1R - 428-44

REPORTS

DATE:

March 2008

March 2008

F-29-1a Vent
Section 29, T18S, R38E

Closure Report

NMOCD Case #: 1R428-44

R. T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. Suite F-142
Albuquerque, NM 87501

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

March 27, 2008

Mr. Ed Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

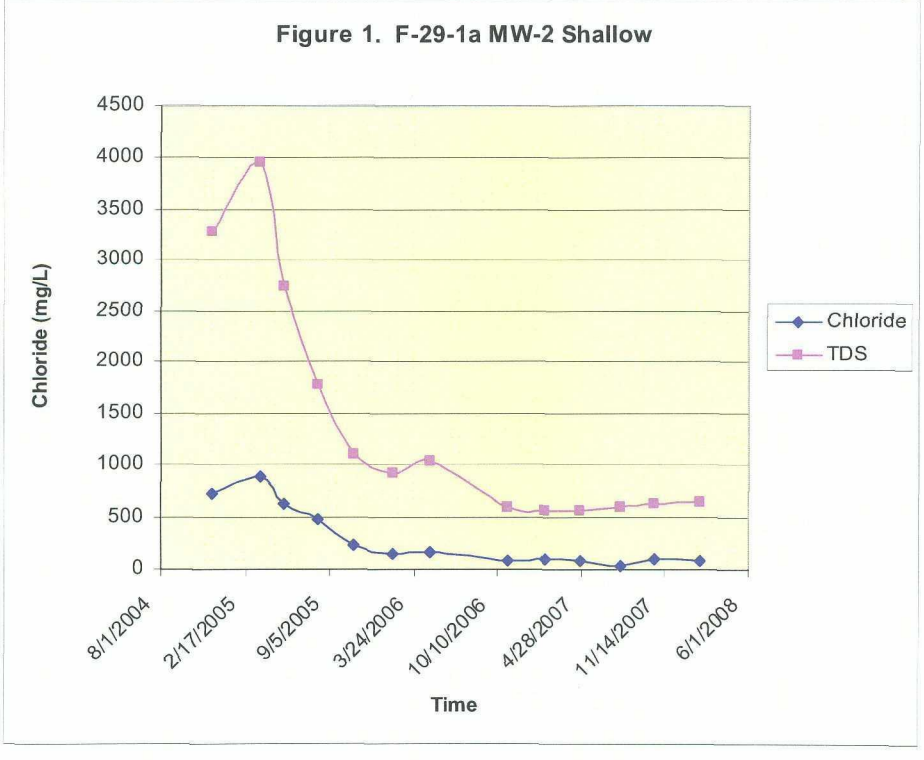
RE: F-29-1a Vent, Section 29, T18S, R38E, unit "F"
Hobbs SWD System Abandonment
Closure Report
NMOCD Case #: 1R428-44

Dear Mr. Hansen:

This letter and appendices are the final Closure Report for the F-29-1a Vent site referenced above. The NMOCD approved Corrective Action Plan (Section 8.3.2, page 14) calls for restoration of the ground surface and re-vegetation, which was completed August 1, 2006.

Figure 1 shows that chloride concentrations since monitoring began in December 2004 in MW-2 (shallow) at the site. The last eight quarters in this well are all below 250 mg/L, TDS concentrations have been below 1,000 mg/L with the exception of a concentration of 1,040 mg/L in May of 2006. We believe this TDS anomaly is reflective of natural fluctuation and laboratory uncertainty.

Figure 1. F-29-1a MW-2 Shallow



As discussed in previous submissions (page 3 of the November 2005 CAP), water quality in monitoring well F-29-1a MW-1 (deep) is above WQCC Standards due to regional (up gradient) sources not associated with the F-29-1a site. Chloride and TDS in the deep well at the site are shown in Figures 2 and 3. Concentrations for both chloride and TDS remain slightly above or below standards.

Figure 2. F-29-1a MW-1 Deep ~ Chloride

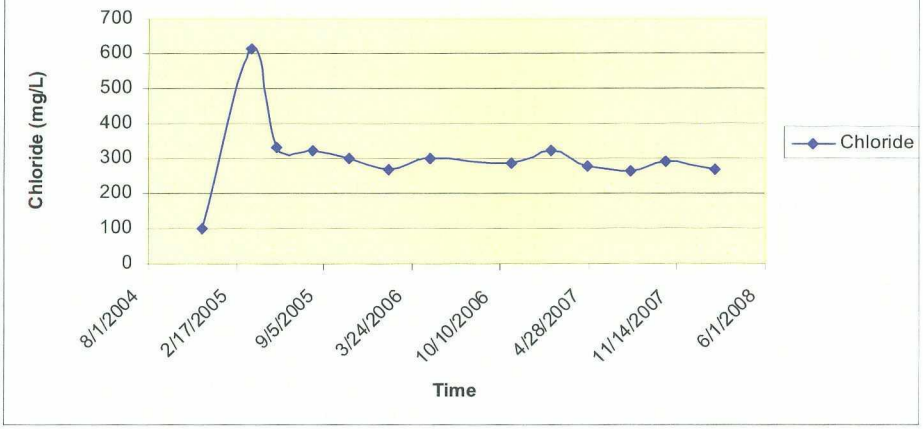
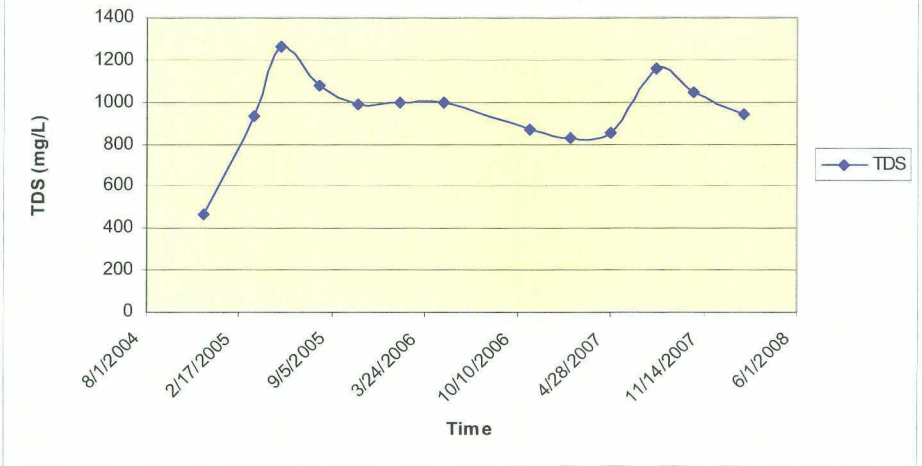


Figure 3. F-29-1a MW-1 Deep ~ TDS



In November of 2005, at the time of our writing of the CAP, we could find no evidence to link chloride in ground water to releases from the site. It appeared that the concentrations of chloride in the shallow well at the site in 2005 were also due to regional sources.

However, ground water data in the shallow well over the past three years show a decline in TDS which suggests that minor leakage could have occurred at the site and the subsequent eight quarters of low TDS ground water are due to:

- Cessation of minor releases of produced water with the abandonment of the Hobbs SWD system in 2002,
- Installation of an effective vegetative cap at the site per our Corrective Action Plan in 2006 plus,
- Natural dilution and dispersion in the aquifer.

We have completed the NMOCD approved Corrective Action Plan and observed eight quarters of ground water below WQCC standards in the shallow well at F-29-1a and respectfully request NMOCD approve site closure in writing.

Appendix A includes the junction box closure form. Appendix B provides photographs of the re-vegetation at the site in 2006 and 2008. Appendix C includes copies of previous submissions and correspondence. As noted in the CAP, ROC plans to leave the well at this site in until it is no longer needed. We will notify NMOCD prior to plugging and abandoning this monitor well.

Thank you for your attention to this matter.

Sincerely,
R.T. Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Rice Operating Company
Hobbs NMOCD Office

Appendix A:

Jct. Box Final Report

R. T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. Suite F-142
Albuquerque, NM 87501

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Hobbs	F-29-1A vent	F	29	18S	38E	Lea	no box--System Abandonment		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER Occidental Petroleum Corp. (OXY)

Depth to Groundwater 58 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 11/3/2004 Date Completed 8/1/2006 NMOCD Witness no

Soil Excavated 20 cubic yards Excavation Length 44 Width 39 Depth 0.317 feet

Soil Disposed 20 cubic yards Offsite Facility Sundance Location Eunice, NM

General Description of Remedial Action:

This site was a junction box that was eliminated as part of the Hobbs SWD System abandonment.

For a summary of remediation activities at this junction box site, refer to the Closure Report submitted by R.T. Hicks Consultants of Albuquerque.

enclosures: closure report

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SITE SUPERVISOR R. T. Hicks Consultants Albuquerque, NM

REPORT ASSEMBLED BY Knstin Farris Pope SIGNATURE Kristin Farris Pope

DATE 3/19/2008 TITLE Project Scientist

Appendix B:

Photo documentation of Re-vegetation

R. T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. Suite F-142
Albuquerque, NM 87501

R. T. HICKS CONSULTANTS, LTD.
901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

Appendix B – Photo documentation of Re-Vegetation at F-29-1a Vent

Figure 1: View of F-29-1a showing re-seeding in August of 2006

Figure 2: View of F-29-1a showing re-vegetation in September of 2006

Figure 3: View of F-29-1a showing re-vegetation in March of 2008

Appendix C:

Previous Submissions & Correspondence

R. T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. Suite F-142
Albuquerque, NM 87501

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

September 21, 2006

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Hobbs SWD Abandonment Program – Closure Request
F-29-1a, NMOCD Case #1R0428

Dear Mr. Price:

As you may recall, in November of 2005 we submitted a Corrective Action Plan for this site proposing restoration of the ground surface and re-vegetation of the vadose zone. As the attached photos demonstrate, these restoration efforts have been successful. We also attach data associated with the continued monitoring at the site. We conclude that ground water has not been impacted by any releases at the F-29-1a site and request that you close it without inclusion in Rule 19 as we discussed in February of this year.

Finally, we propose semi-annual monitoring of the well at this site for use as a data point for our continued work at the F-29 SWD site nearby. If you have any questions or concerns, please do not hesitate to contact us. Please note that we have included previous relevant correspondence, disclosure reports and previously submitted reports for the F-29-1a site as a Closure Report.

Sincerely,
R.T. Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Staff Scientist

Copy: Rice Operating Company

----- *Original Message* -----
From: Price, Wayne, EMNRD
To: Randall Hicks
Cc: Kristin Farris Pope ; katie@rthicksconsult.com
Sent: Wednesday, February 15, 2006 4:50 PM
Subject: RE: Hobbs F-29-1A

OCD hereby approves of the corrective action plan with the following conditions:

1. Notify the OCD Santa Fe office and the OCD District office at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples during OCD's normal business hours.

2. Submit a final closure request with photo documentation upon completion of remedial work.

Please be advised that NMOCD approval of this plan does not relieve ROC of Responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve ROC of responsibility for compliance with any other federal, state, or local laws and/or regulations.

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

February 13, 2006

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Hobbs SWD Abandonment Program
F-29-1a, NMOCD Case #1R0428

Dear Mr. Price:

This submission responds to your February 2, 2006 email where you wrote:

> "Pursuant to the technical meeting held in Hobbs on Feb 01, 2006, the OCD hereby approves of ROC's request for OCD to withdraw its requirement for an abatement plan for the F-29-1A vent site. OCD hereby rescinds the request for an abatement plan pursuant to Rule 19 with the following conditions:
>
> 1. The Current on site monitor well shall remain for future monitoring in the F-29 area.
> 2. ROC shall submit a corrective action plan within 30 days."

We ask that you accept the November 12, 2005 Corrective Action Plan as our final submittal for this site to satisfy your second condition outlined above. This November 2005 CAP states on page 14:

> *8.3.2 PROPOSED VADOSE ZONE CLOSURE*
> Restoration of the ground surface and re-vegetation is the vadose zone Corrective Action Plan for the site.

We believe the data and analysis presented in the report support this approach.

ROC plans to employ the monitoring well at the F-29-1a site for a variety of reasons and will continue quarterly sampling this well throughout 2006. With eight quarters of data, we can identify any seasonal water quality variations. After completion of the eight quarterly monitoring events in late 2006, ROC may propose annual or semi-annual sampling for this well. Please contact me or Kristin Farris Pope of ROC if you have any questions regarding this submission.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy: Rice Operating Company

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, February 02, 2006 2:05 PM
To: Carolyn Doran Haynes; enviro@leaco.net
Cc: R@rthicksconsult.com; Gil Van Deventer; Sanchez, Daniel J., EMNRD; Sheeley, Paul, EMNRD; Johnson, Larry, EMNRD
Subject: Hobbs F-29-1A vent UL F sec 29-Ts18s-R38e 1R0428-44

Dear Ms. Haynes:

Pursuant to the technical meeting held in Hobbs on Feb 01, 2006, the OCD hereby approves of ROC's request for OCD to withdraw its requirement for an abatement plan for the F-29-1A vent site. OCD hereby rescinds the request for an abatement plan pursuant to Rule 19 with the following conditions:

1. The Current on site monitor well shall remain for future monitoring in the F-29 area.
2. ROC shall submit a corrective action plan within 30 days.

Please be advised that NMOCD approval of this request does not relieve ROC of Responsibility should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve ROC of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price
Oil Conservation Div.
1220 S. Saint Francis
Santa Fe New Mexico 87505

phone: 505-476-3487
fax: 505-476-3462

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

November 14, 2005

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Hobbs SWD Abandonment Program
F-29-1a, NMOCD Case #1R0428

Dear Mr. Price:

On behalf of Rice Operating Company, R. T. Hicks Consultants, Ltd. is submitting this Vadose Zone Corrective Action Plan to permit closure of the F-29-1a Junction Box. This voluntary submittal principally addresses the vadose zone at the F-29-1a Junction Box, and supports our July 11, 2005 letter requesting to delay submission of a Stage 1 & 2 Abatement Plan until we meet with NMOCD staff to discuss the site. While we have not had the opportunity to meet with NMOCD regarding our June letter, we have conducted additional research, and included our findings in this vadose zone closure plan. As stated in this report, we have found no evidence that links a release from the F-29-1a Junction Box to the observed ground water impairment of the on-site monitoring well cluster.

We suggest at the future NMOCD meeting we discuss approaches to address ground water quality issues. This may include an addition well, continued monitoring, chemical ion analysis between existing monitor well data, and NMOCD recommendations. We believe that this analysis is needed prior to concluding the F-29-1a site should be included in a Rule 19 process.

After your review of this Corrective Action Plan and before NMOCD prepares a written response, we would like the opportunity to meet with you to discuss this report and work together to develop an appropriate path forward to resolve the ground water quality issue.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy:
Rice Operating Company

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

July 11, 2005

Mr. Daniel Sanchez
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Jct. F-29-1A UL F Sec 29, T18S, R38E
NMOCD Case # not assigned

Dear Mr. Sanchez

In your letter of May 5, 2005, NMOCD required Rice Operating Company (ROC) to submit an abatement plan for the above-referenced site on or before July 15, 2005. The data collected thus far at the F-29-1a junction box are inconclusive as to whether the junction box operations have impacted ground water.

We respectfully request an extension of 120 days for submission of a Stage 1 Abatement Plan.

Before the submittal of a Stage 1 Abatement Plan we would appreciate a meeting with NMOCD to discuss the data collected thus far and approaches to the characterization of the F-29-1a Junction Box site and the >250 ppm chloride concentration observed at the F-29-1a monitoring well.

We thank you in advance for permitting us the time to allow an informed decision regarding the applicability of Rule 19 to the F-29-1a junction box site.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall Hicks
Principal

Copy:
Kristin Pope, Rice Operating Company

November 12, 2005

Corrective Active Plan
F-29-1a Junction Site

Prepared for:

Rice Operating Company
122 West Taylor
Hobbs, NM 88240

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142, Albuquerque, NM 87104

1.0 EXECUTIVE SUMMARY

This Vadose Zone Corrective Action Plan presents the results of the characterization activities performed by R.T. Hicks Consultants (Hicks Consultants) and Rice Operating Company (ROC) at the F-29-1a Junction site. Based on field data, laboratory results, and predictive modeling, the vadose zone closure calls for restoration and re-vegetation of the ground surface and creation of a slight crown over the former junction box site to promote surface runoff. Using highly conservative input data, HYDRUS-1D modeling of this scenario predicts that future chloride concentrations in ground water will be less than 20 ppm above background concentrations (100 ppm). This proposed vadose zone closure is protective of ground water quality, human health and the environment.

Ground water in the two well cluster at the site exceeds the numerical standards for chloride, sulfate and total dissolved solids. Evidence suggests that the F-29-1a site is not the cause of this condition.

The Hobbs Salt Water Disposal System (SWD), which managed produced water from the late 1950s to the present, is now closed. Future releases from the system are not possible. Closure of facilities like the F-29-1a Junction within Hobbs SWD followed the August 6, 2004 NMOCD approved junction box closure plan. This plan calls for delineation of any impact from these sites during the closure process and states:

> *If 12-feet vertical delineation at the source reveals Target Concentrations for TPH or BTEX will not meet NMOCD guidelines or TPH and BTEX will meet guidelines but there is not a significant decline vs. depth in chloride concentration, the site-impact is judged to be outside the scope of this work plan and will become a risk-based corrective action (RBCA) project site.*

The F-29-1a Junction site meets this criteria and this report describes characterization activities that are consistent with the NMOCD-approved workplan for this site. The characterization activities show that regulated hydrocarbons concentrations in the vadose zone are less than the screening levels employed by the New Mexico Environment Department. Field and laboratory analyses also show that chloride ion concentration in soil is less than 200 ppm and less than 125 ppm below 15-feet. Ground water samples from the well cluster installed at the site exceed the numerical standards for the state of New Mexico.

2.0 SUMMARY AND CONCLUSIONS

2.1 DATA SUMMARY

1. The F-29-1a Junction site is located in Section 29, T18S, R 38E, on the west side of Hobbs, New Mexico. This junction is part of the Hobbs Salt Water Disposal System.

2. R.T. Hicks Consultants supervised field activities at the F-29-1a Junction site in November 2004. In addition to general reconnaissance identified in the NMOCD-approved work plan, this included supervising the borehole sampling of the vadose zone from ground surface to ground water and drilling to a total depth of 102-feet followed by installation of a monitoring well cluster at the site.

3. Due to the dry and unconsolidated nature of the sand-silt material, the split spoon was unable to hold samples of the vadose zone from below 35-feet to the capillary fringe. Throughout this depth interval, samples from cuttings were collected instead. This is the only material deviation from the NMOCD-approved workplan.

4. Field analyses of headspace organic vapors measured readings above 1,000 ppm in soil samples from 11-feet bgs to 31-feet bgs. Below 31-feet bgs, readings remained at approximately 400 ppm to 59-feet bgs. Samples from 11-feet bgs, the highest PID reading, and 59-feet bgs, at the capillary fringe, were sent for laboratory analysis of BTEX.

5. Laboratory analyses confirm that regulated petroleum hydrocarbons are not present above screening levels employed by the Petroleum Storage Tank Bureau of the New Mexico Environment Department.

6. Chloride concentrations from the boring do not exceed 200 ppm. Chloride concentrations below 15-feet are less than 125 ppm.

7. Work by ROC and an NMOCD Consultant document regional ground water quality impairment in the area of the F-29-1a Junction site.

8. Ground water samples from the well cluster installed at the site show chloride, sulfate and TDS concentrations above the New Mexico numerical standards. However, no evidence from the soil boring and analytical program links chlorides in ground water to any potential past releases from the F-29-1a Junction Box.

2.2 CONCULSIONS

1. HYDRUS-1D modeling of current conditions indicates that the residual chloride with concentrations greater than 100 ppm in the upper vadose zone would slowly migrate vertically creating a peak chloride concentration in ground water that is less than 120 mg/L.

2. This predicted minimal impact of 20 mg/L above background is observed in the model predictions from the present through 29 years from now with a peak concentration predicted 22 years from now. Chloride concentration in the aquifer are indistinguishable from background concentrations for all later times.

3. No evidence supports a conclusion that produced water releases from the F-29-1a Junction site migrated to ground water. All evidence supports a conclusion that any released regulated hydrocarbons have biodegraded to acceptable levels. All evidence supports a conclusion that any released brine was removed during the junction box closure.

4. Sampling, predictive modeling and the proposed vadose zone Corrective Action Plan shows that constituents of concern in the vadose zone will not with reasonable probability impact ground water or surface water, in excess of the numerical ground water standards through leaching, percolation, or other transport mechanisms, or as the water table elevation fluctuates.

2.3 PROPOSED VADOSE ZONE CLOSURE

After the proposed surface restoration and re-vegetation, the site will meet the criteria for closure. Closure of the regulatory file with respect to the vadose zone is possible for the F-29-1a Junction site.

3.0 INVESTIGATION

The F-29-1a Junction was a component of the Hobbs salt water disposal (SWD) system. With the abandonment of the system in 2002, Rice Operating Company (ROC) excavated and removed the F-29-1a junction and the uppermost 10-12-feet of the vadose zone. At the time of the field investigation, the excavation was filled with a sand-clay caliche. Appendix A presents additional information regarding the Hobbs SWD system.

3.1 SITE LOCATION AND LAND USE

Appendix A includes a regional location map showing the location of the site relative to selected other components of the Hobbs SWD system and public roads. Plate 1 is an aerial photograph of the site when it was active, taken between 1996 and 1998. Plotted on Plate 1 is the location of the monitoring well at the site, the nearby monitoring wells at the ROC F-29 SWD site, and the Truck By-Pass. As shown in Plate 1, the land use of the area is residential, commercial and oil production.

3.2 WATER WELL INVENTORY

Appendix B presents the locations and other data for wells within the Office of the State Engineer database for the area within 1-mile of the F-29-1a junction box site and the adjacent area.

3.3 CHARACTERIZATION ACTIVITIES

In November, 2004, R. T. Hicks Consultants, ROC, and Eades Drilling mobilized to conduct an exploratory drillings at the site and a background soil boring. The location of the borehole at the site is within two feet of the marking plate. Drilling commenced with collection of two foot long split spoon samples at 5-foot intervals. Appendix A presents the results of the background soil boring.

From 0-35 feet below land surface, split spoon samples were taken at 5-foot intervals. The dry and unconsolidated nature of the sand-silt below a depth of 35-feet caused loss of sample during retrieval of the split spoon. Continued attempts to collect split spoon samples below 35-feet were unsuccessful until a depth of 56-feet below ground surface (bgs). Due to increased soil moisture at this depth, samples were collected with the split spoon to near ground water at 59-feet bgs. In the interval between 35-feet bgs and 55-feet bgs, samples were collected from cuttings. This is the only material deviation from the NMOCD-approved workplan.

In the field, ROC evaluated samples from each depth for chloride and used the heated headspace method to measure total organic vapors by PID. Samples were submitted to the laboratory from depths showing the highest field chloride and PID measurements (11-feet bgs) and from the capillary fringe (59-feet bgs).

4.0 REGIONAL GEOLOGY AND HYDROGEOLOGY

Appendix A describes the hydrogeology of the Hobbs SWD system area.

5.0 CHARACTERISTICS OF THE VADOSE ZONE

The upper vadose zone profile at the site is composed primarily of a very fine-grained sand-silt with a series of caliche layers. As shown in Plate 2, the top 13- feet consist of sand, clay and loose caliche. This material appears to be imported fill in the excavation.

From 13-feet bgs to 18-feet bgs exists a caliche formed in a tan sand-silt. The caliche from 18-feet bgs to 21-feet bgs is well indurated. Several additional 'hard' layers lie between 21-feet and 24-feet bgs. Below this, the very fine-grained sand-silt is reddish tan. One-foot thick caliche layers are at 36-feet bgs and at 48-feet bgs. The bit penetrated moist sediment at 59-feet bgs. Problems with borehole collapse in the saturated zone resulted in Eades completing the rest of the boring with water as the drilling medium rather than air.

ROC staff performed field chloride measurements every five feet starting at 6-feet bgs as detailed earlier and presented in Appendix C and Figure 1. Because of difficulty in collecting sufficient material of the well indurated caliche layer at 22-feet bgs, an additional sample was collected at this depth to assist in verifying the result. At 6-feet bgs, within the imported fill, field tests identified the peak field chloride measurement of 203 mg/kg. Below this depth, chloride measurements declined. Field measurements above 100 mg/kg do not exist below 16-feet bgs. Field chloride measurements obtained from the nearby background soil boring (see Appendix A) are essentially the same as measurements below 11-feet bgs obtained from this boring.

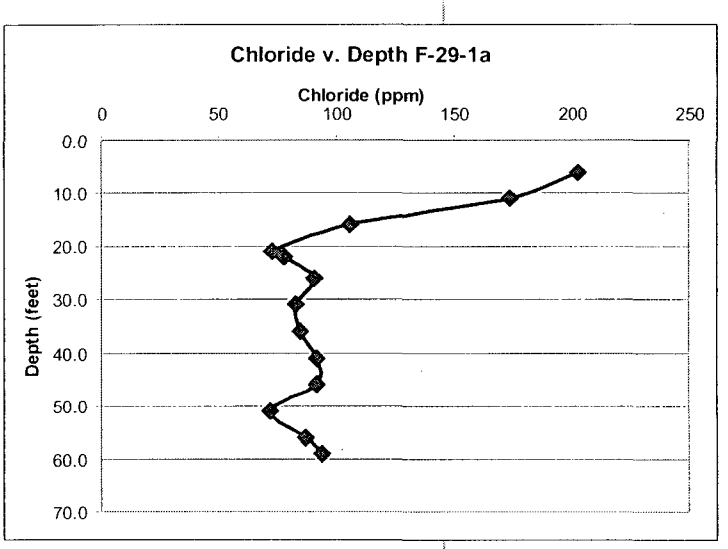


Figure 1. Chloride measurements.

Field PID measurements attained a maximum of approximately 1,600 ppm at 11-feet bgs (Appendix C), within the imported fill. In all samples from 11-feet bgs to 31-feet bgs, PID readings exceeded 1,000 ppm. Below 31-feet bgs, readings remained at approximately 400 ppm to 59-feet bgs.

Samples from 11-feet bgs and 59-feet bgs were sent for laboratory analysis of BTEX. The Laboratory did not detect petroleum hydrocarbon constituents of concern (see Appendix C).

5.1 EXTENT AND MAGNITUDE OF CONSTITUENTS OF CONCERN IN THE VADOSE ZONE

The boring program demonstrates that constituents of concern do not exist in the vadose zone in concentrations that warrant additional investigation. Although PID readings exceeded 1,000 ppm from 11- to 31-feet bgs, the laboratory did not detect regulated hydrocarbon constituents. The presence of vapors and/or discoloration of samples and the absence of regulated hydrocarbon constituents are very common. As explained in Appendix A, after cessation of constant input of produced water to the subsurface, natural volatilization and biodegradation effectively remove these constituents.

Natural processes do not remove chloride or sulfate from the environment. Dilution and dispersion in the vadose zone reduce concentrations of these constituents, but the mass released at a site is unchanged over time. At the F-29-1a site, vadose zone concentrations of chloride (which is an effective tracer of produced water releases) are very low. The fact that vadose zone samples exhibit PID readings greater than 1,000 ppm demonstrate that produced water affected the samples and therefore the boring was placed correctly to determine the extent and magnitude of any produced water release. Low chloride concentrations are not unusual at sites where residual asphaltic hydrocarbons fill the pore space and minimize the transport of produced water. See Appendix A and the next section of this report for a more detailed description of this phenomenon.

6.0 CHARACTERISTICS OF THE SATURATED ZONE

The borehole was completed at a depth of 102-feet by drilling with water from 59-feet bgs to 102-feet bgs. The cuttings consisted of a fine grained sand-silt. Two nested wells were installed. The deep well (F-29-1a B-2-1) is screened between 99-feet and 94-feet bgs. The 20-foot shallow well screen (F-29-1a B-2-2) straddles the water table with the top of the screen at a depth of 52 feet (Plate 2).

Appendix A presents a more detailed discussion of hydraulic gradient and hydraulic conductivity of the saturated zone. Appendix A shows the hydraulic gradient of the area is 0.0063. Assuming a hydraulic conductivity of 45 ft/day (Musharrafieh and Chudnoff, 1999), ground water flux is calculated as 8.6 cm/day. Direction of flow is to the south-east (Appendix A, Plate A-4).

6.1 GROUND WATER QUALITY

The ground water chemistry of the monitor well cluster over the past four quarters is shown in Figure 2. After the first sampling event, the chloride concentration rose, as did the chloride concentration of the shallow well. Over the past three quarters, Figure 2 shows that the shallow well consistently exhibits a higher chloride concentration than the deeper well. Sulfate and TDS follow a similar pattern.

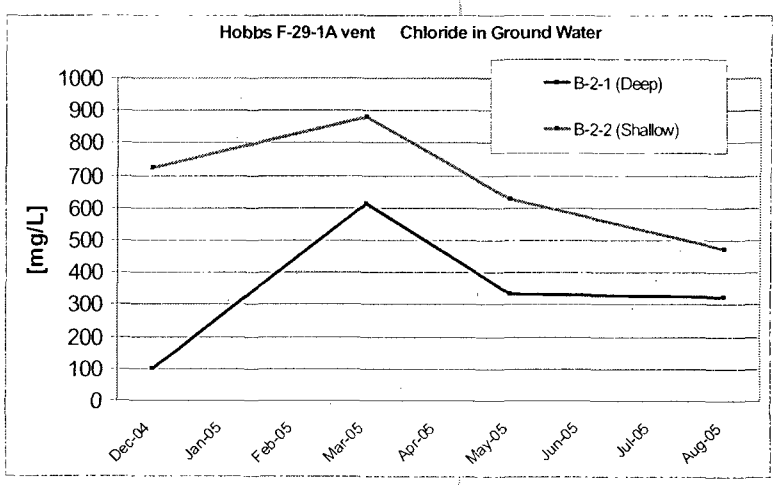


Figure 2. Ground water chemistry.

Hydrocarbon constituents of concern were below laboratory detection limits (Appendix C) in all ground water sampling events.

6.2 EXTENT AND MAGNITUDE OF SULFATE AND CHLORIDE IN THE SATURATED ZONE

Appendix A provides a description of the regional ground water hydrogeology and quality.

7.0 CONCEPTUAL MODEL OF SUBSURFACE PRODUCED WATER RELEASE

Junctions within the gravity-flow pipelines of the system consisted of a T-intersection of pipes within a wooden catchment box containing the junction. Due to the nature of junctions in these systems, a surge of produced water and entrained hydrocarbons could cause a failure of the pipe connection seals and releases of produced water. The conceptual model presented in Appendix A discusses how produced water releases generally occur within gravity driven water disposal systems, such as the Hobbs SWD. The conceptual model relies upon eyewitness accounts of recent releases and observations of subsurface chemistry.

From discussions with individuals familiar with these systems and from field inspection of the surface soils at the site, periodic leaks that occurred at the F-29-1a junction site were probably effectively contained within the junction box and shallow vadose zone and chloride did not migrate below the depth excavated by ROC (about 10-feet).

This conclusion is fully supported by the data. Note from the boring log shown in Plate 2 that the fine-grained caliche zone between 16-22-feet and the very fine sand between 22- and 31-feet below ground surface shows evidence of hydrocarbon intrusion as relatively high PID measurements and an observation of hydrocarbon odor in the samples. Yet both field and laboratory analyses returned chloride results below 200 ppm. Laboratory results of the vadose zone also showed that regulated hydrocarbon constituents were below the detection limits. These data create a chloride and hydrocarbon common chemical "signature" in the vadose zone that supports the conceptual model described in Appendix A where petroleum hydrocarbons in released produced water clog the pores of the upper vadose zone and the interior of the junction box creating a very low permeability asphaltic liner in the box and a low permeability zone below the box.

Over time, the regulated constituents that were once present in the crude oil degrade or volatilize. Because the asphaltic crude now occupies much of the pore space of the upper vadose zone, the mass of residual produced water in these samples is quite low, which results in the reported low chloride concentrations. While analyses of cuttings can produce reliable chloride concentrations (i.e. from 35- to 56-feet below

grade) PID readings from air-rotary cuttings do not permit an accurate evaluation of the penetration of hydrocarbons into the vadose zone. Low PID readings from split-spoon core samples at the capillary fringe do confirm that hydrocarbons did not penetrate the entire vadose zone.

8.0 VADOSE ZONE CLOSURE PLAN

8.1 METHODS OF EVALUATION

The unsaturated flow model HYDRUS-1D simulated flow through the vadose zone. This output became the input to a simple ground water mixing model that predicts chloride concentration in a hypothetical well immediately down gradient of the site. Section 3.0 of Hendrickx and Others, *Modeling Study of Produced Water Release Scenarios*, (2005), provides a general description of this modeling approach (see References Section at the end of this document).

For subsurface releases like those within the Hobbs SWD System, the model uses a chloride profile (Figure 1) that is representative of the subsurface analyes in lieu of attempting to re-create the specific release history for the model input. The present chloride load within the soil profile is the result of all previous events at the site and is based upon field observation and analysis, not supposition. This is the most accurate modeling approach considering the available data available.

8.2 INPUT FOR SIMULATIONS

HYDRUS-1D employed a constructed soil profile based upon the results from this site and five other borings completed within Section 29 (see Appendix A).

Input data include very conservative dispersion lengths because of recent experience with similar soils south of Lovington, New Mexico. Standard practice calls for employing a dispersion length that is 10% of the model length. For each lithologic unit identified in Appendix A the model used an assumed dispersion length that was always less than 6 % of the model thickness (Table 1 presents the specific dispersion lengths for each lithology).

Table 1. HYDRUS-1D Dispersion Lengths

Hydrus Profile 2 (excavated)				
Material	Description	Length (cm)	Dispersion (cm)	%of Profile length
1	Sandy Loam	30	50	2.778
2	Caliche-sand	60	30	1.667
3	Caliche	90	10	0.556
4	Sand-silt	1070	100	5.556
5	Loamy sand	550	100	5.556

HYDRUS-1D calculated the initial soil moisture of the Section 29 soil profile by running a simulation for 45 years using the weather data from the Pearl Weather station on a dry soil

column. Based upon experience with soils in this area, it is important that HYDRUS simulation experiments of different remedial strategies start with an initial estimated "steady state" soil moisture content. Because the simulation of the initial condition predicted only minimal changes in the moisture content profiles after year 30 of the initial simulation, the initial condition moisture content created by 45 years if weather data is more than sufficient. HYDRUS-1D used soil profiles hydrated in this manner in all simulations of chloride movement discussed later in this report.

As mentioned earlier, HYDRUS-1D used the observed (measured) chloride concentrations into the hydrated soil profile. Between samples, the profile employed linearly interpolated chloride concentrations based upon the field data generated by ROC personnel for all cells of the model. Because the site contained the junction of two lines, the effected area is small.

For weather data in the predictive modeling, HYDRUS-1D used Hobbs data from November 2003 to December 2004 plus an additional 45 years from the Pearl Weather Station, approximately 11 miles west of the Hobbs Airport. The Pearl Weather Station is the closest station to the I-29 Vent site featuring sufficiently complete weather data for the HYDRUS-1D input files. Only the more recent data from the Hobbs Airport is complete enough for HYDRUS-1D input.

