.00465	m mg/L	0.00500
Phenanthrene	< 0.00465	mg/L	0.00500
Di-n-butylphthalate	< 0.00465	mg/L	0.00500
Fluoranthene	< 0.00465	$_{ m mg/L}$	0.00500
Benzidine	< 0.0232	mg/L	0.0250
Pyrene	< 0.00465	m mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00465	m mg/L	0.00500
Butylbenzylphthalate	< 0.00465	m mg/L	0.00500
Benzo(a)anthracene	< 0.00465	mg/L	0.00500
3,3-Dichlorobenzidine	< 0.00465	mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 8 of 18 NM-SWD Station #11, Lea Co., NM

sample 178802 continued ...

Param	Flag Result	Units	RL
Chrysene	< 0.00465	mg/L	0.00500
bis(2-ethylhexyl)phthalate	< 0.00465	$\mathrm{mg/L}$	0.00500
Di-n-octylphthalate	< 0.00465	m mg/L	0.00500
Benzo(b)fluoranthene	< 0.00465	$\mathrm{mg/L}$	0.00500
Benzo(k)fluoranthene	< 0.00465	. mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00465	m mg/L	0.00500
Benzo(a)pyrene	< 0.00465	mg/L	0.00500
3-Methylcholanthrene	< 0.00465	mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00465	m mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00465	m mg/L	0.00500
Dibenzo(a,h)anthracene	< 0.00465	m mg/L	0.00500
Benzo(g,h,i)perylene	< 0.00465	m mg/L	0.00500
Dissolved Silica	14.2	m mg/L	0.0500
Total Silica	18.7	$_{ m mg/L}$	0.0500
Sulfate	385	m mg/L	1.00
Total Dissolved Solids	1154	m mg/L	10.00
Total Silver	< 0.00500	$_{ m mg/L}$	0.00500
Total Arsenic	< 0.0100	mg/L	0.0100
Total Barium	0.0280	$_{ m mg/L}$	0.00500
Total Cadmium	< 0.00200	mg/L	0.00200
Total Chromium	< 0.00500	mg/L	0.00500
Total Mercury	< 0.000200	mg/L	0.000200
Total Lead	< 0.00500	$_{ m mg/L}$	0.00500
Total Selenium	< 0.0200	m mg/L	0.0200
Total Suspended Solids	414	mg/L	1.00
Bromochloromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Dichlorodifluoromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Chloromethane (methyl chloride)	< 1.00	$\mu { m g}/{ m L}$	1.00
Vinyl Chloride	< 1.00	$\mu { m g}/{ m L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Chloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Trichloroffuoromethane	< 1.00	$\mu { m g}/{ m L}$	1.00
Acetone	< 10.0	$\mu { m g}/{ m L}$	10.0
Iodomethane (methyl iodide)	< 5.00	$\mu { m g}/{ m L}$	5.00
Carbon Disulfide	<1.00	$\mu { m g}/{ m L}$	1.00
Acrylonitrile	< 1.00	$\mu { m g}/{ m L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu { m g}/{ m L}$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu { m g}/{ m L}$	5.00
2-Hexanone	< 5.00	$\mu { m g}/{ m L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu { m g}/{ m L}$	10.0
1,1-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
Methylene chloride	< 5.00	$\mu { m g}/{ m L}$	5.00
MTBE	< 1.00	$\mu { m g}/{ m L}$	1.00
trans-1,2-Dichloroethene	< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloroethane	< 1.00	$\mu { m g}/{ m L}$	1.00
cis-1,2-Dichloroethene	<1.00	$\mu { m g}/{ m L}$	1.00
2,2-Dichloropropane	<1.00	$\mu { m g}/{ m L}$	1.00

Work Order: 8110902 GW Sampling Page Number: 9 of 18 NM-SWD Station #11, Lea Co., NM

sample 178802 continued . . .

Param	Flag	Result	Units	m RL
1,2-Dichloroethane (EDC)	1105	<1.00	$\mu \mathrm{g/L}$	1.00
Chloroform		<1.00	$\mu_{ m g}/{ m L}$	1.00
1,1,1-Trichloroethane		<1.00	$\mu_{ m g/L}$	1.00
1,1-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Benzene		<1.00	$\mu_{ m g}/ m L$	1.00
Carbon Tetrachloride		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Trichloroethene (TCE)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Dibromomethane (methylene bromide)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromodichloromethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu_{ m g/L}$	5.00
cis-1,3-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
trans-1,3-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Toluene		<1.00		1.00
1,1,2-Trichloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3-Dichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Dibromochloromethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dibromoethane (EDB)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Tetrachloroethene (PCE)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	
Chlorobenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,1,2-Tetrachloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Ethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
m,p-Xylene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromoform		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Styrene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
o-Xylene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,2,2-Tetrachloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2-Chlorotoluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2,3-Trichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Isopropylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00 1.00
Bromobenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	
n-Propylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3,5-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
tert-Butylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	$\frac{1.00}{1.00}$
1,2,4-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,4-Dichlorobenzene (para)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	
sec-Butylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00 1.00
1,3-Dichlorobenzene (meta)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
p-Isopropyltoluene		<1.00	$ m \mu g/L \ m \mu g/L$	1.00
4-Chlorotoluene		<1.00	$\mu_{ m g/L}$ $\mu_{ m g/L}$	1.00
1,2-Dichlorobenzene (ortho)		<1.00	$ ho_{ m g/L} ho_{ m g/L}$	1.00
n-Butylbenzene		<1.00		1.00
1,2-Dibromo-3-chloropropane		<5.00	$\mu \mathrm{g}/\mathrm{L}$.	
1,2,3-Trichlorobenzene		<5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
1,2,4-Trichlorobenzene		<5.00 <5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
Naphthalene		<5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
Hexachlorobutadiene		<5.00 <5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
TIENACHIOI OURIAGIERE		₹3.00	$\mu \mathrm{g}/\mathrm{L}$	5.00

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This is only a summary. Please, refer to the complete report package for quality control data.

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 10\ of\ 18} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

Sample: 178803 - NMSWD Station #11 MW-2

Param	Flag Result	Units	RL
Dissolved Silver	< 0.00500) mg/L	0.00500
Hydroxide Alkalinity	<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity	< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity	208	mg/L as CaCo3	4.00
Total Alkalinity	208		4.00
Dissolved Arsenic	< 0.00500		0.00500
Dissolved Barium	0.0200		0.0100
Dissolved Calcium	54.5		1.00
Dissolved Cadmium	< 0.00100		0.00100
Chloride	241		3.00
Specific Conductance	1350		0.00
Dissolved Chromium	< 0.00100		0.00100
Dissolved Mercury	0.00161		0.000200
Dissolved Potassium	9.14		1.00
Dissolved Magnesium	10.2		1.00
Dissolved Sodium	309		1.00
Dissolved Lead	< 0.00500	0,	0.00500
pH	7.68	0,	0.00
Dissolved Selenium	< 0.0100		0.0100
Pyridine	< 0.00468	0,	0.00500
N-Nitrosodimethylamine	< 0.00468	0,	0.00500
2-Picoline	< 0.00468	0/	0.00500
Methyl methanesulfonate	< 0.00468	6,	0.00500
Ethyl methanesulfonate	< 0.00468	67	0.00500
Phenol	< 0.00468	01	0.00500
Aniline	< 0.00468	Ο ₁	0.00500
bis(2-chloroethyl)ether	< 0.00468	0,	0.00500
2-Chlorophenol	< 0.00468	O,	0.00500
1,3-Dichlorobenzene (meta)	< 0.00468	٥,	0.00500
1,4-Dichlorobenzene (para)	< 0.00468	01	0.00500
Benzyl alcohol	< 0.00468	9,	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00468	0,	0.00500
2-Methylphenol	< 0.00468	3,	0.00500
bis(2-chloroisopropyl)ether	< 0.00468	9,	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00468	3,	0.00500
N-Nitrosodi-n-propylamine	< 0.00468	0/	0.00500
Hexachloroethane	< 0.00468	mg/L mg/L	0.00500
Acetophenone	< 0.00468	mg/L	0.00500
Nitrobenzene	< 0.00468	mg/L	0.00500
N-Nitrosopiperidine	< 0.00468	${ m mg/L}$	0.00500
Isophorone	< 0.00468	m mg/L	0.00500
2-Nitrophenol	< 0.00468		
2,4-Dimethylphenol	< 0.00468	0/	0.00500
bis(2-chloroethoxy)methane	< 0.00468	91	0.00500
2,4-Dichlorophenol	<0.00468	$\frac{\text{mg/L}}{\text{mg/L}}$	0.00500
1,2,4-Trichlorobenzene		mg/L	0.00500
	<0.00468	0/	0.00500
Benzoic acid	<0.00468	0/	0.00500
Naphthalene	< 0.00468	m mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 11 of 18 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