As mentioned earlier, the calculated ground water flux is 8.6 cm/ day.

Table 2: *Input Parameters for Simulation Modeling*

Input Parameter	Source
Vadose Zone Thickness - 60 feet	F-29-1a Field Data
Vadose Zone Texture (Plate 2 and Appendix A)	F-29-1a Field Data
Dispersion Length - <6% of model length	Professional judgement
Climate	2004 Hobbs, NM data and Pearl Weather Station Data
Soil Moisture	HYDRUS-1D initial condition simulation
Initial soil chloride concentration profile	From ROC Field Measurements
Length of release parallel to ground water flow - 15 feet	Field Estimate
Background Chloride in Ground Water - 100 ppm	Chemical Analysis
Ground Water Flux - 8.6 cm/day	Calculated from published data
Aquifer Thickness - 10-feet	From Well Chloride data at the F-29-1a Site

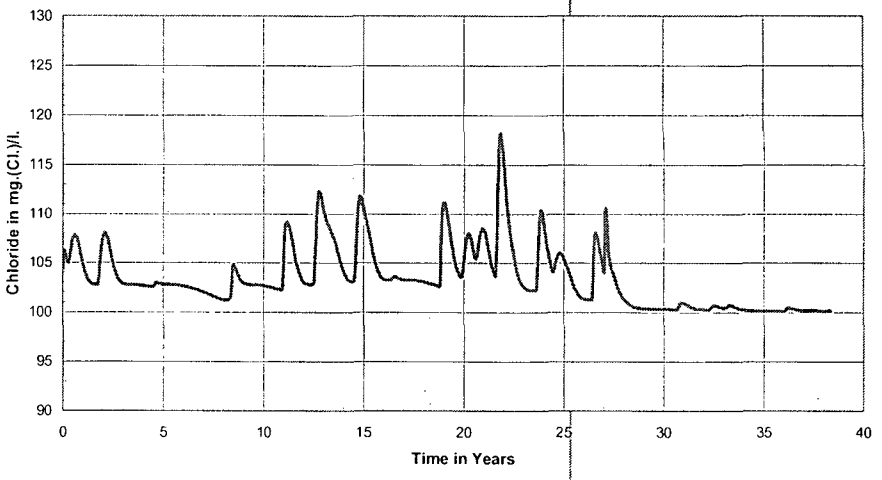
Field data at the F-29-1a site show that the aquifer is greater than 40-feet thick in this area. Due to vertical differences in hydrochemical signature at the F-29-1a site well cluster, restrictions to vertical flow must exist within the Ogallala aquifer of Section 29 (see Appendix A). Accordingly, the modeling experiment restricted aquifer thickness in the mixing model to 10-feet, which could cause an over-estimation of the chloride concentration in the imaginary monitoring well.

8.3 VADOSE ZONE CORRECTIVE ACTION PLAN

8.3.1 ALTERNATIVES EXAMINED

Using the input data described above, theHYDRUS-1D and ground water mixing model predict that no impairment of ground water will occur at this site (Figure 3). For this simulation, the modeling experiment assumed that vegetation is not present at the site. This is the "current condition" modeling experiment.

Figure 3. Chloride Concentration in the Aquifer at the F-29-1a Site



As field chloride data demonstrate, impacts at this site are marginally greater than background, so one would expect an insignificant impact to ground water quality. As shown on Figure 3, chloride concentration in the aquifer attains a maximum of less than 120 ppm approximately 22 years from now. The effect of this minimal chloride load is no longer distinguishable 29 years from now. Because the normal variation in chloride concentration from the wells at the F-29-1a site is much greater than 20 mg/L, the predicted chloride impact to ground water is too small to be discerned.

Because the modeling of current conditions did not predict ground water impairment, simulation of other potential remedies was not necessary.

8.3.2 PROPOSED VADOSE ZONE CLOSURE

Restoration of the ground surface and re-vegetation is the vadose zone Corrective Action Plan for the site.

Because chloride and hydrocarbon concentrations in the vadose zone show a very limited impact from the site, the model predicts and field data support a conclusion that past releases from the F-29-1a Junction Box did not impair ground water quality. With implementation of this Corrective Action Plan, residual constituents of concern in the vadose zone will not impair ground water quality.

8.3.3 PROPOSED VADOSE ZONE MONITORING PLAN

Because the laboratory did not detect regulated hydrocarbons, post closure monitoring is not necessary.

The residual chloride concentrations in the vadose zone are relatively low. Moreover, predictive modeling employing "conservative" input parameters do not predict a measurable increase in ground water chloride concentration. Therefore, post vadose zone closure monitoring is not necessary.

8.3.4 CRITERIA FOR CLOSURE OF THE VADOSE ZONE REGULATORY FILE

Sampling and predictive modeling show that constituents of concern in the vadose zone will not with reasonable probability contaminate ground water or surface water, in excess of the numerical ground water standards through leaching, percolation, or other transport mechanisms, or as the water table elevation fluctuates.

9.0 REFERENCES

Ash, S.R., 1963, Ground water conditions in northern Lea County, U.S. Geological Survey Hydrologic Investigations Atlas HA-62

Intera Incorporated, July 8, 2003, Windmill Oil Site Ground Water Sampling Results, prepared for the New Mexico Oil Conservation Division, 3 pp.

McAda, D.P., 1985, Projected water-level declines in the Ogallala aquifer in Lea County, New Mexico, US Geological Survey Water-Resources Investigations Report 84-4062, 84 pp.

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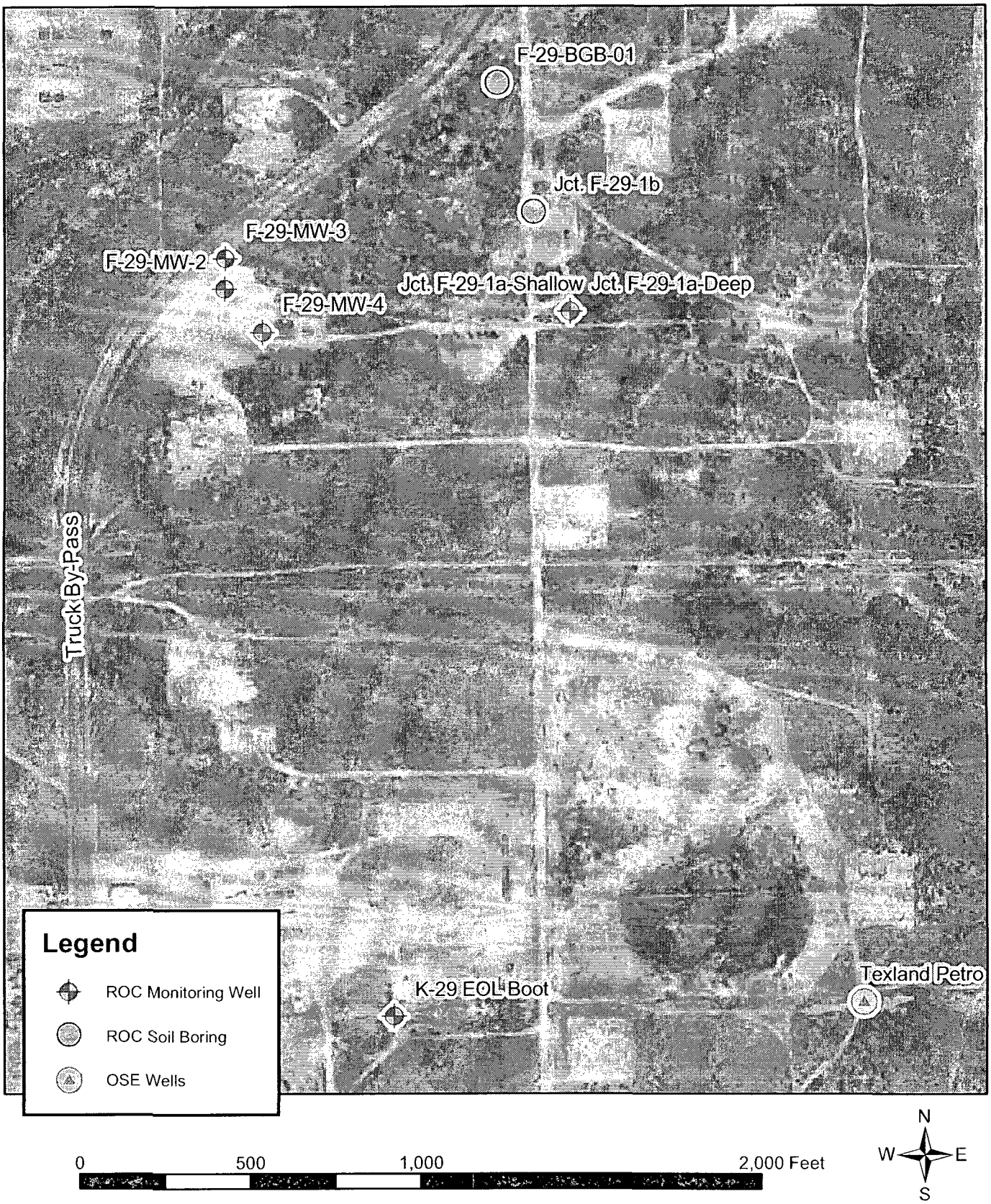
PLATES



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	1996-98 Aerial Photograph of Jct. F-29-1a	Plate 1
	Rice Operating Company	November 2005

Logger:	David Hamilton	**Client:**	**Well ID:**
Driller:	Eades Drilling	Rice Operating Company	
Drilling Method:	Air Rotary	**Project Name:**	
Start Date:	11/3/2004	Hobbs F-29-1A	**F-29-1a B-2-1 (99 feet), F-29-1a B-2-2 (72 feet)**
End Date:	11/6/2004	**Location:**	
		T18S R38E	
		Section 29, Unit F	

Depth (feet)	Description	Lithology	Comments	Well Construction
0.0	Surface, 0 - 1 feet			Cement, 0 - 3 feet
2.0	Caliche, clay, sand , moist, 1 - 13 feet, Some hydrocarbon impact			
4.0				
6.0				
8.0				
10.0				
12.0	Caliche, fine grained sand, silt, light tan, 13 - 18 feet			
14.0				
16.0				
18.0	Caliche, well indurated , 18 - 21 feet		Some odor	
20.0	Caliche with some well indurated layers, 21 - 24 feet			
22.0				
24.0	Very fine grained sand, silt, light reddish tan, 24 - 36 feet		At 30 feet: Some hydrocarbon impact, strong odor	Hydrated bentonite, 3-50 feet
26.0				
28.0				
30.0				
32.0				
34.0				
36.0	Some caliche, 36 - 36.5 feet			
38.0	Very fine grained sand, silt, tan - red, 36.5 - 48 feet			
40.0				
42.0				
44.0				
46.0				
48.0	Caliche layer, 48 - 48.5 feet			
50.0	Very fine grained sand, silt, tan - red, 48.5 - 59 feet			
52.0				
54.0				
56.0				
58.0			At 59 feet: Bore collapsing, Probe is wet. Drilled with water below 59 feet	Sand, 50-74 feet Screen 52-72 feet
60.0	Very fine grained sand, silt, tan - red, 59 - 102 feet			
62.0				
64.0				
66.0				
68.0				
70.0				
72.0				
74.0				Hydrated bentonite, 74-92 feet
76.0				
78.0				
80.0				
82.0				
84.0				
86.0				
88.0				
90.0				
92.0				Sand, 92-99 feet Screen 94 99 feet
94.0				
96.0				
98.0			Slump filled hole	
100.0			from 99-102 feet	Slump
102.0				

Field data		
Depth	Chloride mg/kg	PID
6.0	203	547
11.0	174	1575
16.0	106	1060
21.0	73	1242
22.0	78	1290
26.0	91	1006
31.0	83	1290
36.0	85	403
41.0	92	432
46.0	92	354
51.0	72	527
56.0	87	479
59.0	94	414

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Albuquerque, NM 87104
505-266-5004

Hobbs F-29-1A Site	**Plate 2**
Monitoring Well Boring	**September 2005**

APPENDIX A

1.0 CONCEPTUAL MODEL OF SUBSURFACE PRODUCED WATER RELEASES

The Hobbs SWD System operated at a capacity of about 40,000 barrels/day from the late 1950s to the late 1980s. During the past decade, about 1,000 barrels/day flowed through the system until operations ceased in 2002.

People familiar with the site suggest that soil staining and other evidence of produced water leakage at various sites typically dates to the time when the system was operating at capacity. Accidental releases to the environment at many sites ceased in the 1990s and natural restoration has mitigated the effects of any past releases. At most release sites, no vegetation stress that can be attributed to past releases exists.

The System operated by gravity flow of produced water through pipelines, junction boxes, boots, tanks and disposal through injection into wells. Releases occur periodically due to gradual failures of seals, overflow of vent lines, or sudden and accidental releases. The length of time that produced water flows to the subsurface was short for sudden and accidental releases or vent overflow incidents. A failure of a seal or a small crack in a pipeline may have allowed a release to the subsurface for months or longer. Because of the efforts of ROC to routinely identify system failures and because the flow in the Hobbs SWD System materially declined during the past decade, only minor subsurface releases occurred in the Hobbs SWD System until operations ceased in 2002.

The distribution of constituents of concern (primarily chloride, secondarily BTEX) in the surface soil and vadose zone is different for each release scenario. Releases of relatively large water volumes over long periods create saturated conditions between the release site and ground water. Where this type of release occurs, borehole data show a relatively constant chloride concentration of 2-4 times background concentration throughout the vadose zone. Due to the natural processes of sorption and biodegradation, petroleum hydrocarbons may not impact ground water even at sites where large volumes were released over long periods.

Episodic releases of small volumes of produced water will not always create saturation of the vadose zone. Where episodic releases occur in junction boxes or similar enclosures, spills of produced water and entrained crude oil infiltrate the vadose zone. After the spill ceases and the

produced water drains into the vadose zone, the entrained crude oil follows similar paths as the produced water with the difference that the higher viscosity and surface tension limits the depth of infiltration. After deposition of the oil within the near surface vadose zone pore spaces, volatilization of the lighter hydrocarbons from the crude oil and the aging process in general causes the formation of an asphaltic-sand that reduces or eliminates subsequent infiltration through that same flow path.

This conceptual model of produced water releases accounts for the distribution of chloride and regulated hydrocarbons observed at this and others salt water disposal systems. The depth of penetration of produced water depended primarily upon the size and frequency of releases, how quickly crude filled the pore spaces and reduced permeability, and the nature of the subsurface. At some sites, these three factors allowed produced water to penetrate less than 10 feet. At other sites where a relatively large volume of produced water entered the subsurface, penetration to depths greater than 10 feet occurred due to unsaturated and saturated flow.

Because the system operated under gravity flow, the produced water releases were generally episodic, being caused by temporary over-pressuring at a given location (e.g. a vent). The lack of constant pressure within the system typically caused releases of relatively small volumes. If the total volume released was relatively small, then one could observe relatively high chloride concentrations in the unsaturated zone with no impairment of ground water quality.

Improved operational and environmental practices of the 1980s and 1990s plus the clogged pore spaces caused by previously released crude caused saturated flow conditions, which may have existed at some sites, to change to much slower unsaturated flow. With this type of release, one could observe high concentrations of constituents throughout the vadose zone but no current impairment of ground water quality.

Impairment of ground water quality occurs only where the mass of constituents of concern in produced water entered ground water at a sufficient rate to overwhelm natural dilution and dispersion. Therefore, high concentrations of constituents in the vadose zone are not the only factor that determines if ground water is impaired; it is the flux (e.g. flow) of these constituents to ground water. However, if a soil column contains only low concentrations of constituents, then one may conclude that there is insufficient mass of constituents to impair ground water quality regardless of the flux.

In the absence of vadose zone saturation, the arid climate of New Mexico creates such a low flux to ground water that one can observe sequestration of the constituents of concern in the upper vadose zone (10-20 feet below land surface) for many years. Borehole data from these types of releases show high concentrations of chloride below the release site and a relatively sharp decline in chloride concentration to background conditions with depth. If the release is not recent, natural processes can reduce the concentrations of any residual hydrocarbons and eliminate any environmental risk to ground water. Figure 1 presents schematic representations of field chloride analyses that are common for saturated and unsaturated release scenarios.

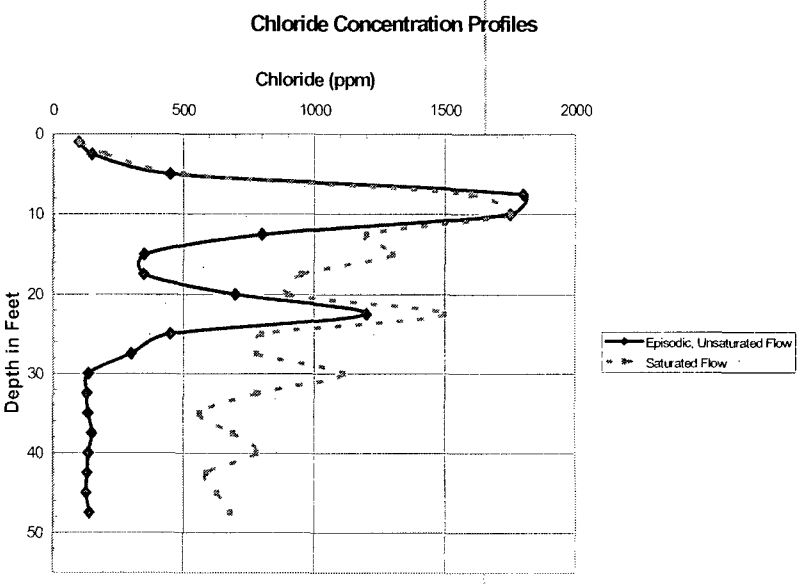

Figure 1. Schematic representations of field chloride analyses that are common for the two different release scenarios.

In summary, sites where chloride or other constituents of concern penetrated deep into the vadose zone probably experienced long-term releases of relatively large volumes of water; or crude was not released with the water and the filling of soil pores with asphaltic material did not occur. Where penetration of the vadose zone was less than 20-30 feet, the release was episodic and consisted of a relatively small volume of fluid.

Produced water potentially released to the environment from the Hobbs SWD System may contain the following regulated constituents:

- Benzene
- Ethylbenzene
- Toluene
- Xylenes
- Naphthalenes
- Total Dissolved Solids
- Chloride
- Sulfate

Because the fate and transport of released chloride is essentially identical to that of TDS and sulfate, soil samples can be evaluated for chloride

only; and one may remain confident that concentrations of chloride will indicate the presence of similar concentrations of other non-hydrocarbon constituents.

The regulated hydrocarbon constituents can behave independently of each other due to different rates of biodegradation and sorption. Field measurements of total organic vapors are very useful in providing a qualitative measure of the concentration of volatile organic constituents (e.g. benzene) in soil, and therefore, this field measurement is employed to identify which samples will undergo laboratory analysis.

2.0 HYDROGEOLOGY OF SECTION 29

2.1 CHARACTERISTICS OF THE VADOSE ZONE IN SECTION 29

Plate A-1 with Table A-1 shows:

- The location of monitoring wells and soil borings installed by ROC within Section 29,
- Private supply wells sampled by ROC,
- Supply wells with water sample data from by Intera's (2003), and
- Water supply wells that have lithologic information in Exhibit A-1 collected from the Office of the State Engineer (OSE).

Plate A-2 is the well log from the F 29-1a site, which is typical of the area. As is common in the Ogallala Formation throughout the High Plains, caliche dominates the uppermost vadose zone from 5-feet below surface to a depth of more than 20-feet. Below the caliche horizon, the boring penetrated tan and red very fine-grained sand and silt to the water table. Interbedded with the sand and silt are thin layers of caliche. The water table was intercepted between 60- and 65-feet.

Drillers' logs on file with the OSE and published descriptions of the upper Ogallala Formation (Nicholson and Clebsch, 1961; Ash, 1963) generally agree with the lithologic profile presented in Plate A-2. Beneath the thin layer of topsoil, caliche is present in the uppermost vadose zone to a depth of 24-28-feet. Below this caliche layer, several supply well logs report penetration of a clay/shale zone, which was not observed in the F-29-1a boring but may exist elsewhere in Section 29. As Plate A-2 shows, lithologic logs describe very fine grained sand and silt with thin layers of caliche between the surface and a depth of 24-feet and primarily a sand-silt to the total depth (102-feet). In the supply well logs, "sandstone" (which R.T. Hicks Consultants describes as "caliche") dominates the upper vadose zone to depth of about 25-feet; "sand" (which R.T. Hicks Consultants describes as "very fine grained sand-silt") dominates the lower vadose zone to a depth of about 65-feet.

Plate A-3 (see Composite Profile 1), which is a composite lithologic profile based upon available data, is considered to adequately represent the texture of the vadose zone and upper saturated zone throughout Section 29. The driller's logs that describe a clay/shale zone below the uppermost caliche suggest the uppermost vadose zone could be locally finer-grained than described in Plate A-2.

Plate A-3 also contains a second composite profile representing an excavated soil profile in Section 29, which is representative of sites where ROC removed portions of the upper vadose zone during the abandonment program. In this profile, the upper 19-feet (the maximum reach of a backhoe) of sand and caliche is replaced with a loamy sand. As the loamy sand has a higher hydraulic conductivity than the caliche and sand it replaces, overstating depth of excavation is conservative of ground water quality from a modeling viewpoint.

2.2 CHARACTERISTICS OF THE SATURATED ZONE IN SECTION 29

The saturated zone is the Ogallala Aquifer. Plate A-2 characterizes the saturated zone as well-sorted, fine-grained sand with thin layers of caliche and cemented sand, so the single well log on file at the OSE that extends to the top of the "Red Bed" (Dockum Group) does not describe a basal sand and gravel unit that is characteristic of the Ogallala throughout Lea County and the High Plains in general (Nicholson and Clebsch, 1961). The basal sand and gravel unit is probably present throughout the area, despite the lack of site-specific evidence.

Based upon the lithology of the saturated zone, the number and spacing of supply wells, and the size and use of several of these wells (e.g. 12 inches or more), the hydraulic conductivity of the saturated zone in Section 29 is similar to that observed for the Ogallala Aquifer throughout the general area. McAda (1984) simulated water level declines using a two-dimensional digital model and employed hydraulic conductivity values of 51-75 feet/day (1.9 E-4 to 2.8 E-4 m/s) in the area. More recently, Musharrafieh and Chudnoff (1999) employed values for hydraulic conductivity within this area of interest between 81 and 100 ft/day for their simulation. According to Freeze and Cherry (1979), these values correspond to clean sand, which agrees with the site lithologic description of the saturated zone.

For the Hobbs System sites, the saturated hydraulic conductivity of the uppermost saturated zone is assumed as 75 feet/day.

To create a potentiometric surface map for the site, USGS gauging data from 2001-2002 was employed. Table A-1 presents the water level data, and Plate A-4 is the result. Ground water flows east-southeast in Section 29 under a hydraulic gradient of approximately 0.0036. Locally, within Section 29, ground water flows east. In general, ground water flow in Section 29 is concluded to be east-southeast with a hydraulic gradient of 0.003.

Plate A-5 presents two hydrographs of nearby USGS wells showing that ground water elevations near Section 29 have decreased by 10-feet since

1985. Plate A-1 shows the locations of these two wells: near the airport and at the southern city limit of Hobbs.

2.3 GROUND WATER QUALITY IN SECTION 29

Data submitted to NMOCD by ROC data and data from the Intera report (2003) indicated no petroleum hydrocarbons were detected in ground water during that sampling event. Chloride ion is above the Water Quality Control Commission standard of 250 mg/L in many samples within and up gradient of Section 29. Plate A-6 presents the chloride concentrations in 2003 for wells sampled by Intera (2003) and ROC.

As Plate A-6 of this report and Figure 4 of the 2003 Intera report show, chloride concentration in Section 29 generally ranges between about 85 ppm and 140 ppm. Within Section 29, eight wells exceed the Water Quality Control Commission ground water standard of 250 ppm chloride. These wells are geographically distributed throughout Section 29. Plate A-6 also shows that two wells north of Section 29 and two wells west of the investigated sites also exceed the numerical standard. Up gradient and down gradient from wells that exceed the 250 ppm chloride standard are other wells that fall within the 85-140 ppm range that typifies Section 29.

The variation in chloride concentration expressed in map view (Plate A-6) might be explained if well screen intervals were known for these domestic supply wells. Unfortunately, well construction data for most of the sampled wells does not exist.

3.0 REFERENCES

Ash, S.R., 1963, Ground water conditions in northern Lea County, U.S. Geological Survey Hydrologic Investigations Atlas HA-62

Freeze, R. A., and Cherry, J. A., 1979, Groundwater, Prentice-Hall, Inc.

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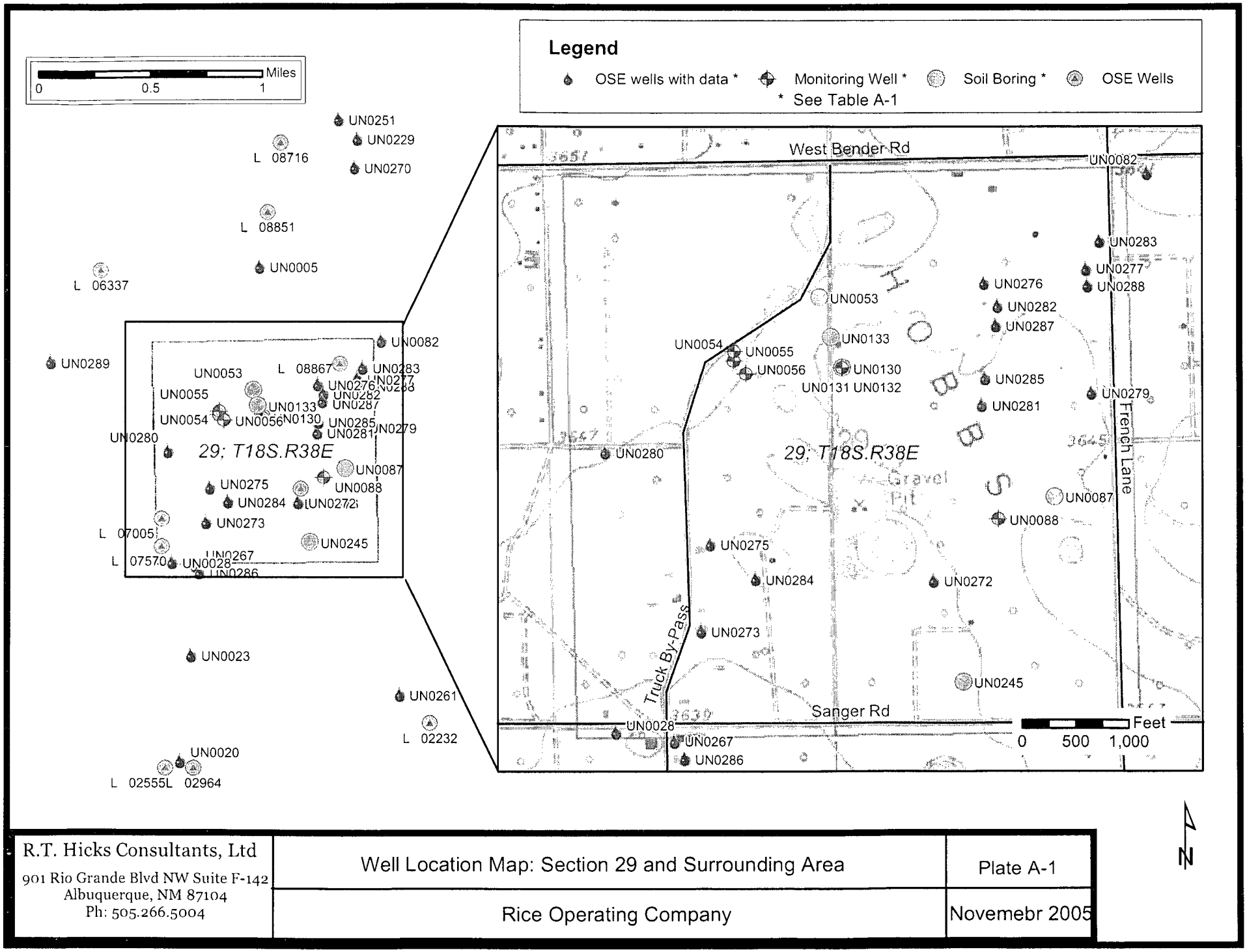
TABLES

Table A-1

Map ID	Well Name	X_UTM83	Y_UTM83	System	Location	Unit Letter	Well Type
UN0005	AA Oil Field Services	671456	3622866		Sec 20, T18S, R38E	J	OSE Well
UN0020	Bowlarama	670888	3619268		Sec 32, T18S, R38E	M	OSE Well
UN0023	Bulldog Tool Co.	670964	3620040		Sec 32, T18S, R38E	F	OSE Well
UN0028	Cat House Water Well	670826	3620715		Sec 32, T18S, R38E	D	OSE Well
UN0053	F-29-BGB-01	671407	3621969	ROC Hobbs	Sec 29, T18S, R38E	F	Soil Boring
UN0054	F-29-MW-2	671163	3621786	ROC Hobbs	Sec 29, T18S, R38E	F	Monitoring Well
UN0055	F-29-MW-3	671164	3621813	ROC Hobbs	Sec 29, T18S, R38E	F	Monitoring Well
UN0056	F-29-MW-4	671197	3621748	ROC Hobbs	Sec 29, T18S, R38E	F	Monitoring Well
UN0082	Hobbs Diesel Co.	672343	3622328		Sec 28, T18S, R38E	D	OSE Well
UN0087	I-29 EOL Boot	672076	3621394	ROC Hobbs	Sec 29, T18S, R38E	I	Soil Boring
UN0088	I-29 Vent	671917	3621330	ROC Hobbs	Sec 29, T18S, R38E	I	Monitoring Well
UN0130	Jct. F-29-1a	671472	3621766	ROC Hobbs	Sec 29, T18S, R38E	F	Soil Boring
UN0131	Jct. F-29-1a-Deep (SWD B-2-1)	671472	3621766	ROC Hobbs	Sec 29, T18S, R38E	F	Monitoring Well
UN0132	Jct. F-29-1a-Shallow (SWD B-2-2)	671472	3621766	ROC Hobbs	Sec 29, T18S, R38E	F	Monitoring Well
UN0133	Jct. F-29-1b (SWD B-1)	671440	3621854	ROC Hobbs	Sec 29, T18S, R38E	F	Soil Boring
UN0229	Mac Truck Co.	672169	3623794		Sec 20, T18S, R38E	A	OSE Well
UN0245	O-29 Vent	671818	3620861	ROC Hobbs	Sec 29, T18S, R38E	O	Soil Boring
UN0251	Oil Field Rental Services	672031	3623935		Sec 20, T18S, R38E	A	OSE Well
UN0261	Pan American Petro	672478	3619756		Sec 33, T18S, R38E	L	OSE Well
UN0267	Smith's International	670994	3620689		Sec 32, T18S, R38E	D	OSE Well
UN0270	Stoebr Wire Co	672147	3623586		Sec 20, T18S, R38E	H	OSE Well
UN0272	Texland Petro (aka. WO-005)	671734	3621152		Sec 29, T18S, R38E	J	OSE Well
UN0273	Two State Tank Rental Co.	671070	3621007		Sec 29, T18S, R38E	M	OSE Well
UN0275	WO-001	671096	3621258	Windmill Oil	Sec 29, T18S, R38E	K	OSE Well
UN0276	WO-003	671878	3622011	Windmill Oil	Sec 29, T18S, R38E	A	OSE Well
UN0277	WO-004	672167	3622050	Windmill Oil	Sec 29, T18S, R38E	A	OSE Well
UN0279	WO-006	672183	3621695	Windmill Oil	Sec 29, T18S, R38E	H	OSE Well
UN0280	WO-007	670796	3621523	Windmill Oil	Sec 29, T18S, R38E	E	OSE Well
UN0281	WO-009	671872	3621659	Windmill Oil	Sec 29, T18S, R38E	H	OSE Well
UN0282	WO-010	671917	3621945	Windmill Oil	Sec 29, T18S, R38E	A	OSE Well
UN0283	WO-011	672206	3622132	Windmill Oil	Sec 29, T18S, R38E	A	OSE Well
UN0284	WO-012	671224	3621157	Windmill Oil	Sec 29, T18S, R38E	K	OSE Well
UN0285	WO-013	671881	3621737	Windmill Oil	Sec 29, T18S, R38E	H	OSE Well
UN0286	WO-014	671023	3620640	Windmill Oil	Sec 32, T18S, R38E	D	OSE Well
UN0287	WO-022	671911	3621889	Windmill Oil	Sec 29, T18S, R38E	H	OSE Well
UN0288	WO-024	672171	3622003	Windmill Oil	Sec 29, T18S, R38E	A	OSE Well
UN0289	WO-044	669954	3622169	Windmill Oil	Sec 30, T18S, R38E	B	OSE Well
L 06660	MORAN OIL PROD & DRILLING CORP L 06660 (E)	669335	3622615		Sec 19, T18S, R38E		OSE Well
L 06337	INC. CAPITAN DRILLING COMPANY L 06337	670313	3622837		Sec 19, T18S, R38E		OSE Well
L 08716	OIL FIELD RENTAL SERVICE CO. L 08716	671608	3623764		Sec 20, T18S, R38E		OSE Well
L 08851	A.A. OILFIELD L 08851	671514	3623260		Sec 20, T18S, R38E		OSE Well
L 08867	BIG HORN TANK RENTAL L 08867	672040	3622160		Sec 29, T18S, R38E		OSE Well
L 07570	SOUTHWESTERN DRILLING MUD L 07570	670753	3620830		Sec 29, T18S, R38E		OSE Well
L 07005	TWO-STATE TANK RENTAL CO L 07005	670753	3621030		Sec 29, T18S, R38E		OSE Well
L 11176	TEXLAND PETROLEUM-HOBBS, LLC L 11176	671752	3621246		Sec 29, T18S, R38E		OSE Well
L 02395	AMERADA PETROLEUM CORPORATION L 02395	669522	3622018		Sec 30, T18S, R38E		OSE Well
L 05849	AMERADA PETROLEUM CORPORATION L 05849	669729	3621615		Sec 30, T18S, R38E		OSE Well
L 02964	BAKER OIL TOOLS INC. L 02964	670982	3619217		Sec 32, T18S, R38E		OSE Well
L 02555	SKELLY OIL COMPANY L 02555	670782	3619217		Sec 32, T18S,R38E		OSE Well
L 02232	CONTINENTAL TANKE INC. L 02232	672697	3619546		Sec 33, T18S, R38E		OSE Well

PLATES



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Well Location Map: Section 29 and Surrounding Area	Plate A-1
	Rice Operating Company	Novemebr 2005

Logger:	David Hamilton	**Client:**	**Well ID:**
Driller:	Eades Drilling	Rice Operating Company	
Drilling Method:	Air Rotary		**F-29-1a B-2-1 (99 feet), F-29-1a B-2-2 (72 feet)**
Start Date:	11/3/2004		
End Date:	11/6/2004	**Location:**	
		T18S R38E	
		Section 29, Unit F	

Depth (feet)	Description	Lithology	Comments	Well Construction	Field data: Depth	Chloride mg/kg	PID
0.0	Surface, 0 - 1 feet			Cement, 0 - 3 feet			
2.0	Caliche, clay, sand , moist, 1 - 13 feet, Some hydrocarbon impact						
4.0							
6.0					6.0	203	547
8.0							
10.0					11.0	174	1575
12.0	Caliche, fine grained sand, silt, light tan, 13 - 18 feet						
14.0							
16.0					16.0	106	1060
18.0	Caliche, well indurated , 18 - 21 feet		Some odor				
20.0	Caliche with some well indurated layers, 21 - 24 feet				21.0	73	1242
22.0					22.0	78	1290
24.0	Very fine grained sand, silt, light reddish tan, 24 - 36 feet			Hydrated bentonite, 3-50 feet			
26.0					26.0	91	1006
28.0			At 30 feet: Some hydrocarbon impact, strong odor				
30.0					31.0	83	1290
32.0							
34.0							
36.0	Some caliche, 36 - 36.5 feet				36.0	85	403
38.0	Very fine grained sand, silt, tan - red, 36.5 - 48 feet						
40.0					41.0	92	432
42.0							
44.0							
46.0					46.0	92	354
48.0	Caliche layer, 48 - 48.5 feet						
50.0	Very fine grained sand, silt, tan - red, 48.5 - 59 feet				51.0	72	527
52.0							
54.0					56.0	87	479
56.0							
58.0			At 59 feet: Bore collapsing, Probe is wet. Drilled with water below 59 feet	Sand, 50-74 feet Screen 52-72 feet	59.0	94	414
60.0	Very fine grained sand, silt, tan - red, 59 - 102 feet						
62.0							
64.0							
66.0							
68.0							
70.0							
72.0							
74.0				Hydrated bentonite, 74-92 feet			
76.0							
78.0							
80.0							
82.0							
84.0							
86.0							
88.0							
90.0							
92.0				Sand, 92-99 feet Screen 94 99 feet			
94.0							
96.0							
98.0			Slump filled hole				
100.0			from 99-102 feet	Slump			
102.0							

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
505-266-5004

Hobbs F-29-1A Site

Monitoring Well Boring

Plate A-2

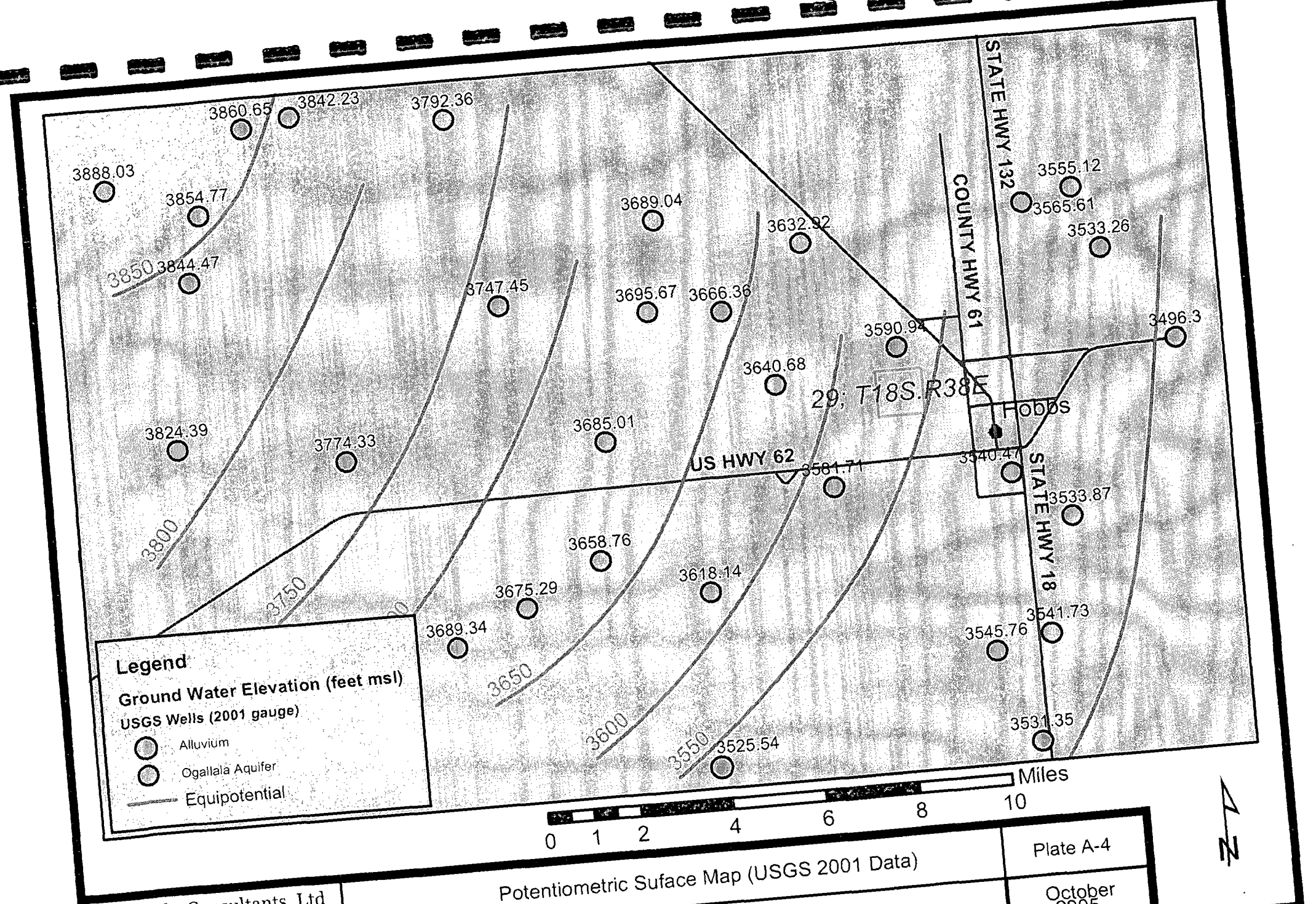
September 2005

HYDRUS-1D Profiles	Client: Rice Operating Company Location: T18S R38E Section 29	

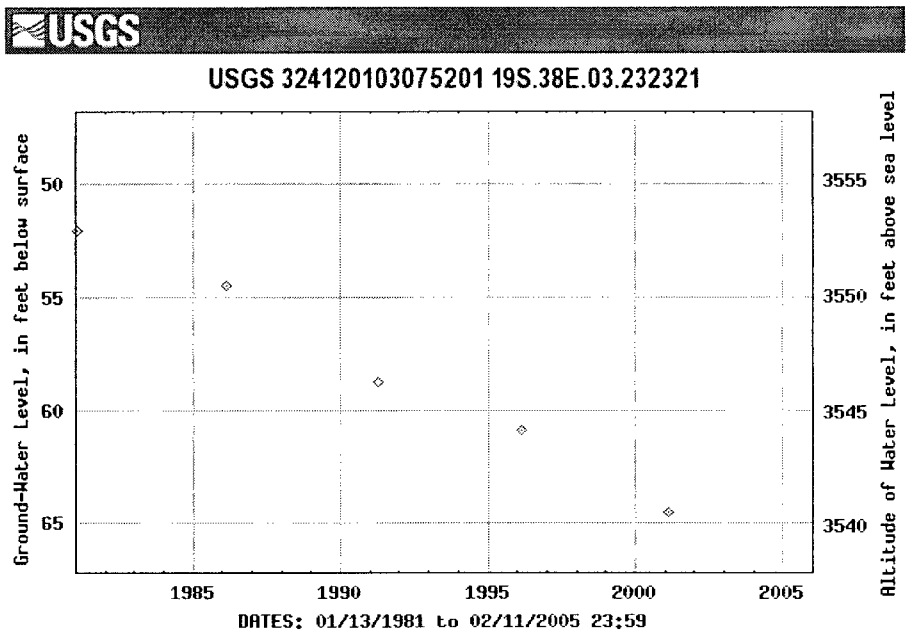
Depth (feet)	Description	Current Profile	Description	Excavated Profile	Depth (feet)
0.0	Sandy loam, 0 - 2 feet		Sandy loam 0-1 feet		0.0
2.0	Sand, caliche, 2-17 feet		Loamy sand, 1-19 feet		2.0
4.0					4.0
6.0					6.0
8.0					8.0
10.0					10.0
12.0					12.0
14.0					14.0
16.0	Caliche, 17-19 feet				16.0
18.0	Sand, silt 19-20feet		Sand, silt 19-20feet		18.0
20.0	Caliche, 20-22 feet		Caliche, 20-22 feet		20.0
22.0	Sand, silt 22-34 feet		Sand, silt 22-34 feet		22.0
24.0					24.0
26.0					26.0
28.0					28.0
30.0					30.0
32.0					32.0
34.0	Caliche, 34-35 feet		Caliche, 34-35 feet		34.0
36.0	Sand, silt, 35-45 feet		Sand, silt, 35-45 feet		36.0
38.0					38.0
40.0					40.0
42.0					42.0
44.0	Sand , caliche, 45-47 feet		Sand , caliche, 45-47 feet		44.0
46.0	Sand, silt, 47-59 feet		Sand, silt, 47-59 feet		46.0
48.0					48.0
50.0					50.0
52.0					52.0
54.0					54.0
56.0					56.0
58.0					58.0
60.0					60.0

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
505-266-5004

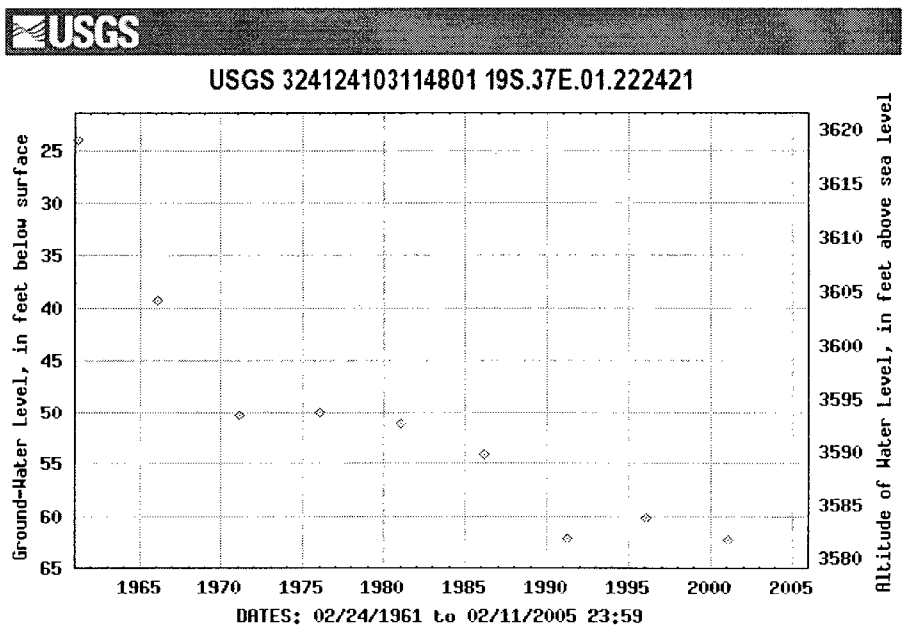
Section 29 Sites	Plate A-3
Hydrus Profiles Developed from Exploratory Borings	October 2005



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Potentiometric Suface Map (USGS 2001 Data) Rice Operating Company	Plate A-4 October 2005

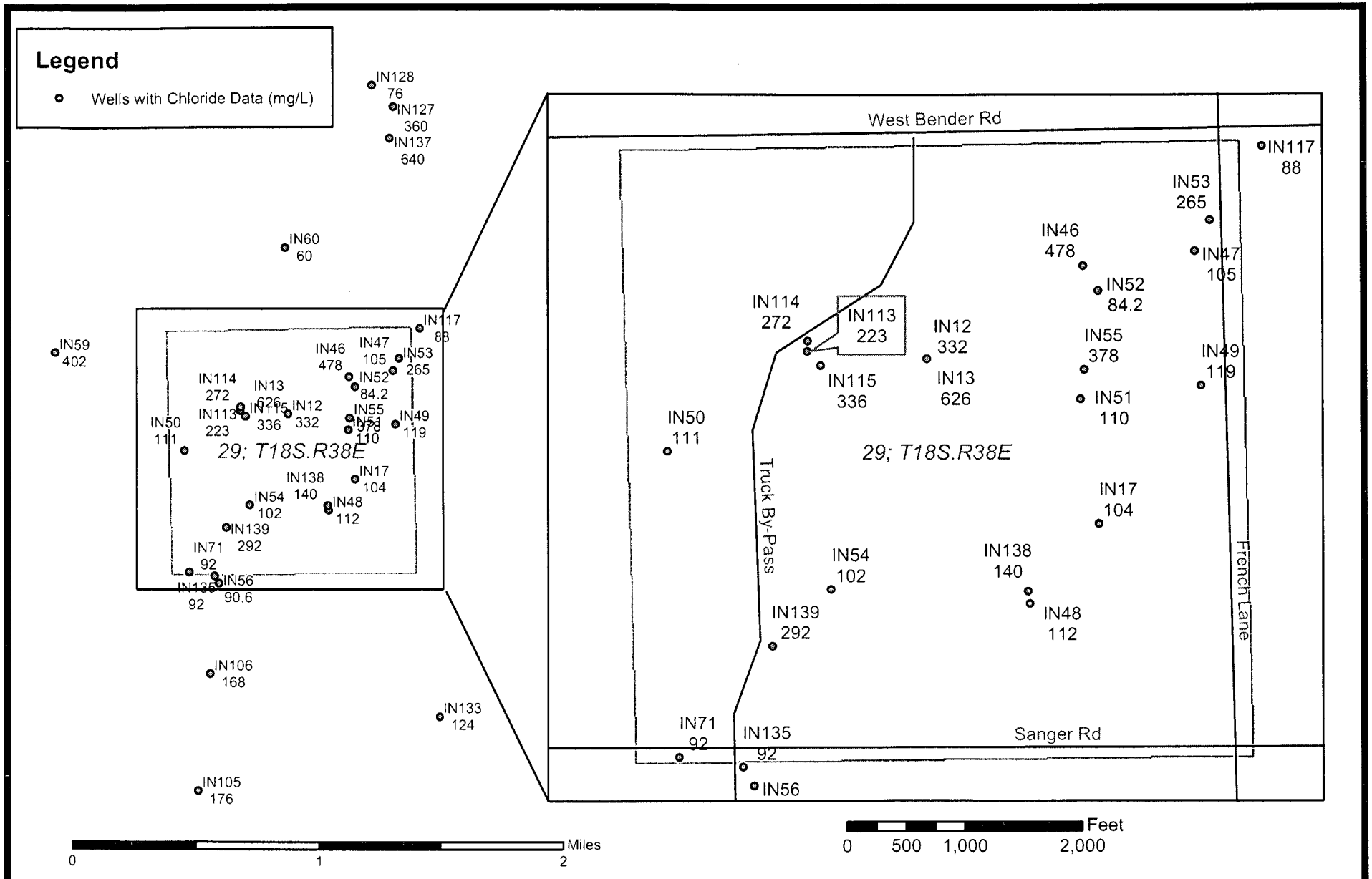


Provisional Data Subject to Revision



Provisional Data Subject to Revision

R.T. Hicks Consultants, Ltd. 901 Rio Grande Blvd. NW, Suite F-142 Albuquerque, New Mexico 87104	USGS Hydrographs	Plate A-5
	Rice Operating Company	October 2005



R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Chloride concentration (mg/L) from 2002-2005: Section 29 and Surrouning Area	Plate A-6
	Rice Operating Company	November 2005

EXHIBIT A-1

Form WR-23 STATE ENGINEER OFFICE FIELD ENGR. LOG

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1

(A) Owner of well MORAN OIL PROD. & DRILLING CORP.
Street and Number BOX 1919
City HOBBS State N.M.
Well was drilled under Permit No. L-6660(E) and is located in the NE ¼ SW ¼ SW ¼ of Section 19 Twp. 18 S Rge. 38E
(B) Drilling Contractor ABBOTT BROS. License No. WD-46
Street and Number BOX 637
City HOBBS State N.M.
Drilling was commenced MARCH 23 19 70
Drilling was completed MARCH 23 19 70

(Plat of 640 acres)

Elevation at top of casing in feet above sea level ____ Total depth of well 120'
State whether well is shallow or artesian shallow Depth to water upon completion 48

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	48	92	44	sand water
2	114	120	6	sand water
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
7	23	10	1	120	120	none	75'	120'

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor ____ License No. ____
Street and Number ____ City ____ State ____
Tons of Clay used ____ Tons of Roughage used ____ Type of roughage ____
Plugging method used ____ Date Plugged ____ 19____
Plugging approved by: ____ Basin Supervisor
Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received ____

File No. L-6660(E) Use OWD Location No. 18.38.19.33.23

Section 6 LOG OF WELL

Depth in Feet From	To	Thickness in Feet	Color	Type of Material Encountered
0	2	2	brown	surface
[illegible]	[illegible]	22	gray	caliche
[illegible]	[illegible]	24	brown	sand (brown)
48	92	44	brown	sand (water)
92	94	2	brown	sand (rock)
94	112	18	brown	sand tight
112	114	2	brown	sand rock
114	120	6	brown	sand water

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

[signature]
Well Driller

L- 6660 E deck

SHELL OIL CO., Hor[illegible] EY A #10

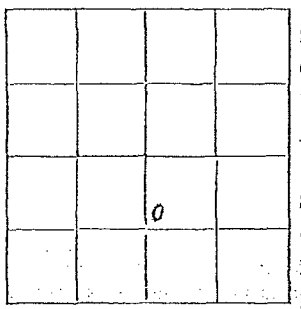
Form WR-23 STATE ENGINEER OFFICE

FIELD ENGR. LOG

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well CAPITAN DRILLING COMPANY, Inc.

Street and Number P.O. Box 6725

City ODESSA 79760 State Texas

Well was drilled under Permit No. L-6332 and is located in the

SW ¼ NE ¼ SE ¼ of Section 19 Twp. 18 S Rge. 38 E

(B) Drilling Contractor Abbott Brothers License No. WD-16

Street and Number P.O. Box 637

City Hobbs 88240 State New Mexico

Drilling was commenced June 10 19

Drilling was completed June 10 19 68

Elevation at top of casing in feet above sea level Total depth of well 110

State whether well is shallow or artesian shallow Depth to water upon completion 40

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	40	68	28	sand, water
2	92	110	18	sand
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
7	21	10	0	91	91	open	88.3	91.0

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received

File No. L-6332 Use O and O Location No. 18.38.19423

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	6	6		surface soil
6	21	15		caliche
21	40	19		sand, tight
40	68	28		sand, water
68	92	24		sand, tight
92	110	18		sand

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Harrell Abbott Jr.
Well Driller

L-6337 back

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

FIELD ENGR. LOG

Section 1. GENERAL INFORMATION

(A) Owner of well Oil Field Rental Service Co. Owner's Well No. L-8716

Street or Post Office Address 1312 Kiowa

City and State Hobbs, New Mexico 88240

Well was drilled under Permit No. L-8716 and is located in the:

a. ____ ¼ S½ ¼ NW ¼ NE ¼ of Section 20 Township 18-S Range 38-E N.M.P.M.

b. Tract No. 8 of Map No. ____ of the First Unit of College Park Industrial

c. Lot No. ____ of Block No. ____ of the ____ Subdivision, recorded in Lea County.

d. X= ____ feet, Y= ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

(B) Drilling Contractor Abbott Bros. Drilling License No. WD-46

Address P.O. Box 637, Hobbs, New Mexico 88240

Drilling Began 3/23/82 Completed 3/24/82 Type tools Cable Size of hole 8¾ in.

Elevation of land surface or ____ at well is ____ ft. Total depth of well 130 ft.

Completed well is [x] shallow [ ] artesian. Depth to water upon completion of well 49 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
49	92	43	Sand	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8	17	Welded	0	132	132	None	54	132

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor ____

Address ____

Plugging Method ____

Date Well Plugged ____

Plugging approved by:

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received March 26, 1982 Quad ____ FWL ____ FSL ____

File No. L-8716 Use DTC Location No. 18.38.20.213344

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	3	3	Surface soil
3	26	23	Caliche
26	49	23	Sand-tight
49	92	43	Sand-water
92	110	18	Sand-tight
110	118	8	Sand-rock
118	130	12	Sand

Section 7. REMARKS AND ADDITIONAL INFORMATION

L - 8716 back

MAR 26 8 22 AM '02

STATE ENGINEER
ROSWELL, NM

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Murrell Abbott N.B.
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section need be completed.

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

FIELD ENGR. LOG

Section 1. GENERAL INFORMATION

(A) Owner of well A A Oilfield Owner's Well No. _____
Street or Post Office Address 1416 W. Broadway
City and State Hobbs, NM 88240

Well was drilled under Permit No. L-8851 and is located in the:

a. _____ ¼ NW ¼ SW ¼ NE ¼ of Section 20 Township 18S Range 38E N.M.P.M.

b. Tract No. 9 of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the 2 Unit College Park Industrial Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Larry's Drilling License No. WD882

Address 2601 W. Bender Hobbs, NM 88240

Drilling Began 7-1-82 Completed 7-2-82 Type tools tricone Size of hole 8¾ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 54 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
54	120	66	sand & sandstone	28

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5½	160PVC		-1	120	121		100	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:
_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 9, 1982 Quad _____ FWL _____ FSL _____

File No. L-8851 Use D & S Location No. 18.38.20.23141
Temp. on N. E. Corner

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	topsoil
2	38	36	caliche
38	60	22	sand & sandstone
60	68	8	hard red rock sand & sandstone
68	120	52	sand, think layers of sandstone

Section 7. REMARKS AND ADDITIONAL INFORMATION

L-8851 back

JUL 9 8 35 AM '82

STATE ENGINEER
ROSWELL, NM

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Larry Larkin
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All questions, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

FIELD ENGR. LOG

Section 1. GENERAL INFORMATION

(A) Owner of well Big Horn Tank Rental Owner's Well No. _____
Street or Post Office Address 2139 French Dr.
City and State Hobbs, NM 88240

Well was drilled under Permit No. L-8867 and is located in the:

a. ____ ¼ ____ ¼ NE ¼ NE ¼ of Section 29 Township 18S Range 38E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Larry's Drilling License No. WD882

Address 2601 W. Bender Hobbs, NM 88240

Drilling Began 7-9-82 Completed 7-10-82 Type tools button bit Size of hole 8½ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 52 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
60	108	48	sand & sandstone	28

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
5½	160PVC		0	120	120		100	120

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____
Address _____
Plugging Method _____
Date Well Plugged _____
Plugging approved by:
_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received August 23, 1982

Quad _____ FWL _____ FSL _____

File No. L-8867 Use D & S Location No. 18.38.29.22244

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	27	27	caliche
27	33	6	gray clay
33	35	2	hard red rock
35 m	47	12	sand
47	63	16	sand & sandstone
63	67	4	hard red rock
67	108	41	sand & sandstone
108	120	12	hard red rock

Section 7. REMARKS AND ADDITIONAL INFORMATION

L-8867 back

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Larry Larkin
Driller

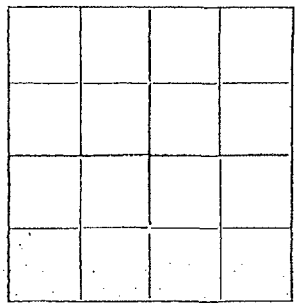
INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All ons, except Section 5, shall be answered as completely and accurate. ossible when any well is drilled, repaired or deepene en this form is used as a plugging record, only Section 1(a) and Section 5 ed be completed.

Form WR-23 STATE ENGINEER OFFICE FIEL NGR. LOG

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well Two State Tank Rental Co.

Street and Number Box 2305

City Hobbs, State New Mexico

Well was drilled under Permit No. L-7005 and is located in the NW ¼ SW ¼ SW ¼ of Section 29 Twp. 18S Rge. 38E

(B) Drilling Contractor C. R. Musselwhite License No. WD99

Street and Number Box 56

City Hobbs, State New Mexico

Drilling was commenced Oct. 14, 19 72

Drilling was completed Oct. 18, 19 72

Elevation at top of casing in feet above sea level Total depth of well 150

State whether well is shallow or artesian Shallow Depth to water upon completion 50

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	60	150	90	Sand, sand rock
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
5	13	8	0	150	150	none	110	150

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received STATE ENGINEER OFFICE 1972 OCT 24 AM 8:51

File No. L-7005 Use DTC Location No. 18.38.29.331

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	2	2	Brown	Soil & rock
2	27	25	White	Caliche & rock
27	37	10	Grey	Sandy shale
37	43	6	"	Sand rock
43	60	17	Red	Sand
60	140	80	"	Sand, sand rock shells
140	150	10	Grey	Sand, course

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

O. R. Massenburg

Well Driller

L - 7005 back

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

FIELD ENGR. Lea

Section 1. GENERAL INFORMATION

(A) Owner of well Southwestern Drilling Mud Owner's Well No. _____

Street or Post Office Address P.O. Box 2477

City and State Midland, Texas 79701

Well was drilled under Permit No. L-7570 and is located in the:

a. _____ ¼ SW ¼ SW ¼ SW ¼ of Section 29 Township 18S Range 38E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Abbott Bros. License No. WD-46

Address P.O. Box 637, Hobbs, New Mexico 88240

Drilling Began 6/21/76 Completed 6/22/76 Type tools Cable Size of hole 8½ in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 122 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well 48 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
48	122	74		

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
6 5/8	15	welded	0	122	122	none	79	122

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by: _____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received

Quad _____ FWL _____ FSL _____

File No. _____ Use _____ Location No. _____

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	Surface soil
2	35	33	Caliche
35	48	13	Sand-tight
48	116	68	Sand-water
116	122	6	Sand-tight

Section 7. REMARKS AND ADDITIONAL INFORMATION

'75 AUG 1 AM 10 41
STATE ENGINEER OFFICE
ROSWELL, N.M.

L-7570 back

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Murrell Abbott
Driller H.B.

INSTRUCTIONS: This fo ould be executed in triplicate, preferably typewritten, and submitted t appropriate district office of the State Engineer. A: ions, except Section 5, shall be answered as completely and accurate possible when any well is drilled, repaired or deepened When this form is used as a plugging record, only Section 1(a) and Section 2 need be completed.

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Texland Petroleum- Hobbs LLC Owner's Well No. 1

Street or Post Office Address 777 main street suite 3200

City and State Fort Worth Tx 76102

Well was drilled under Permit No. L-11 176 Explore and is located in the:

a. SE ¼ NW ¼ ¼ SE ¼ of Section 29 Township 18 south Range 38 east N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Robinson Drilling License No. W D 1498

Address PO BOX 1495 Seminole TX 79360

Drilling Began 7-31-01 Completed 8-3-01 Type tools Rotary Size of hole 18 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 220 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 65 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
111	210	99	Sand & Gravel	Unknown

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
12 3/4		Welded	+1	220	221	none	125	215

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor N/A

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY #212224

Date Received 08/10/01

Quad _____ FWL _____ FSL _____

File No. L-11,176 Use SRO Location No. 18.38.29.41443

Section 6. LOG OF HOLE

Depth in Ft. From	To	Thickness in Feet	Color and Type of Mate[illegible]countered
0	2	2	TOpsoil
2	4	2	Rock
4	18	14	Calichi
18	21	3	Rock
21	28	7	Calichi
28	52	24	Sandy clay with Rock Ledges
52	108	56	Sand with sandstone streaks
108	111	3	Rock
111	210	99	Sand&Gravel
210	215	5	Sandy clay
215	220	5	Red Bed

Section 7. REMARKS AND ADDITIONAL INFORMATION

L-11176 back

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the abo described hole.

Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district offi of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

(This form to be executed in triplicate)

WELL RECORD

Date of Receipt _____ Permit No. L-2395

Name of permittee, Lovell Petroleum Corp.

Street or P. O. Drawer D, City and State Fairmont, N. M.

1. Well location and description: The shallow (shallow or artesian) well is located in NE ¼, NE ¼, NW ¼ of Section 20, Township 18 S, Range 38 E; Elevation of top of casing above sea level, _____ feet; diameter of hole, 7 inches; total depth, 87 feet; depth to water upon completion, 30 feet; drilling was commenced 8-31-53, 19__, and completed 8-31-53, 19__; name of drilling contractor J. E. Russelwhite; Address, Box 56, Hobbs, N. M.; Driller's License No. WD 59

2. Principal Water-bearing Strata:

	Depth in Feet From	To	Thickness	Description of Water-bearing Formation
No. 1	35	70	35	Red sand course
No. 2	75	85	10	Red sand course hard
No. 3	85	87	3	Red sand course hard
No. 4				
No. 5				

3. Casing Record:

Diameter in inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top	Depth of Casing or Liner Bottom	Feet of Casing	Type of Shoe	Perforation From	Perforation To
7	20	10			87	none	57	87

4. If above construction replaces old well to be abandoned, give location: ____ ¼, ____ ¼, ____ ¼ of Section ____, Township ____, Range ____; name and address of plugging contractor, _____

_____

_____

date of plugging _____, 19__; describe how well was plugged: _____

_____

_____

_____

SEP 21 1953

L-2395 OCC ltr

18.38.30.123

5. Log of Well:

Depth in Feet From	To	Thickness in feet	Description of Formation
0	1	1	Soil
1	6	5	Cleachle rock hard
6	30	24	Cleachle
30	35	5	sand shale
35	70	~~225~~ 35	Red sand course.
70	75	5	Rock [illegible] arbolite
75	85	10	Red sand course hard
85	87	3	ed sand course hard

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

O. R. Musselwhite
Licensed Well Driller

Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

L - 2395 back

Form WR-23 STATE ENGINEER OFFICE

FIELD ENGR. LOG

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1

(Plat of 640 acres)

(A) Owner of well Amerada Petroleum Corp.

Street and Number Drawer D

City Monument, State New Mexico

Well was drilled under Permit No. L-5849 and is located in the SE ¼ SE ¼ NW ¼ of Section 30 Twp. 18S Rge. 38E

(B) Drilling Contractor O. R. Musslewhite License No. WD99

Street and Number Box 56

City Hobbs, State New Mexico

Drilling was commenced Feb. 10, 1966

Drilling was completed Feb. 12, 1966

Elevation at top of casing in feet above sea level Unkown Total depth of well 38

State whether well is shallow or artesian Shallow Depth to water upon completion 34

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	34	38	4	Sand & sand rock
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6 5/8	18	none	0	20	20	None	None	

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used
0	20	8		1½ yds.	Dump remix around casing

Section 5 PLUGGING RECORD

Name of Plugging Contractor License No.

Street and Number City State

Tons of Clay used Tons of Roughage used Type of roughage

Plugging method used Date Plugged 19

Plugging approved by:

Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received

File No. L-5849 Use Quad Location No. 18.38.30.194

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	2	2	Brown	Soil & rock
2	5	3	White	Caliche rock
5	20	15	White	Caliche
20	25	5	White	Caliche rock
25	29	4	Gray	Sandy shale & caliche rock
29	38	9	Grey	Sand & sand rock

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well

O. R. Marshall
Well Driller

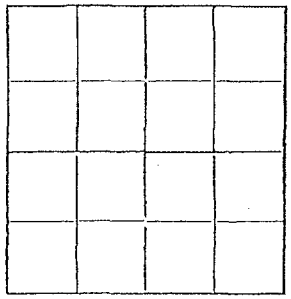
L-5849 back

Form WR-23 STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well Baker Oil Tools, Inc.

Street and Number Box 1295

City Hobbs, State New Mexico

Well was drilled under Permit No. L-2964 and is located in the W.E.¼ S.W. ¼ S.W. ¼ of Section 32 Twp. 18S Rge. 38E

(B) Drilling Contractor O.R. Musselwhite License No. WD 99

Street and Number Box 56

City Hobbs, N State New Mexico

Drilling was commenced Sept. 10 19 55

Drilling was completed Sept. 11 19 55

Elevation at top of casing in feet above sea level ..... Total depth of well 100

State whether well is shallow or artesian shallow Depth to water upon completion 30

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	40	80	40	Sand & sand rock
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads in	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6 5/8	18	8	0	100	100	Collar	70	100

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

Section 5 PLUGGING RECORD

Name of Plugging Contractor ..... License No. .....

Street and Number ..... City ..... State .....

Tons of Clay used ..... Tons of Roughage used ..... Type of roughage .....

Plugging method used ..... Date Plugged ..... 19 .....

Plugging approved by:

..... Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY

Date Received SEP 19 1955

OFFICE GROUND WATER SUPERVISOR ROSWELL, N. MEX.

File No. L-2964 Use Dom Location No. 18.38.32.333

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0	1	1	Brown	Soil
1	28	27	White	Caleehie & rock
28	35	7	Grey	Sandy shale
35	40	5	Brown	Quartrite
40	80	40	Red	Sand & sand rock
80	100	20	Red	Sand, fine

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

O. R. Musselwhite
Well Driller

L-2964 back

(This form to be executed in triplicate)

WELL RECORD

Date of Receipt ..... Permit No. L-2555

Name of permittee, Skelly Oil Co.