Param	Flag Result	Units	RL
a,a-Dimethylphenethylamine	< 0.00468	m mg/L	0.00500
4-Chloroaniline	< 0.00468	$\mathrm{mg/L}$	0.00500
2,6-Dichlorophenol	< 0.00935	$\mathrm{mg/L}$	0.0100
Hexachlorobutadiene	< 0.00468	$\mathrm{mg/L}$	0.00500
N-Nitroso-di-n-butylamine	< 0.00468	m mg/L	0.00500
4-Chloro-3-methylphenol	< 0.00468	$\mathrm{mg/L}$	0.00500
2-Methylnaphthalene	< 0.00468	$\mathrm{mg/L}$	0.00500
1-Methylnaphthalene	< 0.00468	$\mathrm{mg/L}$	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00468	m mg/L	0.00500
Hexachlorocyclopentadiene	< 0.00468	m mg/L	0.00500
2,4,6-Trichlorophenol	< 0.00935	mg/L	0.0100
2,4,5-Trichlorophenol	< 0.00468	m mg/L	0.00500
2-Chloronaphthalene	< 0.00468	mg/L	0.00500
1-Chloronaphthalene	< 0.00468	mg/L	0.00500
2-Nitroaniline	< 0.00468	m mg/L	0.00500
Dimethylphthalate	< 0.00468	m mg/L	0.00500
Acenaphthylene	< 0.00468	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00468	m mg/L	0.00500
3-Nitroaniline	< 0.00468	mg/L	0.00500
Acenaphthene	< 0.00468	m mg/L	0.00500
2,4-Dinitrophenol	< 0.00468	mg/L	0.00500
Dibenzofuran	< 0.00468	mg/L	0.00500
Pentachlorobenzene	< 0.00468	mg/L	0.00500
4-Nitrophenol	< 0.0234	$_{ m mg/L}$	0.0250
2,4-Dinitrotoluene	< 0.00468	m mg/L	0.00500
1-Naphthylamine	< 0.00468	mg/L	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00935	mg/L	0.0100
2-Naphthylamine	< 0.00468	mg/L	0.00500
Fluorene	< 0.00468	mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00468	mg/L	0.00500
Diethylphthalate	< 0.00468	m mg/L	0.00500
4-Nitroaniline	< 0.00468	m mg/L	0.00500
Diphenylhydrazine	< 0.00468	mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00468	m mg/L	0.00500
Diphenylamine	< 0.00468	mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00468	m mg/L	0.00500
Phenacetin	< 0.00468	m mg/L	0.00500
Hexachlorobenzene	< 0.00468	m mg/L	0.00500
4-Aminobiphenyl	< 0.00468	mg/L	0.00500
Pentachlorophenol	< 0.00935	mg/L	0.0100
Anthracene	< 0.00468	mg/L	0.00500
Pentachloronitrobenzene	< 0.00468	mg/L	0.00500
Pronamide	< 0.00468	mg/L	0.00500
Phenanthrene	< 0.00468	mg/L	0.00500
Di-n-butylphthalate	< 0.00468	$_{ m mg/L}$	0.00500
Fluoranthene	< 0.00468	m mg/L	0.00500
Benzidine	< 0.0234	mg/L	0.0250

Work Order: 8110902 GW Sampling Page Number: 12 of 18 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

Param	Flag Result	Units	RL
Pyrene	< 0.00468	mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00468	$\mathrm{mg/L}$	0.00500
Butylbenzylphthalate	< 0.00468	$\mathrm{mg/L}$	0.00500
Benzo(a)anthracene	< 0.00468	$\mathrm{mg/L}$	0.00500
3,3-Dichlorobenzidine	< 0.00468	$\mathrm{mg/L}$	0.00500
Chrysene	< 0.00468	m mg/L	0.00500
bis(2-ethylhexyl)phthalate	< 0.00468	$\mathrm{mg/L}$	0.00500
Di-n-octylphthalate	< 0.00468	$\mathrm{mg/L}$	0.00500
Benzo(b)fluoranthene	< 0.00468	m mg/L	0.00500
Benzo(k)fluoranthene	< 0.00468	m mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00468	m mg/L	0.00500
Benzo(a)pyrene	< 0.00468	mg/L	0.00500
3-Methylcholanthrene	< 0.00468	mg/L	0.00500
Dibenzo(a,j)acridine	< 0.00468	m mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00468	m mg/L	0.00500
Dibenzo(a,h)anthracene	< 0.00468	$^{ m mg/L}$	0.00500
Benzo(g,h,i)perylene	< 0.00468	mg/L	0.00500
Dissolved Silica	13.1	$_{ m mg/L}$	0.0500
Total Silica	77.8	mg/L	0.0500
Sulfate	358	mg/L	1.00
Total Dissolved Solids	1018	$^{ m mg/L}$	10.00
Total Silver	< 0.00500	mg/L	0.00500
Total Arsenic	0.0610	$_{ m mg/L}$	0.0100
Total Barium	0.682	mg/L	0.00500
Total Cadmium	< 0.00200	$^{ m mg/L}$	0.00200
Total Chromium	0.148	mg/L	0.00500
Total Mercury	< 0.000400	mg/L	0.000200
Total Lead	< 0.00500	m mg/L	0.00500
Total Selenium	< 0.0200	m mg/L	0.0200
Total Suspended Solids	7140	mg/L	1.00
Bromochloromethane	<1.00	$\mu \mathrm{g/L}$	1.00
Dichlorodifluoromethane	<1.00	$\mu_{ m g/L}$	1.00
Chloromethane (methyl chloride)	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Vinyl Chloride	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromomethane (methyl bromide)	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
Chloroethane	< 1.00	$\mu { m g/L}$	1.00
Trichlorofluoromethane	< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Acetone	<10.0	$\mu \mathrm{g}/\mathrm{L}$	10.0
Iodomethane (methyl iodide)	< 5.00	$\mu \mathrm{g/L}$	5.00
Carbon Disulfide	< 1.00	$\mu { m g/L}$	1.00
Acrylonitrile	< 1.00	$\mu{ m g}/{ m L}$	1.00
2-Butanone (MEK)	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
4-Methyl-2-pentanone (MIBK)	< 5.00	$\mu\mathrm{g/L}$	5.00
2-Hexanone	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
trans 1,4-Dichloro-2-butene	<10.0	$\mu \mathrm{g}/\mathrm{L}$	10.0
1,1-Dichloroethene	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Methylene chloride	< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00

Work Order: 8110902 GW Sampling Page Number: 13 of 18 NM-SWD Station #11, Lea Co., NM

sample 178803 continued ...