Street or P. O. Drawer D, City and State Hobbs, New Mexico

1. Well location and description: The Shallow (shallow or artesian) well is located in SW ¼, SW ¼, SW ¼ of Section 32, Township 18 S, Range 38 E; Elevation of top of casing above sea level, ... feet; diameter of hole, 8 inches; total depth, 116 feet; depth to water upon completion, 34 feet; drilling was commenced June 25, 1954, and completed June 25, 1954; name of drilling contractor Ed. B. Burke Box 306; Address, Hobbs, New Mexico; Driller's License No. WD-111

2. Principal Water-bearing Strata:

	Depth in Feet From	To	Thickness	Description of Water-bearing Formation
No. 1	54	85	31	Water Sand
No. 2	101 ~~116~~	116	15	Water Sand
No. 3				
No. 4				
No. 5				

3. Casing Record:

Diameter in Inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top	Bottom	Feet of Casing	Type of Shoe	Perforation From	To
6 5/8	20	10	0	113	113	collar	85	113

Cemented from 0 to 57

4. If above construction replaces old well to be abandoned, give location: ..... ¼, ... ¼, ... ¼ of Section ....., Township ....., Range .....; name and address of plugging contractor,

date of plugging ....., 19.....; describe how well was plugged:

FILED
JUL 1 1954
OFFICE
GROUND WATER SUPERVISOR
ROSWELL, NEW MEXICO

L-2555

18.38.32.333

L - 2555 back

5. Log of Well:

Depth in feet From	Depth in feet To	Thickness in feet	Description of Formation
0	4	4	Top Soil
4	25	21	Caliche
25	34	9	Pack Sand
34	39	5	Water Sand (weak)
39	54	15	Pack Sand
54	85	31	Water Sand
85	94	9	Hard Sand Rock
94	101	7	Tight Sand
101	116	15	Water Sand

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

S-38-32-333

Edward B Burke
Licensed Well Driller

Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

(This form to be executed in triplicate)

WELL RECORD

Date of Receipt July 9, 1953 Permit No. L— 2232

Name of permittee, Joe P. Dutton

Street or P.O. Continental Tank Co., City and State Hobbs, New Mexico

1. Well location and description: The shallow (shallow or artesian) well is located in ¼, S½ of SW ¼ of Section 33, Township 18 South Range 38 East; Elevation of top of casing above sea level, ... feet; diameter of hole, 7 inches; total depth, 112 feet; depth to water upon completion, 56 feet; drilling was commenced June 23, 19 53, and completed June 23, 19 53; name of drilling contractor Ed. B. Burke Box 637; Address, Hobbs, New Mexico; Driller's License No. WD-111

2. Principal Water-bearing Strata:

	Depth in Feet From	To	Thickness	Description of Water-bearing Formation
No. 1	63	70	7	Water sand
No. 2	76	88	12	Water sand
No. 3	102	112	10	Water sand
No. 4				
No. 5				

3. Casing Record:

Diameter in inches	Pounds per ft.	Threads per inch	Depth of Casing or Liner Top	Bottom	Feet of Casing	Type of Shoe	Perforations From	To
5½	17	8	0	111	111	none	89	111

4. If above construction replaces old well to be abandoned, give location: ¼, ¼, ¼ of Section, Township, Range; name and address of plugging contractor,

date of plugging ....., 19....; describe how well was plugged:

RECEIVED JUL 9 1953 STATE ENGINEER OFFICE HOBBS, NEW MEXICO

L-2232 18.38.33.300

L-2232 back

5. Log of Well:

Depth in feet From	To	Thickness in feet	Description of Formation
0	1	1	Top soil
1	22	21	caliche
22	38	16	pack sand
38	42	4	hard sand rock
42	63	21	pack sand
63	70	7	water sand
70	76	6	hard sand rock
76	88	12	water sand
88	102	4	tight sand
102	112	10	water sand

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

Edward B Burke
Licensed Well Driller

Instructions

This form shall be executed, preferably typewritten, in triplicate and filed with the State Engineer's Office at Roswell, New Mexico, within 10 days after drilling has been completed. Data on water-bearing strata and on all formations encountered should be as complete and accurate as possible.

APPENDIX B

Appendix B - locations and other data for wells in OSE database

Loc_ID	USE_DIV	OWNER	Site_ID	SOURCE	TWS	RNG	SEC	Q	Q	UTM_ZON	X_UTM83
L 06660	PRO	MORAN OIL PROD & DRILLING CORP	L 06660 (E)	Shallow	18S	38E	19	3	3	13	669335
L 06337	PRO	INC. CAPITAN DRILLING COMPANY	L 06337	Shallow	18S	38E	19	4	2	13	670313
L 08716	SAN	OIL FIELD RENTAL SERVICE CO.	L 08716	Shallow	18S	38E	20	2	1	13	671608
L 08851	SAN	A.A. OILFIELD	L 08851	Shallow	18S	38E	20	2	3	13	671514
L 08867	SAN	BIG HORN TANK RENTAL	L 08867	Shallow	18S	38E	29	2	2	13	672040
L 06570	PRO	MORAN OIL PROD & DRILLING CORP	L 06570 (E)	Shallow	18S	38E	29	3	3	13	670753
L 07570	DOM	SOUTHWESTERN DRILLING MUD	L 07570	Shallow	18S	38E	29	3	3	13	670753
L 07005	SAN	TWO-STATE TANK RENTAL CO	L 07005	Shallow	18S	38E	29	3	3	13	670753
L 11176		TEXLAND PETROLEUM-HOBBS, LLC	L 11176	Shallow	18S	38E	29	4	1	13	671752
L 02395	PRO	AMERADA PETROLEUM CORPORATION	L 02395	Shallow	18S	38E	30	1	2	13	669522
L 05849	PRO	AMERADA PETROLEUM CORPORATION	L 05849	Shallow	18S	38E	30	1	4	13	669729
L 05818	PRO	AMERADA PETROLEUM CORPORATION	L 05818	Shallow	18S	38E	30	1	4	13	669729
L 06245	SAN	SONNY'S OIL FIELD SERVICE INC.	L 06245	Shallow	18S	38E	32	1	0	13	671069
L 02964	DOM	INC. BAKER OIL TOOLS	L 02964	Shallow	18S	38E	32	3	3	13	670982
L 02555	DOM	SKELLY OIL COMPANY	L 02555	Shallow	18S	38E	32	3	3	13	670782
L 06574	PRO	PAN AMERICAN PETROLEUM	L 06574 (E)	Shallow	18S	38E	33	1	3	13	672380
L 02232	DOM	CONTINENTAL TANKE INC.	L 02232	Shallow	18S	38E	33	3	0	13	672697
L 03516	PRO	CACTUS DRILLING COMPANY	L 03516 APPR	Shallow	18S	38E	34	3	3	13	674109

Appendix B - locations and other data for wells in OSE database

Loc_ID	Y_UTM83	DATE_	Location	Type	WELL_DEPTH	WATER_DEPT
L 06660	3622615	3/23/1970	Sec 19, T18S, 38E	OSE Well	120	48
L 06337	3622837	6/10/1968	Sec 19, T18S, 38E	OSE Well	110	40
L 08716	3623764	3/23/1982	Sec 20, T18S, 38E	OSE Well	130	49
L 08851	3623260	7/1/1982	Sec 20, T18S, 38E	OSE Well	120	54
L 08867	3622160	7/9/1982	Sec 29, T18S, 38E	OSE Well	120	52
L 06570	3620830	8/5/1969	Sec 29, T18S, 38E	OSE Well	110	54
L 07570	3620830	6/21/1976	Sec 29, T18S, 38E	OSE Well	122	48
L 07005	3621030	10/14/1972	Sec 29, T18S, 38E	OSE Well	150	50
L 11176	3621246	7/31/2001	Sec 29, T18S, 38E	OSE Well	220	65
L 02395	3622018	8/31/1953	Sec 30, T18S, 38E	OSE Well	87	30
L 05849	3621615	2/10/1966	Sec 30, T18S, 38E	OSE Well	38	34
L 05818	3621615	12/15/1965	Sec 30, T18S, 38E	OSE Well	32	32
L 06245	3620325	12/29/1967	Sec 32, T18S, 38E	OSE Well	150	34
L 02964	3619217	9/10/1955	Sec 32, T18S, 38E	OSE Well	100	30
L 02555	3619217	6/25/1954	Sec 32, T18S, 38E	OSE Well	116	34
L 06574	3620050	8/18/1969	Sec 33, T18S, 38E	OSE Well	120	52
L 02232	3619546	6/23/1953	Sec 33, T18S, 38E	OSE Well	112	56
L 03516	3619372	8/21/1956	Sec 34, T18S, 38E	OSE Well	106	45

APPENDIX C

Soil Bore

System: Hobbs Location: Jct F29-1 "A" GW: 59 Landowner: OXY

Soil Bore: Jct F29-1 "A" GPS: Coord. System UTM 13 671472 E

ULF Sec. 29 T 18 R 38 Map Datum Nad83 3621769 N

Depth	Cl.		PID		Color	Time
6'	203		597		Redbrown Red and clay cobble	
11'	124		1575		"	1:38
16'	106		1060		"	
21'	73		1242		Tan caliche some cobble	
22'	78		1290		"	
26'	91		1006		Light tan Sand	
31'	83		1290		light tan Sand with rock	
36'	85		403		light tan sand	
41'	92		432		Red Sand	
46'	92		354		"	
51'	70		527		"	
56'	87		479		"	
59'	94		414		" some moisture	2:48

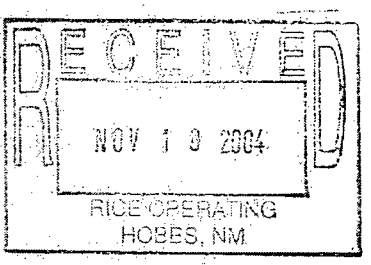
Notes: @ 59' hit some material that had moisture. Went back the next day to measure the hole and the probe was muddy when we pulled it back out. Took picture @ bore

Signature [signature] Date 11/2/04

Rice Operating Co.	Project: F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	11/12/04 16:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB @ 11 ft.	4K10005-01	Solid	11/03/04 00:00	11/10/04 07:50
SB @ 39 ft.	4K10005-02	Solid	11/03/04 00:00	11/10/04 07:50



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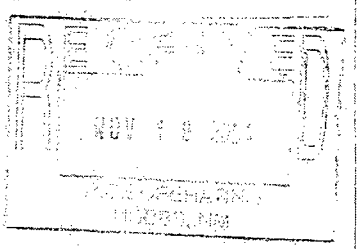
Rice Operating Co.	Project: P-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Kristin Pope	11/12/04 16:01

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 11 ft. (4K10005-01) Solid									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92.9 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.2 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
SB @ 59 ft. (4K10005-02) Solid									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.4 %*	*80-120*		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*90.8 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*104 %*	*70-130*		"	"	"	"	



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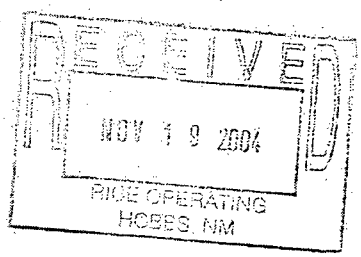
Rice Operating Co.	Project: F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	Reported:
Hobbs NM, 88240	Project Manager: Kristin Pope	11/12/04 16:01

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 11 ft. (4K10005-01) Solid									
Chloride	213	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	17.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
SB @ 59 ft. (4K10005-02) Solid									
Chloride	74.4	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	



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R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

January 24, 2008

Wayne Price
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: 2007 Annual Ground Water Monitoring Report
F-29-1A Vent, Sec 29, T18S, R38E, Unit "F"
NMOCD Case #: None

Dear Mr. Wayne Price:

R.T. Hicks Consultants, Ltd is pleased to submit the 2007 Annual Ground Water Monitoring Report for the F-29-1A Vent site located in the Hobbs Salt Water Disposal System (SWD). This report consists of the following sections:

1. A table summarizing all laboratory results, depth to ground water and other pertinent data associated with ground water sampling at the site, including this past year.
2. Graphs showing chemical concentration over time for chloride, TDS, and sulfate.
3. Laboratory data sheets associated with the routine sampling for 2007.
4. Site Survey

A Corrective Action Plan was submitted to NMOCD on November 14, 2005. On February 15, 2006, NMOCD approved the Closure Report on the condition the monitoring wells remain active. A Closure Report will be submitted in the spring of 2008.

Thank you for your consideration of this annual summary information. The attached CD contains an electronic copy of this report. If you have any questions, please contact us at 505-266-5004, or Kristin Farris Pope at ROC, 505-393-9174.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy: Hobbs NMOCD office; Rice Operating Company

F-29-1A Vent

Table 1: chemistry over time

Well Name	*Date*	*DTW (ft)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*TDS (mg/L)*	*Benzene (mg/L)*	*Toluene (mg/L)*	*EthylBenzene (mg/L)*	*Total Xylenes (mg/L)*	*Comments*
MW-1 (Deep)	12/2/2004	60.74	100	*No Results	465	<0.001	<0.001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	3/22/2005	60.10	613	154	930	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-1 (Deep)	5/19/2005	60.13	332	84.5	1260	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	8/9/2005	60.22	322	75.7	1080	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	11/1/2005	60.45	300	63.2	986	<0.001	<0.0001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	1/31/2006	60.54	270	58.1	1000	<0.001	<0.001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	5/2/2006	60.61	298	62.9	996	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	11/3/2006	60.79	285	86.1	866	<0.001	<0.001	<0.001	<0.001	Clear no odor
MW-1 (Deep)	1/31/2007	60.75	325	104	826	<0.001	<0.001	<0.001	<0.001	Clear/
MW-1 (Deep)	4/26/2007	60.83	279	95.7	850	<0.001	<0.001	<0.001	<0.001	clear no odor
MW-1 (Deep)	8/1/2007	61.10	263	102	1160	<0.001	<0.001	<0.001	<0.002	Clear No Odor
MW-1 (Deep)	10/19/2007	61.09	292	130	1047	<0.001	<0.001	<0.001	<0.003	Clear No odor

F-29-1A Vent

Table 1: chemistry over time

Well Name	*Date*	*DTW (ft)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*TDS (mg/L)*	*Benzene (mg/L)*	*Toluene (mg/L)*	*EthylBenzene (mg/L)*	*Total Xylenes (mg/L)*	*Comments*
MW-2 (Shallow)	12/2/2004	60.64	725	*No Results	3280	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-2 (Shallow)	3/22/2005	60.08	879	1780	3960	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-2 (Shallow)	5/19/2005	60.04	626	788	2750	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	8/9/2005	60.14	470	475	1780	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	11/1/2005	60.34	226	218	1100	<0.001	<0.001	<0.001	<0.001	Clear; no odor
MW-2 (Shallow)	1/31/2006	60.42	144	58.1	924	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	5/2/2006	60.50	160	153	1040	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	11/3/2006	60.69	79.6	111	592	<0.001	<0.001	<0.001	<0.001	Clear no odor
MW-2 (Shallow)	1/31/2007	60.63	98.2	125	556	<0.001	<0.001	<0.001	<0.001	Clear/
MW-2 (Shallow)	4/26/2007	60.63	89.4	107	556	<0.001	<0.001	<0.001	<0.001	clear no odor
MW-2 (Shallow)	8/1/2007	60.98	27.2	XXX	592	<0.001	<0.001	<0.001	<0.002	Clear No Odor
MW-2 (Shallow)	10/19/2007	60.98	100	125	624	<0.001	<0.001	<0.001	<0.003	Clear No odor

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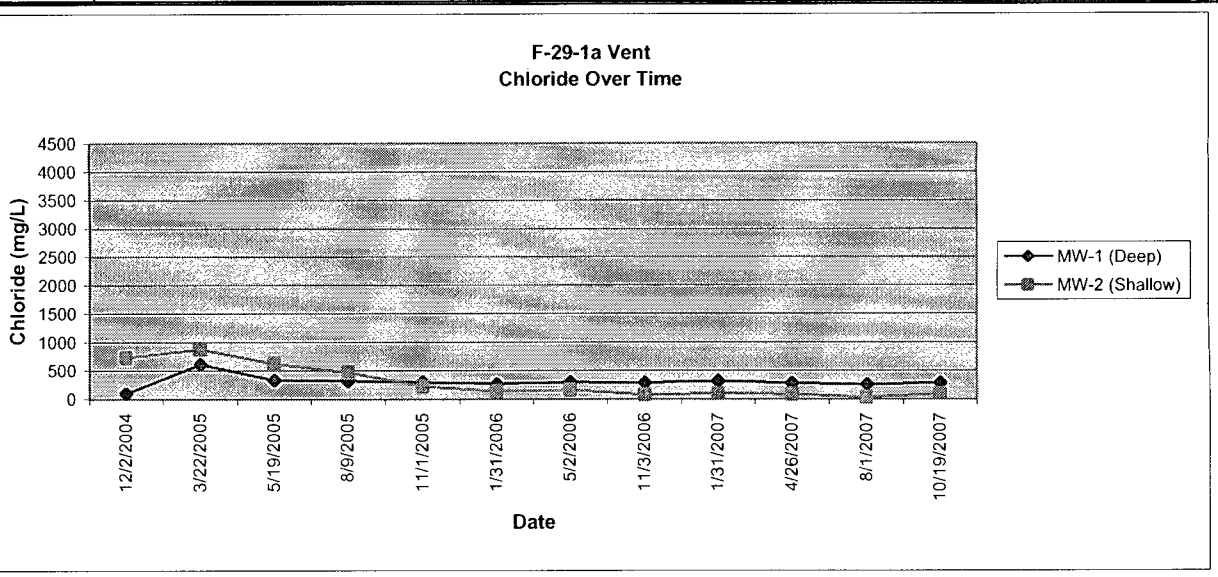

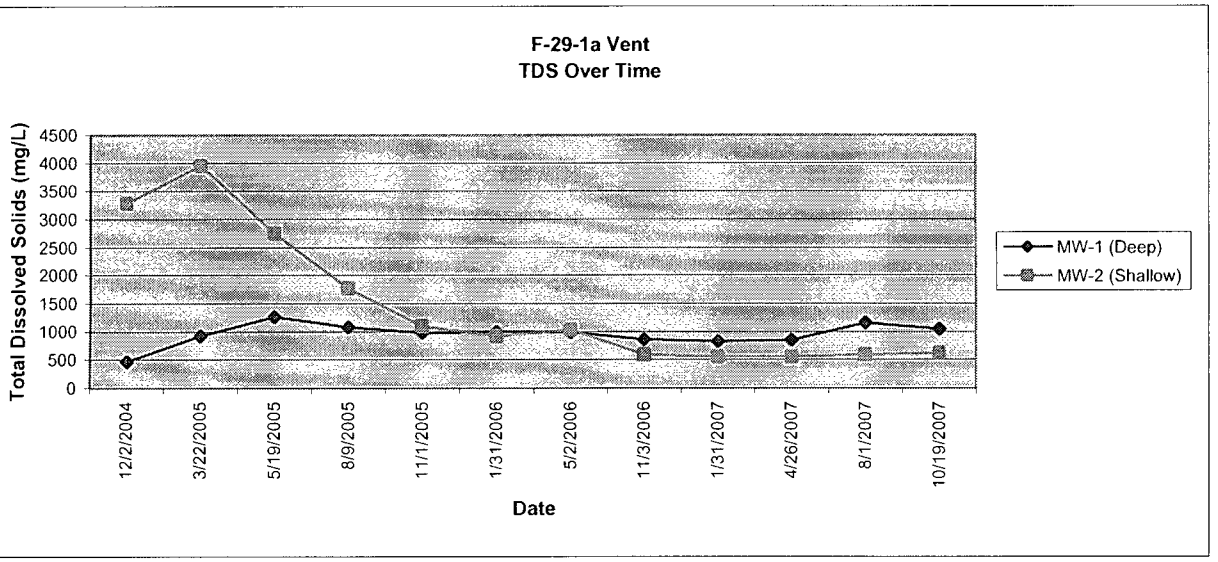

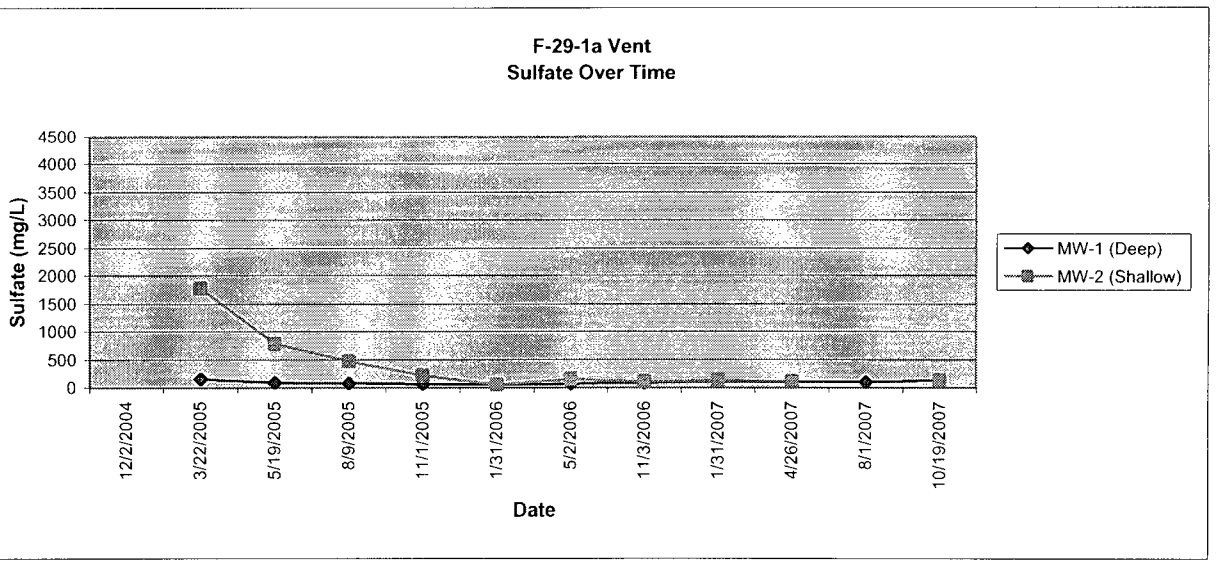

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW, Suite F-142 Albuquerque, NM 87104 505-266-5004	Ground Water Chemistry	F-29-1a Vent
	Rice Operating Company 2007 Annual Report	1/24/2008

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: T18S R38E Sec29F Lea Co., NM

Lab Order Number: 7B01021

Report Date: 02/13/07

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	7B01021-01	Water	01/31/07 10:20	02-01-2007 15:42
Monitor Well #2- Shallow	7B01021-02	Water	01/31/07 09:45	02-01-2007 15:42

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (7B01021-01) Water									
Benzene	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.2 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*91.4 %*		*80-120*		"	"	"	
Monitor Well #2- Shallow (7B01021-02) Water									
Benzene	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.0 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.0 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (7B01021-01) Water									
Total Alkalinity	**164**	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	**325**	5.00	"	10	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	**826**	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	**104**	5.00	"	10	EB70208	02/02/07	02/03/07	EPA 300.0	
Monitor Well #2- Shallow (7B01021-02) Water									
Total Alkalinity	**228**	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	**98.2**	5.00	"	10	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	**556**	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	**125**	5.00	"	10	EB70208	02/02/07	02/03/07	EPA 300.0	

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (7B01021-01) Water									
Calcium	**138**	4.05	mg/L	50	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	**26.9**	0.360	"	10	"	"	"	"	
Potassium	**3.85**	0.600	"	"	"	"	"	"	
Sodium	**84.3**	2.15	"	50	"	"	"	"	
Monitor Well #2- Shallow (7B01021-02) Water									
Calcium	**27.5**	0.810	mg/L	10	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	**15.0**	0.360	"	"	"	"	"	"	
Potassium	**2.68**	0.600	"	"	"	"	"	"	
Sodium	**124**	2.15	"	50	"	"	"	"	

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70703 - EPA 5030C (GC)										
Blank (EB70703-BLK1)				Prepared: 02/07/07 Analyzed: 02/10/07						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*41.0*		*ug/l*	*50.0*		*82.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.5*		"	*50.0*		*87.0*	*80-120*			
LCS (EB70703-BS1)				Prepared: 02/07/07 Analyzed: 02/09/07						
Benzene	0.0524	0.00100	mg/L	0.0500		105	80-120			
Toluene	0.0527	0.00100	"	0.0500		105	80-120			
Ethylbenzene	0.0524	0.00100	"	0.0500		105	80-120			
Xylene (p/m)	0.111	0.00100	"	0.100		111	80-120			
Xylene (o)	0.0478	0.00100	"	0.0500		95.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.2*		*ug/l*	*50.0*		*94.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*53.0*		"	*50.0*		*106*	*80-120*			
Calibration Check (EB70703-CCV1)				Prepared: 02/07/07 Analyzed: 02/10/07						
Benzene	55.4		ug/l	50.0		111	80-120			
Toluene	53.4		"	50.0		107	80-120			
Ethylbenzene	53.1		"	50.0		106	80-120			
Xylene (p/m)	110		"	100		110	80-120			
Xylene (o)	46.7		"	50.0		93.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*46.8*		"	*50.0*		*93.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*55.8*		"	*50.0*		*112*	*80-120*			
Matrix Spike (EB70703-MS1)	**Source: 7B01020-01**			Prepared: 02/07/07 Analyzed: 02/09/07						
Benzene	0.0598	0.00100	mg/L	0.0500	ND	120	80-120			
Toluene	0.0587	0.00100	"	0.0500	ND	117	80-120			
Ethylbenzene	0.0579	0.00100	"	0.0500	ND	116	80-120			
Xylene (p/m)	0.125	0.00100	"	0.100	ND	125	80-120			M1
Xylene (o)	0.0550	0.00100	"	0.0500	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	*51.3*		*ug/l*	*50.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*58.7*		"	*50.0*		*117*	*80-120*			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Hobbs Jct. F-29-1A
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70703 - EPA 5030C (GC)										
Matrix Spike Dup (EB70703-MSD1)	**Source: 7B01020-01**			Prepared: 02/07/07 Analyzed: 02/10/07						
Benzene	0.0598	0.00100	mg/L	0.0500	ND	120	80-120	0.00	20	
Toluene	0.0593	0.00100	"	0.0500	ND	119	80-120	1.69	20	
Ethylbenzene	0.0599	0.00100	"	0.0500	ND	120	80-120	3.39	20	
Xylene (p/m)	0.128	0.00100	"	0.100	ND	128	80-120	2.37	20	M1
Xylene (o)	0.0562	0.00100	"	0.0500	ND	112	80-120	1.80	20	
Surrogate: a,a,a-Trifluorotoluene	*52.6*		*ug/l*	*50.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*60.3*		*"*	*50.0*		*121*	*80-120*			*S-04*

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70208 - General Preparation (WetChem)										
Blank (EB70208-BLK1)				Prepared: 02/02/07 Analyzed: 02/03/07						
Sulfate	0.459	0.500	mg/L							B, J
Chloride	ND	0.500	"							
LCS (EB70208-BS1)				Prepared: 02/02/07 Analyzed: 02/03/07						
Chloride	10.7	0.500	mg/L	10.0		107	80-120			
Sulfate	11.6	0.500	"	10.0		116	80-120			
Calibration Check (EB70208-CCV1)				Prepared: 02/02/07 Analyzed: 02/03/07						
Chloride	10.5		mg/L	10.0		105	80-120			
Sulfate	11.8		"	10.0		118	80-120			
Duplicate (EB70208-DUP1)	**Source: 7B01017-01**			Prepared: 02/02/07 Analyzed: 02/03/07						
Sulfate	93.0	5.00	mg/L		96.4			3.59	20	
Chloride	127	5.00	"		132			3.86	20	
Duplicate (EB70208-DUP2)	**Source: 7B01020-02**			Prepared: 02/02/07 Analyzed: 02/03/07						
Chloride	2220	50.0	mg/L		2240			0.897	20	
Sulfate	2410	50.0	"		2400			0.416	20	
Matrix Spike (EB70208-MS1)	**Source: 7B01017-01**			Prepared: 02/02/07 Analyzed: 02/03/07						
Sulfate	204	5.00	mg/L	100	96.4	108	80-120			
Chloride	240	5.00	"	100	132	108	80-120			
Matrix Spike (EB70208-MS2)	**Source: 7B01020-02**			Prepared: 02/02/07 Analyzed: 02/03/07						
Sulfate	3500	50.0	mg/L	1000	2400	110	80-120			
Chloride	3330	50.0	"	1000	2240	109	80-120			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70209 - General Preparation (WetChem)										
Blank (EB70209-BLK1)				Prepared & Analyzed: 02/02/07						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EB70209-DUP1)	**Source: 7B01016-01**			Prepared & Analyzed: 02/02/07						
Total Alkalinity	310	2.00	mg/L		314			1.28	20	
Reference (EB70209-SRM1)				Prepared & Analyzed: 02/02/07						
Total Alkalinity	246		mg/L	250		98.4	90-110			
Batch EB70302 - Filtration Preparation										
Blank (EB70302-BLK1)				Prepared: 02/02/07 Analyzed: 02/03/07						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EB70302-DUP1)	**Source: 7B01016-01**			Prepared: 02/02/07 Analyzed: 02/03/07						
Total Dissolved Solids	1920	10.0	mg/L		1840			4.26	20	
Duplicate (EB70302-DUP2)	**Source: 7B01020-01**			Prepared: 02/02/07 Analyzed: 02/03/07						
Total Dissolved Solids	6280	10.0	mg/L		5700			9.68	20	

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB70612 - 6010B/No Digestion										
Blank (EB70612-BLK1)				Prepared & Analyzed: 02/06/07						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EB70612-CCV1)				Prepared & Analyzed: 02/06/07						
Calcium	1.79		mg/L	2.00		89.5	85-115			
Magnesium	1.98		"	2.00		99.0	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.74		"	2.00		87.0	85-115			
Duplicate (EB70612-DUP1)	**Source: 7B01016-01**			Prepared & Analyzed: 02/06/07						
Calcium	172	4.05	mg/L		176			2.30	20	
Magnesium	111	1.80	"		109			1.82	20	
Potassium	17.0	0.600	"		16.8			1.18	20	
Sodium	306	4.30	"		305			0.327	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
B	Analyte is found in the associated blank as well as in the sample (CLP B-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 2/13/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Company Name: RICE Operating Company

Company Address: 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174 Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A

Project #:

Project Loc: T18S R38E Sec29 F ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 730102

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge / GW = Groundwater S=Soil/Solid / NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
-01	Monitor Well #1-Deep			1/31/2007	10:20		3	X		2				1		GW			X	X					X			X		X
-02	Monitor Well #2-Shallow			1/31/2007	9:45		3	X		2				1		GW			X	X					X			X		X

TCLP: / TOTAL: X

Special Instructions:
Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	2-1-07	12:00	James Johnson	2-1-07	12:01
Relinquished by: James Johnson	2-1-07	1542	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT	Date	Time
				02/01/07	1542

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sample/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: 4.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice Dp.

Date/ Time: 2-1-07 15:42

Lab ID # : 071801

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: T18S R38E Sec29 F ~ Lea County New Mexico

Lab Order Number: 7D26011

Report Date: 05/07/07

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well # 1- Deep	7D26011-01	Water	04/26/07 11:00	04-26-2007 16:25
Monitor Well # 2- Shallow	7D26011-02	Water	04/26/07 10:05	04-26-2007 16:25

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well # 1- Deep (7D26011-01) Water									
Benzene	ND	0.00100	mg/L	1	ED73007	04/30/07	05/01/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Monitor Well # 2- Shallow (7D26011-02) Water									
Benzene	ND	0.00100	mg/L	1	ED73007	04/30/07	05/01/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.6 %*	*80-120*		"	"	"	"	

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well # 1- Deep (7D26011-01) Water									
Total Alkalinity	**160**	2.00	mg/L	1	ED73002	04/30/07	04/30/07	EPA 310.1M	
Chloride	**279**	5.00	"	10	EE70307	05/03/07	05/03/07	EPA 300.0	
Total Dissolved Solids	**850**	10.0	"	1	EE70209	04/27/07	05/02/07	EPA 160.1	
Sulfate	**95.7**	5.00	"	10	EE70307	05/03/07	05/03/07	EPA 300.0	
Monitor Well # 2- Shallow (7D26011-02) Water									
Total Alkalinity	**232**	2.00	mg/L	1	ED73002	04/30/07	04/30/07	EPA 310.1M	
Chloride	**89.4**	5.00	"	10	EE70307	05/03/07	05/03/07	EPA 300.0	
Total Dissolved Solids	**556**	10.0	"	1	EE70209	04/27/07	05/02/07	EPA 160.1	
Sulfate	**107**	5.00	"	10	EE70307	05/03/07	05/03/07	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well # 1- Deep (7D26011-01) Water									
Calcium	**181**	4.05	mg/L	50	ED72704	04/27/07	04/27/07	EPA 6010B	
Magnesium	**25.5**	0.360	"	10	"	"	"	"	
Potassium	**4.45**	0.600	"	"	"	"	"	"	
Sodium	**86.4**	2.15	"	50	"	"	"	"	
Monitor Well # 2- Shallow (7D26011-02) Water									
Calcium	**67.6**	4.05	mg/L	50	ED72704	04/27/07	04/27/07	EPA 6010B	
Magnesium	**14.9**	0.360	"	10	"	"	"	"	
Potassium	**2.03**	0.600	"	"	"	"	"	"	
Sodium	**117**	2.15	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED73007 - EPA 5030C (GC)										
Blank (ED73007-BLK1)				Prepared & Analyzed: 04/30/07						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*51.7*		*ug/l*	*50.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*52.3*		"	*50.0*		*105*	*80-120*			
LCS (ED73007-BS1)				Prepared & Analyzed: 04/30/07						
Benzene	0.0564	0.00100	mg/L	0.0500		113	80-120			
Toluene	0.0571	0.00100	"	0.0500		114	80-120			
Ethylbenzene	0.0575	0.00100	"	0.0500		115	80-120			
Xylene (p/m)	0.106	0.00100	"	0.100		106	80-120			
Xylene (o)	0.0575	0.00100	"	0.0500		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*55.4*		*ug/l*	*50.0*		*111*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*54.8*		"	*50.0*		*110*	*80-120*			
Calibration Check (ED73007-CCV1)				Prepared: 04/30/07 Analyzed: 05/01/07						
Benzene	0.0547		mg/L	0.0500		109	80-120			
Toluene	0.0555		"	0.0500		111	80-120			
Ethylbenzene	0.0550		"	0.0500		110	80-120			
Xylene (p/m)	0.102		"	0.100		102	80-120			
Xylene (o)	0.0566		"	0.0500		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*53.8*		*ug/l*	*50.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*53.8*		"	*50.0*		*108*	*80-120*			
Matrix Spike (ED73007-MS1)	**Source: 7D26012-01**			Prepared: 04/30/07 Analyzed: 05/01/07						
Benzene	0.0565	0.00100	mg/L	0.0500	ND	113	80-120			
Toluene	0.0568	0.00100	"	0.0500	ND	114	80-120			
Ethylbenzene	0.0549	0.00100	"	0.0500	ND	110	80-120			
Xylene (p/m)	0.105	0.00100	"	0.100	ND	105	80-120			
Xylene (o)	0.0577	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*54.0*		*ug/l*	*50.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*53.6*		"	*50.0*		*107*	*80-120*			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED73007 - EPA 5030C (GC)										
Matrix Spike Dup (ED73007-MSD1)		**Source: 7D26012-01**		Prepared: 04/30/07 Analyzed: 05/01/07						
Benzene	0.0542	0.00100	mg/L	0.0500	ND	108	80-120	4.52	20	
Toluene	0.0551	0.00100	"	0.0500	ND	110	80-120	3.57	20	
Ethylbenzene	0.0561	0.00100	"	0.0500	ND	112	80-120	1.80	20	
Xylene (p/m)	0.102	0.00100	"	0.100	ND	102	80-120	2.90	20	
Xylene (o)	0.0557	0.00100	"	0.0500	ND	111	80-120	3.54	20	
Surrogate: a,a,a-Trifluorotoluene	*52.7*		*ug/l*	*50.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*52.8*		*"*	*50.0*		*106*	*80-120*			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED73002 - General Preparation (WetChem)										
Blank (ED73002-BLK1)				Prepared & Analyzed: 04/30/07						
Total Alkalinity	ND	2.00	mg/L							
LCS (ED73002-BS1)				Prepared & Analyzed: 04/30/07						
Total Alkalinity	0.00	2.00	mg/L				85-115			
Bicarbonate Alkalinity	180	2.00	"	200		90.0	85-115			
Duplicate (ED73002-DUP1)	**Source: 7D26006-01**			Prepared & Analyzed: 04/30/07						
Total Alkalinity	214	2.00	mg/L		218			1.85	20	
Bicarbonate Alkalinity	0.00	2.00	"		0.00				20	
Reference (ED73002-SRM1)				Prepared & Analyzed: 04/30/07						
Total Alkalinity	256		mg/L	250		102	90-110			
Batch EE70209 - General Preparation (WetChem)										
Blank (EE70209-BLK1)				Prepared: 04/27/07 Analyzed: 05/02/07						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EE70209-DUP1)	**Source: 7D26007-01**			Prepared: 04/27/07 Analyzed: 05/02/07						
Total Dissolved Solids	1500	10.0	mg/L		1470			2.02	20	
Duplicate (EE70209-DUP2)	**Source: 7D26009-01**			Prepared: 04/27/07 Analyzed: 05/02/07						
Total Dissolved Solids	712	10.0	mg/L		684			4.01	20	
Batch EE70307 - General Preparation (WetChem)										
Blank (EE70307-BLK1)				Prepared & Analyzed: 05/03/07						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE70307 - General Preparation (WetChem)										
LCS (EE70307-BS1)				Prepared & Analyzed: 05/03/07						
Chloride	9.62	0.500	mg/L	10.0		96.2	80-120			
Sulfate	10.0	0.500	"	10.0		100	80-120			
Calibration Check (EE70307-CCV1)				Prepared & Analyzed: 05/03/07						
Sulfate	11.6		mg/L	10.0		116	80-120			
Chloride	8.93		"	10.0		89.3	80-120			
Duplicate (EE70307-DUP1)	**Source: 7D26006-01**			Prepared & Analyzed: 05/03/07						
Sulfate	342	12.5	mg/L		339			0.881	20	
Chloride	941	50.0	"		917			2.58	20	
Duplicate (EE70307-DUP2)	**Source: 7D26010-01**			Prepared & Analyzed: 05/03/07						
Sulfate	74.1	5.00	mg/L		75.5			1.87	20	
Chloride	93.1	5.00	"		94.3			1.28	20	
Matrix Spike (EE70307-MS1)	**Source: 7D26006-01**			Prepared & Analyzed: 05/03/07						
Sulfate	728	12.5	mg/L	250	339	156	80-120			M1
Matrix Spike (EE70307-MS2)	**Source: 7D26010-01**			Prepared & Analyzed: 05/03/07						
Chloride	278	5.00	mg/L	100	94.3	184	80-120			M1
Sulfate	204	5.00	"	100	75.5	128	80-120			M1
Matrix Spike (EE70307-MS3)	**Source: 7D26006-01**			Prepared & Analyzed: 05/03/07						
Chloride	1800	50.0	mg/L	1000	917	88.3	80-120			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED72704 - 6010B/No Digestion										
Blank (ED72704-BLK1)				Prepared & Analyzed: 04/27/07						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (ED72704-CCV1)				Prepared & Analyzed: 04/27/07						
Calcium	2.13		mg/L	2.00		106	85-115			
Magnesium	2.15		"	2.00		108	85-115			
Potassium	2.14		"	2.00		107	85-115			
Sodium	1.98		"	2.00		99.0	85-115			
Duplicate (ED72704-DUP1)	**Source: 7D23010-01**			Prepared & Analyzed: 04/27/07						
Calcium	44.1	0.810	mg/L		42.4			3.93	20	
Magnesium	43.0	0.360	"		42.4			1.41	20	
Potassium	22.7	0.600	"		22.1			2.68	20	
Sodium	41.9	0.430	"		40.8			2.66	20	

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 5/7/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Company Name: RICE Operating Company

Company Address: 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310

e-mail: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A

Project #:

Project Loc: T18S R38E Sec29 F ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 7D26011
281559

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix (DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other)	TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
																									X							
01	Monitor Well #1-Deep			4/26/2007	11:00		3	X		2				1		GW			X	X					X			X				X
02	Monitor Well #2-Shallow			4/26/2007	10:05		3	X		2				1		GW			X	X					X			X				X

Analyze For: TCLP / TOTAL

Special Instructions:
Please email to: kpope@riceswd.com jpurvis@riceswd.com matt@riceswd.com rozanne@valornet.com

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	4/26/07	12:40	James Johnson	4-26-07	12:41
James Johnson	4-26-07	4:25			
			Received by ELOT: Andrea	4-26-07	4:25

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep.?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: -1.0 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice

Date/ Time: 4-26-07 4:25

Lab ID # : 70726011

Initials: CL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-1.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 287160

for

Rice Operating Co.

Project Manager: Kristin Pope

Hobbs Junction F-29-1A

13-AUG-07

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

NELAC certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America

13-AUG-07

Project Manager: **Kristin Pope**
Rice Operating Co.
122 West Taylor
Hobbs, NM 88240

Reference: XENCO Report No: **287160**
Hobbs Junction F-29-1A
Project Address: T18S R38E Sec29 F E ~ Lea County New Mexico

Kristin Pope:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 287160. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 287160 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 287160

Rice Operating Co., Hobbs, NM

Project Name: Hobbs Junction F-29-1A

Project Id:
Contact: Kristin Pope
Project Location: T18S R38E Sec29 F E ~ Lea County New

Date Received in Lab Aug-02-07 12:50 pm
Report Date: 13-AUG-07
Project Manager: Brent Barron, II

Analysis Requested		*Lab Id:*	287160-001		287160-002			
		Field Id:	Monitor Well # 1-Deep		Monitor Well # 2-Shallow			
		Depth:						
		Matrix:	WATER		WATER			
		Sampled:	Aug-01-07 10:25		Aug-01-07 09:10			
Alkalinity by EPA 310.1	*Extracted:*							
	Analyzed:		Aug-07-07 13:00		Aug-07-07 13:00			
	Units/RL:		mg/L	RL	mg/L	RL		
Alkalinity, Total (as CaCO3)			188	4.00	240	4.00		
BTEX by EPA 8021B	*Extracted:*		Aug-02-07 16:55		Aug-02-07 16:55			
	Analyzed:		Aug-05-07 19:23		Aug-05-07 19:44			
	Units/RL:		mg/L	RL	mg/L	RL		
Benzene			ND	0.0010	ND	0.0010		
Toluene			ND	0.0010	ND	0.0010		
Ethylbenzene			ND	0.0010	ND	0.0010		
m,p-Xylene			ND	0.0020	ND	0.0020		
o-Xylene			ND	0.0010	ND	0.0010		
Total Xylenes			ND		ND			
Total BTEX			ND		ND			
Inorganic Anions by EPA 300	*Extracted:*							
	Analyzed:		Aug-07-07 11:48		Aug-07-07 11:48			
	Units/RL:		mg/L	RL	mg/L	RL		
Chloride			263	10.0	27.2	5.00		
Sulfate			102	10.0	26.2	5.00		
Metals per ICP by SW846 6010B	*Extracted:*							
	Analyzed:		Aug-03-07 14:39		Aug-03-07 14:39			
	Units/RL:		mg/L	RL	mg/L	RL		
Calcium			197	0.100	76.8	0.100		
Magnesium			18.5	0.010	12.4	0.010		
Potassium			3.52	0.500	2.23	0.500		
Sodium			69.1	0.500	111	0.500		
Residue, Filterable (TDS) by EPA 160.1	*Extracted:*							
	Analyzed:		Aug-06-07 16:20		Aug-06-07 16:20			
	Units/RL:		mg/L	RL	mg/L	RL		
Total dissolved solids			1160	5.00	592	5.00		

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Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Form 2 - Surrogate Recoveries

Project Name: Hobbs Junction F-29-1A

Work Order #: 287160 **Project ID:**

Lab Batch #: 701934 **Sample:** 287160-001 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0436	0.0500	87	80-120	

Lab Batch #: 701934 **Sample:** 287160-002 / SMP **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0403	0.0500	81	80-120	

Lab Batch #: 701934 **Sample:** 287160-002 S / MS **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0495	0.0500	99	80-120	

Lab Batch #: 701934 **Sample:** 287160-002 SD / MSD **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0457	0.0500	91	80-120	

Lab Batch #: 701934 **Sample:** 497877-1-BKS / BKS **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0497	0.0500	99	80-120	

** Surrogates outside limits: data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hobbs Junction F-29-1A

Work Order #: 287160 **Project ID:**

Lab Batch #: 701934 **Sample:** 497877-1-BLK / BLK **Batch:** 1 **Matrix:** Water

Units: mg/L

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0467	0.0500	93	80-120	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Hobbs Junction F-29-1A

Work Order #: 287160 **Project ID:**

Lab Batch #: 701789 **Sample:** 701789-1-BKS **Matrix:** Water
Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** WRU
Reporting Units: mg/L **Batch #:** 1

Alkalinity by EPA 310.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Alkalinity, Total (as CaCO3)	ND	200	194	97	80-120	

Lab Batch #: 701934 **Sample:** 497877-1-BKS **Matrix:** Water
Date Analyzed: 08/05/2007 **Date Prepared:** 08/04/2007 **Analyst:** CELKEE
Reporting Units: mg/L **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Benzene	ND	0.0500	0.0512	102	70-125	
Toluene	ND	0.0500	0.0531	106	70-125	
Ethylbenzene	ND	0.0500	0.0573	115	71-129	
m,p-Xylene	ND	0.1000	0.1029	103	70-131	
o-Xylene	ND	0.0500	0.0554	111	71-133	

Lab Batch #: 701864 **Sample:** 701864-1-BKS **Matrix:** Water
Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** IRO
Reporting Units: mg/L **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	10.0	9.03	90	90-110	
Sulfate	ND	10.0	9.63	96	90-110	

Lab Batch #: 701571 **Sample:** 701571-1-BKS **Matrix:** Water
Date Analyzed: 08/03/2007 **Date Prepared:** 08/03/2007 **Analyst:** LATCOR
Reporting Units: mg/L **Batch #:** 1

Metals per ICP by SW846 6010B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Calcium	ND	2.00	1.83	92	75-125	
Magnesium	ND	2.00	2.08	104	75-125	
Potassium	ND	2.00	2.28	114	75-125	
Sodium	ND	2.00	1.94	97	75-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS Recoveries

Project Name: Hobbs Junction F-29-1A

Work Order #: 287160
Lab Batch #: 701864
Date Analyzed: 08/07/2007
QC- Sample ID: 287159-003 S
Reporting Units: mg/L

Date Prepared: 08/07/2007
Batch #: 1

Project ID:
Analyst: IRO
Matrix: Water

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	548	250	862	126	90-110	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hobbs Junction F-29-1A

Work Order # 287160 **Project ID:**

Lab Batch ID: 701934 **QC- Sample ID:** 287160-002 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: *08/05/2007* ***Date Prepared:*** 08/04/2007 ***Analyst:*** CELKEE

Reporting Units: mg/L

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.0500	0.0510	102	0.0500	0.0510	102	0	70-125	25	
Toluene	ND	0.0500	0.0528	106	0.0500	0.0528	106	0	70-125	25	
Ethylbenzene	ND	0.0500	0.0573	115	0.0500	0.0562	112	3	71-129	25	
m,p-Xylene	ND	0.1000	0.1023	102	0.1000	0.0994	99	3	70-131	25	
o-Xylene	ND	0.0500	0.0554	111	0.0500	0.0536	107	4	71-133	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Hobbs Junction F-29-1A

Work Order #: 287160

Lab Batch #: 701789 **Project ID:**
Date Analyzed: 08/07/2007 **Date Prepared:** 08/07/2007 **Analyst:** WRU
QC- Sample ID: 287122-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Alkalinity by EPA 310.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Total (as CaCO3)	216	216	0	20	

Lab Batch #: 701571
Date Analyzed: 08/03/2007 **Date Prepared:** 08/03/2007 **Analyst:** LATCOR
QC- Sample ID: 287179-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Metals per ICP by SW846 6010B	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Calcium	301	285	5	25	
Magnesium	120	134	11	25	
Potassium	20.1	15.8	24	25	
Sodium	284	265	7	25	

Lab Batch #: 701790
Date Analyzed: 08/06/2007 **Date Prepared:** 08/06/2007 **Analyst:** IRO
QC- Sample ID: 287122-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Residue, Filterable (TDS) by EPA 160.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	754	784	4	30	

Lab Batch #: 701790
Date Analyzed: 08/06/2007 **Date Prepared:** 08/06/2007 **Analyst:** IRO
QC- Sample ID: 287348-002 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Residue, Filterable (TDS) by EPA 160.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	6250	6290	1	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Company Name: RICE Operating Company

Company Address: 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174 Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A

Project #:

Project Loc: T18S R38E Sec29 F ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)

ORDER #: 287160

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
																	TCLP:																
																	TOTAL:								X							
01	Monitor Well #1-Deep			8/1/2007	10:25		3	X		2				1		GW			X	X					X			X				X
02	Monitor Well #2-Shallow			8/1/2007	9:10		3	X		2				1		GW			X	X					X			X				X

Special Instructions:

Please email to : kpope@riceswd com rozanne@valornet.com

	Date	Time		Date	Time
Relinquished by: Rozanne Johnson	8/2/07	9:15	Received by: Raelyn Gardner	8/2/07	9:16
Relinquished by: Raelyn Gardner	8/2/07	12:30	Received by:		
Relinquished by:			Received by ELOT: Andrea Lamm	8-2-07	12:50

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt: 1.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice

Date/ Time: 8.2.07 12:50

Lab ID # : 28716O

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 W. TAYLOR STREET
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 10/22/07
Reporting Date: 10/26/07
Project Number: NOT GIVEN
Project Name: HOBBS JUNCTION F-29-1A
Project Location: T18S-R38E-SEC29 F~LEA COUNTY, NM

Sampling Date: 10/19/07
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: SB
Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		10/26/07	10/25/07	10/25/07	10/25/07	10/24/07	10/24/07
H13553-1	M.W. #1~DEEP	84	174	22.6	2.65	1,472	168
H13553-2	M.W. #2~SHALLOW	105	71.9	17.7	1.11	955	212
Quality Control		NR	49.2	51.6	2.73	1,386	NR
True Value QC		NR	50.0	50.0	3.00	1,404	NR
% Recovery		NR	98.4	103	91.0	98.7	NR
Relative Percent Difference		NR	< 0.1	< 0.1	6.7	1.3	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

		Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/25/07	10/26/07	10/24/07	10/24/07	10/24/07	10/24/07
H13553-1	M.W. #1~DEEP	292	130	0	205	7.37	1,047
H13553-2	M.W. #2~SHALLOW	100	125	0	259	7.55	624
Quality Control		500	23.5	NR	1000	6.97	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		100	93.9	NR	100	99.6	NR
Relative Percent Difference		2.0	12.5	NR	1.2	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Kristin Farris-Pope
Chemist

10/26/07
Date

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: KRISTIN FARRIS-POPE
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 10/22/07
Reporting Date: 10/24/07
Project Number: NOT GIVEN
Project Name: HOBBS JUNCTION F-29-1A
Project Location: T18S R38E SEC29 F - LEA COUNTY, NM

Sampling Date: 10/19/07
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: SB
Analyzed By: CK

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/23/07	10/23/07	10/23/07	10/23/07
H13553-1	MONITOR WELL #1 - DEEP	<0.001	<0.001	<0.001	<0.003
H13553-2	MONITOR WELL #2 - SHALLOW	<0.001	<0.001	<0.001	<0.003
Quality Control		0.106	0.101	0.102	0.310
True Value QC		0.100	0.100	0.100	0.300
% Recovery		106	101	102	103
Relative Percent Difference		1.8	1.0	1.9	1.0

METHOD: EPA SW-846 8021B

Chemist

10/26/07
Date

H13553b Rice

101 East Marland - Hobbs, New Mexico 88240
Tel (505) 393-2326
Fax (505) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: RICE Operating Company	BILL TO Company: RICE Operating Company — PO#
Project Manager: Kristin Farris-Pope, Project Scientist	Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone#: (505) 393-9174 — Fax#: (505)397-1471
Phone #: (505) 393-9174	Fax #: (505) 397-1471
Project #:	Project Name: Hobbs Junction F-29-1A
Project Location: T18S-R38E-Sec29 F ~ Lea County - New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2007)	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
H13553-1	Monitor Well #1 ~ Deep	G	3	X				2				1		10-19	10:55		X															X	X	X		
-2	Monitor Well #2 ~ Shallow	G	3	X				2				1		10-19	9:50		X															X	X	X		

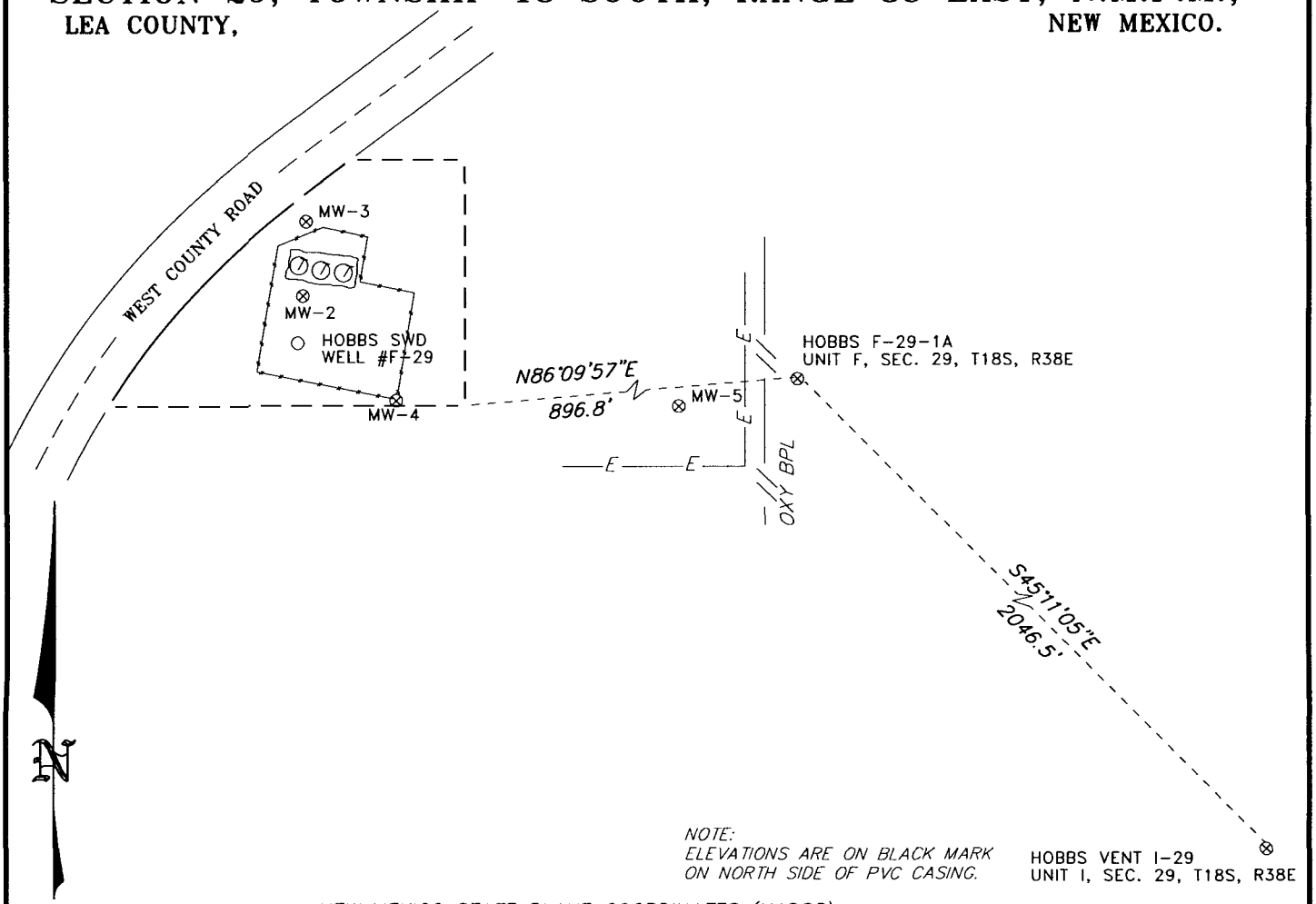
Relinquished by: Rozanne Johnson	Date: 10/22/07	Time: 12:57	Received by:
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff) Sue Barnes 10/22/07 12:57
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool: Yes ✓ / No; Intact: Yes ✓ / No		CHECKED BY: (Initials) SB

Phone Results		Yes		No
Fax Results		Yes		No Additional Fax Number:

REMARKS:

Email Results to: kpope@riceswd.com
lweinheimer@riceswd.com
rozanne@valornet.com

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
MW-2	627819.025	898021.191	N 32°43'14.0"	W 103°10'24.9"	3645.71'
MW-3	627908.779	898025.082	N 32°43'14.9"	W 103°10'24.8"	3645.76'
MW-4	627693.822	898134.408	N 32°43'12.7"	W 103°10'23.6"	3645.76'
MW-5	627687.313	898477.159	N 32°43'12.7"	W 103°10'19.5"	3646.74' PVC 3644.37'-GRND
HOBBS F-29-1A MARK ON NORTH SIDE OF NORTH 2" PVC	627753.789	899029.184	N 32°43'13.2"	W 103°10'13.1"	3648.89' 3645.5'-GRND
HOBBS F-29-1A MARK ON NORTH SIDE OF SOUTH 2" PVC	627753.579	899029.160	N 32°43'13.2"	W 103°10'13.1"	3648.76' 3645.5'-GRND
HOBBS VENT I-29 MARK ON NORTH SIDE OF 2" PVC	626311.386	900480.915	N 32°42'58.8"	W 103°09'56.3"	3650.65' 3647.6'-GRND

200 0 200 400 FEET

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES No. 7977
TEXAS P.L.S. No. 5074

BASIN SURVEYS P.O. BOX 1786 -HOBBS, NEW MEXICO

RICE OPERATING COMPANY

REF: MONITOR WELLS

MONITOR WELLS LOCATED IN

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 38 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: RICE	Drawn By: K. GOAD		
Date: 02-11-2005	Disk: KJG CD#4 - RICEB.DWG	Survey Date: VARIES	Sheet 1 of 1 Sheets

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266-0745

February 12, 2007

Wayne Price
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

RE: 2006 Annual Ground Water Monitoring Report
F-29-1A Vent, Sec 29, T18S, R38E, Unit "F"
NMOCD Case #: Pending

Dear Mr. Wayne Price:

R.T. Hicks Consultants, Ltd is pleased to submit the 2006 Annual Ground Water Monitoring Report for the F-29-1A Vent site located in the Hobbs Salt Water Disposal System (SWD). This report consists of the following sections:

1. A table summarizing all laboratory results, depth to ground water and other pertinent data associated with ground water sampling at the site, including this past year.
2. Graphs showing chemical concentration vs. time for chloride and TDS.
3. Laboratory data sheets associated with the routine sampling for 2006.

The Correction Action Plan was submitted to NMOCD on February 15, 2006. NMOCD approved the Closure Report on condition the monitoring wells remain active. ROC will submit a Final Closure Report in early 2007.

Thank you for your consideration of this annual summary information. The attached CD contains an electronic copy of the annual report. If you have any questions, please contact us at 505-266-5004, or Kristin Farris Pope at ROC, 505-393-9174.

Sincerely,
R.T. Hicks Consultants, Ltd.

Randall T. Hicks
Principal

Copy: Hobbs NMOCD office; Rice Operating Company

Table 1: chemistry over time

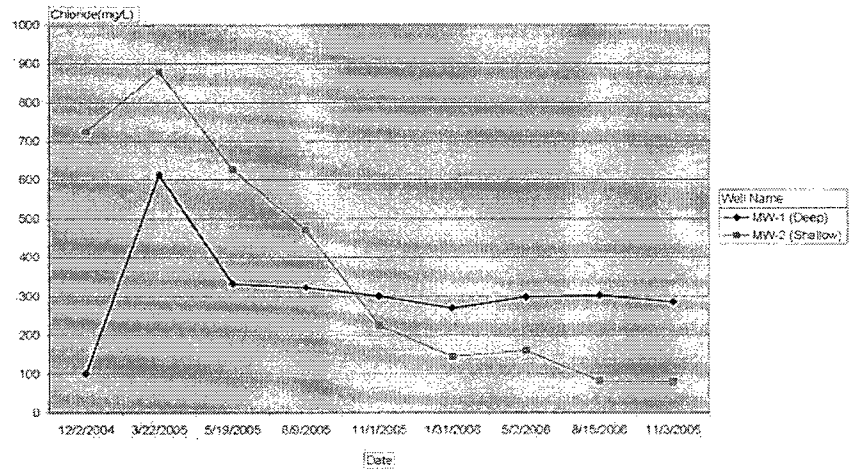
F-29-1A Vent

Well Name	*Date*	*DTW (ft)*	*Chloride (mg/L)*	*Sulfate (mg/L)*	*TDS (mg/L)*	*Benzene (ug/L)*	*Toluene (ug/L)*	*EthylBenzene (ug/L)*	*Total Xylenes (ug/L)*	*Comments*
MW-1 (Deep)	12/2/2004	60.74	100	*No Results	465	<0.001	<0.001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	3/22/2005	60.10	613	154	930	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-1 (Deep)	5/19/2005	60.13	332	84.5	1260	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	8/9/2005	60.22	322	75.7	1080	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	11/1/2005	60.45	300	63.2	986	<0.001	<0.0001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	1/31/2006	60.54	270	58.1	1000	<0.001	<0.001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	5/2/2006	60.61	298	62.9	996	<0.001	<0.001	<0.001	<0.001	
MW-1 (Deep)	8/15/2006	60.98	302	80.7	1060	<0.001	<0.001	<0.001	<0.001	clear; no odor
MW-1 (Deep)	11/3/2006	60.79	285	86.1	866	<0.001	<0.001	<0.001	<0.001	Clear no odor
MW-2 (Shallow)	12/2/2004	60.64	725	*No Results	3280	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-2 (Shallow)	3/22/2005	60.08	879	1780	3960	<0.001	<0.001	<0.001	<0.001	gray; no odor
MW-2 (Shallow)	5/19/2005	60.04	626	788	2750	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	8/9/2005	60.14	470	475	1780	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	11/1/2005	60.34	226	218	1100	<0.001	<0.001	<0.001	<0.001	Clear; no odor
MW-2 (Shallow)	1/31/2006	60.42	144	58.1	924	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	5/2/2006	60.50	160	153	1040	<0.001	<0.001	<0.001	<0.001	
MW-2 (Shallow)	8/15/2006	60.86	81.9	104	578	<0.001	<0.001	<0.001	<0.001	Clear; no odor
MW-2 (Shallow)	11/3/2006	60.69	79.6	111	592	<0.001	<0.001	<0.001	<0.001	Clear no odor

Ground Water Quality at
F-29-1a Vent

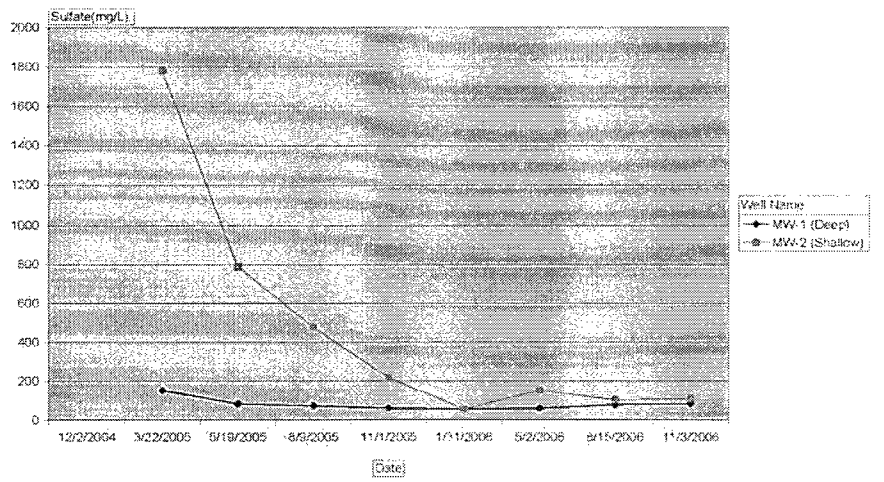
Site Name F-29-1A Vent

Chloride Over Time



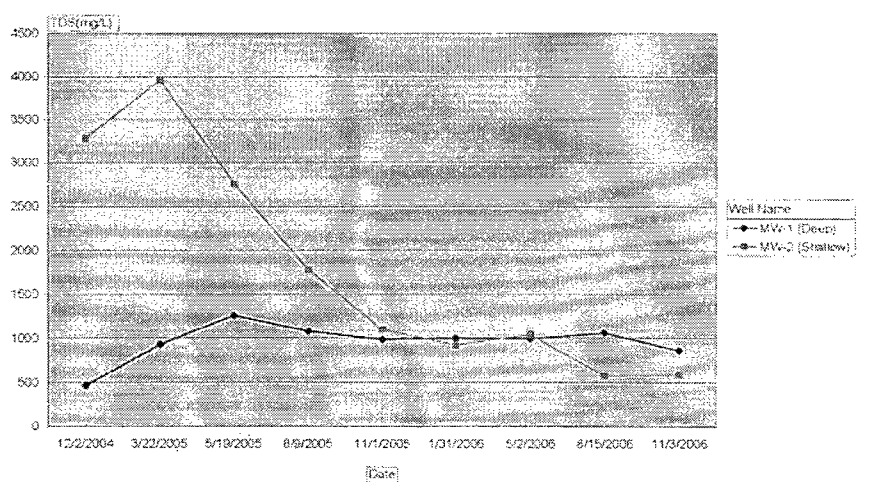
Site Name F-29-1A Vent

Sulfate Over Time



Site Name F-29-1A Vent

TDS Over Time



R.T. Hicks Consultants, Ltd.

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6B02006

Report Date: 02/16/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1 Deep	6B02006-01	Water	01/31/06 09:50	02/02/06 09:00
Monitor Well #2 Shallow	6B02006-02	Water	01/31/06 09:15	02/02/06 09:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Benzene	ND	0.00100	mg/L	1	EB60910	02/09/06	02/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.8 %*	*80-120*		"	"	"	"	
Monitor Well #2 Shallow (6B02006-02) Water									
Benzene	ND	0.00100	mg/L	1	EB60910	02/09/06	02/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*	*80-120*		"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Total Alkalinity	**140**	2.00	mg/L	1	EB60901	02/08/06	02/08/06	EPA 310.1M	
Chloride	**270**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Total Dissolved Solids	**1000**	5.00	"	1	EB60302	02/02/06	02/02/06	EPA 160.1	
Sulfate	**58.1**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Monitor Well #2 Shallow (6B02006-02) Water									
Total Alkalinity	**238**	2.00	mg/L	1	EB60901	02/08/06	02/08/06	EPA 310.1M	
Chloride	**144**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Total Dissolved Solids	**924**	5.00	"	1	EB60302	02/02/06	02/02/06	EPA 160.1	
Sulfate	**156**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Calcium	**179**	0.500	mg/L	50	EB60903	02/08/06	02/09/06	EPA 200.7	
Magnesium	**21.4**	0.0100	"	10	"	"	"	"	
Potassium	**5.89**	0.0500	"	1	"	"	"	"	
Sodium	**68.4**	0.500	"	50	"	"	"	"	
Monitor Well #2 Shallow (6B02006-02) Water									
Calcium	**63.2**	0.500	mg/L	50	EB60903	02/08/06	02/09/06	EPA 200.7	
Magnesium	**16.8**	0.0100	"	10	"	"	"	"	
Potassium	**2.47**	0.0500	"	1	"	"	"	"	
Sodium	**254**	0.500	"	50	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60910 - EPA 5030C (GC)										
Blank (EB60910-BLK1)				Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*34.5*		*ug/l*	*40.0*		*86.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.1*		*"*	*40.0*		*80.2*	*80-120*			
LCS (EB60910-BS1)				Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	0.0457	0.00100	mg/L	0.0500		91.4	80-120			
Toluene	0.0496	0.00100	"	0.0500		99.2	80-120			
Ethylbenzene	0.0498	0.00100	"	0.0500		99.6	80-120			
Xylene (p/m)	0.100	0.00100	"	0.100		100	80-120			
Xylene (o)	0.0570	0.00100	"	0.0500		114	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.2*		*ug/l*	*40.0*		*88.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		*"*	*40.0*		*81.2*	*80-120*			
LCS Dup (EB60910-BSD1)				Prepared: 02/09/06 Analyzed: 02/14/06						
Benzene	0.0568	0.00100	mg/L	0.0500		114	80-120	22.0	20	QR-02
Toluene	0.0584	0.00100	"	0.0500		117	80-120	16.5	20	
Ethylbenzene	0.0507	0.00100	"	0.0500		101	80-120	1.40	20	
Xylene (p/m)	0.0982	0.00100	"	0.100		98.2	80-120	1.82	20	
Xylene (o)	0.0513	0.00100	"	0.0500		103	80-120	10.1	20	
Surrogate: a,a,a-Trifluorotoluene	*39.4*		*ug/l*	*40.0*		*98.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		*"*	*40.0*		*81.2*	*80-120*			
Calibration Check (EB60910-CCV1)				Prepared: 02/09/06 Analyzed: 02/13/06						
Benzene	55.0		ug/l	50.0		110	80-120			
Toluene	57.5		"	50.0		115	80-120			
Ethylbenzene	52.8		"	50.0		106	80-120			
Xylene (p/m)	103		"	100		103	80-120			
Xylene (o)	56.6		"	50.0		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.5*		*"*	*40.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.4*		*"*	*40.0*		*81.0*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60910 - EPA 5030C (GC)										
Matrix Spike (EB60910-MS1)	**Source: 6B08024-01**			Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	0.0426	0.00100	mg/L	0.0500	ND	85.2	80-120			
Toluene	0.0449	0.00100	"	0.0500	ND	89.8	80-120			
Ethylbenzene	0.0432	0.00100	"	0.0500	ND	86.4	80-120			
Xylene (p/m)	0.0841	0.00100	"	0.100	ND	84.1	80-120			
Xylene (o)	0.0416	0.00100	"	0.0500	ND	83.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.7*		*ug/l*	*40.0*		*96.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.0*		*"*	*40.0*		*118*	*80-120*			

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60302 - General Preparation (WetChem)										
Blank (EB60302-BLK1)				Prepared & Analyzed: 02/02/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EB60302-DUP1)	**Source: 6B01010-01**			Prepared & Analyzed: 02/02/06						
Total Dissolved Solids	790	5.00	mg/L		794			0.505	5	
Batch EB60614 - General Preparation (WetChem)										
Blank (EB60614-BLK1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EB60614-BS1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Sulfate	8.40		mg/L	10.0		84.0	80-120			
Chloride	8.99		"	10.0		89.9	80-120			
Calibration Check (EB60614-CCV1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	8.93		mg/L	10.0		89.3	80-120			
Sulfate	8.63		"	10.0		86.3	80-120			
Duplicate (EB60614-DUP1)	**Source: 6B01010-01**			Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	224	5.00	mg/L		206			8.37	20	
Sulfate	72.9	5.00	"		66.5			9.18	20	
Batch EB60901 - General Preparation (WetChem)										
Blank (EB60901-BLK1)				Prepared & Analyzed: 02/08/06						
Total Alkalinity	ND	2.00	mg/L							