Param	Flag	Result	Units	RL
MTBE		<1.00	$\mu { m g/L}$	1.00
trans-1,2-Dichloroethene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1.00
Benzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Trichloroethene (TCE)		<1.00	$\mu { m g}/{ m L}$	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
cis-1,3-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
trans-1,3-Dichloropropene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Toluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,2-Trichloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3-Dichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Dibromochloromethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dibromoethane (EDB)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Tetrachloroethene (PCE)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Chlorobenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,1,2-Tetrachloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Ethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
m,p-Xylene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromoform		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Styrene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
o-Xylene		<1.00	$\mu_{ m g/L}$	1.00
1,1,2,2-Tetrachloroethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
2-Chlorotoluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2,3-Trichloropropane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Isopropylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromobenzene		<1:00	$\mu \mathrm{g}/\mathrm{L}$	1.00
n-Propylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3,5-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
tert-Butylbenzene ·		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2,4-Trimethylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,4-Dichlorobenzene (para)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
sec-Butylbenzene		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,3-Dichlorobenzene (meta)		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
p-Isopropyltoluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	1.00
4-Chlorotoluene		<1.00	$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dichlorobenzene (ortho)		<1.00	$\mu \mathrm{g}/\mathrm{L}$ $\mu \mathrm{g}/\mathrm{L}$	1.00
n-Butylbenzene		<1.00		
II Daty to official		\1.00	$\mu { m g/L}$	1.00

Work Order: 8110902 GW Sampling

Page Number: 14 of 18 NM-SWD Station #11, Lea Co., NM

sample 178803 continued . . .

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Param	Flag	Result	Units	RL
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu\mathrm{g}/\mathrm{L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	5.00

Sample: 178804 - NMSWD Station #11 RW-1

Param	Flag Result	Units	RL
Dissolved Silver	< 0.00500	mg/L	0.00500
Hydroxide Alkalinity	<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity	< 1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity	232	mg/L as CaCo3	4.00
Total Alkalinity	232	mg/L as CaCo3	4.00
Dissolved Arsenic	< 0.00500	mg/L	0.00500
Dissolved Barium	0.313	${ m mg/L}$	0.0100
Dissolved Calcium	5810	mg/L	1.00
Dissolved Cadmium	< 0.00100	mg/L	0.00100
Chloride	51600	mg/L	3.00
Specific Conductance	81100	uMHOS/cm	0.00
Dissolved Chromium	< 0.00100	$_{ m mg/L}$	0.00100
Dissolved Mercury	0.00105	mg/L	0.000200
Dissolved Potassium	157	mg/L	1.00
Dissolved Magnesium	719	mg/L	1.00
Dissolved Sodium	22200	mg/L	1.00
Dissolved Lead	< 0.00500	mg/L	0.00500
pH	6.17	s.u.	0.00
Dissolved Selenium	< 0.0100	${ m mg/L}$	0.0100
Pyridine	< 0.00461	${ m mg/L}$	0.00500
N-Nitrosodimethylamine	< 0.00461	mg/L	0.00500
2-Picoline	< 0.00461	m mg/L	0.00500
Methyl methanesulfonate	< 0.00461	mg/L	0.00500
Ethyl methanesulfonate	< 0.00461	mg/L	0.00500
Phenol	< 0.00461	${ m mg/L}$	0.00500
Aniline	< 0.00461	${ m mg/L}$	0.00500
bis(2-chloroethyl)ether	< 0.00461	${ m mg/L}$	0.00500
2-Chlorophenol	< 0.00461	m mg/L	0.00500
1,3-Dichlorobenzene (meta)	< 0.00461	$\mathrm{mg/L}$	0.00500
1,4-Dichlorobenzene (para)	< 0.00461	$\mathrm{mg/L}$	0.00500
Benzyl alcohol	< 0.00461	${ m mg/L}$	0.00500
1,2-Dichlorobenzene (ortho)	< 0.00461	$\mathrm{mg/L}$	0.00500
2-Methylphenol	< 0.00461	$\mathrm{mg/L}$	0.00500
bis(2-chloroisopropyl)ether	< 0.00461	m mg/L	0.00500
4-Methylphenol / 3-Methylphenol	< 0.00461	m mg/L	0.00500
N-Nitrosodi-n-propylamine	< 0.00461	m mg/L	0.00500
Hexachloroethane	< 0.00461	$_{ m mg/L}$	0.00500

Work Order: 8110902 GW Sampling $\begin{array}{c} {\rm Page\ Number:\ 15\ of\ 18} \\ {\rm NM\text{-}SWD\ Station\ \#11,\ Lea\ Co.,\ NM} \end{array}$

sample 178804 continued ...

Param	Flag Result	Units	RL
Acetophenone	< 0.00461	m mg/L	0.00500
Nitrobenzene	< 0.00461	m mg/L	0.00500
N-Nitrosopiperidine	< 0.00461	m mg/L	0.00500
Isophorone	< 0.00461	m mg/L	0.00500
2-Nitrophenol	< 0.00461	m mg/L	0.00500
2,4-Dimethylphenol	< 0.00461	${ m mg/L}$	0.00500
bis(2-chloroethoxy)methane	< 0.00461	$\mathrm{mg/L}$	0.00500
2,4-Dichlorophenol	< 0.00461	$\mathrm{mg/L}$	0.00500
1,2,4-Trichlorobenzene	< 0.00461	${ m mg/L}$	0.00500
Benzoic acid	< 0.00461	$\mathrm{mg/L}$	0.00500
Naphthalene	< 0.00461	$\mathrm{mg/L}$	0.00500
a,a-Dimethylphenethylamine	< 0.00461	mg/L	0.00500
4-Chloroaniline	< 0.00461	m mg/L	0.00500
2,6-Dichlorophenol	< 0.00922	$\mathrm{mg/L}$	0.0100
Hexachlorobutadiene	< 0.00461	$\mathrm{mg/L}$	0.00500
N-Nitroso-di-n-butylamine	< 0.00461	mg/L	0.00500
4-Chloro-3-methylphenol	< 0.00461	mg/L	0.00500
2-Methylnaphthalene	< 0.00461	mg/L	0.00500
1-Methylnaphthalene	< 0.00461	mg/L	0.00500
1,2,4,5-Tetrachlorobenzene	< 0.00461	mg/L	0.00500
Hexachlorocyclopentadiene	< 0.00461	mg/L	0.00500
2,4,6-Trichlorophenol	< 0.00922	mg/L	0.0100
2,4,5-Trichlorophenol	< 0.00461	mg/L	0.00500
2-Chloronaphthalene	< 0.00461	m mg/L	0.00500
1-Chloronaphthalene	< 0.00461	mg/L	0.00500
2-Nitroaniline	< 0.00461	mg/L	0.00500
Dimethylphthalate	< 0.00461	m mg/L	0.00500
Acenaphthylene	< 0.00461	m mg/L	0.00500
2,6-Dinitrotoluene	< 0.00461	m mg/L	0.00500
3-Nitroaniline	< 0.00461	mg/L	0.00500
Acenaphthene	< 0.00461	m mg/L	0.00500
2,4-Dinitrophenol	< 0.00461	mg/L	0.00500
Dibenzofuran	< 0.00461	m mg/L	0.00500
Pentachlorobenzene	< 0.00461	mg/L	0.00500
4-Nitrophenol	< 0.0230	mg/L	0.0250
2,4-Dinitrotoluene	< 0.00461	m mg/L	0.00500
1-Naphthylamine	< 0.00461	m mg/L	0.00500
2,3,4,6-Tetrachlorophenol	< 0.00922	m mg/L	0.0100
2-Naphthylamine	< 0.00461	mg/L	0.00500
Fluorene	< 0.00461	mg/L	0.00500
4-Chlorophenyl-phenylether	< 0.00461	m mg/L	0.00500
Diethylphthalate	< 0.00461	m mg/L	0.00500
4-Nitroaniline	< 0.00461	mg/L	0.00500
Diphenylhydrazine	< 0.00461	m mg/L	0.00500
4,6-Dinitro-2-methylphenol	< 0.00461	$^{3/}_{ m mg/L}$	0.00500
Diphenylamine	< 0.00461	m mg/L	0.00500
4-Bromophenyl-phenylether	< 0.00461	m mg/L	0.00500