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60901 - General Preparation (WetChem)										
LCS (EB60901-BS1)				Prepared & Analyzed: 02/08/06						
Bicarbonate Alkalinity	210	2.00	mg/L	200		105	85-115			
Duplicate (EB60901-DUP1)	**Source: 6B01010-01**			Prepared & Analyzed: 02/08/06						
Total Alkalinity	192	2.00	mg/L		191			0.522	20	
Reference (EB60901-SRM1)				Prepared & Analyzed: 02/08/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60903 - 6010B/No Digestion										
Blank (EB60903-BLK1)				Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EB60903-CCV1)				Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	2.06		mg/L	2.00		103	85-115			
Magnesium	2.05		"	2.00		102	85-115			
Potassium	1.92		"	2.00		96.0	85-115			
Sodium	1.90		"	2.00		95.0	85-115			
Duplicate (EB60903-DUP1)	**Source: 6B01010-01**			Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	62.1	0.0100	mg/L		61.2			1.46	20	
Magnesium	43.5	0.0100	"		44.8			2.94	20	
Potassium	10.3	0.500	"		10.4			0.966	20	
Sodium	161	0.500	"		157			2.52	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 2/16/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpriceswd@valornet.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Jct. F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well #1 Deep	1/31/2006	9:50	3	X		2			1		X					X	X					X			X					X
-02	Monitor Well #2 Shallow	1/31/2006	9:15	3	X		2			1		X					X	X					X			X					X

Special Instructions:
PLEASE Email RESULTS TO: kpriceswd@valornet.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.0

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	2/2/06	6:00		2/2/06	6:01
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	2/2/06	9:00		2/2/06	9:00

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 2/2/06 9:00

Order #: 602006

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6E04010

Report Date: 05/09/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6E04010-01	Water	05/02/06 10:40	05/04/06 10:50
Monitor Well #2- Shallow	6E04010-02	Water	05/02/06 09:05	05/04/06 10:50

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Benzene	ND	0.00100	mg/L	1	EE60404	05/04/06	05/04/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.5 %*	*80-120*		"	"	"	"	
Monitor Well #2- Shallow (6E04010-02) Water									
Benzene	ND	0.00100	mg/L	1	EE60404	05/04/06	05/04/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Total Alkalinity	**137**	2.00	mg/L	1	EE60814	05/09/06	05/09/06	EPA 310.1M	
Chloride	**298**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Total Dissolved Solids	**996**	5.00	"	1	EE60816	05/05/06	05/08/06	EPA 160.1	
Sulfate	**62.9**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Monitor Well #2- Shallow (6E04010-02) Water									
Total Alkalinity	**251**	2.00	mg/L	1	EE60814	05/09/06	05/09/06	EPA 310.1M	
Chloride	**160**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Total Dissolved Solids	**1040**	5.00	"	1	EE60816	05/05/06	05/08/06	EPA 160.1	
Sulfate	**153**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Calcium	**173**	0.500	mg/L	50	EE60811	05/08/06	05/08/06	EPA 200.7	
Magnesium	**24.8**	0.0100	"	10	"	"	"	"	
Potassium	**2.43**	0.500	"	"	"	"	"	"	
Sodium	**47.1**	0.100	"	"	"	"	"	"	
Monitor Well #2- Shallow (6E04010-02) Water									
Calcium	**72.1**	0.100	mg/L	10	EE60811	05/08/06	05/08/06	EPA 200.7	
Magnesium	**20.5**	0.0100	"	"	"	"	"	"	
Potassium	**2.78**	0.500	"	"	"	"	"	"	
Sodium	**138**	0.500	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60404 - EPA 5030C (GC)										
Blank (EE60404-BLK1)				Prepared & Analyzed: 05/04/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*36.7*		*ug/l*	*40.0*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.6*		*"*	*40.0*		*84.0*	*80-120*			
LCS (EE60404-BS1)				Prepared & Analyzed: 05/04/06						
Benzene	0.0536	0.00100	mg/L	0.0500		107	80-120			
Toluene	0.0531	0.00100	"	0.0500		106	80-120			
Ethylbenzene	0.0509	0.00100	"	0.0500		102	80-120			
Xylene (p/m)	0.117	0.00100	"	0.100		117	80-120			
Xylene (o)	0.0573	0.00100	"	0.0500		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.3*		*ug/l*	*40.0*		*98.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.5*		*"*	*40.0*		*98.8*	*80-120*			
Calibration Check (EE60404-CCV1)				Prepared: 05/04/06 Analyzed: 05/05/06						
Benzene	50.2		ug/l	50.0		100	80-120			
Toluene	49.3		"	50.0		98.6	80-120			
Ethylbenzene	53.0		"	50.0		106	80-120			
Xylene (p/m)	105		"	100		105	80-120			
Xylene (o)	52.4		"	50.0		105	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.3*		*"*	*40.0*		*88.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.2*		*"*	*40.0*		*95.5*	*80-120*			
Matrix Spike (EE60404-MS1)		**Source: 6E03003-01**		Prepared & Analyzed: 05/04/06						
Benzene	0.0626	0.00100	mg/L	0.0500	0.00562	114	80-120			
Toluene	0.0534	0.00100	"	0.0500	ND	107	80-120			
Ethylbenzene	0.0534	0.00100	"	0.0500	0.000825	105	80-120			
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120			
Xylene (o)	0.0577	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.6*		*ug/l*	*40.0*		*91.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.6*		*"*	*40.0*		*96.5*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60404 - EPA 5030C (GC)										
Matrix Spike Dup (EE60404-MSD1)	**Source: 6E03003-01**			Prepared & Analyzed: 05/04/06						
Benzene	0.0617	0.00100	mg/L	0.0500	0.00562	112	80-120	1.77	20	
Toluene	0.0526	0.00100	"	0.0500	ND	105	80-120	1.89	20	
Ethylbenzene	0.0532	0.00100	"	0.0500	0.000825	105	80-120	0.00	20	
Xylene (p/m)	0.117	0.00100	"	0.100	ND	117	80-120	2.53	20	
Xylene (o)	0.0565	0.00100	"	0.0500	ND	113	80-120	1.75	20	
Surrogate: a,a,a-Trifluorotoluene	*40.9*		*ug/l*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.0*		*"*	*40.0*		*100*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60507 - General Preparation (WetChem)										
Blank (EE60507-BLK1)				Prepared & Analyzed: 05/04/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EE60507-BS1)				Prepared & Analyzed: 05/04/06						
Chloride	9.99	0.500	mg/L	10.0		99.9	80-120			
Sulfate	8.53	0.500	"	10.0		85.3	80-120			
Calibration Check (EE60507-CCV1)				Prepared & Analyzed: 05/04/06						
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	9.15		"	10.0		91.5	80-120			
Duplicate (EE60507-DUP1)	**Source: 6D28002-02**			Prepared & Analyzed: 05/04/06						
Sulfate	52.7	0.500	mg/L		53.3			1.13	20	
Chloride	62.0	0.500	"		62.1			0.161	20	
Batch EE60814 - General Preparation (WetChem)										
Blank (EE60814-BLK1)				Prepared & Analyzed: 05/09/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EE60814-BS1)				Prepared & Analyzed: 05/09/06						
Bicarbonate Alkalinity	214	2.00	mg/L	200		107	85-115			
Duplicate (EE60814-DUP1)	**Source: 6E04009-01**			Prepared & Analyzed: 05/09/06						
Total Alkalinity	209	2.00	mg/L		208			0.480	20	
Reference (EE60814-SRM1)				Prepared & Analyzed: 05/09/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60816 - Filtration Preparation										
Blank (EE60816-BLK1)				Prepared: 05/05/06 Analyzed: 05/08/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE60816-DUP1)	**Source: 6E04009-01**			Prepared: 05/05/06 Analyzed: 05/08/06						
Total Dissolved Solids	940	5.00	mg/L		904			3.90	5	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60811 - 6010B/No Digestion										
Blank (EE60811-BLK1)				Prepared & Analyzed: 05/08/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EE60811-CCV1)				Prepared & Analyzed: 05/08/06						
Calcium	2.20		mg/L	2.00		110	85-115			
Magnesium	2.28		"	2.00		114	85-115			
Potassium	1.74		"	2.00		87.0	85-115			
Sodium	1.84		"	2.00		92.0	85-115			
Duplicate (EE60811-DUP1)	**Source: 6E04009-01**			Prepared & Analyzed: 05/08/06						
Calcium	130	0.500	mg/L		128			1.55	20	
Magnesium	22.5	0.0100	"		23.2			3.06	20	
Potassium	4.11	0.0500	"		4.32			4.98	20	
Sodium	87.6	0.100	"		88.0			0.456	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 5/9/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Project Name: Hobbs Jct. F-29-1A
Company Name: RICE Operating Company
Project #:
Company Address: 122 W. Taylor Street
Project Loc: Lea County
City/State/Zip: Hobbs, New Mexico 88240
PO #:
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP:	Analyze For: TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule)	Standard TAT
01	Monitor Well #1~Deep	5/2/2006	10:40	3	X		2			1		X						X	X					X			X				X
02	Monitor Well #2 ~ Shallow	5/2/2006	9:05	3	X		2			1		X						X	X					X			X				X

Special Instructions:
PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals Containers / cooler
Temperature Upon Receipt: 0.5
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	5/4/06	6:00	James Johnson	5/4/06	6:01
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
James Johnson	5/4/06	10:50	Carol Kelly	5/4/06	10:50

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 5/4/04 10:50

Order #: 1E04010

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Apolicable

Other observations:

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6H18011

Report Date: 08/28/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6H18011-01	Water	08/15/06 08:40	08-18-2006 10:20
Monitor Well #2- Shallow	6H18011-02	Water	08/15/06 10:05	08-18-2006 10:20

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Benzene	ND	0.00100	mg/L	1	EH62121	08/21/06	08/21/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.5 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*	*80-120*		"	"	"	"	
Monitor Well #2- Shallow (6H18011-02) Water									
Benzene	ND	0.00100	mg/L	1	EH62121	08/21/06	08/21/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Total Alkalinity	**158**	2.00	mg/L	1	EH62128	08/21/06	08/21/06	EPA 310.1M	
Chloride	**302**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Total Dissolved Solids	**1060**	10.0	"	1	EH62303	08/18/06	08/22/06	EPA 160.1	
Sulfate	**80.7**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Monitor Well #2- Shallow (6H18011-02) Water									
Total Alkalinity	**234**	2.00	mg/L	1	EH62128	08/21/06	08/21/06	EPA 310.1M	
Chloride	**81.9**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Total Dissolved Solids	**578**	10.0	"	1	EH62303	08/18/06	08/22/06	EPA 160.1	
Sulfate	**104**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Calcium	**154**	4.05	mg/L	50	EH62313	08/23/06	08/23/06	EPA 200.7	
Magnesium	**24.5**	0.360	"	10	"	"	"	"	
Potassium	**2.88**	0.600	"	"	"	"	"	"	
Sodium	**70.5**	0.430	"	"	"	"	"	"	
Monitor Well #2- Shallow (6H18011-02) Water									
Calcium	**49.0**	0.810	mg/L	10	EH62313	08/23/06	08/23/06	EPA 200.7	
Magnesium	**13.3**	0.360	"	"	"	"	"	"	
Potassium	**1.76**	0.600	"	"	"	"	"	"	
Sodium	**145**	2.15	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62121 - EPA 5030C (GC)										
Blank (EH62121-BLK1)				Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/l*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.7*		*"*	*40.0*		*91.8*	*80-120*			
LCS (EH62121-BS1)				Prepared & Analyzed: 08/21/06						
Benzene	0.0460	0.00100	mg/L	0.0500		92.0	80-120			
Toluene	0.0503	0.00100	"	0.0500		101	80-120			
Ethylbenzene	0.0463	0.00100	"	0.0500		92.6	80-120			
Xylene (p/m)	0.113	0.00100	"	0.100		113	80-120			
Xylene (o)	0.0565	0.00100	"	0.0500		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.7*		*ug/l*	*40.0*		*99.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.0*		*"*	*40.0*		*112*	*80-120*			
Calibration Check (EH62121-CCV1)				Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	48.7		ug/l	50.0		97.4	80-120			
Toluene	52.3		"	50.0		105	80-120			
Ethylbenzene	57.3		"	50.0		115	80-120			
Xylene (p/m)	114		"	100		114	80-120			
Xylene (o)	57.6		"	50.0		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*44.7*		*"*	*40.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.3*		*"*	*40.0*		*95.8*	*80-120*			
Matrix Spike (EH62121-MS1)	**Source: 6H18007-01**			Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	0.0464	0.00100	mg/L	0.0500	ND	92.8	80-120			
Toluene	0.0550	0.00100	"	0.0500	ND	110	80-120			
Ethylbenzene	0.0554	0.00100	"	0.0500	ND	111	80-120			
Xylene (p/m)	0.117	0.00100	"	0.100	ND	117	80-120			
Xylene (o)	0.0575	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*ug/l*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.5*		*"*	*40.0*		*116*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62121 - EPA 5030C (GC)										
Matrix Spike Dup (EH62121-MSD1)		**Source: 6H18007-01**		Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	0.0473	0.00100	mg/L	0.0500	ND	94.6	80-120	1.92	20	
Toluene	0.0535	0.00100	"	0.0500	ND	107	80-120	2.76	20	
Ethylbenzene	0.0549	0.00100	"	0.0500	ND	110	80-120	0.905	20	
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120	2.53	20	
Xylene (o)	0.0583	0.00100	"	0.0500	ND	117	80-120	1.72	20	
Surrogate: a,a,a-Trifluorotoluene	*42.9*		*ug/l*	*40.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.4*		*"*	*40.0*		*116*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62101 - General Preparation (WetChem)										
Blank (EH62101-BLK1)				Prepared & Analyzed: 08/21/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EH62101-BS1)				Prepared & Analyzed: 08/21/06						
Sulfate	8.51	0.500	mg/L	10.0		85.1	80-120			
Chloride	10.0	0.500	"	10.0		100	80-120			
Calibration Check (EH62101-CCV1)				Prepared & Analyzed: 08/21/06						
Sulfate	8.34		mg/L	10.0		83.4	80-120			
Chloride	10.2		"	10.0		102	80-120			
Duplicate (EH62101-DUP1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Sulfate	76.3	5.00	mg/L		65.9			14.6	20	
Chloride	105	5.00	"		98.9			5.98	20	
Duplicate (EH62101-DUP2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/21/06						
Sulfate	331	5.00	mg/L		336			1.50	20	
Chloride	138	5.00	"		136			1.46	20	
Matrix Spike (EH62101-MS1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Sulfate	172	5.00	mg/L	100	65.9	106	80-120			
Chloride	210	5.00	"	100	98.9	111	80-120			
Matrix Spike (EH62101-MS2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/21/06						
Sulfate	422	5.00	mg/L	100	336	86.0	80-120			
Chloride	224	5.00	"	100	136	88.0	80-120			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62128 - General Preparation (WetChem)										
Blank (EH62128-BLK1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EH62128-BS1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	178		mg/L	200		89.0	85-115			
Duplicate (EH62128-DUP1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Total Alkalinity	186	2.00	mg/L		186			0.00	20	
Reference (EH62128-SRM1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	248		mg/L	250		99.2	90-110			
Batch EH62303 - Filtration Preparation										
Blank (EH62303-BLK1)				Prepared: 08/18/06 Analyzed: 08/22/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EH62303-DUP1)	**Source: 6H18007-01**			Prepared: 08/18/06 Analyzed: 08/22/06						
Total Dissolved Solids	556	10.0	mg/L		526			5.55	5	R5
Duplicate (EH62303-DUP2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/18/06						
Total Dissolved Solids	808	10.0	mg/L		930			14.0	5	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62313 - 6010B/No Digestion										
Blank (EH62313-BLK1)				Prepared & Analyzed: 08/23/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EH62313-CCV1)				Prepared & Analyzed: 08/23/06						
Calcium	1.96		mg/L	2.00		98.0	85-115			
Magnesium	2.01		"	2.00		100	85-115			
Potassium	1.76		"	2.00		88.0	85-115			
Sodium	1.96		"	2.00		98.0	85-115			
Duplicate (EH62313-DUP1)	**Source: 6H15005-04**			Prepared & Analyzed: 08/23/06						
Calcium	44.4	0.810	mg/L		45.9			3.32	20	
Magnesium	48.1	0.360	"		49.3			2.46	20	
Potassium	42.9	0.600	"		42.6			0.702	20	
Sodium	44.4	0.430	"		43.5			2.05	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

R5	RPD is outside of historic values
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 8/28/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TCLP: Cations (Ca, Mg, Na, K)	TCLP: Anions (Cl, SO4, CO3, HCO3)	TCLP: SAR / ESP / CEC	TCLP: Metals: As Ag Ba Cd Cr Pb Hg Se	TCLP: Volatiles	TCLP: Semivolatiles	TOTAL: BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
428011																							X								
-01	Monitor Well #1-Deep	8/15/2006	8:40	3	X		2			1		X					X	X					X			X					X
-02	Monitor Well #2-Shallow	8/15/2006	10:05	3	X		2			1		X					X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	8/18/06	5:30	James Johnson	8-18-06	5:31
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
James Johnson	8/18/06	10:20		8/18/06	10:20

Laboratory Comments: 4.0

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice DR.

Date/ Time: 8/18/06 10:20

Lab ID # : 6H18011

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: T18S R38E Sec 29 F- Lea County, NM

Lab Order Number: 6K08007

Report Date: 11/15/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6K08007-01	Water	11/03/06 09:35	11-08-2006 14:50
Monitor Well #2- Shallow	6K08007-02	Water	11/03/06 10:15	11-08-2006 14:50

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Benzene	ND	0.00100	mg/L	1	EK60808	11/10/06	11/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.0 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.0 %*		*80-120*		"	"	"	
Monitor Well #2- Shallow (6K08007-02) Water									
Benzene	ND	0.00100	mg/L	1	EK60808	11/10/06	11/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.0 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.0 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Total Alkalinity	**152**	2.00	mg/L	1	EK61307	11/14/06	11/14/06	EPA 310.1M	
Chloride	**285**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Total Dissolved Solids	**866**	10.0	"	1	EK61306	11/09/06	11/10/06	EPA 160.1	
Sulfate	**86.1**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Monitor Well #2- Shallow (6K08007-02) Water									
Total Alkalinity	**228**	2.00	mg/L	1	EK61307	11/14/06	11/14/06	EPA 310.1M	
Chloride	**79.6**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Total Dissolved Solids	**592**	10.0	"	1	EK61306	11/09/06	11/10/06	EPA 160.1	
Sulfate	**111**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Calcium	**166**	4.05	mg/L	50	EK60919	11/09/06	11/09/06	EPA 6010B	
Magnesium	**23.5**	0.360	"	10	"	"	"	"	
Potassium	**3.30**	0.600	"	"	"	"	"	"	
Sodium	**77.6**	0.430	"	"	"	"	"	"	
Monitor Well #2- Shallow (6K08007-02) Water									
Calcium	**53.8**	0.810	mg/L	10	EK60919	11/09/06	11/09/06	EPA 6010B	
Magnesium	**13.7**	0.360	"	"	"	"	"	"	
Potassium	**1.88**	0.600	"	"	"	"	"	"	
Sodium	**124**	2.15	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60808 - EPA 5030C (GC)										
Blank (EK60808-BLK1)				Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/l*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.5*		*"*	*40.0*		*83.8*	*80-120*			
LCS (EK60808-BS1)				Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0525	0.00100	mg/L	0.0500		105	80-120			
Toluene	0.0458	0.00100	"	0.0500		91.6	80-120			
Ethylbenzene	0.0457	0.00100	"	0.0500		91.4	80-120			
Xylene (p/m)	0.0919	0.00100	"	0.100		91.9	80-120			
Xylene (o)	0.0448	0.00100	"	0.0500		89.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.2*		*ug/l*	*40.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.5*		*"*	*40.0*		*104*	*80-120*			
Calibration Check (EK60808-CCV1)				Prepared: 11/08/06 Analyzed: 11/11/06						
Benzene	50.9		ug/l	50.0		102	80-120			
Toluene	45.0		"	50.0		90.0	80-120			
Ethylbenzene	46.8		"	50.0		93.6	80-120			
Xylene (p/m)	90.9		"	100		90.9	80-120			
Xylene (o)	45.4		"	50.0		90.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.9*		*"*	*40.0*		*99.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.0*		*"*	*40.0*		*97.5*	*80-120*			
Matrix Spike (EK60808-MS1)	**Source: 6K06005-01**			Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0503	0.00100	mg/L	0.0500	ND	101	80-120			
Toluene	0.0458	0.00100	"	0.0500	ND	91.6	80-120			
Ethylbenzene	0.0473	0.00100	"	0.0500	ND	94.6	80-120			
Xylene (p/m)	0.0939	0.00100	"	0.100	ND	93.9	80-120			
Xylene (o)	0.0465	0.00100	"	0.0500	ND	93.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.9*		*ug/l*	*40.0*		*97.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.4*		*"*	*40.0*		*108*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60808 - EPA 5030C (GC)										
Matrix Spike Dup (EK60808-MSD1)	**Source: 6K06005-01**			Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0518	0.00100	mg/L	0.0500	ND	104	80-120	2.93	20	
Toluene	0.0465	0.00100	"	0.0500	ND	93.0	80-120	1.52	20	
Ethylbenzene	0.0478	0.00100	"	0.0500	ND	95.6	80-120	1.05	20	
Xylene (p/m)	0.0983	0.00100	"	0.100	ND	98.3	80-120	4.58	20	
Xylene (o)	0.0494	0.00100	"	0.0500	ND	98.8	80-120	6.05	20	
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*ug/l*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.7*		*"*	*40.0*		*109*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60911 - General Preparation (WetChem)										
Blank (EK60911-BLK1)				Prepared & Analyzed: 11/09/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EK60911-BS1)				Prepared & Analyzed: 11/09/06						
Chloride	10.9	0.500	mg/L	10.0		109	80-120			
Sulfate	10.1	0.500	"	10.0		101	80-120			
Calibration Check (EK60911-CCV1)				Prepared & Analyzed: 11/09/06						
Chloride	10.8		mg/L	10.0		108	80-120			
Sulfate	10.1		"	10.0		101	80-120			
Duplicate (EK60911-DUP1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Sulfate	86.2	5.00	mg/L		86.1			0.116	20	
Chloride	283	5.00	"		285			0.704	20	
Duplicate (EK60911-DUP2)	**Source: 6K09002-01**			Prepared & Analyzed: 11/09/06						
Sulfate	1650	20.0	mg/L		1590			3.70	20	
Chloride	248	20.0	"		239			3.70	20	
Matrix Spike (EK60911-MS1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Sulfate	184	5.00	mg/L	100	86.1	97.9	80-120			
Chloride	404	5.00	"	100	285	119	80-120			
Matrix Spike (EK60911-MS2)	**Source: 6K09002-01**			Prepared & Analyzed: 11/09/06						
Chloride	655	20.0	mg/L	400	239	104	80-120			
Sulfate	1960	20.0	"	400	1590	92.5	80-120			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK61306 - Filtration Preparation										
Blank (EK61306-BLK1)				Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EK61306-DUP1)		**Source: 6K07002-01**		Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	10400	10.0	mg/L		9240			11.8	5	S-08
Duplicate (EK61306-DUP2)		**Source: 6K08010-02**		Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	24600	10.0	mg/L		23600			4.15	5	
Batch EK61307 - General Preparation (WetChem)										
Blank (EK61307-BLK1)				Prepared & Analyzed: 11/14/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EK61307-BS1)				Prepared & Analyzed: 11/14/06						
Bicarbonate Alkalinity	192	2.00	mg/L	200		96.0	85-115			
Duplicate (EK61307-DUP1)		**Source: 6K08007-01**		Prepared & Analyzed: 11/14/06						
Total Alkalinity	150	2.00	mg/L		152			1.32	20	
Reference (EK61307-SRM1)				Prepared & Analyzed: 11/14/06						
Total Alkalinity	248		mg/L	250		99.2	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60919 - 6010B/No Digestion										
Blank (EK60919-BLK1)				Prepared & Analyzed: 11/09/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EK60919-CCV1)				Prepared & Analyzed: 11/09/06						
Calcium	2.28		mg/L	2.00		114	85-115			
Magnesium	2.14		"	2.00		107	85-115			
Potassium	1.87		"	2.00		93.5	85-115			
Sodium	2.04		"	2.00		102	85-115			
Duplicate (EK60919-DUP1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Calcium	164	4.05	mg/L		166			1.21	20	
Magnesium	23.5	0.360	"		23.5			0.00	20	
Potassium	3.34	0.600	"		3.30			1.20	20	
Sodium	77.5	0.430	"		77.6			0.129	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

S-08	Value outside Laboratory historical or method prescribed QC limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 11/15/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Company Name: RICE Operating Company

Company Address: 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174 Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A

Project #:

Project Loc: T18S R38E Sec29 F ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 610900?

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix: Dw=Drinking Water SL=Sludge GW= Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	TOTAL: BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Monitor Well #1-Deep			11/3/2006	9:35		3	X		2				1		GW			X	X					X			X				X
02	Monitor Well #2-Shallow			11/3/2006	10:15		3	X		2				1		GW			X	X					X			X				X

Special Instructions:
Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	11-8-06	2:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Chris Keen	11/8/06	2:50

Laboratory Comments:

Sample Containers intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep.?	Y	N
by Courier? UPS DHL FedEx Lone Star		
Temperature Upon Receipt:	0.5	°C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Pine Op.

Date/ Time: 11/8/06 2:50

Lab ID # : 610X0007

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	05 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6B02006

Report Date: 02/16/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1 Deep	6B02006-01	Water	01/31/06 09:50	02/02/06 09:00
Monitor Well #2 Shallow	6B02006-02	Water	01/31/06 09:15	02/02/06 09:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Benzene	ND	0.00100	mg/L	1	EB60910	02/09/06	02/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*87.5 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*80.8 %*		*80-120*		"	"	"	
Monitor Well #2 Shallow (6B02006-02) Water									
Benzene	ND	0.00100	mg/L	1	EB60910	02/09/06	02/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.8 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*90.5 %*		*80-120*		"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Total Alkalinity	**140**	2.00	mg/L	1	EB60901	02/08/06	02/08/06	EPA 310.1M	
Chloride	**270**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Total Dissolved Solids	**1000**	5.00	"	1	EB60302	02/02/06	02/02/06	EPA 160.1	
Sulfate	**58.1**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Monitor Well #2 Shallow (6B02006-02) Water									
Total Alkalinity	**238**	2.00	mg/L	1	EB60901	02/08/06	02/08/06	EPA 310.1M	
Chloride	**144**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	
Total Dissolved Solids	**924**	5.00	"	1	EB60302	02/02/06	02/02/06	EPA 160.1	
Sulfate	**156**	5.00	"	10	EB60614	02/04/06	02/06/06	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 Deep (6B02006-01) Water									
Calcium	**179**	0.500	mg/L	50	EB60903	02/08/06	02/09/06	EPA 200.7	
Magnesium	**21.4**	0.0100	"	10	"	"	"	"	
Potassium	**5.89**	0.0500	"	1	"	"	"	"	
Sodium	**68.4**	0.500	"	50	"	"	"	"	
Monitor Well #2 Shallow (6B02006-02) Water									
Calcium	**63.2**	0.500	mg/L	50	EB60903	02/08/06	02/09/06	EPA 200.7	
Magnesium	**16.8**	0.0100	"	10	"	"	"	"	
Potassium	**2.47**	0.0500	"	1	"	"	"	"	
Sodium	**254**	0.500	"	50	"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60910 - EPA 5030C (GC)										
Blank (EB60910-BLK1)				Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*34.5*		*ug/l*	*40.0*		*86.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.1*		*"*	*40.0*		*80.2*	*80-120*			
LCS (EB60910-BS1)				Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	0.0457	0.00100	mg/L	0.0500		91.4	80-120			
Toluene	0.0496	0.00100	"	0.0500		99.2	80-120			
Ethylbenzene	0.0498	0.00100	"	0.0500		99.6	80-120			
Xylene (p/m)	0.100	0.00100	"	0.100		100	80-120			
Xylene (o)	0.0570	0.00100	"	0.0500		114	80-120			
Surrogate: a,a,a-Trifluorotoluene	*35.2*		*ug/l*	*40.0*		*88.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		*"*	*40.0*		*81.2*	*80-120*			
LCS Dup (EB60910-BSD1)				Prepared: 02/09/06 Analyzed: 02/14/06						
Benzene	0.0568	0.00100	mg/L	0.0500		114	80-120	22.0	20	QR-02
Toluene	0.0584	0.00100	"	0.0500		117	80-120	16.5	20	
Ethylbenzene	0.0507	0.00100	"	0.0500		101	80-120	1.40	20	
Xylene (p/m)	0.0982	0.00100	"	0.100		98.2	80-120	1.82	20	
Xylene (o)	0.0513	0.00100	"	0.0500		103	80-120	10.1	20	
Surrogate: a,a,a-Trifluorotoluene	*39.4*		*ug/l*	*40.0*		*98.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.5*		*"*	*40.0*		*81.2*	*80-120*			
Calibration Check (EB60910-CCV1)				Prepared: 02/09/06 Analyzed: 02/13/06						
Benzene	55.0		ug/l	50.0		110	80-120			
Toluene	57.5		"	50.0		115	80-120			
Ethylbenzene	52.8		"	50.0		106	80-120			
Xylene (p/m)	103		"	100		103	80-120			
Xylene (o)	56.6		"	50.0		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.5*		*"*	*40.0*		*109*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.4*		*"*	*40.0*		*81.0*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60910 - EPA 5030C (GC)										
Matrix Spike (EB60910-MS1)	**Source: 6B08024-01**			Prepared: 02/09/06 Analyzed: 02/10/06						
Benzene	0.0426	0.00100	mg/L	0.0500	ND	85.2	80-120			
Toluene	0.0449	0.00100	"	0.0500	ND	89.8	80-120			
Ethylbenzene	0.0432	0.00100	"	0.0500	ND	86.4	80-120			
Xylene (p/m)	0.0841	0.00100	"	0.100	ND	84.1	80-120			
Xylene (o)	0.0416	0.00100	"	0.0500	ND	83.2	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.7*		*ug/l*	*40.0*		*96.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.0*		*"*	*40.0*		*118*	*80-120*			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60302 - General Preparation (WetChem)										
Blank (EB60302-BLK1)				Prepared & Analyzed: 02/02/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EB60302-DUP1)	**Source: 6B01010-01**			Prepared & Analyzed: 02/02/06						
Total Dissolved Solids	790	5.00	mg/L		794			0.505	5	
Batch EB60614 - General Preparation (WetChem)										
Blank (EB60614-BLK1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EB60614-BS1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Sulfate	8.40		mg/L	10.0		84.0	80-120			
Chloride	8.99		"	10.0		89.9	80-120			
Calibration Check (EB60614-CCV1)				Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	8.93		mg/L	10.0		89.3	80-120			
Sulfate	8.63		"	10.0		86.3	80-120			
Duplicate (EB60614-DUP1)	**Source: 6B01010-01**			Prepared: 02/04/06 Analyzed: 02/06/06						
Chloride	224	5.00	mg/L		206			8.37	20	
Sulfate	72.9	5.00	"		66.5			9.18	20	
Batch EB60901 - General Preparation (WetChem)										
Blank (EB60901-BLK1)				Prepared & Analyzed: 02/08/06						
Total Alkalinity	ND	2.00	mg/L							

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60901 - General Preparation (WetChem)										
LCS (EB60901-BS1)				Prepared & Analyzed: 02/08/06						
Bicarbonate Alkalinity	210	2.00	mg/L	200		105	85-115			
Duplicate (EB60901-DUP1)	**Source: 6B01010-01**			Prepared & Analyzed: 02/08/06						
Total Alkalinity	192	2.00	mg/L		191			0.522	20	
Reference (EB60901-SRM1)				Prepared & Analyzed: 02/08/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	02/16/06 17:36

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EB60903 - 6010B/No Digestion										
Blank (EB60903-BLK1)				Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EB60903-CCV1)				Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	2.06		mg/L	2.00		103	85-115			
Magnesium	2.05		"	2.00		102	85-115			
Potassium	1.92		"	2.00		96.0	85-115			
Sodium	1.90		"	2.00		95.0	85-115			
Duplicate (EB60903-DUP1)	**Source: 6B01010-01**			Prepared: 02/08/06 Analyzed: 02/09/06						
Calcium	62.1	0.0100	mg/L		61.2			1.46	20	
Magnesium	43.5	0.0100	"		44.8			2.94	20	
Potassium	10.3	0.500	"		10.4			0.966	20	
Sodium	161	0.500	"		157			2.52	20	

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Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 2/16/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpriceswd@valornet.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Jct. F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well #1 Deep	1/31/2006	9:50	3	X		2			1		X					X	X					X			X					X
-02	Monitor Well #2 Shallow	1/31/2006	9:15	3	X		2			1		X					X	X					X			X					X

Special Instructions:
PLEASE Email RESULTS TO: kpriceswd@valornet.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.0

Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	2/2/06	6:00		2/2/06	6:01
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	2/2/06	9:00		2/2/06	9:00

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 2/2/06 9:00

Order #: 602006

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

_____

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6E04010

Report Date: 05/09/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6E04010-01	Water	05/02/06 10:40	05/04/06 10:50
Monitor Well #2- Shallow	6E04010-02	Water	05/02/06 09:05	05/04/06 10:50