Work Order: 8110902 GW Sampling Page Number: 16 of 18 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

Param	Flag Result	Units	RL
Phenacetin	< 0.00461	mg/L	0.00500
Hexachlorobenzene	< 0.00461	$\mathrm{mg/L}$	0.00500
4-Aminobiphenyl	< 0.00461	$\mathrm{mg/L}$	0.00500
Pentachlorophenol	< 0.00922	$\mathrm{mg/L}$	0.0100
Anthracene	< 0.00461	m mg/L	0.00500
Pentachloronitrobenzene	< 0.00461	m mg/L	0.00500
Pronamide	< 0.00461	$\mathrm{mg/L}$	0.00500
Phenanthrene	< 0.00461	m mg/L	0.00500
Di-n-butylphthalate	< 0.00461	$\mathrm{mg/L}$	0.00500
Fluoranthene	< 0.00461	m mg/L	0.00500
Benzidine	< 0.0230	$\mathrm{mg/L}$	0.0250
Pyrene	< 0.00461	m mg/L	0.00500
p-Dimethylaminoazobenzene	< 0.00461	m mg/L	0.00500
Butylbenzylphthalate	< 0.00461	m mg/L	0.00500
Benzo(a)anthracene	< 0.00461	m mg/L	0.00500
3,3-Dichlorobenzidine	< 0.00461	m mg/L	0.00500
Chrysene	< 0.00461	m mg/L	0.00500
bis(2-ethylhexyl)phthalate	< 0.00461	m mg/L	0.00500
Di-n-octylphthalate	< 0.00461	mg/L	0.00500
Benzo(b)fluoranthene	< 0.00461	$^{}$ 8/ $^{-}$	0.00500
Benzo(k)fluoranthene	< 0.00461	mg/L	0.00500
7,12-Dimethylbenz(a)anthracene	< 0.00461	mg/L	0.00500
Benzo(a)pyrene	< 0.00461	mg/L	0.00500
3-Methylcholanthrene	< 0.00461	$_{ m mg/L}$	0.00500
Dibenzo(a,j)acridine	< 0.00461	mg/L	0.00500
Indeno(1,2,3-cd)pyrene	< 0.00461	mg/L	0.00500
Dibenzo(a,h)anthracene	< 0.00461	mg/L	0.00500
Benzo(g,h,i)perylene	< 0.00461	mg/L	0.00500
Dissolved Silica	33.6	m mg/L	0.0500
Total Silica	54.0	mg/L	0.0500
Sulfate	1270	$\frac{1-6}{-1}$	1.00
Total Dissolved Solids	43150	mg/L	10.00
Total Silver	< 0.00500	$\frac{mg}{L}$	0.00500
Total Arsenic	0.0170	m mg/L	0.0100
Total Barium	0.307	mg/L	0.00500
Total Cadmium	< 0.00200	mg/L	0.00200
Total Chromium	0.0460	mg/L	0.00500
Total Mercury	0.000547	$\frac{mg}{L}$	0.000200
Total Lead	0.0130	mg/L	0.00500
Total Selenium	< 0.0200	mg/L	0.0200
Total Suspended Solids	450	mg/L	1.00
Bromochloromethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Dichlorodifluoromethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Chloromethane (methyl chloride)	<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Vinyl Chloride	<1.00		1.00
Bromomethane (methyl bromide)	<5.00	$\mu { m g/L}$	
Chloroethane	<1.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
Omoroemane	<1.00	$\mu { m g/L}$	1.00

Work Order: 8110902 GW Sampling Page Number: 17 of 18 NM-SWD Station #11, Lea Co., NM

sample 178804 continued . . .

Param	Flag	Result	Units	RL
Trichlorofluoromethane		<1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Acetone		<10.0	$\mu { m g}/{ m L}$	10.0
Iodomethane (methyl iodide)		< 5.00	$\mu { m g}/{ m L}$	5.00
Carbon Disulfide		< 1.00	$\mu { m g}/{ m L}$	1.00
Acrylonitrile		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Butanone (MEK)		< 5.00	$\mu { m g}/{ m L}$	5.00
4-Methyl-2-pentanone (MIBK)		< 5.00	$\mu { m g}/{ m L}$	5.00
2-Hexanone		< 5.00	$\mu { m g}/{ m L}$	5.00
trans 1,4-Dichloro-2-butene		<10.0	$\mu { m g}/{ m L}$	10.0
1,1-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1.00
Methylene chloride		13.5	$\mu { m g}/{ m L}$	5.00
MTBE		< 1.00	$\mu { m g}/{ m L}$	1.00
trans-1,2-Dichloroethene		<1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
cis-1,2-Dichloroethene		< 1.00	$\mu { m g}/{ m L}$	1.00
2,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloroethane (EDC)		< 1.00	$\mu { m g}/{ m L}$	1.00
Chloroform		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1.00
Benzene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Carbon Tetrachloride		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Trichloroethene (TCE)		< 1.00	$\mu { m g}/{ m L}$	1.00
Dibromomethane (methylene bromide)		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Bromodichloromethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chloroethyl vinyl ether		< 5.00	$\mu \mathrm{g}/\mathrm{L}$	5.00
cis-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1.00
trans-1,3-Dichloropropene		< 1.00	$\mu { m g}/{ m L}$	1.00
Toluene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,1,2-Trichloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichloropropane		< 1.00	$\mu { m g}/{ m L}$	1.00
Dibromochloromethane		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromoethane (EDB)		< 1.00	$\mu { m g}/{ m L}$	1.00
Tetrachloroethene (PCE)		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
Chlorobenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,1,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
Ethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
m,p-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromoform		< 1.00	$\mu { m g}/{ m L}$	1.00
Styrene		< 1.00	$\mu { m g}/{ m L}$	1.00
o-Xylene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,1,2,2-Tetrachloroethane		< 1.00	$\mu { m g}/{ m L}$	1.00
2-Chlorotoluene		< 1.00	$\mu m g/L$	1.00
1,2,3-Trichloropropane		<1.00	$\mu { m g}/{ m L}$	1.00
Isopropylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
Bromobenzene		< 1.00	$\mu { m g/L}$	1.00

Work Order: 8110902 GW Sampling Page Number: 18 of 18 NM-SWD Station #11, Lea Co., NM

sample 178804 continued ...

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Param	Flag	Result	Units	RL
n-Propylbenzene		<1.00	$\mu { m g}/{ m L}$	1.00
1,3,5-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
tert-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2,4-Trimethylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,4-Dichlorobenzene (para)		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
sec-Butylbenzene	•	< 1.00	$\mu { m g}/{ m L}$	1.00
1,3-Dichlorobenzene (meta)		< 1.00	$\mu { m g}/{ m L}$	1.00
p-Isopropyltoluene		< 1.00	$\mu { m g}/{ m L}$	1.00
4-Chlorotoluene		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
1,2-Dichlorobenzene (ortho)		< 1.00	$\mu \mathrm{g}/\mathrm{L}$	1.00
n-Butylbenzene		< 1.00	$\mu { m g}/{ m L}$	1.00
1,2-Dibromo-3-chloropropane		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,3-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
1,2,4-Trichlorobenzene		< 5.00	$\mu { m g}/{ m L}$	5.00
Naphthalene		< 5.00	$\mu { m g}/{ m L}$	5.00
Hexachlorobutadiene		< 5.00	$\mu { m g}/{ m L}$	5.00

New Mexico Salt Water Disposal Company Groundwater Sampling July 09, 2007 By: CMB Environmental Geological Services Inc.

<u>sar</u>	2600	1500	1800	2000	1500	170000
Ha	7.5	7.31	7.46	7.5	7.8	7.2
<u>S.C.</u>	2800	2500	3100	2900	2300	280000
Sodium	350	370	350	330	120	45000
<u>Potassium</u>	8.8	6.2	11	7.5	4.2	540
Magnesium	. 22	33	42	52	32	630
Calcium	120	120	210	190	260	3200
Sulfate	760	290	360	029	160	1600
Phosphorus	ND	Q	Q	Q	QN	QN
Nitrate	Q	1.3	Q	Q.	56	QN QN
Bromide	5.6	1.3	2.7	2.8	1.8	140
Chloride	260	220	620	390	460	83000
Fluoride	1.6	1.6	1.6	1.8	0.66	QN
BTEX	QN	ON	Q			20100
TPH GRO	QN	Q	0.057			55
TPH DRO	Q.	S S	QN			35.1
<u>Well:</u>]	MW-2	MW-1	MW-3	NW Windmill	SW Windmill	Tank Battery Fluid 35.1

CMB Environmental & Geological Services, Inc.

PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-4

TOTAL DEPTH: 65'

PROJECT INFORMATION					DRILLING INFORMATION				
PROJE	:CT:	NN	ISWD MW Drilling	DRII	LING (00.:	Peterson	Drilling Co.	
SITE LO	DCATION:	Lea	County, NM	DRIL	DRILLER: Charles Johnson				
JOB NO	D.:			RIG	TYPE:		IR TH-60	0	
LOGGE	ED BY:	CM	Barnfull, PG	MET	HOD C	F DRILL	ING: Air Rotai	ry	
PROJE	CT MANAGE	R: Ror	y McMinn	SAM	IPLING	METHO	DS: Split Spo	on	
DATES	DRILLED:	04/1	14/09	HAM	MER V	VT./DRO	P NA		
NOTES	Split Spoor	n Pushed	by TH-60 Drilling Rig.				luring drilling n completed well	Page 1 of 1	
DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH/CL	BORING COMPLETION	WELL DESCRIPTION	
-5 -10 -15 -20 -25 -30 -45 -55 -55 -65 -65 -70		SM SW CL SW SW CH	SM: Tan Brown 2.5 YR/8/2 fine gr. to medium gr.sand , silt, & caliche SW: Brown med. gr sand, well sorted 2.5 YR 6/4 SC: Clayey Silty Sand, CL: Brown Fat Clay ML: Clayey Silty Sand, yellow-redbrown,fn.sand, 25% clay SW: Very fine Brown Sand 7/5 YR 6/6 ,silt &clay,trace gravel, perched water 60.22' BGS 63.49' from TOC Completed Well. CH: Clay, light olive brown to light yellowish brown,	Split Spoon Soil Samples snalyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride from surface to Total Depth of Boring @ every 10' feet.	1.0'	ND / 12 ND / 43 ND / 400 13 / 960 59 / 1300 ND / 1100 MD / 1400		Cement / Grout Bentonite TD 65' Cement Grout 0'5', Betonite .5'-42'. 20/40 Sand 45- 65',0.010 Slot Screen 45'-65'	

CMB Environmental & Geological Services, Inc.

PO Box 2304 Roswell, NM 88202-2304

cmbenviro@dfn.com

(505) 622-2012 Fax (505) 625-0538

FIELD BOREHOLE LOG

BOREHOLE NO.: MW-5

TOTAL DEPTH: 30'

PROJECT INFORMATION					DRILLING INFORMATION				
PROJE	CT:	NN.	ISWD MW Drilling	DRIL	LING (00.:	Peterson	Drilling	
SITE LO	CATION:	Lea	County, NMI	DRIL	DRILLER: Charles Johnson			Johnson	
JOB NO).:			RIG	TYPE:		IR TH-60)	
LOGGE	D BY:	C.N	I Barnhill, PG	MET	HOD	F DRILL	ING: Air Rotar	Ϋ́,	
PROJE	CT MANAGE	R: Roi	y McMinn	SAM	PLING	METHO	DS: Split Spor	on	
DATES	DRILLED:	4/1-	1/09	HAM	MER V	VT./DRO	P NA		
NOTES	: Split Spoor	n Pushed	by TH-60 Drilling Rig.				uring drilling n completed well	Page 1 of 1	
DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH/CL	BORING COMPLETION	WELL DESCRIPTION	
-5 -10 -1		SM	SM: Tan, 2.5 YR 8/2 fine grained sand / caliche / silt mixture.	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO	0.5'	ND / 11 ND / 1600		Cement / Grout Bentonite	
-20 -		SW	SW: Brown fn, gr., well sored sand 2.5 YR 6/4	/DRO, BTEX, Chloride from surface	1.0'	ND /		TD 30' Cement Grout 0'-	
-25 - -36 -		sc	SC: Brownclayeysand 2.5 YR 6/4 Perched water @ 29.60 feet BGS during drilling. Measured from TOC @ 31.57' completed	to Total Depth of Boring		2000		2',Betonite 2'- 16'. 20/40 Sand 16'-30,0.010 Slot Screen	
-35		CL	CL: Brown fat clay.	@ every 10' feet.	1.0'	ND / 2100		20'-30'	

CMB Environmental & Geological Services, Inc.

PO Box 2304 Roswell, NM 88202-2304

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FIELD BOREHOLE LOG

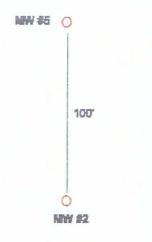
BOREHOLE NO.: MW-6

TOTAL DEPTH: 65'

SITE LOCATION: LOB NO.: LOGGED BY: CI PROJECT MANAGER: RODATES DRILLED: 04 NOTES: Split Spoon Pushe	MISWD MIW Drilling Pa County, NM M Barnhill, PG Ory McMinn M14/09 Ind by TH-60 Drilling Rig.	DRII RIG MET SAM HAM	PLING MER V		Charles IR TH-60 ING: Air Rotar DS: Split Spo P N/A	0 1y
UOB NO.: LOGGED BY: CI PROJECT MANAGER: RO DATES DRILLED: 04 NOTES: Split Spoon Pushe	M Barnhill, PG ory McMinn 1/14/09 ad by TH-60 Drilling Rig.	RIG MET SAM HAM	TYPE: HOD C PLING MER W	METHOI VT./DRO	IR TH-60 ING: An Rotar OS: Split Spo P N/A	0 1y
LOGGED BY: (1) PROJECT MANAGER: Ro DATES DRILLED: 04 NOTES: Split Spoon Pushe	ory McMinn V14:09 ed by TH-60 Drilling Rig.	MET SAM HAM	HOD C PLING MER W	METHOI VT./DRO	ING: An Rota DS: Split Spo P N/A	ıy
PROJECT MANAGER: RODATES DRILLED: 04 NOTES: Split Spoon Pushe	ory McMinn V14:09 ed by TH-60 Drilling Rig.	SAM HAM	PLING MER V	METHOI VT./DRO	OS: Split Spo	
DATES DRILLED: 04 NOTES: Split Spoon Pushe	d by TH-60 Drilling Rig.	HAM	MER V	VT./DRO	P NA	on
NOTES: Split Spoon Pushe	d by TH-60 Drilling Rig.		▼ Wa			
Split Spoon Pushe				ater level d	uring drilling	
	SOIL DESCRIPTION		- 110	ater level in	anny anning I completed well	Page 1 of 1
SYMBOLS USCS	301L DESCRIPTION	SAMP. #	Rec. / feet.	PPM TPH/CL	BORING COMPLETION	WELL DESCRIPTION
SM -5 -10 -1	SM: Tan Brown 2.5 YR/8/2 fine gr. to medium gr.sand , silt, & caliche SW: Brown med. gr sand, SC: Clayey Silty Sand, yellow - brown , fn.sand, CL: Brown Fat Clay, No Perched water at 32' Set temp monitor well at 30' BGS and left open 24 hr., SW: Very fine Brown Sand 7/5 YR 6/6, silt & clay, trace gravel, perched water 59.87' BGS 63.23' from TOC Completed Well.	Split Spoon Soil Samples analyzed for TPH Mod 8015 GRO /DRO, BTEX, Chloride from surface to Total Depth of Boring @ every 10' feet.	1.0'	ND / 22 ND / 20 63 / 630 ND / 3500 ND / 1700 ND / 150 53 / 1700		TD 65' Cement Grout 0'5',Betonite .5'-42'. 20/40 Sand 45- 65',0.010 Slot Screen 45'-65'

New Mexico Salt Water Disposal Co., Inc.

Station #11, Unit D Sec. 10, T10S - R34E Lea County, New Mexico



Proposed Monitor Well locations MW #4 and MW #5. Drill to 65 ft BGS

Plot is to scale





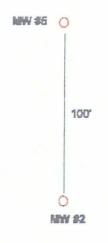
CS WIM

Monitor well

Oneficiance Technologies Kay Havenor, Ph.D., RPO Research, New Mexico November 18, 2008

New Mexico Salt Water Disposal Co., Inc.

Station #11, Unit D Sec. 10, T10S - R34E Lea County, New Mexico



Proposed Monitor Well locations MW #4, MW #5 and MW #6 (?) Drill to 65 ft BGS

Plot is to scale

O RW #1

MW #6 may not be drilled

NINY #6

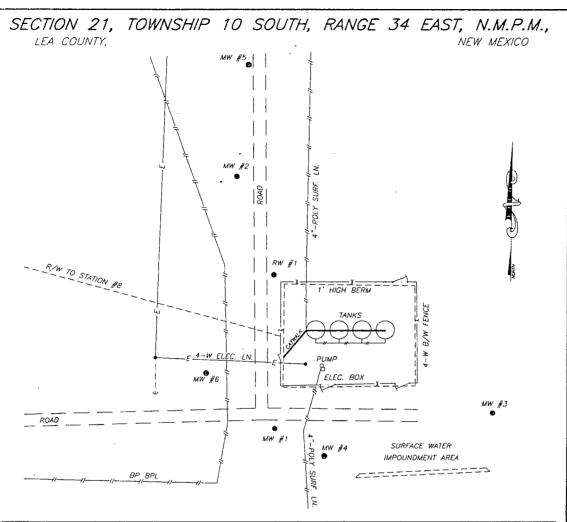
30°

NIW \$4

MW #3

O Monitor well

Conficience Technologies Kay Havenor, Ph.D., SPO Roswell, New Mexico November 18, 2008



WELL	NO.	STATE PLANE COORDINATES	NORTH SIDE ELEVATIONS	WELL NO.	STATE PLANE COORDINATES	NORTH SIDE ELEVATIONS
MW	#1	Y=887815.1 N X=803033.6 E	4218.10' GROUND 4218.51' TOP OF CONCRETE 4221.12' TOP OF 2" PVC PIPE	MW #4	Y=887792.5 N X=803073.6 E	4217.86' GROUND 4218.14' TOP OF CONCRETE 4221.84' TOP OF 4" STL. LID
RW	#1	Y=887941.7 N X=803032.8 E	4217.53' GROUND 4217.94' TOP OF CONCRETE 4220.13' TOP OF 4" PVC PIPE	MW #5	Y=888114.8 N X=803011.9 E	4217.72' GROUND 4217.83' TOP OF CONCRETE 4221.21' TOP OF 6" STL. LID
MW	#2	Y=888022.4 N X=803002.7 E	4217.09' GROUND 4217.39' TOP OF CONCRETE 4220.14' TOP OF 2" PVC PIPE	MW #6	Y=887861.0 N X=802978.2 E	4218.22' GROUND 4218.47' TOP OF CONCRETE 4222.19' TOP OF 4" STL. LID
MW	#3	Y=887828.2 N X=803210.2 E	4217.60' GROUND 4217.99' TOP OF CONCRETE 4220.54' TOP OF 2" PVC PIPE			

LEGEND

- DENOTES FENCE GATE

- DENOTES FENCE LINE

THE MINIMUM STANDARDS FOR SURVEY IN NEW MEXICO.

GARY G. EITEON THE OF NO RONALD J. EIDSON MINISTER NO. NO.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

NOTE: COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.

120 Feet Scale: 1 "=60"

NEW MEXICO SALT WATER DISPOSAL CO.

SURVEY OF MONITOR WELLS AT DISPOSAL STATION #11 IN SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 07/02/09	7	Sheet	1	of	1	Sheets
W.O. Number: 09.11,0610	0 Dr	By: LA				
Date: 02/13/09		091	061	o.	Scal	e:1"=100"

	oject:				& Geological Services, Inc.	She	ring ID: MW-4 et: 10=1
	catio	n:	,	NM SW	n STation 11, Leals NM		
	ent:		ew r	Heylw 5	alt Water Proposal Co.		number: £508.87 SW
	•	CA To	, ,		n Deiling , Charlie Jovasn		
		metn date:	ioa:	04/14	12 ton Starta 60 15:15		ng diameter: <u>6 "</u> ged by:
	-	evel:			·22' B65		e measured: $04/15/0$
£		SAMPL	,	standard penetration	SOIL DESCRIPTION	- j 를 L	COMMENTS
depth (ft)	interval	number	recovery (inches)	test results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	graphic	Monitoring well Installation, geotechnical properties, analytical tests, instrumentation
-	7-2	015	,	Dushob	Ton 2.5 YR/ 8/2	11.1	Sampled 0-2 a 150
_				-,,,,,	12-d-2'-41-Calube	1	STex, TEX mos gos
_					fine gr. Sand Silt	9"	CL . 300,0
_					Collibe Mixture		GM/SM
	7-15	() E				171	5 // // // //
-	1-12	0.3		Publical	1000 - 100 10/6		Sample 6 10-12'e 15. 2x 400/6/Ja/NA
-					Sand Silt / cole be mix	1 14	BTEX/TOH, CC
-							- 5Ne 15'
-					a 15' Brown med gr. Well Sorted Soul. 2.5426/4	SW	
بر	1-22	11.0		Pushob	20' - 22'		52mpl. 1 20'-22 (a. 1.
-						34.	2×40+/6/Jar/Nom
_					2251 Sc: Clayer Sond	1.1.	BTex, TPI+, CL
					Sand Clay Mixtures Fatolog on Bite 321	4	
		1.0				1	
3	-32	100		pushe	Sel lempirary min	gu	Sumplet 30-32 c 153
_		_	. /		30- 10/50 rean 26495	4	2 1417/5/Jul Nine
	30	- 35	5		5061 (4' Back) 20/41532 35.	MC	Blex , TAH, CL
_							
				DRY	0845 hove = 04/15/09 2 Solmist WL TO = 36.30.		· I.O. TO. 31.55
_					Olongry 3: Hy Soud - Mi		- 210. 1 P- 31.55
-					147 7.5 YR 6/6 -		
-					Sand time or		
-					•	Sw	
					c65 CH: c/ay	٠٠,	
			İ		- Job Ciri Ciay		Swin - 1 march
					1.0.65		Tol: Dru = 4
-					Screen 20' 65-45 (0.010)	1:1	
					Top Sand 42.0 (40/20)	<u> </u>	H20 = 60.22/2

0

4

0

(1)

•

CMB Environmental & Geological Services, Inc. Boring ID: MW-5 MONITOR Well DRilling & Installa (Sheet: 10=1 Project: Location: NMSWD STATION 11, LEW G. NM New Mexin 5211 Water Dispose (Go Job number: Client: ES.08 NMSWD. 01 Peterson Deilling, Charlie Jourson Total depth: Driller: JA 67 AIR Rollin Started e 14:34 hour Boring diameter: Drilling method: Logged by: Boring date: 04/14/2009 CMBarnhill, PL Water level: Date measured: 04/15/04 30.301 SAMPLE SOIL DESCRIPTION COMMENTS standard graphic log penetration Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content Monitoring well installation, geotechnical test results properties, analytical tests, instrumentation 0 0.5 Ton, 2.5 YA 8/2 10/-2 Pushed Sampled 01-2 W/R16 @ 13:45 Fine gr. Sand/Collike 24402/6/500/NICA mixTue 13 21865 -TON MIDSON STE 2'- 10' Fine gr. Sand. 06.301.2 GM/5M Push-d 10 10-12 0.5 58mpled 10-12 @ 13:56 2+ 400/6 Office Tout mor 8 @15 5W CL 00,0 Brown med gr. well STOY Sortal Sond. 25 YE/V/4 SW/ML 20 C20'-22' 25 YR 6/4 20-20 1.0 probbedi @ 22' clayey Sind mistre 50 Jample 6 20' 22'c 14:05 24402/6/Jac/1000 Fin TOHMIDSUS BEX CL : 311/1 30 CL Sampled 30'-32" 30-30 10 Public 30 32 2.542 5/3 Clayer Sand - Sand 014/5 Clay mixton - Fat clay 2x402/6/Jm/NIO Set 10 Screen - 2 Bags TPH NO 8013 Chlorice 3012 BTEX 20/40 8/16 5006-20' RISCA for Temp. MW. C1420 40 T.O. 30.30 41531 Pock 0.010 Berern 30'-20' 20/40 0955 29.60 TUP Sant 0161 TO. 30:55' Heren TP Bentante 16-2 B65. 30.30' 50100 7 50 Set well. @ 10:00 hour. 60

	CMB Enviro	inmental a	& Geological Services, Inc.	Boring ID:	mw-6	
	Project: Location:	NMSW	N Well Da: 1/1 o' Installed D Station #11 Lea lo. N.	M.	1051	
	Client:	New h	10x100 Salt Water Dispisal L	Job number: /	ES08. NM SWL	0.0
	Driller:		Deilling, Charlie Joursin			
	Drilling metho		RoTary	Boring diamete	r: <u>611</u>	
	Boring date:	04/14/2	101 014:30 he	_Logged by:	CMB2rahi,	//
	Water level:			Date measured:		
	SAMPLE		SOIL DESCRIPTION	CC	MMENTS	
ļ	depth (ft)	standard penetration test results	Color, soil type, relative density or consistency, mineralogy, USGS classification moisture content	Monitoring well	installation, geotechnical ical tests, instrumentation	
0	0-2 0.3		0'-2'. Tan - Sand /5: 15	11. 4 8	10-21014	
			Colithe mixture. Hard drilly 1.0-2.21		16 Dors INTE TON MODEOS 301.0 BTCP-	-
			2.5 4/2 B/2	1 CL-	301. 0 BTEP -	
10'	10-12 0.3	P454.6	10-12 tan Son's 5:11-	10'-12	10 14:40	
		garante com	mixtime 8100 go. 5046/2	2×402 TOH/C	16/Jor/Nine L BTex	
			@ 18' Sw 2.5 YK 6/4.	Swe zz	, d	
20'	20-29 110	Dush 6	20'- 22'	SW Samel	6 20'-22'	
					0-2×40=6	1
	-		Clayer Soude 22' Soud aleg maxture: 50 2.5 VP/5/3	1 For TOA	YCL BTEX	/ Ste /
	-		25/2/5/2	54	′ - ′ -	
			0 72/ 2.3	1/:	4	
301				1/2 ez,/	01	
	30-32 1,0	phison	30'-32' : Changey Sant	1/1 5000/0	601500 321.	32/
			clay - 82/- Claye 72/	20 602	60/500 32 32 30 Mars 10000	-
			Sot Temp Mar 161	The TA	ex mus ses	
			Spring to Band Pack 201	40 / ac-1	BTO	
110			20' RISIN -015:10	1/2	7	
40			0850 hr. 30,50 Horas	A DRy No to	LO Samplas	45%
	1	TB	30-30 Solvinst Day.	No the no	- /	13:4
	-		_	043 9	Sant (5W) +	
	4		7.5 42/6/6 Soul Bre		´ -	
,		-	gr. Well Sorted	5W	4	
50	0145	5		1		
		= 63.15	7.5 YE 6/6	1/11 0/350	50 mol	
	DTWBO	5 = 59.87		Sw 80'	52	
	T. O. TAC	= 67.0	Dampe 60-62		-1	
	TO BAG	= 63.70'	Sand Fine 9- Well	[# y]	+	
. ,	+ 1		Sorted Sand	15:1	, , <u>,</u> .	
60				Jampk &	60-62 91	450
		,	- TO 650 1410	· / / / / / / / / / / / / / / / / / / /	Willow	
				· 1000 ()	IRM BAS	

NMSWD Company

Monitor Wells 4,5, 6 May 2009

> Lea County, New Mexico Station #9

Time:	12:25	12:00	13:00
<u>Date:</u>	5/18/2009	5/18/2009	5/18/2009
Total Depth of Monitor Well	69.20'	32.50'	67.25'
Depth to Water	63.49'	31.57'	63.23'
Depth to Phase Separated Hydrocarbon (PsH)	None	None	None
Well#	MW-4	MW-5	9-MW

NEW MEXICO SALT WATER DISPOSAL COMPANY, INC.

400 N. Pennsylvania Ave. Suite 1000 P.O. Box 1518 (88202) Roswell, NM 88201 575/625-0277 Telephone 575/622-8643 Fax

November 21, 2008

NMEMNRD, OCD Attention: Wayne Price, Environmental Bureau Chief 1220 South St. Francis Drive Wendell Chino Building Santa Fe, NM 87505

RE: AP053

New Mexico Salt Water Disposal Company, Inc.

Dear Mr. Price:

On behalf of my client, New Mexico Salt Water Disposal Company, Inc. (NMSWDCo) I am enclosing for your review, comments and response the following: a drilling and completion prognosis for two (2) new monitor wells and a scaled map showing the locations for those two (2) new monitor wells. This proposal is submitted in response to your letter dated October 9, 2008 and in particular reference to your paragraph titled **REQUIREMENT TO SUBMIT PHASE TWO OF STAGE 1 ABATEMENT PLAN**.

While NMSWDCo is still in the process of preparing its responses to the balance of the items listed within your above referenced letter, other than that one item (Item 13) that we have already addressed and phase two of its Stage 1 Abatement Plan, we are in agreement with the desire of the OCD to drill the additional monitor wells to obtain the data from that drilling and sampling and to demonstrate our intent to move this process forward. Therefore, we would appreciate receiving your concurrence to our desire to not delay this part of our response in order for us to be able to provide a more rapid complete response to the above referenced requirement.

Please note, that as soon as we receive your agreement to this proposal, we will contract for the drilling and will provide your office with our proposed schedule.

Yours Sincerely,

Rory McMinn

Sage Service Group, LLC as consultant to and for:

New Mexico Salt Water Disposal Company, Inc.

cc: NMSWDCo OCD files

Charles B. Read

Gary Larson, Hinkle Law Firm

Thaddeus Kostrubala, SLO Environmental Engineer

Drilling and Completion Prognosis New Mexico Salt Water Disposal Company, Inc. November 21, 2008 Station #11, Unit D, Section 10, T10S,-R34E Lea County, New Mexico

Drill two 2 inch diameter (completed diameter) monitor wells to 65 feet below ground surface.

- Proposed monitor well #4 will be located approximately 30 feet east and 30 feet south of the existing monitor well #1.
- Proposed monitor well #5 will be located approximately 100' due north of existing monitor well #2.

PROGNOSIS:

- Hollow stem auger drilling method will be utilized for both wells. Upon reaching total depth, 15 feet of 0.010 slotted screen will be set from total depth, 65 feet BGS to 50 feet BGS.
- Sand filter pack (16/30) will be from 65' feet to two foot above the top of the slotted screen at 48 feet BGS.
- A minimum two foot bentonite seal will be set a 48'-46 feet BGS, and then cement-bentonite seal from 46 feet to ground surface.
- A four foot concrete pad and 4' foot steel stick up well protector will be covering and protecting the monitor well.

SAMPLING:

Beginning at the surface to total depth, samples will be taken at least every 10 feet until the final sample from total depth. Sampling of captured fluids will include the following at both 30 feet BGS to 32 feet BGS and 60 feet BGS to 62 feet BGS: TPH Mod 8015 GRO/DRO, TPH 418.1, and Chloride

Should ground water be encountered, the monitor wells will subsequently be developed by the drilling contractor, all purged water will be stored on site drums, a minimum of three well volumes will be extracted and a groundwater sample taken and analyzed for total water chemistry which will include silica.

Drill cuttings will be placed on plastic sheeting or drummed until lab analysis results are completed and will then be disposed of in an approved site.

IN RE: NEW MEXICO SALT WATER DISPOSAL COMPANY, INC. STAGE 2 ABATEMENT PLAN PROPOSAL FOR DISPOSAL STATION # 11

COUNTY OF LEA)
) ss
STATE OF NEW MEXICO)

AFFIDAVIT OF RONALD J. EIDSON

Ronald J. Eidson, being first duly sworn, states and deposes as follows:

- 1. My name is Ronald J. Eidson. I am over eighteen years of age.
- 2. I am a New Mexico Registered Professional Surveyor (No. 3239). I am employed by John West Surveying Company ("John West Surveying") in Hobbs, New Mexico. All of the matters addressed in this affidavit are based on my personal knowledge.
- 3. On behalf of New Mexico Salt Water Disposal Company, Inc. ("NMSWD"), Rory McMinn retained John West Surveying to perform a survey of NMSWD's disposal station that is known as Station #11 and is located in Section 21, Township 10 South, Range 34 East, N.M.P.M., Lea County. Mr. McMinn requested that John West Surveying prepare a survey plat for inclusion with CMB Environmental and Geological Services, Inc.'s ("CMB's") August 10, 2007 Stage 1 Abatement Plan/Monitor Well Installation Report that CMB submitted to the Environmental Bureau of the New Mexico Oil Conservation Division ("OCD").
- 4. On July 16, 2007, I went to Station #11 to survey the site. I then prepared and signed a survey plat ("the plat") on July 17, 2007.
- 5. The plat identifies a rectangular-shaped area in the southeast corner of the Station #11 site as a pit. I have since been made aware that my designation of the rectangular-shaped area as a pit was incorrect. Consequently, I am submitting this affidavit to advise the OCD that (i) I am informed and believe that the rectangular-shaped area that is designated on the plat as a

pit was not constructed and never has been used as a disposal pit, and (ii) I have corrected the improper designation that appears on the plat submitted by CMB.

6. Neither Mr. McMinn nor any other representative of NMSWD informed me prior to conducting my survey that there is a disposal pit at the Station # 11 site. Rather, I assumed that the area I identified as a pit on the plat was a disposal pit based on my observation that the area had been excavated and bermed.

7. Mr. McMinn recently informed me that the excavated area in the southeastern corner of the Station #11 site is not and never has been a disposal pit, but, instead, is a surface water impoundment that NMSWD constructed for the benefit of the grazing lessee, specifically for purposes of watering his cattle.

8. Based on my personal observation of the Station #11 site, I am informed and believe that Mr. McMinn's description of the excavated area as a surface water impoundment is accurate. Therefore, I should not have identified the excavated area as a pit on the plat.

9. I have prepared an amended survey plat that properly identifies the rectangular-shaped area in the southeast corner of the Station #11 site as a surface water impoundment area. The amended plat is attached hereto as Exhibit A.

FURTHER AFFIANT SAYETH NOT.

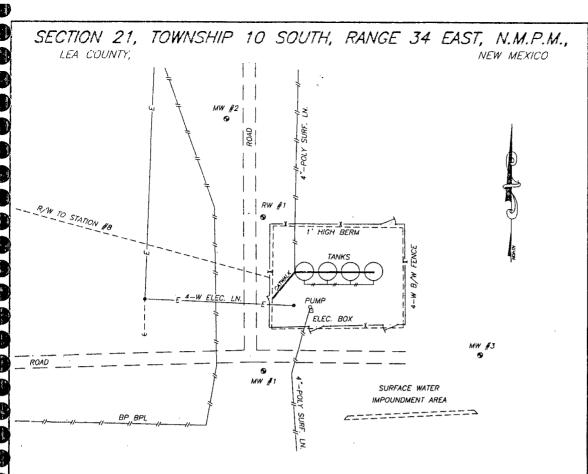
Monald J. Edson

SUBSCRIBED AND SWORN TO before me this 1241 day of November, 2008, by Ronald J. Eidson.

Notary Public

My Commission Expires:

1-31-11



WELL NO.	STATE PLANE COORDINATES	NORTH SIDE ELEVATIONS
MW #1	Y=887815.1 N X=803033.6 E	4218.10' GROUND 4218.51' TOP OF CONCRETE 4221.12' TOP OF 2" PVC PIPE
RW #1	Y=887941.7 N X=803032.8 E	4217.53' GROUND 4217.94' TOP OF CONCRETE 4220.13' TOP OF 4" PVC PIPE
MW #2	Y=888022.4 N X=803002.7 E	4217.09' GROUND 4217.39' TOP OF CONCRETE 4220.14' TOP OF 2" PVC PIPE
MW #3	Y=887828.2 N X=803210.2 E	4217.60' GROUND 4217.99' TOP OF CONCRETE 4220.54' TOP OF 2" PVC PIPE

LEGEND

- DENOTES FENCE GATE

-x- - DENOTES FENCE LINE

---- DENOTES GUY DOWN

I HEREBY CERTIFY THAT TO DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY THAT, THIS SURVEY IS TRUE AND CORRECT TO THE BEST. OF MY KNOWLEDGE AND BELLEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARUS FOR SURVEYING IN NEW MEXICO.

GARY G. EIDSON, NO. 12641 RONALD J. EIDSON, NO. 3239

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

NOTE: COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.

60 0 60 120 Feet

Scale:1"=60'

NEW MEXICO SALT WATER DISPOSAL CO.

SURVEY OF DISPOSAL STATION #11 IN SECTION 21, TOWNSHIP 10 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 07	7/02/07		Sheet 1	of	1	Sheets	
W.O. Number: 07.	11.0830	Dr i	By: J.R.	Rev: 1	1/17,	/08	JC.
Date: 07/16/07			07110	830	Scale	e:1"=10	0