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Benzene	ND	0.00100	mg/L	1	EE60404	05/04/06	05/04/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*96.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.5 %*	*80-120*		"	"	"	"	
Monitor Well #2- Shallow (6E04010-02) Water									
Benzene	ND	0.00100	mg/L	1	EE60404	05/04/06	05/04/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Total Alkalinity	**137**	2.00	mg/L	1	EE60814	05/09/06	05/09/06	EPA 310.1M	
Chloride	**298**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Total Dissolved Solids	**996**	5.00	"	1	EE60816	05/05/06	05/08/06	EPA 160.1	
Sulfate	**62.9**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Monitor Well #2- Shallow (6E04010-02) Water									
Total Alkalinity	**251**	2.00	mg/L	1	EE60814	05/09/06	05/09/06	EPA 310.1M	
Chloride	**160**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	
Total Dissolved Solids	**1040**	5.00	"	1	EE60816	05/05/06	05/08/06	EPA 160.1	
Sulfate	**153**	5.00	"	10	EE60507	05/04/06	05/04/06	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6E04010-01) Water									
Calcium	**173**	0.500	mg/L	50	EE60811	05/08/06	05/08/06	EPA 200.7	
Magnesium	**24.8**	0.0100	"	10	"	"	"	"	
Potassium	**2.43**	0.500	"	"	"	"	"	"	
Sodium	**47.1**	0.100	"	"	"	"	"	"	
Monitor Well #2- Shallow (6E04010-02) Water									
Calcium	**72.1**	0.100	mg/L	10	EE60811	05/08/06	05/08/06	EPA 200.7	
Magnesium	**20.5**	0.0100	"	"	"	"	"	"	
Potassium	**2.78**	0.500	"	"	"	"	"	"	
Sodium	**138**	0.500	"	50	"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60404 - EPA 5030C (GC)										
Blank (EE60404-BLK1)				Prepared & Analyzed: 05/04/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotolnene	*36.7*		*ug/l*	*40.0*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.6*		*"*	*40.0*		*84.0*	*80-120*			
LCS (EE60404-BS1)				Prepared & Analyzed: 05/04/06						
Benzene	0.0536	0.00100	mg/L	0.0500		107	80-120			
Toluene	0.0531	0.00100	"	0.0500		106	80-120			
Ethylbenzene	0.0509	0.00100	"	0.0500		102	80-120			
Xylene (p/m)	0.117	0.00100	"	0.100		117	80-120			
Xylene (o)	0.0573	0.00100	"	0.0500		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.3*		*ug/l*	*40.0*		*98.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.5*		*"*	*40.0*		*98.8*	*80-120*			
Calibration Check (EE60404-CCV1)				Prepared: 05/04/06 Analyzed: 05/05/06						
Benzene	50.2		ug/l	50.0		100	80-120			
Toluene	49.3		"	50.0		98.6	80-120			
Ethylbenzene	53.0		"	50.0		106	80-120			
Xylene (p/m)	105		"	100		105	80-120			
Xylene (o)	52.4		"	50.0		105	80-120			
Surrogate: a,a,a-Trifluorotolnene	*35.3*		*"*	*40.0*		*88.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.2*		*"*	*40.0*		*95.5*	*80-120*			
Matrix Spike (EE60404-MS1)	**Source: 6E03003-01**			Prepared & Analyzed: 05/04/06						
Benzene	0.0626	0.00100	mg/L	0.0500	0.00562	114	80-120			
Toluene	0.0534	0.00100	"	0.0500	ND	107	80-120			
Ethylbenzene	0.0534	0.00100	"	0.0500	0.000825	105	80-120			
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120			
Xylene (o)	0.0577	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotolnene	*36.6*		*ug/l*	*40.0*		*91.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.6*		*"*	*40.0*		*96.5*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60404 - EPA 5030C (GC)										
Matrix Spike Dup (EE60404-MSD1)	**Source: 6E03003-01**			Prepared & Analyzed: 05/04/06						
Benzene	0.0617	0.00100	mg/L	0.0500	0.00562	112	80-120	1.77	20	
Toluene	0.0526	0.00100	"	0.0500	ND	105	80-120	1.89	20	
Ethylbenzene	0.0532	0.00100	"	0.0500	0.000825	105	80-120	0.00	20	
Xylene (p/m)	0.117	0.00100	"	0.100	ND	117	80-120	2.53	20	
Xylene (o)	0.0565	0.00100	"	0.0500	ND	113	80-120	1.75	20	
Surrogate: a,a,a-Trifluorotoluene	*40.9*		*ug/l*	*40.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.0*		*"*	*40.0*		*100*	*80-120*			

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60507 - General Preparation (WetChem)										
Blank (EE60507-BLK1)				Prepared & Analyzed: 05/04/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EE60507-BS1)				Prepared & Analyzed: 05/04/06						
Chloride	9.99	0.500	mg/L	10.0		99.9	80-120			
Sulfate	8.53	0.500	"	10.0		85.3	80-120			
Calibration Check (EE60507-CCV1)				Prepared & Analyzed: 05/04/06						
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	9.15		"	10.0		91.5	80-120			
Duplicate (EE60507-DUP1)	**Source: 6D28002-02**			Prepared & Analyzed: 05/04/06						
Sulfate	52.7	0.500	mg/L		53.3			1.13	20	
Chloride	62.0	0.500	"		62.1			0.161	20	
Batch EE60814 - General Preparation (WetChem)										
Blank (EE60814-BLK1)				Prepared & Analyzed: 05/09/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EE60814-BS1)				Prepared & Analyzed: 05/09/06						
Bicarbonate Alkalinity	214	2.00	mg/L	200		107	85-115			
Duplicate (EE60814-DUP1)	**Source: 6E04009-01**			Prepared & Analyzed: 05/09/06						
Total Alkalinity	209	2.00	mg/L		208			0.480	20	
Reference (EE60814-SRM1)				Prepared & Analyzed: 05/09/06						
Total Alkalinity	96.0		mg/L	100		96.0	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60816 - Filtration Preparation										
Blank (EE60816-BLK1)				Prepared: 05/05/06 Analyzed: 05/08/06						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE60816-DUP1)	**Source: 6E04009-01**			Prepared: 05/05/06 Analyzed: 05/08/06						
Total Dissolved Solids	940	5.00	mg/L		904			3.90	5	

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Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE60811 - 6010B/No Digestion										
Blank (EE60811-BLK1)				Prepared & Analyzed: 05/08/06						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EE60811-CCV1)				Prepared & Analyzed: 05/08/06						
Calcium	2.20		mg/L	2.00		110	85-115			
Magnesium	2.28		"	2.00		114	85-115			
Potassium	1.74		"	2.00		87.0	85-115			
Sodium	1.84		"	2.00		92.0	85-115			
Duplicate (EE60811-DUP1)	**Source: 6E04009-01**			Prepared & Analyzed: 05/08/06						
Calcium	130	0.500	mg/L		128			1.55	20	
Magnesium	22.5	0.0100	"		23.2			3.06	20	
Potassium	4.11	0.0500	"		4.32			4.98	20	
Sodium	87.6	0.100	"		88.0			0.456	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	05/09/06 14:23

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 5/9/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Jct. F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl (2) 40 ml glass vials	NaOH	H_2SO_4	None (1) 1 Liter HDPE	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
401001																																
-01	Monitor Well #1~Deep	5/2/2006	10:40	3	X		2			1		X						X	X					X			X					X
-02	Monitor Well #2 ~ Shallow	5/2/2006	9:05	3	X		2			1		X						X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: ~~Containers~~ / Cooler
Temperature Upon Receipt:

Laboratory Comments: 0.5

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	5/4/06	6:00	James Johnson	5/4/06	6:01
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
James Johnson	5/4/06	10:50	Cecil Cole	5/4/06	10:50

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 5/4/04 10:50

Order #: 1E04010

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Apolicable

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 6H18011

Report Date: 08/28/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6H18011-01	Water	08/15/06 08:40	08-18-2006 10:20
Monitor Well #2- Shallow	6H18011-02	Water	08/15/06 10:05	08-18-2006 10:20

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Benzene	ND	0.00100	mg/L	1	EH62121	08/21/06	08/21/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.5 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.2 %*		*80-120*	"	"	"	"	
Monitor Well #2- Shallow (6H18011-02) Water									
Benzene	ND	0.00100	mg/L	1	EH62121	08/21/06	08/21/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*102 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*		*80-120*	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Total Alkalinity	**158**	2.00	mg/L	1	EH62128	08/21/06	08/21/06	EPA 310.1M	
Chloride	**302**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Total Dissolved Solids	**1060**	10.0	"	1	EH62303	08/18/06	08/22/06	EPA 160.1	
Sulfate	**80.7**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Monitor Well #2- Shallow (6H18011-02) Water									
Total Alkalinity	**234**	2.00	mg/L	1	EH62128	08/21/06	08/21/06	EPA 310.1M	
Chloride	**81.9**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	
Total Dissolved Solids	**578**	10.0	"	1	EH62303	08/18/06	08/22/06	EPA 160.1	
Sulfate	**104**	5.00	"	10	EH62101	08/21/06	08/21/06	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6H18011-01) Water									
Calcium	**154**	4.05	mg/L	50	EH62313	08/23/06	08/23/06	EPA 200.7	
Magnesium	**24.5**	0.360	"	10	"	"	"	"	
Potassium	**2.88**	0.600	"	"	"	"	"	"	
Sodium	**70.5**	0.430	"	"	"	"	"	"	
Monitor Well #2- Shallow (6H18011-02) Water									
Calcium	**49.0**	0.810	mg/L	10	EH62313	08/23/06	08/23/06	EPA 200.7	
Magnesium	**13.3**	0.360	"	"	"	"	"	"	
Potassium	**1.76**	0.600	"	"	"	"	"	"	
Sodium	**145**	2.15	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62121 - EPA 5030C (GC)										
Blank (EH62121-BLK1)				Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/l*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*36.7*		*"*	*40.0*		*91.8*	*80-120*			
LCS (EH62121-BS1)				Prepared & Analyzed: 08/21/06						
Benzene	0.0460	0.00100	mg/L	0.0500		92.0	80-120			
Toluene	0.0503	0.00100	"	0.0500		101	80-120			
Ethylbenzene	0.0463	0.00100	"	0.0500		92.6	80-120			
Xylene (p/m)	0.113	0.00100	"	0.100		113	80-120			
Xylene (o)	0.0565	0.00100	"	0.0500		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.7*		*ug/l*	*40.0*		*99.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.0*		*"*	*40.0*		*112*	*80-120*			
Calibration Check (EH62121-CCV1)				Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	48.7		ug/l	50.0		97.4	80-120			
Toluene	52.3		"	50.0		105	80-120			
Ethylbenzene	57.3		"	50.0		115	80-120			
Xylene (p/m)	114		"	100		114	80-120			
Xylene (o)	57.6		"	50.0		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*44.7*		*"*	*40.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.3*		*"*	*40.0*		*95.8*	*80-120*			
Matrix Spike (EH62121-MS1)	**Source: 6H18007-01**			Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	0.0464	0.00100	mg/L	0.0500	ND	92.8	80-120			
Toluene	0.0550	0.00100	"	0.0500	ND	110	80-120			
Ethylbenzene	0.0554	0.00100	"	0.0500	ND	111	80-120			
Xylene (p/m)	0.117	0.00100	"	0.100	ND	117	80-120			
Xylene (o)	0.0575	0.00100	"	0.0500	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*ug/l*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.5*		*"*	*40.0*		*116*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62121 - EPA 5030C (GC)										
Matrix Spike Dup (EH62121-MSD1)	**Source: 6H18007-01**			Prepared: 08/21/06 Analyzed: 08/22/06						
Benzene	0.0473	0.00100	mg/L	0.0500	ND	94.6	80-120	1.92	20	
Toluene	0.0535	0.00100	"	0.0500	ND	107	80-120	2.76	20	
Ethylbenzene	0.0549	0.00100	"	0.0500	ND	110	80-120	0.905	20	
Xylene (p/m)	0.120	0.00100	"	0.100	ND	120	80-120	2.53	20	
Xylene (o)	0.0583	0.00100	"	0.0500	ND	117	80-120	1.72	20	
Surrogate: a,a,a-Trifluorotoluene	*42.9*		*ug/l*	*40.0*		*107*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.4*		*"*	*40.0*		*116*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62101 - General Preparation (WetChem)										
Blank (EH62101-BLK1)				Prepared & Analyzed: 08/21/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EH62101-BS1)				Prepared & Analyzed: 08/21/06						
Sulfate	8.51	0.500	mg/L	10.0		85.1	80-120			
Chloride	10.0	0.500	"	10.0		100	80-120			
Calibration Check (EH62101-CCV1)				Prepared & Analyzed: 08/21/06						
Sulfate	8.34		mg/L	10.0		83.4	80-120			
Chloride	10.2		"	10.0		102	80-120			
Duplicate (EH62101-DUP1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Sulfate	76.3	5.00	mg/L		65.9			14.6	20	
Chloride	105	5.00	"		98.9			5.98	20	
Duplicate (EH62101-DUP2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/21/06						
Sulfate	331	5.00	mg/L		336			1.50	20	
Chloride	138	5.00	"		136			1.46	20	
Matrix Spike (EH62101-MS1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Sulfate	172	5.00	mg/L	100	65.9	106	80-120			
Chloride	210	5.00	"	100	98.9	111	80-120			
Matrix Spike (EH62101-MS2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/21/06						
Sulfate	422	5.00	mg/L	100	336	86.0	80-120			
Chloride	224	5.00	"	100	136	88.0	80-120			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62128 - General Preparation (WetChem)										
Blank (EH62128-BLK1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EH62128-BS1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	178		mg/L	200		89.0	85-115			
Duplicate (EH62128-DUP1)	**Source: 6H18007-01**			Prepared & Analyzed: 08/21/06						
Total Alkalinity	186	2.00	mg/L		186			0.00	20	
Reference (EH62128-SRM1)				Prepared & Analyzed: 08/21/06						
Total Alkalinity	248		mg/L	250		99.2	90-110			
Batch EH62303 - Filtration Preparation										
Blank (EH62303-BLK1)				Prepared: 08/18/06 Analyzed: 08/22/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EH62303-DUP1)	**Source: 6H18007-01**			Prepared: 08/18/06 Analyzed: 08/22/06						
Total Dissolved Solids	556	10.0	mg/L		526			5.55	5	R5
Duplicate (EH62303-DUP2)	**Source: 6H18013-04**			Prepared & Analyzed: 08/18/06						
Total Dissolved Solids	808	10.0	mg/L		930			14.0	5	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62313 - 6010B/No Digestion										
Blank (EH62313-BLK1)				Prepared & Analyzed: 08/23/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EH62313-CCV1)				Prepared & Analyzed: 08/23/06						
Calcium	1.96		mg/L	2.00		98.0	85-115			
Magnesium	2.01		"	2.00		100	85-115			
Potassium	1.76		"	2.00		88.0	85-115			
Sodium	1.96		"	2.00		98.0	85-115			
Duplicate (EH62313-DUP1)	**Source: 6H15005-04**			Prepared & Analyzed: 08/23/06						
Calcium	44.4	0.810	mg/L		45.9			3.32	20	
Magnesium	48.1	0.360	"		49.3			2.46	20	
Potassium	42.9	0.600	"		42.6			0.702	20	
Sodium	44.4	0.430	"		43.5			2.05	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

R5	RPD is outside of historic values
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 8/28/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl (2) 40 ml glass vials	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None (1) 1 Liter HDPE	Preservative: Other (specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP:	Analyze For: TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
34180																	X															
-01	Monitor Well #1-Deep	8/15/2006	8:40	3	X		2			1		X						X	X					X			X					X
-02	Monitor Well #2-Shallow	8/15/2006	10:05	3	X		2			1		X						X	X					X			X					X

Special Instructions:
PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt:
Laboratory Comments: 4.0

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	8/18/06	5:30	James Johnson	8-18-06	5:31
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
James Johnson	8/18/06	10:20	Cecil Cobb	8/18/06	10:20

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice DP

Date/ Time: 8/18/08 10:20

Lab ID # : 6H18011

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.0 °C	
#2	Shipping container in good condition?	~~Yes~~	No		
#3	Custody Seals intact on shipping container/ cooler?	~~Yes~~	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	~~Yes~~	No	Not Present	
#5	Chain of Custody present?	~~Yes~~	No		
#6	Sample instructions complete of Chain of Custody?	~~Yes~~	No		
#7	Chain of Custody signed when relinquished/ received?	~~Yes~~	No		
#8	Chain of Custody agrees with sample label(s)?	~~Yes~~	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	~~Yes~~	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	~~Yes~~	No		
#11	Containers supplied by ELOT?	~~Yes~~	No		
#12	Samples in proper container/ bottle?	~~Yes~~	No	See Below	
#13	Samples properly preserved?	~~Yes~~	No	See Below	
#14	Sample bottles intact?	~~Yes~~	No		
#15	Preservations documented on Chain of Custody?	~~Yes~~	No		
#16	Containers documented on Chain of Custody?	~~Yes~~	No		
#17	Sufficient sample amount for indicated test(s)?	~~Yes~~	No	See Below	
#18	All samples received within sufficient hold time?	~~Yes~~	No	See Below	
#19	VOC samples have zero headspace?	~~Yes~~	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: T18S R38E Sec 29 F- Lea County, NM

Lab Order Number: 6K08007

Report Date: 11/15/06

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1- Deep	6K08007-01	Water	11/03/06 09:35	11-08-2006 14:50
Monitor Well #2- Shallow	6K08007-02	Water	11/03/06 10:15	11-08-2006 14:50

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Benzene	ND	0.00100	mg/L	1	EK60808	11/10/06	11/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.0 %*	*80-120*		"	"	"	"	
Monitor Well #2- Shallow (6K08007-02) Water									
Benzene	ND	0.00100	mg/L	1	EK60808	11/10/06	11/10/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*88.0 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*93.0 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Total Alkalinity	**152**	2.00	mg/L	1	EK61307	11/14/06	11/14/06	EPA 310.1M	
Chloride	**285**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Total Dissolved Solids	**866**	10.0	"	1	EK61306	11/09/06	11/10/06	EPA 160.1	
Sulfate	**86.1**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Monitor Well #2- Shallow (6K08007-02) Water									
Total Alkalinity	**228**	2.00	mg/L	1	EK61307	11/14/06	11/14/06	EPA 310.1M	
Chloride	**79.6**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	
Total Dissolved Solids	**592**	10.0	"	1	EK61306	11/09/06	11/10/06	EPA 160.1	
Sulfate	**111**	5.00	"	10	EK60911	11/09/06	11/09/06	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1- Deep (6K08007-01) Water									
Calcium	**166**	4.05	mg/L	50	EK60919	11/09/06	11/09/06	EPA 6010B	
Magnesium	**23.5**	0.360	"	10	"	"	"	"	
Potassium	**3.30**	0.600	"	"	"	"	"	"	
Sodium	**77.6**	0.430	"	"	"	"	"	"	
Monitor Well #2- Shallow (6K08007-02) Water									
Calcium	**53.8**	0.810	mg/L	10	EK60919	11/09/06	11/09/06	EPA 6010B	
Magnesium	**13.7**	0.360	"	"	"	"	"	"	
Potassium	**1.88**	0.600	"	"	"	"	"	"	
Sodium	**124**	2.15	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60808 - EPA 5030C (GC)										
Blank (EK60808-BLK1)				Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*40.3*		*ug/l*	*40.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.5*		*"*	*40.0*		*83.8*	*80-120*			
LCS (EK60808-BS1)				Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0525	0.00100	mg/L	0.0500		105	80-120			
Toluene	0.0458	0.00100	"	0.0500		91.6	80-120			
Ethylbenzene	0.0457	0.00100	"	0.0500		91.4	80-120			
Xylene (p/m)	0.0919	0.00100	"	0.100		91.9	80-120			
Xylene (o)	0.0448	0.00100	"	0.0500		89.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.2*		*ug/l*	*40.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.5*		*"*	*40.0*		*104*	*80-120*			
Calibration Check (EK60808-CCV1)				Prepared: 11/08/06 Analyzed: 11/11/06						
Benzene	50.9		ug/l	50.0		102	80-120			
Toluene	45.0		"	50.0		90.0	80-120			
Ethylbenzene	46.8		"	50.0		93.6	80-120			
Xylene (p/m)	90.9		"	100		90.9	80-120			
Xylene (o)	45.4		"	50.0		90.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*39.9*		*"*	*40.0*		*99.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.0*		*"*	*40.0*		*97.5*	*80-120*			
Matrix Spike (EK60808-MS1)	**Source: 6K06005-01**			Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0503	0.00100	mg/L	0.0500	ND	101	80-120			
Toluene	0.0458	0.00100	"	0.0500	ND	91.6	80-120			
Ethylbenzene	0.0473	0.00100	"	0.0500	ND	94.6	80-120			
Xylene (p/m)	0.0939	0.00100	"	0.100	ND	93.9	80-120			
Xylene (o)	0.0465	0.00100	"	0.0500	ND	93.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*38.9*		*ug/l*	*40.0*		*97.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.4*		*"*	*40.0*		*108*	*80-120*			

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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Hobbs Jct. F-29-1A
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60808 - EPA 5030C (GC)										
Matrix Spike Dup (EK60808-MSD1)	**Source: 6K06005-01**			Prepared: 11/08/06 Analyzed: 11/10/06						
Benzene	0.0518	0.00100	mg/L	0.0500	ND	104	80-120	2.93	20	
Toluene	0.0465	0.00100	"	0.0500	ND	93.0	80-120	1.52	20	
Ethylbenzene	0.0478	0.00100	"	0.0500	ND	95.6	80-120	1.05	20	
Xylene (p/m)	0.0983	0.00100	"	0.100	ND	98.3	80-120	4.58	20	
Xylene (o)	0.0494	0.00100	"	0.0500	ND	98.8	80-120	6.05	20	
Surrogate: a,a,a-Trifluorotoluene	*41.8*		*ug/l*	*40.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.7*		*"*	*40.0*		*109*	*80-120*			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60911 - General Preparation (WetChem)										
Blank (EK60911-BLK1)				Prepared & Analyzed: 11/09/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EK60911-BS1)				Prepared & Analyzed: 11/09/06						
Chloride	10.9	0.500	mg/L	10.0		109	80-120			
Sulfate	10.1	0.500	"	10.0		101	80-120			
Calibration Check (EK60911-CCV1)				Prepared & Analyzed: 11/09/06						
Chloride	10.8		mg/L	10.0		108	80-120			
Sulfate	10.1		"	10.0		101	80-120			
Duplicate (EK60911-DUP1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Sulfate	86.2	5.00	mg/L		86.1			0.116	20	
Chloride	283	5.00	"		285			0.704	20	
Duplicate (EK60911-DUP2)	**Source: 6K09002-01**			Prepared & Analyzed: 11/09/06						
Sulfate	1650	20.0	mg/L		1590			3.70	20	
Chloride	248	20.0	"		239			3.70	20	
Matrix Spike (EK60911-MS1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Sulfate	184	5.00	mg/L	100	86.1	97.9	80-120			
Chloride	404	5.00	"	100	285	119	80-120			
Matrix Spike (EK60911-MS2)	**Source: 6K09002-01**			Prepared & Analyzed: 11/09/06						
Chloride	655	20.0	mg/L	400	239	104	80-120			
Sulfate	1960	20.0	"	400	1590	92.5	80-120			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK61306 - Filtration Preparation										
Blank (EK61306-BLK1)				Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EK61306-DUP1)	**Source: 6K07002-01**			Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	10400	10.0	mg/L		9240			11.8	5	S-08
Duplicate (EK61306-DUP2)	**Source: 6K08010-02**			Prepared: 11/09/06 Analyzed: 11/10/06						
Total Dissolved Solids	24600	10.0	mg/L		23600			4.15	5	
Batch EK61307 - General Preparation (WetChem)										
Blank (EK61307-BLK1)				Prepared & Analyzed: 11/14/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EK61307-BS1)				Prepared & Analyzed: 11/14/06						
Bicarbonate Alkalinity	192	2.00	mg/L	200		96.0	85-115			
Duplicate (EK61307-DUP1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/14/06						
Total Alkalinity	150	2.00	mg/L		152			1.32	20	
Reference (EK61307-SRM1)				Prepared & Analyzed: 11/14/06						
Total Alkalinity	248		mg/L	250		99.2	90-110			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK60919 - 6010B/No Digestion										
Blank (EK60919-BLK1)				Prepared & Analyzed: 11/09/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EK60919-CCV1)				Prepared & Analyzed: 11/09/06						
Calcium	2.28		mg/L	2.00		114	85-115			
Magnesium	2.14		"	2.00		107	85-115			
Potassium	1.87		"	2.00		93.5	85-115			
Sodium	2.04		"	2.00		102	85-115			
Duplicate (EK60919-DUP1)	**Source: 6K08007-01**			Prepared & Analyzed: 11/09/06						
Calcium	164	4.05	mg/L		166			1.21	20	
Magnesium	23.5	0.360	"		23.5			0.00	20	
Potassium	3.34	0.600	"		3.30			1.20	20	
Sodium	77.5	0.430	"		77.6			0.129	20	

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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Hobbs Jct. F-29-1A
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Notes and Definitions

S-08	Value outside Laboratory historical or method prescribed QC limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 11/15/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com

Company Name: RICE Operating Company

Company Address: 122 W. Taylor Street

City/State/Zip: Hobbs, New Mexico 88240

Telephone No: (505) 393-9174 Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: Hobbs Junction F-29-1A

Project #:

Project Loc: T18S R38E Sec29 F ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 610800 7

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None (1) 1 Liter HDPE	Other (Specify)	Matrix: (DW=Drinking Water SL=Sludge; GW=Groundwater S=Soil/Solid; NP=Non-Potable Specify Other)	Analyze For: TPH: 418.1 8015M 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
																	TCLP:																
																	TOTAL:								X							
01	Monitor Well #1-Deep			11/3/2006	9:35		3	X		2				1		GW			X	X					X			X				X
02	Monitor Well #2-Shallow			11/3/2006	10:15		3	X		2				1		GW			X	X					X			X				X

Special Instructions:
Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	11-8-06	2:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT: Chris Moser	Date 11/8/06	Time 2:50

Laboratory Comments:

Sample Containers intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep.?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: 0.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice Op.

Date/ Time: 11/8/04 2:50

Lab ID # : 6K08007

Initials: CK

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	0.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

R.T. HICKS CONSULTANTS, LTD.
1909 Brunson Avenue • Midland, Texas 79701-6924 • 432.638.8740 • Fax: 413.403.9968

CERTIFIED MAIL
RETURN RECIEPT NO. 7099 3400 0017 1737 2619

February 21, 2006

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: 2005 ANNUAL GROUNDWATER MONITORING REPORT
F-29-1A VENT, HOBBS ABANDONMENT SWD SYSTEM
UNIT 'F', SEC. 29, T18S, R38E
NMOCD CASE #1R0428

Mr. Price:

R. T. Hicks Consultants, Ltd. takes this opportunity to submit the 2005 Annual Groundwater Monitoring Report for the F-29-1A Vent site located in the Hobbs Salt Water Disposal (SWD) System. In your email on February 2, 2006, you withdrew the requirement for an abatement plan for the F-29-1A Vent site, under the conditions that the current on site monitor well remain for future monitoring in the area and that ROC shall submit documentation of closure activities. In 2006, Arc Environmental will sample the well and Environmental Lab of Texas of Odessa, Texas will continue to analyze the water samples. The Hobbs SWD System has been abandoned.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me at (423) 638-8740 or Kristin Farris Pope at (505) 393-9174.

Sincerely,

Gilbert J. Van Deventer, REM, PG
R. T. Hicks Consultants Ltd.

enclosures: Summary table & figure, analytical results

cc: LBG, CDH, KFP, RTH, file

TABLE AND FIGURES

Table 1

Summary of Groundwater Sampling Results

Hobbs Abandonment F-29-1A Vent Site

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Total Depth (feet BTOC)	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
MW-1 (Shallow)	12/2/04	60.64	74.80	**725**	---	**3280**	<0.001	<0.001	<0.001	<0.001
	3/22/05	60.08	74.80	**879**	**1780**	**3960**	<0.001	<0.001	<0.001	<0.001
	5/19/05	60.04	74.80	**626**	**788**	**2750**	<0.001	<0.001	<0.001	<0.001
	8/9/05	60.14	74.80	**470**	475	**1780**	<0.001	<0.001	<0.001	<0.001
	11/1/05	60.54	74.80	226	218	**1100**	<0.001	<0.001	<0.001	<0.001
	1/31/06	60.42	74.80	144	58.1	924	<0.001	<0.001	<0.001	<0.001
MW-1 (Deep)	12/2/04	60.74	102.57	**100**	---	465	<0.001	<0.001	<0.001	<0.001
	3/22/05	60.10	102.57	**613**	154	930	<0.001	<0.001	<0.001	<0.001
	5/19/05	60.13	102.57	**332**	84.5	**1260**	<0.001	<0.001	<0.001	<0.001
	8/9/05	60.22	102.57	**322**	75.7	**1080**	<0.001	<0.001	<0.001	<0.001
	11/1/05	60.45	102.57	**300**	63.2	986	<0.001	<0.0001	<0.001	<0.001
	1/31/06	60.54	102.57	**270**	58.1	**1000**	<0.001	<0.001	<0.001	<0.001
WQCC Standards				250	600	1000	0.01	0.75	0.75	0.62

Total Dissolved Solids (TDS), chloride, sulfate, and BTEX concentrations listed in milligrams per liter (mg/L)
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards.
BTOC - Below Top of Casing
--- Indicates parameter was not analyzed.

Figure 1
TDS, Chloride, Sulfate, and Depth to Groundwater Values Versus Time Graph
(Shallow MW-1)

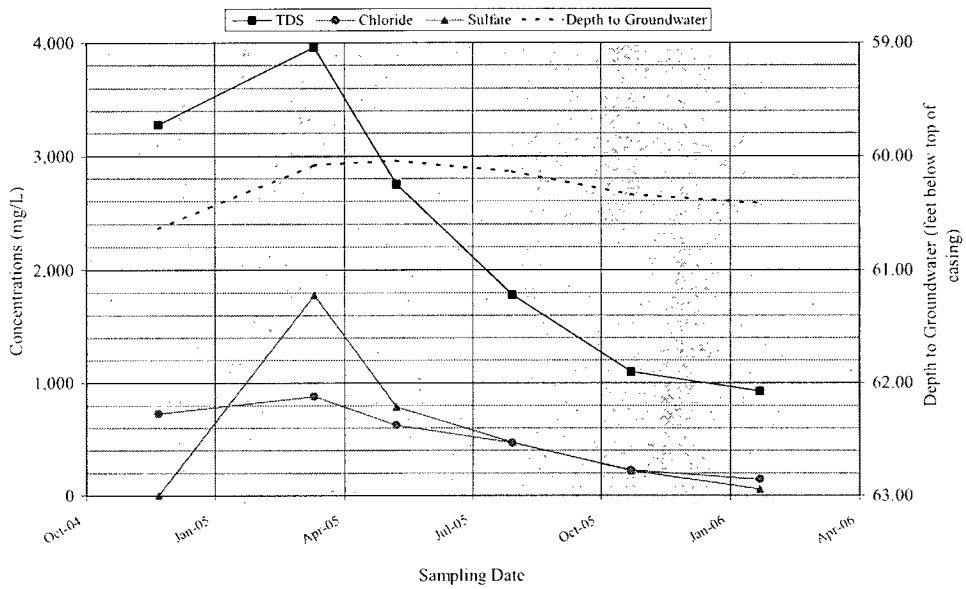
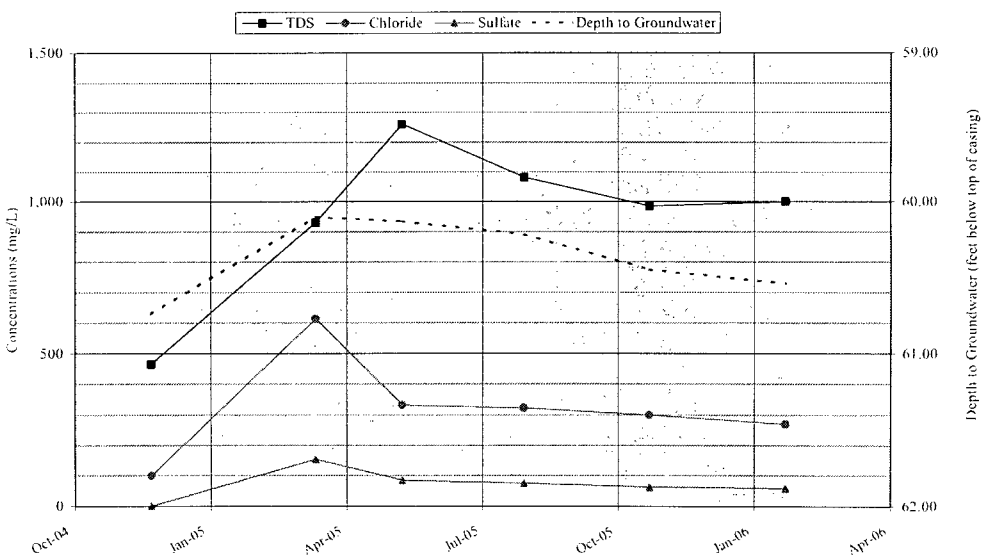


Figure 2
TDS, Chloride, Sulfate, and Depth to Groundwater Values Versus Time Graph
(Deep MW-1)



LABORATORY ANALYTICAL REPORTS

AND

CHAINS OF CUSTODY

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Vent F-29-1A

Project Number: None Given

Location: Hobbs/ Lea County

Lab Order Number: 5C23007

Report Date: 04/05/05

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	*Laboratory ID*	*Matrix*	*Date Sampled*	*Date Received*
SWB-1-1	5C23007-01	Water	03/22/05 15:35	03/23/05 08:00
SWB-1-2	5C23007-02	Water	03/22/05 15:10	03/23/05 08:00

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWB-1-1 (5C23007-01) Water									
Benzene	ND	0.00100	mg/L	1	EC52804	03/24/05	03/24/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*114 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.0 %*	*80-120*		"	"	"	"	
SWB-1-2 (5C23007-02) Water									
Benzene	ND	0.00100	mg/L	1	EC52804	03/24/05	03/24/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*81.0 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWB-1-1 (5C23007-01) Water									
Total Alkalinity	**144**	2.00	mg/L	1	EC52908	03/23/05	03/23/05	EPA 310.2M	
Chloride	**613**	5.00	"	10	EC52513	03/24/05	03/24/05	EPA 300.0	
Total Dissolved Solids	**930**	5.00	"	1	EC52507	03/24/05	03/25/05	EPA 160.1	
Sulfate	**154**	5.00	"	10	EC52513	03/24/05	03/24/05	EPA 300.0	
SWB-1-2 (5C23007-02) Water									
Total Alkalinity	**574**	2.00	mg/L	1	EC52908	03/23/05	03/23/05	EPA 310.2M	
Chloride	**879**	25.0	"	50	EC52513	03/24/05	03/24/05	EPA 300.0	
Total Dissolved Solids	**3960**	5.00	"	1	EC52507	03/24/05	03/25/05	EPA 160.1	
Sulfate	**1780**	25.0	"	50	EC52513	03/24/05	03/24/05	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWB-1-1 (5C23007-01) Water									
Calcium	**168**	1.00	mg/L	100	EC53102	03/29/05	03/30/05	EPA 6010B	
Magnesium	**26.4**	0.0100	"	10	"	"	"	"	
Sodium	**114**	0.100	"	"	"	"	"	"	
Potassium	**9.22**	0.100	"	2	EC53109	03/29/05	03/31/05	"	
SWB-1-2 (5C23007-02) Water									
Calcium	**36.4**	0.100	mg/L	10	EC53102	03/29/05	03/30/05	EPA 6010B	
Magnesium	**41.9**	0.0100	"	"	"	"	"	"	
Sodium	**1840**	10.0	"	1000	"	"	"	"	
Potassium	**32.5**	0.500	"	10	EC53109	03/29/05	03/31/05	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52804 - EPA 5030C (GC)										
Blank (EC52804-BLK1)				Prepared & Analyzed: 03/24/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*19.8*		*ug/l*	*20.0*		*99.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*17.3*		"	*20.0*		*86.5*	*80-120*			
LCS (EC52804-BS1)				Prepared & Analyzed: 03/24/05						
Benzene	100		ug/l	100		100	80-120			
Toluene	98.6		"	100		98.6	80-120			
Ethylbenzene	98.5		"	100		98.5	80-120			
Xylene (p/m)	201		"	200		100	80-120			
Xylene (o)	94.1		"	100		94.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	*22.2*		"	*20.0*		*111*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*16.5*		"	*20.0*		*82.5*	*80-120*			
LCS Dup (EC52804-BSD1)				Prepared & Analyzed: 03/24/05						
Benzene	101		ug/l	100		101	80-120	0.995	20	
Toluene	99.0		"	100		99.0	80-120	0.405	20	
Ethylbenzene	97.8		"	100		97.8	80-120	0.713	20	
Xylene (p/m)	199		"	200		99.5	80-120	0.501	20	
Xylene (o)	99.5		"	100		99.5	80-120	5.58	20	
Surrogate: a,a,a-Trifluorotoluene	*22.5*		"	*20.0*		*112*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*16.5*		"	*20.0*		*82.5*	*80-120*			
Calibration Check (EC52804-CCV1)				Prepared: 03/24/05 Analyzed: 03/25/05						
Benzene	98.8		ug/l	100		98.8	80-120			
Toluene	95.7		"	100		95.7	80-120			
Ethylbenzene	97.6		"	100		97.6	80-120			
Xylene (p/m)	192		"	200		96.0	80-120			
Xylene (o)	103		"	100		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	*22.0*		"	*20.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*18.4*		"	*20.0*		*92.0*	*80-120*			

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52804 - EPA 5030C (GC)										
Matrix Spike (EC52804-MS1)	**Source: 5C23005-01**			Prepared: 03/24/05 Analyzed: 03/28/05						
Benzene	95.1		ug/l	100	ND	95.1	80-120			
Toluene	97.2		"	100	ND	97.2	80-120			
Ethylbenzene	89.2		"	100	ND	89.2	80-120			
Xylene (p/m)	183		"	200	ND	91.5	80-120			
Xylene (o)	93.3		"	100	ND	93.3	80-120			
Surrogate: a,a,a-Trifluorotoluene	*22.0*		"	*20.0*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*20.6*		"	*20.0*		*103*	*80-120*			

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52507 - General Preparation (WetChem)										
Blank (EC52507-BLK1)				Prepared: 03/24/05 Analyzed: 03/25/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EC52507-DUP1)	**Source: 5C23001-01**			Prepared: 03/24/05 Analyzed: 03/25/05						
Total Dissolved Solids	1140	5.00	mg/L		1140			0.00	20	
Batch EC52513 - General Preparation (WetChem)										
Blank (EC52513-BLK1)				Prepared & Analyzed: 03/24/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
Blank (EC52513-BLK2)				Prepared & Analyzed: 03/24/05						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EC52513-BS1)				Prepared & Analyzed: 03/24/05						
Chloride	10.4		mg/L	10.0		104	80-120			
Sulfate	9.53		"	10.0		95.3	80-120			
LCS (EC52513-BS2)				Prepared & Analyzed: 03/24/05						
Chloride	10.5		mg/L	10.0		105	80-120			
Sulfate	9.80		"	10.0		98.0	80-120			
Calibration Check (EC52513-CCV1)				Prepared & Analyzed: 03/24/05						
Chloride	10.6		mg/L	10.0		106	80-120			
Sulfate	9.93		"	10.0		99.3	80-120			

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC52513 - General Preparation (WetChem)										
Calibration Check (EC52513-CCV2)				Prepared & Analyzed: 03/24/05						
Sulfate	9.80		mg/L	10.0		98.0	80-120			
Chloride	10.6		"	10.0		106	80-120			
Duplicate (EC52513-DUP1)	**Source: 5C23001-01**			Prepared & Analyzed: 03/24/05						
Chloride	216	5.00	mg/L		215			0.464	20	
Sulfate	216	5.00	"		215			0.464	20	
Duplicate (EC52513-DUP2)	**Source: 5C23018-07**			Prepared & Analyzed: 03/24/05						
Chloride	1540	12.5	mg/L		1530			0.651	20	
Sulfate	163	12.5	"		163			0.00	20	
Batch EC52908 - General Preparation (WetChem)										
Blank (EC52908-BLK1)				Prepared & Analyzed: 03/23/05						
Total Alkalinity	ND	2.00	mg/L							
***Calibration* Check (EC52908-CCV1)**				Prepared & Analyzed: 03/23/05						
Carbonate Alkalinity	0.0500		mg/L	0.0500		100	80-120			
Duplicate (EC52908-DUP1)	**Source: 5C22002-01**			Prepared & Analyzed: 03/23/05						
Total Alkalinity	221	2.00	mg/L		220			0.454	20	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC53102 - 6010B/No Digestion										
Blank (EC53102-BLK1)				Prepared: 03/29/05 Analyzed: 03/30/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Sodium	ND	0.0100	"							
Calibration Check (EC53102-CCV1)				Prepared: 03/29/05 Analyzed: 03/30/05						
Calcium	2.25		mg/L	2.00		112	85-115			
Magnesium	1.93		"	2.00		96.5	85-115			
Sodium	2.18		"	2.00		109	85-115			
Duplicate (EC53102-DUP1)		**Source: 5C23001-01**		Prepared: 03/29/05 Analyzed: 03/30/05						
Calcium	47.7	0.100	mg/L		51.6			7.85	20	
Magnesium	62.7	0.0200	"		59.3			5.57	20	
Sodium	247	1.00	"		252			2.00	20	
Batch EC53109 - 6010B/No Digestion										
Blank (EC53109-BLK1)				Prepared: 03/29/05 Analyzed: 03/31/05						
Potassium	ND	0.0500	mg/L							
Calibration Check (EC53109-CCV1)				Prepared: 03/29/05 Analyzed: 03/31/05						
Potassium	2.02		mg/L	2.00		101	85-115			
Duplicate (EC53109-DUP1)		**Source: 5C23001-01**		Prepared: 03/29/05 Analyzed: 03/31/05						
Potassium	10.1	0.500	mg/L		10.7			5.77	20	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	04/05/05 14:51

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 4/5/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope
Company Name: Rice Operating
Company Address: 122 W. Taylor St.
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature:

Project Name: Hobbs Vent F29-1A
Project #:
Project Loc: Hobbs / Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	Preservative: HNO_3	Preservative: HCl	Preservative: NaOH	Preservative: H_2SO_4	Preservative: None	Preservative: Other (Specify)	Matrix: Water	Matrix: Sludge	Matrix: Soil	Matrix: Other (specify)	Analyze For: TCLP:	Analyze For: TOTAL: (TPH: 418.1 8015M 1005 1006)	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	TDS			RUSH TAT (Pre-Schedule)	Standard TAT
502300		2005																													
-01	SWB-1-1	3/22/05	15:35	3	X		X					X						X	X					X			X			X	
-02	SWB-1-2	3/22/05	15:10	3	X		X					X						X	X					X			X			X	

Special Instructions:
Please email analysis to kristin envirotech-inc.net

Sample Containers Intact? Y N
Temperature Upon Receipt: 0.5°C
Laboratory Comments: 1-L HDPE 2-40 mL glass w/HCl } each set on ice w/seals on containers + cooler

Relinquished by:	Date	Time	Received by:	Date	Time
	3/22/05	16:03		3-22-05	16:43
Relinquished by:	Date	Time	Received by ELOT: From Drop Box	Date	Time
	3-22-05	6:36p	Jeanne McMurray	03-23-05	08:00

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating

Date/Time: 3/23/05 10:15

Order #: 5C23007

Initials: CK

Sample Receipt Checklist

	Yes	No	
Temperature of container/cooler?			0.5 C
Shipping container/cooler in good condition?	(Yes)	No	
Custody Seals intact on shipping container/cooler?	(Yes)	No	Not present
Custody Seals intact on sample bottles?	(Yes)	No	Not present
Chain of custody present?	(Yes)	No	
Sample Instructions complete on Chain of Custody?	(Yes)	No	
Chain of Custody signed when relinquished and received?	(Yes)	No	
Chain of custody agrees with sample label(s)	(Yes)	No	
Container labels legible and intact?	(Yes)	No	
Sample Matrix and properties same as on chain of custody?	(Yes)	No	
Samples in proper container/bottle?	(Yes)	No	
Samples properly preserved?	(Yes)	No	
Sample bottles intact?	(Yes)	No	
Preservations documented on Chain of Custody?	(Yes)	No	
Containers documented on Chain of Custody?	(Yes)	No	
Sufficient sample amount for indicated test?	(Yes)	No	
All samples received within sufficient hold time?	(Yes)	No	
VOC samples have zero headspace?	(Yes)	No	Not Applicable

Other observations:

_____

_____

_____

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

_____

_____

Corrective Action Taken:

_____

_____

_____

_____

_____

_____

_____

_____

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Vent F-29-1A

Project Number: None Given

Location: Hobbs

Lab Order Number: 5E23001

Report Date: 06/07/05

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SWD B-1-1	5E23001-01	Water	05/19/05 09:47	05/20/05 18:00
SWD B-1-2	5E23001-02	Water	05/19/05 10:44	05/20/05 18:00

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWD B-1-1 (5E23001-01) Water									
Benzene	ND	0.00100	mg/L	1	EE52313	05/23/05	05/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.0 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.0 %*		*80-120*		"	"	"	
SWD B-1-2 (5E23001-02) Water									
Benzene	ND	0.00100	mg/L	1	EE52313	05/23/05	05/23/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.5 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWD B-1-1 (5E23001-01) Water									
Total Alkalinity	**142**	2.00	mg/L	1	EE52509	05/24/05	05/24/05	EPA 310.2M	
Chloride	**332**	5.00	"	10	EE52503	05/24/05	05/24/05	EPA 300.0	
Total Dissolved Solids	**1260**	5.00	"	1	EE52507	05/23/05	05/23/05	EPA 160.1	
Sulfate	**84.5**	5.00	"	10	EE52503	05/24/05	05/24/05	EPA 300.0	
SWD B-1-2 (5E23001-02) Water									
Total Alkalinity	**440**	2.00	mg/L	1	EE52509	05/24/05	05/24/05	EPA 310.2M	
Chloride	**626**	25.0	"	50	EE52503	05/24/05	05/24/05	EPA 300.0	
Total Dissolved Solids	**2750**	5.00	"	1	EE52507	05/23/05	05/23/05	EPA 160.1	
Sulfate	**788**	25.0	"	50	EE52503	05/24/05	05/24/05	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SWD B-1-1 (5E23001-01) Water									
Calcium	**130**	0.500	mg/L	50	EE52518	05/25/05	05/25/05	EPA 6010B	
Magnesium	**25.3**	0.0100	"	10	"	"	"	"	
Potassium	**5.92**	0.0500	"	1	"	"	"	"	
Sodium	**85.9**	0.100	"	10	"	"	"	"	
SWD B-1-2 (5E23001-02) Water									
Calcium	**71.4**	0.100	mg/L	10	EE52518	05/25/05	05/25/05	EPA 6010B	
Magnesium	**31.0**	0.0100	"	"	"	"	"	"	
Potassium	**10.9**	0.250	"	5	"	"	"	"	
Sodium	**682**	2.00	"	200	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE52313 - EPA 5030C (GC)										
Blank (EE52313-BLK1)				Prepared & Analyzed: 05/23/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*18.3*		*ug/l*	*20.0*		*91.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*21.1*		*"*	*20.0*		*106*	*80-120*			
LCS (EE52313-BS1)				Prepared & Analyzed: 05/23/05						
Benzene	94.6		ug/l	100		94.6	80-120			
Toluene	99.1		"	100		99.1	80-120			
Ethylbenzene	111		"	100		111	80-120			
Xylene (p/m)	224		"	200		112	80-120			
Xylene (o)	115		"	100		115	80-120			
Surrogate: a,a,a-Trifluorotoluene	*20.5*		*"*	*20.0*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.4*		*"*	*20.0*		*112*	*80-120*			
Calibration Check (EE52313-CCV1)				Prepared: 05/23/05 Analyzed: 05/24/05						
Benzene	84.6		ug/l	100		84.6	80-120			
Toluene	92.8		"	100		92.8	80-120			
Ethylbenzene	91.1		"	100		91.1	80-120			
Xylene (p/m)	182		"	200		91.0	80-120			
Xylene (o)	87.9		"	100		87.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	*17.3*		*"*	*20.0*		*86.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*19.4*		*"*	*20.0*		*97.0*	*80-120*			
Matrix Spike (EE52313-MS1)	**Source: 5E23008-05**			Prepared: 05/23/05 Analyzed: 05/24/05						
Benzene	92.0		ug/l	100	ND	92.0	80-120			
Toluene	91.8		"	100	ND	91.8	80-120			
Ethylbenzene	90.0		"	100	ND	90.0	80-120			
Xylene (p/m)	192		"	200	ND	96.0	80-120			
Xylene (o)	93.5		"	100	ND	93.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*18.3*		*"*	*20.0*		*91.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.8*		*"*	*20.0*		*114*	*80-120*			

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE52313 - EPA 5030C (GC)										
Matrix Spike Dup (EE52313-MSD1)	**Source: 5E23008-05**			Prepared: 05/23/05 Analyzed: 05/24/05						
Benzene	92.6		ug/l	100	ND	92.6	80-120	0.650	20	
Toluene	93.5		"	100	ND	93.5	80-120	1.83	20	
Ethylbenzene	94.9		"	100	ND	94.9	80-120	5.30	20	
Xylene (p/m)	187		"	200	ND	93.5	80-120	2.64	20	
Xylene (o)	95.2		"	100	ND	95.2	80-120	1.80	20	
Surrogate: a,a,a-Trifluorotoluene	*18.0*		"	*20.0*		*90.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.0*		"	*20.0*		*115*	*80-120*			

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE52503 - General Preparation (WetChem)										
Blank (EE52503-BLK1)				Prepared & Analyzed: 05/24/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EE52503-BS1)				Prepared & Analyzed: 05/24/05						
Chloride	10.5		mg/L	10.0		105	80-120			
Sulfate	9.69		"	10.0		96.9	80-120			
Calibration Check (EE52503-CCV1)				Prepared & Analyzed: 05/24/05						
Chloride	10.8		mg/L	10.0		108	80-120			
Sulfate	9.24		"	10.0		92.4	80-120			
Duplicate (EE52503-DUP1)	**Source: 5E20008-01**			Prepared & Analyzed: 05/24/05						
Chloride	345	10.0	mg/L		347			0.578	20	
Sulfate	462	10.0	"		478			3.40	20	
Batch EE52507 - Filtration Preparation										
Blank (EE52507-BLK1)				Prepared & Analyzed: 05/23/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EE52507-DUP1)	**Source: 5E19012-01**			Prepared & Analyzed: 05/23/05						
Total Dissolved Solids	704	5.00	mg/L		699			0.713	20	
Batch EE52509 - General Preparation (WetChem)										
Blank (EE52509-BLK1)				Prepared & Analyzed: 05/24/05						
Total Alkalinity	ND	2.00	mg/L							

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE52509 - General Preparation (WetChem)										
Duplicate (EE52509-DUP1)	**Source: 5E19001-01**			Prepared & Analyzed: 05/24/05						
Total Alkalinity	215	2.00	mg/L		214			0.466	20	
Reference (EE52509-SRM1)				Prepared & Analyzed: 05/24/05						
Bicarbonate Alkalinity	230		mg/L	200		115	80-120			

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EE52518 - 6010B/No Digestion										
Blank (EE52518-BLK1)				Prepared & Analyzed: 05/25/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Blank (EE52518-BLK2)				Prepared & Analyzed: 05/25/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EE52518-CCV1)				Prepared & Analyzed: 05/25/05						
Calcium	1.86		mg/L	2.00		93.0	85-115			
Magnesium	2.10		"	2.00		105	85-115			
Potassium	1.93		"	2.00		96.5	85-115			
Sodium	2.18		"	2.00		109	85-115			
Duplicate (EE52518-DUP1)	**Source: 5E19001-01**			Prepared & Analyzed: 05/25/05						
Calcium	51.6	0.500	mg/L		56.0			8.18	20	
Magnesium	26.4	0.0100	"		27.2			2.99	20	
Potassium	5.70	0.0500	"		5.69			0.176	20	
Sodium	109	0.100	"		110			0.913	20	
Duplicate (EE52518-DUP2)	**Source: 5E24016-01**			Prepared & Analyzed: 05/25/05						
Calcium	90.2	0.100	mg/L		89.5			0.779	20	
Magnesium	50.6	0.0100	"		50.5			0.198	20	
Potassium	10.7	0.500	"		11.0			2.76	20	
Sodium	244	0.500	"		248			1.63	20	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	06/07/05 14:10

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 6/7/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas I, Ltd.

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope
Company Name: Rice Operating
Company Address: 122 W Taylor St.
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Jake Ware

Project Name: Hobbs Vent F-29 1-A
Project #:
Project Loc: Hobbs
PO #:

LAB # (lab use only) 5E23001	FIELD CODE	Date Sampled 2005	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For (TCLP / TOTAL): TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Gamma	Total Dissolved Solids		RUSH TAT (Pre-Schedule)	Standard TAT
-01	SWD B-1-1	May 19	09:47	3	X		X					X					X	X					X				X			X
-02	SWD B-1-2	May 19	10:44	3	X		X					X					X	X					X				X			X

Special Instructions: Please email analysis to Kristin enviro@leaco.net

Relinquished by	Date	Time	Received by	Date	Time
Jake Ware	5-19-05	12:30	[signature]	5/19/05	1:330
[signature]	5/20	18:00	Received by ELOT: Jane McMurry	05-20-05	1800

Sample Containers Intact? (Y) N
Temperature Upon Receipt: -1.5 °C
Laboratory Comments:
1 - L HDPE
2 - 40 ml glass w/HCl
each set on ice w/ labels + seals
seal on cooler

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating

Date/Time: 5/20/05 18:00

Order #: 5E23001

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	-1.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Vent F-29-1A

Project Number: None Given

Location: Hobbs

Lab Order Number: 5H09005

Report Date: 08/24/05

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #SWD B-1-1	5H09005-01	Water	08/09/05 08:50	08/09/05 15:12
Monitor Well #SWD B-1-2	5H09005-02	Water	08/09/05 09:20	08/09/05 15:12

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #SWD B-1-1 (5H09005-01) Water									
Benzene	ND	0.00100	mg/L	1	EH51001	08/10/05	08/10/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*93.1 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.0 %*		*80-120*		"	"	"	
Monitor Well #SWD B-1-2 (5H09005-02) Water									
Benzene	ND	0.00100	mg/L	1	EH51001	08/10/05	08/10/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.7 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.5 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #SWD B-1-1 (5I109005-01) Water									
Total Alkalinity	**140**	2.00	mg/L	1	EH51207	08/10/05	08/10/05	EPA 310.2M	
Chloride	**322**	5.00	"	10	EH51906	08/15/05	08/15/05	EPA 300.0	
Total Dissolved Solids	**1080**	5.00	"	1	EH51002	08/10/05	08/11/05	EPA 160.1	
Sulfate	**75.7**	5.00	"	10	EH51906	08/15/05	08/15/05	EPA 300.0	
Monitor Well #SWD B-1-2 (5I109005-02) Water									
Total Alkalinity	**332**	2.00	mg/L	1	EH51207	08/10/05	08/10/05	EPA 310.2M	
Chloride	**470**	12.5	"	25	EH51906	08/15/05	08/15/05	EPA 300.0	
Total Dissolved Solids	**1780**	5.00	"	1	EH51002	08/10/05	08/11/05	EPA 160.1	
Sulfate	**475**	12.5	"	25	EH51906	08/15/05	08/15/05	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #SWD B-1-1 (5H09005-01) Water									
Calcium	**153**	0.500	mg/L	50	EH51103	08/11/05	08/11/05	EPA 6010B	
Magnesium	**24.7**	0.0100	"	10	"	"	"	"	
Potassium	**5.92**	0.0500	"	1	"	"	"	"	
Sodium	**81.4**	0.100	"	10	"	"	"	"	
Monitor Well #SWD B-1-2 (5H09005-02) Water									
Calcium	**142**	0.500	mg/L	50	EH51103	08/11/05	08/11/05	EPA 6010B	
Magnesium	**32.6**	0.0100	"	10	"	"	"	"	
Potassium	**6.92**	0.250	"	5	"	"	"	"	
Sodium	**477**	2.00	"	200	"	"	"	"	

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH51001 - EPA 5030C (GC)										
Blank (EH51001-BLK1)				Prepared & Analyzed: 08/10/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*98.2*		*ug/l*	*100*		*98.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*89.7*		*"*	*100*		*89.7*	*80-120*			
LCS (EH51001-BS1)				Prepared & Analyzed: 08/10/05						
Benzene	89.3		ug/l	100		89.3	80-120			
Toluene	92.2		"	100		92.2	80-120			
Ethylbenzene	91.4		"	100		91.4	80-120			
Xylene (p/m)	185		"	200		92.5	80-120			
Xylene (o)	85.5		"	100		85.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*116*		*"*	*100*		*116*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*115*		*"*	*100*		*115*	*80-120*			
Calibration Check (EH51001-CCV1)				Prepared & Analyzed: 08/10/05						
Benzene	97.2		ug/l	100		97.2	80-120			
Toluene	95.9		"	100		95.9	80-120			
Ethylbenzene	89.1		"	100		89.1	80-120			
Xylene (p/m)	179		"	200		89.5	80-120			
Xylene (o)	81.7		"	100		81.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	*117*		*"*	*100*		*117*	*0-200*			
Surrogate: 4-Bromofluorobenzene	*117*		*"*	*100*		*117*	*0-200*			
Matrix Spike (EH51001-MS1)	**Source: 5H03013-01**			Prepared: 08/10/05 Analyzed: 08/11/05						
Benzene	98.7		ug/l	100	ND	98.7	80-120			
Toluene	99.4		"	100	ND	99.4	80-120			
Ethylbenzene	99.9		"	100	ND	99.9	80-120			
Xylene (p/m)	202		"	200	ND	101	80-120			
Xylene (o)	92.7		"	100	ND	92.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	*90.6*		*"*	*100*		*90.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*103*		*"*	*100*		*103*	*80-120*			

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH51001 - EPA 5030C (GC)										
Matrix Spike Dup (EH51001-MSD1)	**Source: 5H03013-01**			Prepared: 08/10/05 Analyzed: 08/11/05						
Benzene	90.5		ug/l	100	ND	90.5	80-120	8.67	20	
Toluene	93.1		"	100	ND	93.1	80-120	6.55	20	
Ethylbenzene	93.7		"	100	ND	93.7	80-120	6.40	20	
Xylene (p/m)	188		"	200	ND	94.0	80-120	7.18	20	
Xylene (o)	87.9		"	100	ND	87.9	80-120	5.32	20	
Surrogate: a,a,a-Trifluorotoluene	*86.9*		*"*	*100*		*86.9*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*93.4*		*"*	*100*		*93.4*	*80-120*			

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH51002 - General Preparation (WetChem)										
Blank (EH51002-BLK1)				Prepared: 08/10/05 Analyzed: 08/11/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EH51002-DUP1)	**Source: 5H09005-01**			Prepared: 08/10/05 Analyzed: 08/11/05						
Total Dissolved Solids	1120	5.00	mg/L		1080			3.64	5	
Batch EH51207 - General Preparation (WetChem)										
Blank (EH51207-BLK1)				Prepared & Analyzed: 08/10/05						
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EH51207-DUP1)	**Source: 5H09005-01**			Prepared & Analyzed: 08/10/05						
Total Alkalinity	137	2.00	mg/L		140			2.17	20	
Reference (EH51207-SRM1)				Prepared & Analyzed: 08/10/05						
Bicarbonate Alkalinity	230		mg/L	200		115	80-120			
Batch EH51906 - General Preparation (WetChem)										
Blank (EH51906-BLK1)				Prepared & Analyzed: 08/15/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EH51906-BS1)				Prepared & Analyzed: 08/15/05						
Chloride	8.36		mg/L	10.0		83.6	80-120			
Sulfate	9.43		"	10.0		94.3	80-120			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH51906 - General Preparation (WetChem)										
Calibration Check (EH51906-CCV1)				Prepared & Analyzed: 08/15/05						
Chloride	9.85		mg/L	10.0		98.5	80-120			
Sulfate	11.4		"	10.0		114	80-120			
Duplicate (EH51906-DUP1)	**Source: 5H09007-02**			Prepared & Analyzed: 08/15/05						
Chloride	202	5.00	mg/L		203			0.494	20	
Sulfate	122	5.00	"		122			0.00	20	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH51103 - 6010B/No Digestion										
Blank (EH51103-BLK1)				Prepared & Analyzed: 08/11/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EH51103-CCV1)				Prepared & Analyzed: 08/11/05						
Calcium	1.95		mg/L	2.00		97.5	85-115			
Magnesium	2.17		"	2.00		108	85-115			
Potassium	1.90		"	2.00		95.0	85-115			
Sodium	1.84		"	2.00		92.0	85-115			
Duplicate (EH51103-DUP1)	**Source: 5H09005-01**			Prepared & Analyzed: 08/11/05						
Calcium	148	0.500	mg/L		153			3.32	20	
Magnesium	24.3	0.0100	"		24.7			1.63	20	
Potassium	5.97	0.0500	"		5.92			0.841	20	
Sodium	80.0	0.100	"		81.4			1.73	20	

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Rice Operating Co.	Project: Hobbs Vent F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Pope	08/24/05 08:42

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 8/24/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope
Company Name: Rice Operating
Company Address: 122 W. Taylor St.
City/State/Zip: Hobbs, NM 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature:

Project Name: Hobbs Vent F-29 1A
Project #:
Project Loc: Hobbs
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	T.D.S.			RUSH TAT (Pre-Scheduled)	Standard TAT
H09005																														
-01	Monitor Well #SWD B1-1	8-9-05	8:50	3	X		X					X					X	X				X			X				X
-02	" " SWD B-1-2	8-9-05	9:20	3	X		X					X					X	X				X			X				X

Special Instructions: Please email analysis to Kristin: Kpricesswd@valornet.com

Sample Containers Intact? Y N
Temperature Upon Receipt: 6°
Laboratory Comments: 0.0

Relinquished by:	Date	Time	Received by:	Date	Time
	8-9-05	10:52	Ray R. Rascon	8-9-05	1052
Ray R. Rascon	8-9-05	1403 MT	Received by ELOT:	8/9/05	1512

IL
ZVA

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice U.

Date/Time: 8/9/05 15:12

Order #: 5H09005

Initials: CR

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	0.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

5H09005-01-02 Neutral pH @ 8/9/05

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken:

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: Hobbs Jct. F-29-1A

Project Number: None Given

Location: Lea County

Lab Order Number: 5K02010

Report Date: 11/11/05

Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1 Deep	5K02010-01	Water	11/01/05 09:45	11/02/05 14:05
MW-2 Shallow	5K02010-02	Water	11/01/05 10:25	11/02/05 14:05

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 Deep (5K02010-01) Water									
Benzene	ND	0.00100	mg/L	1	EK50810	11/08/05	11/09/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.8 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.0 %*		*80-120*		"	"	"	
MW-2 Shallow (5K02010-02) Water									
Benzene	ND	0.00100	mg/L	1	EK50810	11/08/05	11/08/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*82.8 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 Deep (5K02010-01) Water									
Total Alkalinity	**140**	4.00	mg/L	2	EK50912	11/09/05	11/09/05	EPA 310.2M	
Chloride	**300**	5.00	"	10	EK50703	11/04/05	11/07/05	EPA 300.0	
Total Dissolved Solids	**986**	5.00	"	1	EK50803	11/03/05	11/04/05	EPA 160.1	
Sulfate	**63.2**	5.00	"	10	EK50703	11/04/05	11/07/05	EPA 300.0	
MW-2 Shallow (5K02010-02) Water									
Total Alkalinity	**274**	4.00	mg/L	2	EK50912	11/09/05	11/09/05	EPA 310.2M	
Chloride	**226**	5.00	"	10	EK50703	11/04/05	11/07/05	EPA 300.0	
Total Dissolved Solids	**1100**	5.00	"	1	EK50803	11/03/05	11/04/05	EPA 160.1	
Sulfate	**218**	5.00	"	10	EK50703	11/04/05	11/07/05	EPA 300.0	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 Deep (5K02010-01) Water									
Calcium	**141**	0.500	mg/L	50	EK50907	11/09/05	11/09/05	EPA 200.7	
Magnesium	**22.4**	0.0100	"	10	"	"	"	"	
Potassium	**5.70**	0.0500	"	1	"	"	"	"	
Sodium	**63.8**	0.500	"	50	"	"	"	"	
MW-2 Shallow (5K02010-02) Water									
Calcium	**64.6**	0.500	mg/L	50	EK50907	11/09/05	11/09/05	EPA 200.7	
Magnesium	**17.9**	0.0100	"	10	"	"	"	"	
Potassium	**4.31**	0.250	"	5	"	"	"	"	
Sodium	**278**	0.500	"	50	"	"	"	"	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50810 - EPA 5030C (GC)										
Blank (EK50810-BLK1)				Prepared & Analyzed: 11/08/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*0.0332*		"	*0.0400*		*83.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0323*		"	*0.0400*		*80.8*	*80-120*			
LCS (EK50810-BS1)				Prepared & Analyzed: 11/08/05						
Benzene	0.0400	0.00100	mg/L	0.0500		80.0	80-120			
Toluene	0.0402	0.00100	"	0.0500		80.4	80-120			
Ethylbenzene	0.0400	0.00100	"	0.0500		80.0	80-120			
Xylene (p/m)	0.0813	0.00100	"	0.100		81.3	80-120			
Xylene (o)	0.0415	0.00100	"	0.0500		83.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0347*		"	*0.0400*		*86.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0347*		"	*0.0400*		*86.8*	*80-120*			
Calibration Check (EK50810-CCV1)				Prepared: 11/08/05 Analyzed: 11/09/05						
Benzene	40.4		ug/l	50.0		80.8	80-120			
Toluene	40.9		"	50.0		81.8	80-120			
Ethylbenzene	40.2		"	50.0		80.4	80-120			
Xylene (p/m)	80.9		"	100		80.9	80-120			
Xylene (o)	40.8		"	50.0		81.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0346*		*mg/L*	*0.0400*		*86.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0343*		"	*0.0400*		*85.8*	*80-120*			
Matrix Spike (EK50810-MS1)	**Source: 5K03003-01**			Prepared: 11/08/05 Analyzed: 11/09/05						
Benzene	0.0401	0.00100	mg/L	0.0500	ND	80.2	80-120			
Toluene	0.0409	0.00100	"	0.0500	ND	81.8	80-120			
Ethylbenzene	0.0401	0.00100	"	0.0500	ND	80.2	80-120			
Xylene (p/m)	0.0802	0.00100	"	0.100	ND	80.2	80-120			
Xylene (o)	0.0418	0.00100	"	0.0500	ND	83.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0339*		"	*0.0400*		*84.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0344*		"	*0.0400*		*86.0*	*80-120*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50810 - EPA 5030C (GC)										
Matrix Spike Dup (EK50810-MSD1)		**Source: 5K03003-01**		Prepared & Analyzed: 11/08/05						
Benzene	0.0401	0.00100	mg/L	0.0500	ND	80.2	80-120	0.00	20	
Toluene	0.0407	0.00100	"	0.0500	ND	81.4	80-120	0.490	20	
Ethylbenzene	0.0404	0.00100	"	0.0500	ND	80.8	80-120	0.745	20	
Xylene (p/m)	0.0812	0.00100	"	0.100	ND	81.2	80-120	1.24	20	
Xylene (o)	0.0424	0.00100	"	0.0500	ND	84.8	80-120	1.43	20	
Surrogate: a,a,a-Trifluorotoluene	*0.0335*		"	*0.0400*		*83.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0381*		"	*0.0400*		*95.2*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50703 - General Preparation (WetChem)										
Blank (EK50703-BLK1)				Prepared: 11/04/05 Analyzed: 11/07/05						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EK50703-BS1)				Prepared: 11/04/05 Analyzed: 11/07/05						
Sulfate	8.75		mg/L	10.0		87.5	80-120			
Chloride	8.00		"	10.0		80.0	80-120			
Calibration Check (EK50703-CCV1)				Prepared: 11/04/05 Analyzed: 11/07/05						
Chloride	8.13		mg/L	10.0		81.3	80-120			
Sulfate	8.85		"	10.0		88.5	80-120			
Duplicate (EK50703-DUP1)	**Source: 5K02009-01**			Prepared: 11/04/05 Analyzed: 11/07/05						
Sulfate	105	10.0	mg/L		100			4.88	20	
Chloride	189	10.0	"		185			2.14	20	
Batch EK50803 - General Preparation (WetChem)										
Blank (EK50803-BLK1)				Prepared: 11/03/05 Analyzed: 11/04/05						
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EK50803-DUP1)	**Source: 5K02009-01**			Prepared: 11/03/05 Analyzed: 11/04/05						
Total Dissolved Solids	736	5.00	mg/L		762			3.47	5	
Batch EK50912 - General Preparation (WetChem)										
Blank (EK50912-BLK1)				Prepared & Analyzed: 11/09/05						
Total Alkalinity	ND	2.00	mg/L							

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50912 - General Preparation (WetChem)										
Duplicate (EK50912-DUP1)	**Source: 5K02009-01**			Prepared & Analyzed: 11/09/05						
Total Alkalinity	206	4.00	mg/L		208			0.966	20	
Reference (EK50912-SRM1)				Prepared & Analyzed: 11/09/05						
Bicarbonate Alkalinity	229		mg/L	200		114	80-120			

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK50907 - 6010B/No Digestion										
Blank (EK50907-BLK1)				Prepared & Analyzed: 11/09/05						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EK50907-CCV1)				Prepared & Analyzed: 11/09/05						
Calcium	1.96		mg/L	2.00		98.0	85-115			
Magnesium	2.14		"	2.00		107	85-115			
Potassium	1.89		"	2.00		94.5	85-115			
Sodium	1.88		"	2.00		94.0	85-115			
Duplicate (EK50907-DUP1)	**Source: 5K02009-01**			Prepared & Analyzed: 11/09/05						
Calcium	146	0.500	mg/L		136			7.09	20	
Magnesium	24.7	0.0100	"		24.4			1.22	20	
Potassium	4.71	0.0500	"		4.79			1.68	20	
Sodium	87.3	0.500	"		85.0			2.67	20	

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Rice Operating Co.	Project: Hobbs Jct. F-29-1A	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	**Reported:**
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	11/11/05 12:15

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Celey D. Keene Date: 11/11/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
La Tasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpriceswd@valornet.com
Company Name: RICE Operating Company
Company Address: 122 W. Taylor Street
City/State/Zip: Hobbs, New Mexico 88240
Telephone No: (505) 393-9174 Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

Project Name: Hobbs Jct. F-29-1A
Project #:
Project Loc: Lea County
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids			RUSH TAT (Pre-Schedule)	Standard TAT
5K02010																														
-01	Monitor Well # 1 Deep	2005 11-1	9:45	3	X		X					X					X	X					X			X				X
-02	" " 2 Shallow	11-1	10:25	3	X		X					X					X	X					X			X				X

Special Instructions:
PLEASE Email RESULTS TO: kpriceswd@valornet.com & mfranks@riceswd.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers Locked
Temperature Upon Receipt: 1.0

Laboratory Comments:
2-VOA
1L-poly

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	11/2/05	2:04			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Carie Kelly	11/2/05	2:05

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Op.

Date/Time: 11/2/05 2:05

Order #: 5R02010

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	1.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - Date/Time: Contacted by:

Regarding:

Corrective Action Taken: