BW - ____31

ANNUAL REPORTS

BW-031

180 DAY Report 2019

Discharge Permit (BW-31), H.R.C., Inc. UIC Class III Brine well "Shubert '7' Well No. 1 (API No. 30-025-36781) UL: J Section 7 Township 19 South, Range 39 East, 2313FSL, 2313 FEL, Lat. 33.67388°, Long. 103.08360° NMPM, Lea County, New Mexico.

Pursuant to 20.6.2.3109A NMAC.

NM OCD approved the new discharge permit approval conditions on January 23, 2019

H.R.C., Inc. will notify the Director of any increase in the injection volume or injection pressure, or process modifications that would result in any changes in the water quality or volume of the discharge as to the Pursuant of 20.6.2.3107C NMAC.

H.R.C., Inc. Under 20.6.2.33106F will submit a discharge permit renewal application at least 120 days before this permit expires on January 23, 2024.

H.R.C., Inc. Subject to 20.6.2.3114 NMAC has submitted it's \$100.00 filing fee and the \$1.700.00 permit fee for the Shubert 7 well No. 1 (BW-31) to the Water Quality Management Fund.

General Provisions

H.R.C., Inc. has not had any effluents or leachate to discharge that would directly or indirectly reach the water top of 75 feet from surface. Pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC H.R.C., Inc. does not authorize any treatment of, or on-site disposal of, any materials, product, by-production, or oil-field waste at the Schubert 7 Well No. 1 and prohibits the injection of fluids as stated in pursuant of 20.6.2.5004A NMAC. That being:

- 1. The injection of fluids into a motor vehicle waste disposal well.
- 2. The injection of fluids into a large capacity cesspool.
- 3. The injection of any hazardous or radioactive waste into a well except as provided by 20.6.2.5004A (3) NMAC
- 4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.
- 5. Barrier wells, Drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

H.R.C., Inc. is operating in accordance and conditions specified in this Discharge Permit and is complying with the Quality Act and the rules issued to that Act as stated in 20.6.3109C NMAC. Chemical water Analysis are taken to provide the OCD with the water chemical contents showing the standards of 20.6.2.3103 & 20.6.2.3109H(2) NMAC protecting any discharge that will cause any stream or property standards to be violated so that no discharge of any water contaminant will result in a hazard to public health as per 20.6.2.3109H(3) NMAC. Please find the water Chemical Analysis at the end of this report. H.R.C., Inc. will and complies with 20.62.1 through 20.6.2.5399 NMAC for Class III wells.

Modifications and Terminations:

No modifications have been made at the Shubert 7 Well No. 1 facility and will notify the OCD Director and OCD's Environmental Bureau of any expansion or process modification as per 20.6.2.3107C NMAC. H.R.C., Inc. is aware that a Discharge Permit modification application pursuant to 20.6.2.3109E may be required by the OCD Director. H.R.C., Inc. understands that the OCD Director may require modification, or if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for Class III well that was approved pursuant to the requirements of 20.6.2.500 - 20.6.2.5399 NMAC for the following causes as stated in the Terms 1(A) through 1(c) and 2(a) through 2(c)

General Facility Operations:

H.R.C., Inc. is continuing to use both fresh water and water that comes from the treated non potable fresh water from the City of Hobbs. Both water types are tested by Cardinal Laboratories located at 101 E Marland street Hobbs, New Mexico. Please find the chemical analysis of the Fresh Water, City of Hobbs Treated Water, and the Brine Water produced by the Shubert 7 Well No. 1 (BW-031) attached at the end of this report. Daily readings of water being injected and brine water being extracted with pressure readings of the well are recorded. The average injection pressure is 200 psi and the average production pressure is 30 psi. Below are the monthly totals from January 2019 through July 2019 (Page 4). OCD has received H.R.C., Inc. 2018 yearly report that contains the totals of injected and extracted fluid totals.

FRESH WATER

Month - Date	Fresh Water Meter Reading (X 100)	F/W used by Gallons (x 100)	Total Injected BBL
Dec. 2018	1,285,131	Existing 2018 report	Existing 2018 report
Month - Date	Fresh Water Meter Reading (X 100)	F/W used by Gallons (x 100)	Total Injected BBL
January 31, 2019	1,297,613	12,482 x 100 / 42 =	29,719
February 28, 2019	1,309,580	11,967 x 100 / 42 =	28,492
March 30, 2019	1,321,281	11,701 x 100 / 42 =	27,860
April 30, 2019	1,328,262	6,981 x 100 / 42 =	16,612
May 31, 2019	1,335,808	7,546 x 100 / 42 =	13,967
June 30, 2019	1,347,336	11,528 x 100 / 42 =	27,447
July 31, 2019	1,357,337	10,001 x 100 / 42 =	23,812

PRODUCED BRINE

December 2018	Brine extracted BBL
January 2010	20.021
January 2019	30,031
February 2019	28,726
	20,720
March 2019	27,971
April 2019	16,717
May 2019	18,123
June 2019	27,630
July 2019	23,990

As pursuant of 20.6.2.5207C.

Groundwater Monitor Well

Please find at the end of this report the water analysis from the Shubert 7 Well No.1 (BW-031) Monitor well. The water analysis taken from the water monitor well at the Schubert 7 Well No. 1 location complies with EPA Quality Assurance / Control (QA/QC) and Data Quality Objectives (DQOs) and shows the following characteristics found within the water as per 20.6.2.3103.

Solution Cavern Monitoring Program

H.R.C., Inc. continues the Surface Subsidence Monitoring Plan that started on 9/9/15 with 4 monuments that monitor the elevation of the monuments and the top of the well casing. Recorded data of the surveying team is entered on a plat for viewing possible surface subsidence and is tied to the nearest USGS geodetic benchmark shown on the Survey Plat with the monuments and dates of each survey performed. The Survey is conducted and recorded by Gary L. Jones with Basin Surveys located at 1120 NW County Rd, Hobbs, New Mexico. Because this is a live document H.R.C., Inc. will report to the Department of the next survey as Basin Survey completes them Please find at the end of this report the latest Survey Plat performed at the Shubert 7 Well No. 1 (BW-031). There are no change to this date of May 7, 2019.

Solution Cavern Characterization Program

Reported Volumes from 2006 through 2017 had a total of 3,538,154 bbl. brine extracted from the BW-031 well. This amount had an average SG of 1.1951 producing brine at 9.97 PPG respectively. There is 252' of formation with 94 foot net pay of Halite being mined. To produce the quality brine a total of 432,135,977 lbs. of salt was used or a total volume of 5,401,700 ft.³ mined. This calculated to a base of 286.14' in diameter by 252' tall.

Reported Volumes from 2006 through 2018 had a total of 3,779,164 bbl. brine extracted from the well. This amount has an average SG of 1.1951 still producing at an average of 9.97 PPG brine solution though temperature of water very it is not enough to swing a difference in the brine saline composition. A total of 461,571,974.304 lbs. of Halite was used or a total volume of 5,769,650 ft.³ mined. 2018 cavern size increased by 367,950 ft.³ with an increase at the base of 9.58 ft. in diameter now at 295.72'. Using the OCD cavern control factor 295.72 / 1865'

equals 0.159 %. From 2006 through July 2019 a total of 3,952,352 bbl. as been produced yielding a total of 173,188 bbl. up to July 2019. This reflects an increase of 7.92' or 264,406 ft.³ of Halite mined with a calculated Cavern Control Factor of 0.163%.

Please find the Schematic drawings of the 2006 through 2018 and the 2006 through July 2019 Cavern Characterization with the formulation of data results at the end of this report.

Annual Certification

H.R.C., Inc. reported its 2018 annual report to OCD Santa Fe on January 17, 20019 submitting total volumes of fresh water, brine extraction; chemical water analysis and it surface subsidence monitoring findings for 2018 as stated above under Solution Cavern Characterization program shows that the well bore holds an OCD cavern control value for July 2019 of 0.163%.

Contingency plan

H.R.C., Inc. will follow NMAC 20.6.2.1203 where H.R.C., Inc.

1. As soon as possible after learning of such a discharge has occurred within 24 hours will orally notify the Chief of the Ground Water Quality Bureau of the department, or his counter partner in any constituent agency delegated responsibility for enforcement of these rules. H.R.C., Inc. will notify Jim Griswold or Carl Chavez in Santa Fe, District II Hobbs of any release discharge. The Plan will be immediately implemented as follows:

a. Name, address and telephone number of the person in charge of the facility as well as the owner or operator of the facility.

b. Name, and address of the facility.

- c. Date, and time, location and duration of the discharge.
- d. The source and cause of the discharge.
- e. A description of the discharge including its chemical composition.

f. The estimated volume of the discharge.

g. Any actions taken to mitigate immediate damage from the discharge.

H.R.C., Inc. within one week of a discharge will send written notification to the same department officials verifying the prior oral notification and providing any appropriate or corrections to the information contained in the prior oral notification.

The C-141 Release Notification and Correction Action form will be used. Once mitigation of the discharge is complete form C-141 will be filled out with the information of what and how the discharge was addressed within 15 days of the discharge.

H.R.C., Inc. will seek in an effort to determine the department's views as to what further corrective actions may be necessary or approved to the discharge in question.

Closure

H.R.C., Inc. will submit as a condition of C-103 Sundry approval and for OCD approval, a facility closure plan with third party cost estimate for its well pursuant to 20.6.2.5209 NMAC as specified in the permit conditions 2.I and 5.B to address the well plugging and abandonment, land surface restoration, environmental groundwater monitoring, pipeline abandonment and a five year surface subsidence monitoring plan. A pre-closure notification will be sent to OCD's Environmental Bureau at least 30 days prior to the date that is proposed to close or to discontinue operation of the Schubert 7 Well No. 1 (BW-031) pursuant to 20.2.5005A NMAC. H.R.C., Inc. understands and will seek the approval of the Environmental Bureau of all proposed well and facility closure before implementing the closure plan and will include the required information as stated from the 17 bullets of (2. Required Information)pursuant to 20.6.2.5005B NMAC.

Plugging and Abandonment Plan

A C-103 Intent form will be submitted for approval with the plugging plan with the C-103, a current wellbore diagram and a wellbore diagram of the proposed cement plugging will be sent for review and approval to the Environmental Bureau and District II in Hobbs H.R.C., Inc. will follow any changes that might be addressed and make corrections to the plan.

Record Keeping

H.R.C., Inc. maintains records of daily production, inspections, surveys, water analysis as required by the discharge plan and is available for review by OCD if needed.

Release Reporting

H.R.C., Inc. will follow its contingency plan as stated above with Oral notification and written Notification please see Contingency Plan in this report.

Other Requirements

H.R.C., Inc. will comply with 74-6-9 NMSA and 20.6.2.3107A NMAC and welcomes any authorized representative of the OCD Director to enter the premises, inspect and copy records, inspect any treatment works, monitoring, and analytical equipment, take samples of injection fluids or produced brine and conduct various types of environmental media sampling also to use H.R.C., Inc. monitor systems and wells in order to collect groundwater samples.

Advance Notice

H.R.C., Inc. will provide OCD's Environmental Bureau and the Hobbs District office at least 5 days advance notice of any environmental sampling to be performed, any well plugging, abandonment or decommissioning of any equipment associated with the BW-031.

Environmental Monitoring

Cardinal Laboratory samples and records its analytical data collected as specified in 20.6.2.3107B NMAC. Cardinal Laboratory is an accredited National Environmental Laboratory Accreditation Conference (NELAC). H.R.C., Inc. will continue to use Cardinal Laboratory and submit their water analysis to the Bureau when received from Cardinal Laboratory including all raw analytical data. BW-031 has a monitor well down gradient of the well as shown on the Surface Subsidence Monitoring survey plat where Cardinal Laboratory takes water for analytical chemical composition as stated in Section 2.A.1 of the Discharge Permit.

Bonding or Financial Assurance

H.R.C., Inc. pursuant to 20.6.2.5210B (17) maintains a single well bond that will cover the cost of plugging and abandonment of the BW-031 Class III well with the surface restoration, pipeline abandonment with the cost of monitoring the Monitor Fresh water well down gradient for five years. The Bond has been approved and in place with this renal permit.

Annual Report

H.R.C., Inc. Mr. Shubert reported that he has sent their 2018 Report on January 17, 2019.

Operating Requirements

1. H.R.C., Inc. is in the process of approving the AFE needed to do its remedial work on the BW-031 as stated on the approved C-103 and as stated within the permit under Brine Production Method. Once the AFE is approved H.R.C., Inc. will start to locate the needed casing, tubular pipe and downhole equipment that will be needed to complete the remedial work of the BW-031.

2. H.R.C., Inc. will notify the OCD's Environmental Bureau and Hobbs District Office within 24 hours if a discharge is suspected into a zone or zones other than the permitted injection zone of 1995'-2750'. The .2 factor per vertical foot of depth to the top of the stated interval of 1995'will be used as the standard to determine Maximum Surface Pressure. The maximum pressure is 399 psi at surface. Safe guards have been installed to shut down the operation if the pressure at 350 psi to assure that fracing does not occur.

3. Pipeline and connections will be hydro tested once the completion of the well has been done. Safety shut off devices will be installed to prevent a discharge if pressures reach above the high side of pressure or below the operating pressure. H.R.C., Inc. has a lease operator that daily inspects the lines, connections, pressures and tank levels where he records on a day to month report. H.R.C., will send OCD Environmental an updated wellhead schematic with the lines and connections that tie into the wellhead and the tubing showing where the meters, safety pressure devices are located with the hydrostatic test of the lines.

Injection Pressure Limits

1. Well Injection Pressure Limits for the Schubert 7 Well No. 1 (BW-031) is 399 PSI at surface. A 40 pound reduction will be used as a safety limit will be used where the maximum psi of 359 psi will be set on the safety device this will assure that fracing pressure is not reached.

2. BW-031 is equipped with the needed devices and alarms that will shut down the injection operations if a high or low set pressure is presented while injection is in operation. If creeping pressures arise H.R.C., Inc. will reverse flow from the tubing to the annulus to melt any salt blocks that might occur this method will be used periodically to keep the well clean and used as a preventive method of damaging the formation or fracking.

Continuous Monitoring

Pressure gauges will be placed at the top of the injection port and the annulus discharge port to allow a daily visual of the pressure activity on a daily visit to the well. The Lease Operator will

record each day his findings of the pressure. Daily meter readings will also be read and recorded with the flow volume stored within the brine tank battery.

Mechanical Integrity

BW-031 will undergo an MIT once the new casing is set at a depth of 100 foot below the top of the Salado where a plug (AD-1) packer will be set 20' from the casing shoe and tested to 500 psi for 30 minutes. District II and the OCD Environmental Bureau will be notified 5 days prior to conducting the MIT to allow OCD the opportunity to witness the MIT. All chart recorder information, Chart, Calibration Certificate will be provided to OCD within 5 days of the completion of the MIT.

Please contact me if there are any questions.

Respectfully Yours,

David H. Alvarado Acting Agent for H.R.C., Inc.

Alvarado & Sons Consulting LLC Phone: Email:

575-513-1238 davidal00136@gmail.com

Chavez, Carl J, EMNRD

From: Sent: To: Cc: Subject: Chavez, Carl J, EMNRD Thursday, January 4, 2018 10:37 AM 'Gary Schubert' Griswold, Jim, EMNRD BWs 31 and 36 Annual Reports

Gary:

Good morning. The New Mexico Oil Conservation Division (OCD) has completed its review of the above subject Annual Reports.

Regarding injection and production data, HRC, Inc. also needs to include injection well pressure data or information. Does HRC have an explanation for the relative percent difference in injection vol. (lower vol.) vs. production (higher vol.) exceeding 10%?

Regarding the subsidence well monitoring survey submittal, HRC, Inc. also needs to include information on the elevation transect with close-out elevation for every survey, which demonstrates the accuracy of every survey is required. The table of actual monument elevations per well over time to the nearest 0.01 ft. should definitely be provided. A graph of each monument survey elevation from the table is recommended, but optional, and will assist the operator in providing the data necessary to substantiate request for a reduction in the frequency of surveys in the future.

Regarding the lack of MIT information, HRC, Inc. also needs to provide any MIT information conducted over the year.

Please take some time to review the annual report criteria, and provide a response and/or information requested above to the OCD within 60-days from the date of this message.

Please contact me if you have questions. Thank you.

Mr. Carl J. Chavez, CHMM (#13099) New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department 1220 South St Francis Drive Santa Fe, New Mexico 87505 Ph. (505) 476-3490 E-mail: <u>CarlJ.Chavez@state.nm.us</u>

"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: <u>http://www.emnrd.state.nm.us/OCD</u> and see "Publications")

HRC, INC. P. O. Box 5102 Hobbs, NM 88241-5102 Phone # (575) 393-6662 Fax # (575) 393-6662

December 05, 2017

Jim Griswold Senior Hydrologist ENMRD/Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Ref: 2017 Annual Report B-31 Schubert 7 – Well # 1 (Bw-31)

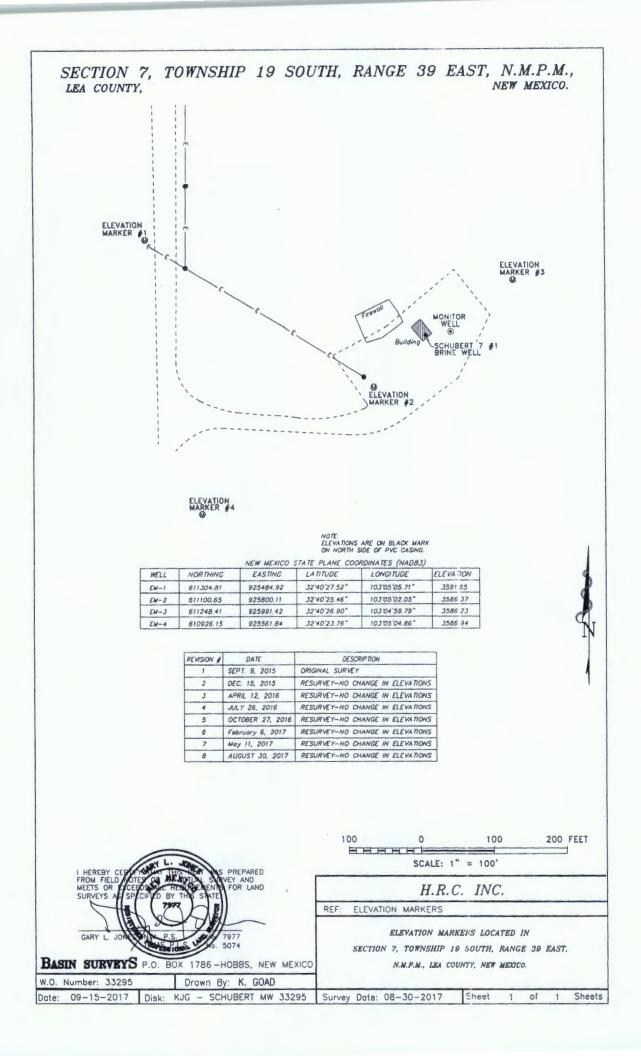
Dear Mr. Griswold,

Enclosed please find the monthly freshwater injection and brine production numbers for the Hobbs facility for the year of 2017. Included also are Cardinal Laboratories' results of analyses for samples for the month of May and November, 2017.

Thank you,

Sincerely,

Gary M. Schubert GMS/br





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

une 16, 2017

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: SCHUBERT FARMS

Enclosed are the results of analyses for samples received by the laboratory on 05/26/17 15:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D.Keine

Celey D. Keene Lab Director/Quality Manager



H701410-03

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

26-May-17 15:37

26-May-17 14:00

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		oject Number:	SCHUBERT FARMS ETZ SCHUBERT 7 WELL BEN DONAHUE	Reported: 16-Jun-17 11:48
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BRINE WATER	H701410-01	Water	26-May-17 14:00	26-May-17 15:37
FRESH WATER	H701410-02	Water	26-May-17 14:00	26-May-17 15:37

Water

Cardinal Laboratories

MONITOR WELL

*=Accredited Analyte

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Celeg D. Kerne



4 4 E

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	roject: SCH mber: ETZ nager: BEN ax To:	SCHUBER	T 7 WELL		1	Reported: 6-Jun-17 11:4	8
				INE WATE 410-01 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Note
			Cardir	nal Laborat	ories					
Inorganic Compounds							10			
Alkalinity, Bicarbonate	146		5.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1		AC AC	01-Jun-17	310.1	
Chloride*	196000		4.00	mg/L	1	7053115		31-May-17	4500-CI-B	
Conductivity*	497000		1.00	uS/cm	1	7053112	AC	31-May-17	120.1	
pH*	7.00		0.100	pH Units	1	7053112	AC	31-May-17	150.1	
Sulfate*	4120		1000	mg/L	100	7053011	AC	01-Jun-17	375.4	
TDS*	326000		5.00	mg/L	1	7053017	AC	02-Jun-17	160.1	
Alkalinity, Total*	120		4.00	mg/L	1	7060101	AC	01-Jun-17	310.1	

Green Analytical Laboratories

Total Recoverable Metal	s by ICP (E200,7)								
Calcium*	1660	10.0	mg/L	100	B706035	JLM	07-Jun-17	EPA200.7	
Magnesium*	436	10.0	mg/L	100	B706035	JLM	07-Jun-17	EPA200.7	
Potassium*	176	100	mg/L	100	B706035	JLM	07-Jun-17	EPA200.7	
Sodium*	115000	500	mg/L	500	B706035	JLM	09-Jun-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine

Laboratories

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Reported: Project Number: ETZ SCHUBERT 7 WELL 16-Jun-17 11:48 Project Manager: BEN DONAHUE Fax To:									
				ESH WATE 410-02 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardi	nal Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	317		5.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	I	7060101	AC	01-Jun-17	310.1	
Chloride*	256		4.00	mg/L	L	7053115	AC	31-May-17	4500-C1-B	
Conductivity*	1590		1.00	uS/cm	1	7053112	AC	31-May-17	120.1	
oH*	7.00		0.100	pH Units	I	7053112	AC	31-May-17	150.1	
Sulfate*	195		25.0	mg/L	2.5	7053011	AC	01-Jun-17	375.4	
TDS*	1080		5.00	mg/L	1	7053017	AC	02-Jun-17	160.1	
Alkalinity, Total*	260		4.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
			Green Ana	alytical Lab	oratories					
Total Recoverable Metals by I	CP (E200.7)					and a second				
Calcium*	167		1.00	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Magnesium*	40.0		1.00	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Potassium*	11.6		10.0	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Sodium*	190		10.0	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

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Celeg D. Keine



1

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Project: SCHUBERT FARMS Project Number: ETZ SCHUBERT 7 WELL Project Manager: BEN DONAHUE Fax To:								18
				1 TOR WE 410-03 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	nal Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	259		5.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
Chloride*	144		4.00	mg/L	1	7053115	AC	31-May-17	4500-CI-B	
Conductivity*	975		1.00	uS/cm	1	7053112	AC	31-May-17	120.1	
pH*	7.68		0.100	pH Units	1	7053112	AC	31-May-17	150.1	
Sulfate*	116		25.0	mg/L	2.5	7053011	AC	01-Jun-17	375.4	
TDS*	634		5.00	mg/L	1	7053017	AC	02-Jun-17	160.1	
Alkalinity, Total*	212		4.00	mg/L	1	7060101	AC	01-Jun-17	310.1	
			Green Ana	lytical Lab	oratories					
Total Recoverable Metals by	ICP (E200.7)									
Calcium*	100		1.00	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Magnesium*	29.1		1.00	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	
Sodium*	137		10.0	mg/L	10	B706035	JLM	07-Jun-17	EPA200.7	

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BW - 31

SCHUBERT 7 – WELL # 1

Year 2017

MONTH	BRINE PRODUCTION (BY Meter)	FRESH WATER INJECTED (By Meter)	
January	27,548	26,059	
February	23.762	23,755	
March	25,595	23,869	
April	22,071	20,562	
May	19,857	19,164	
June	24,381	22,843	
July	29,740	26,581	
August	27,455	25,150	
September	28,429	25,224	
October	26,529	24,738	
November December	20,445	19,421	



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Schubert Farms ETZ Schubert 7 Well Ben Donahue	Reported: 16-Jun-17 11:48
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Inorganic Compounds - Quality Control

		Cardinal Laboratories								
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7053011 - General Prep - Wet	Chem									
Blank (7053011-BLK1)				Prepared: 3	1-May-17	Analyzed: ()1-Jun-17			
Sulfate	ND	10.0	mg/L							
LCS (7053011-BS1)				Prepared: 3	81-May-17	Analyzed: ()1-Jun-17			
Sulfate	19.9	10.0	mg/L	20.0		99.3	80-120			
LCS Dup (7053011-BSD1)				Prepared: 3	81-May-17	Analyzed: ()1-Jun-17			
Sulfate	21.9	10.0	mg/L	20.0		110	80-120	9.86	20	
Batch 7053017 - Filtration										
Blank (7053017-BLK1)				Prepared: 3	80-May-17	Analyzed: ()2-Jun-17			
TDS	ND	5.00	mg/L							
LCS (7053017-BS1)				Prepared: 3	80-May-17	Analyzed: ()2-Jun-17			
TDS	234	5.00	mg/L	213		110	80-120			
Duplicate (7053017-DUP1)	Sour	e: H701403	-01	Prepared: 3	30-May-17	Analyzed: ()2-Jun-17			
TDS	950	5.00	mg/L		944			0.634	20	
Batch 7053112 - General Prep - Wet	Chem									
LCS (7053112-BSI)				Prepared &	Analyzed:	31-May-11	7			
pH	7.14		pH Units	7.00		102	90-110			
Conductivity	491		uS/cm	445		110	80-120			
Duplicate (7053112-DUP1)	Sour	ce: H701410	-01	Prepared &	Analyzed:	31-May-11	7			
Conductivity	509000	1.00	uS/cm		497000			2.31	20	
pH	7.00	0.100	pH Units		7.00			0.00	20	

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Celez D. Keine-



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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Project Nu Project Ma	mber:	SCHUBERT I ETZ SCHUBE BEN DONAH	Reported: 16-Jun-17 11:48							
	Ino	rganic Com			Control							
Cardinal Laboratories												
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 7053115 - General Prep - Wet Chem												
Blank (7053115-BLK1)				Prepared &	Analyzed:	31-May-17	1					
Chloride	ND	4.00	mg/L									
00 (0000110 001)				D		21.24						
LCS (7053115-BS1)	100	1.00		Prepared &	Analyzed:							
Chloride	100	4.00	mg/L	100		001	80-120					
LCS Dup (7053115-BSD1)	Prepared & Analyzed: 31-May-17											
Thloride	108	4.00	mg/L	100		108	80-120	7.69	20			
Batch 7060101 - General Prep - Wet Chem				1 ²¹ 9 ²								
Blank (7060101-BLK1)				Prepared &	Analyzed:	01-Jun-17						
Alkalinity, Carbonate	ND	1.00	mg/L									
Alkalinity, Bicarbonate	5.00	5.00	mg/L									
Alkalinity, Total	4.00	4.00	mg/L									
LCS (7060101-BS1)				Prepared &	Analyzed:	01-Jun-17						
Alkalinity, Carbonate	ND	1.00	mg/L				80-120	- 1. La				
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120					
Alkalinity, Total	112	4.00	mg/L	100		112	80-120					
LCS Dup (7060101-BSD1)				Prepared &	Analyzed:	01-Jun-17						
Alkalinity, Carbonate	ND	1.00	mg/L				80-120		20			
Alkalinity, Bicarbonate	146	5.00	mg/L				80-120	6.36	20			
Alkalinity, Total	120	4.00	mg/L	100		120	80-120	6.90	20			

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		SCHUBERT FARMS ETZ SCHUBERT 7 WELL BEN DONAHUE	Reported: 16-Jun-17 11:48
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Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B706035 - Total Rec. 200.7/20	0.8/200.2									
Blank (B706035-BLK1)				Prepared: 0	6-Jun-17 A	nalyzed: 07	7-Jun-17			
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	0.100	mg/L							
LCS (B706035-BS1)				Prepared: 0)6-Jun-17 A	nalyzed: 07	7-Jun-17			
Calcium	4.09	0.100	mg/L	4.00		102	85-115			
Magnesium	20.8	0.100	mg/L	20.0		104	85-115			
Potassium	8.16	1.00	mg/L	8.00		102	85-115			
Sodium	6.67	1.00	mg/L	6.48		103	85-115			
LCS Dup (B706035-BSD1)				Prepared: ()6-Jun-17 A	nalyzed: 01	7-Jun-17			
Magnesium	20,6	0.100	mg/L	20.0		103	85-115	1.07	20	
Potassium	8.08	1.00	mg/L	8.00		101	85-115	0.987	20	
Sodium	6.60	1.00	mg/L	6.48		102	85-115	1.07	20	
Calcium	4.03	0.100	mg/L	4.00		101	85-115	1.41	20	

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Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference

 **
 Samples not received at proper temperature of 6°C or below.

 Insufficient time to reach temperature.
- Chloride by SM4500CI-B does not require samples be received at or below 6°C
 Samples reported on an as received basis (wet) unless otherwise noted on report

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101 East Marland, Hobbs, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

	(575) 393-2326 FAX (575) 393-247	76									
Company Name	ETZ Water Station	-				BI	LL TO			ANALYSIS REQUEST	
Project Manage	r: Ben Donahul				P.	.0. #:					
Address: P.e	. Box GOSG				c	ompany:					
City: HSbb	S State: NM	Zip	: 8	98241	A	ttn:					
Phone #: 515	3933194 Fax #:			No. 125 Percenter My House La La La Annohean	A	ddress:			2		
Project #: Sd	when T Project Owne	r:			C	ity:			1021		
Project Name: (STZ Schubert 7			and an and a second and a subjections, we as used	S	tate:	Zip:		2		
Project Location	n: Schuber T well				PI	hone #:			A		
Sampler Name:					Fa	ax #:			-		
FOR LAB USE ONLY				MATRIX		PRESERV.	SAMPLI	NG	n		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OM	# CONTAINERS	GROUNDWATER WASTEWATER Soil OIL	OTHER :	ACID/BASE: ICE / COOL OTHER :	DATE	TIME	Cations		
1	Brine Water		1	V	-		5/26 17	14:00	~		-
2	Brine Water Fresh Water Monitor Well		1	1	1						
3	Monitor Well	-	11	/	-		-		1		
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Relinquished By:	Size/n	Received By:	Phone Result: Yes No Add'l Phone #: Fax Result: Yes No Add'l Fax #: REMARKS:
Relinguished By!	3.372	Received By:	gargenschubert Ramail.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	5	Sample Condition CHECKED BY: Cool Intact (Initials) De No No TO-#75	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326



November 28, 2017

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: SCHUBERT

Enclosed are the results of analyses for samples received by the laboratory on 11/16/17 10:19.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keene

Celey D. Keene Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		oject Number:	SCHUBERT #7 BEN DONAHUE	Reported: 28-Nov-17 18:13
Sample ID	Laboratory ID	Matrix	Date Sampl	ed Date Received
BRINE WATER	H703206-01	Water	16-Nov-17 (17:45 16-Nov-17 10:19
MONITOR WELL	H703206-02	Water	16-Nov-17 (16-Nov-17 10:19
FRESH WATER	H703206-03	Water	16-Nov-17 (7:45 16-Nov-17 10:19

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 28-Nov-17 18:13
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BRINE WATER

H703206-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
• • • • • • • • • • • • • • • • • • •			Cardin	al Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	195		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	172000		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-C1-B	
Conductivity*	494000		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	7.06		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	3960		500	mg/L	50	7112201	AC	22-Nov-17	375.4	
TDS*	257000		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	160		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	

Green Analytical Laboratories

Total Recoverable Metals	by ICP (E200.7)									
Calcium*	1220	9.12	30.0	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	285	22.6	30.0	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<63.0	63.0	300	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	93500	51.4	300	mg/L	300	B711172	JDA	22-Nov-17	EPA200.7	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Reported: Project Number: #7 28-Nov-17 18 Project Manager: BEN DONAHUE Fax To:									
				ITOR WE 206-02 (Wat						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	nal Laborat	ories					
Inorganic Compounds					10					
Alkalinity, Bicarbonate	220		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	204		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-CI-B	
Conductivity*	1210		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	7.82		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	170		25.0	mg/L	2.5	7112201	AC	22-Nov-17	375.4	
rds*	794		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	180		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)												
Calcium*	92.2	1.52	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7			
Magnesium*	25.1	3.77	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7			
Potassium*	<10.5	10.5	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7			
Sodium*	123	8.57	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7			

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	oject: SCH mber: #7 nager: BEN ax To:		1		2	Reported: 8-Nov-17 18:	13
				CSH WATE 206-03 (Wat						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	283		5.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Chloride*	224		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-CI-B	
Conductivity*	1420		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
oH*	7.98		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	195		25.0	mg/L	2.5	7112201	AC	22-Nov-17	375.4	
rds*	896		5.00	mg/L	1 .	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	232		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
			Green Ana	lytical Lab	oratories					

Total Recoverable Metals by I	CF (E200.7)									
Calcium*	119	1.52	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	25.6	3.77	5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<10.5	10.5	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	130	8.57	50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 28-Nov-17 18:13
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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		Billion								
Batch 7110705 - General Prep - Wet Chem										
Blank (7110705-BLK1)				Prepared &	Analyzed:	07-Nov-17	7			
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	5.00	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (7110705-BS1)				Prepared &	k Analyzed:	07-Nov-17	7			
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	330	12.5	mg/L				80-120			
Alkalinity, Total	270	10.0	mg/L	250		108	80-120			
LCS Dup (7110705-BSD1)				Prepared &	k Analyzed:	07-Nov-17	7			
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	355	12.5	mg/L				80-120	7.30	20	
Alkalinity, Total	290	10.0	mg/L	250		116	80-120	7.14	20	
Batch 7111608 - Filtration										
Blank (7111608-BLK1)				Prepared:	16-Nov-17	Analyzed:	7-Nov-17			
TDS	ND	5.00	mg/L							
LCS (7111608-BS1)				Prepared:	16-Nov-17	Analyzed:	17-Nov-17			
TDS	228	5.00	mg/L	213		107	80-120			
Duplicate (7111608-DUP1)	Sou	rce: H703199	-01	Prepared:	16-Nov-17	Analyzed:	17-Nov-17			
TDS	9630	5.00	mg/L		9890			2.64	20	
Batch 7111701 - General Prep - Wet Chem								_		
LCS (7111701-BS1)				Prepared &	& Analyzed	16-Nov-1	7			
рН	6.97		pH Units	7.00		99.6	90-110			
Conductivity	507		uS/cm	500		101	80-120			

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Celleg D. Freene



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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBE Project Number: #7 Project Manager: BEN DO Fax To:				IUE		Reported: 28-Nov-17 18:13			
	Ino	rganic Com Cardi		- Quality oratories	Control					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7111701 - General Prep - Wet Chem										
Duplicate (7111701-DUP1)	Sou	rce: H703206	-01	Prepared &	: Analyzed:	16-Nov-17				
pH	7.07	0.100	pH Units		7.06			0.142	20	A
Conductivity	501000	1.00	uS/cm		494000			1.46	20	
Batch 7112001 - General Prep - Wet Chem										
Blank (7112001-BLK1)				Prepared &	Analyzed:	20-Nov-17				
Chloride	ND	4.00	mg/L							
LCS (7112001-BS1)				Prepared &	Analyzed:	20-Nov-17				
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (7112001-BSD1)				Prepared &	Analyzed:	20-Nov-17				
Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
Batch 7112201 - General Prep - Wet Chem										
Blank (7112201-BLK1)				Prepared &	Analyzed:	22-Nov-17				
Sulfate	ND	10.0	mg/L							
LCS (7112201-BS1)				Prepared &	Analyzed:	22-Nov-17				
Sulfate	23.2	10.0	mg/L	20.0		116	80-120			
LCS Dup (7112201-BSD1)				Prepared &	Analyzed:	22-Nov-17				
Sulfate	23.6	10.0	mg/L	20.0	the extension of the state of	118	80-120	1.79	20	

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ETZ WATER STATION PO BOX 6056	Project: Project Number:	SCHUBERT #7	Reported: 28-Nov-17 18:13
HOBBS NM, 88241	Project Manager: Fax To:	BEN DONAHUE	
	Fax TU.		

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Límits	RPD	RPD Limit	Notes
Batch B711172 - Total Rec. 200.7/200	0.8/200.2									
Blank (B711172-BLK1)				Prepared: 2	0-Nov-17	Analyzed: 2	2-Nov-17			
Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
LCS (B711172-BS1)				Prepared: 2	0-Nov-17	Analyzed: 2	2-Nov-17			
Magnesium	20.8	0.100	mg/L	20.0		104	85-115			and the second second
Potassium	8.07	1.00	mg/L	8.00		101	85-115			
Sodium	6.68	1.00	mg/L	6.48		103	85-115			
Calcium	4.23	0.100	mg/L	4.00		106	85-115			
LCS Dup (B711172-BSD1)				Prepared: 2	0-Nov-17	Analyzed: 2	2-Nov-17			
Potassium	8.22	1.00	mg/L	8.00		103	85-115	1.77	20	
Calcium	4.24	0.100	mg/L	4.00		106	85-115	0.215	20	
Sodium	6.66	1.00	mg/L	6.48		103	85-115	0.224	20	
Magnesium	20.8	0.100	mg/L	20.0		104	85-115	0.0742	20	

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Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500CI-B does not require samples be received at or below 6°C
 Samples reported on an as received basis (wet) unless otherwise noted on report

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 10 of 10

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name: CT2 Worker Station	BILL TO	ANALYSIS REQUEST
Company Name: ET3 Woher Station Project Manager: Ben Donchue	P.O. #:	
Address:	Company:	
City: State: Zip:	Attn:	
Phone #: 515 393 3194 Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name: Schedert = 7	State: Zip:	
Project Location:	Phone #:	·
Sampler Name: Ben Densine	Fax #:	
FOR LAB USE ONLY MATRI	PRESERV. SAMPLING	
Lab I.D. Sample I.D. H103200 I Brine Water G I I I z Monitor Well I 3 Fresh Water I	SLUDGE OTHER: ACIDIBASE: ACIDIBASE: ICE / COOL OTHER: ACIDIBASE:	
PLEASE NOTE: Liability and Demogos, Cardinal's liability and client's exclusive remedy for any cleim artising whether based in c analyses. All claims including those for angligance and any other cause veloateouver shall be deemed waived unlese made in will	ng and received by Camilest within 30 days after completion of the applicable	
service. In no event shall Carabrat be liable for incidential or consequential damages, including utilicat installes, business interrup atiliaise or successory aming out of or related to the performance of services bereurder by Cardinal, regardless of whither such Relinquished By: Date: 14(13) Received By:	lant, loss of use, or loss of profits incurred by client, its subsidiaries,	

Keinguisned by:	Time: 1944	MALLIAHA L		Fax Result: REMARKS:	U Ye		No No	Add'l Fax #:
Relinquished By:	Date:	Received By:	(rus)	emacl.	10	- 50	orly	nschubes Egnaltrom
Delivered By: (Circle One)	se rected D.	Sample Condition Cool Intact	CHECKED BY: (Initials) VO. #75	-				

+ Cantinal cannot accent workal channes Plazes far written channes to (575) 202.7226



HRC, INC.

P. O. Box 5102 Hobbs, NM 88241-5102 Phone # (575) 393-6662 Fax # (575) 393-6662

2011 28 25 20 2000

May 25, 2017

Mr. Carl J. Chavez, CHMM (#13099) **New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department** 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Ref: 2016 Annual Report B-31 Schubert 7 - Well #1

Dear Mr. Chavez,

Enclosed please find the monthly freshwater injection and brine production numbers for the Hobbs facility for the year 2016. Included also are Cardinal Laboratories' results of analyses for samples for the month of February, May, and December, 2016.

Thank you,

Sincerely,

Gary M Schubert

BW-31

ANNUAL REPORT

SCHUBERT 7 – WELL # 1

- Summary of Class III well operations for year: 2016 Schubert 7 #1 (BW-31) Well HRC Schubert 7 #1 Brine Well was operated over the past year to produce saturated brine for applications in oilfield services. No remedial or major work was undertaken during the year.
- 2. Monthly fluid injection and brine production volume: See attached.
- 3. Injection pressure data;

230 psi pumps pressure.

- 4. Quarterly chemical analyses with data summary and all QA/QC information; See attached reports (Cardinal Laboratory)
- 5. Copy of any mechanical integrity test chart, including the type of test, i.e., duration guage pressure, etc; Submitted 12-01-2016
- 6. Brief explanation describing deviations from the normal operations; NA
- 7. Results of any leaks and spill reports; NA
- An Area of Review (AOR) update summary;
 HRC, Inc. knows of no new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius.
- 9. A summary with interpretation of MITs, surface subsidence surveys, cavern volume and geometry measurements with conclusion (s) and recommendations (s); MIT of 11-22-2016 approved. No subsidence as per attached reports.
- 10. A summary of the ratio of the volume of injected fluids to the volume of produced brine; All measured flows of injected fuilds to produced brine were within guidelines.
- 11. A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations; NA
- Annual Certification in accordance with Permit Condition 2. B. 3.
 HRC, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface Subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.
- 13. A summary of any new discoveries of ground water contamination with all leaks, spills, and releases and corrective actions taken; NA

I. Summary of Class III well operations for the year: 2016 -- SCHUBERT 7 #1 (BW·31)
 Well HRC Schubert7 #1 Brine Well was operated over the past year to produce saturated brine for applications in oilfield services. No remedial or major work was undertaken during the year.

2. Monthly fluid injection and brine production volume;

	, ,				KE
MAY	Month	Brine (bbl)	Fresh Water (bbl)	Ratio %	and the second
2019 OPC	2014 July	26167	26657	98%	p. Je.
	August	25077	25138	100%	
20 Ko /	September	/22883	22907	100%	
	October	24867	25436	98%	
	November	24267	24321	100%	SEE A TTACHERS
2/////	December	\$4276	25500*	95%	200
	2015 Japuary	22483	22650	99%	
-T STARA	February	20840	21043	99%	
all	March	25417	25919	98%	
-L	April	20460	20441	100%	

Note: December fresh water quantity is an estimate due to failure of the water meter.

3. Injection pressure data; 230 psi pump pressure.

4. Quarterly chemical analyses with data summary and all QA/QC information;

Data Summary Injection Fluid pH: 6.5-8.3 SEE ATTACHED REPORTS (CARDIHAL LABORATORY) Density: 8.3-8.5 lbs/gal **TDS:** <1000 ppm Chlorides: <250 ppm Produced Brine pH: 6.5-7.3 Density: 9.9- N.2 lbs/gal TDS: >260,000 ppm Chlorides: >190,090 ppm Sodium: >120,000 ppm Additional data and OA/OC results in attached appendix. $\sqrt{5}$. Copy of any mechanical integrity test chart, including the type of test, i.e., duration, gauge pressure, etc.; SUBAITTED 12/1/2016 -NA. Permit requires this test only once every 5 years. 6. Brief explanation describing deviations from the normal operations; The meter for injected fluids malfunctioned in December of 2014. Volumes of injected fluid for

A/A

 $\sqrt{7}$. Results of any leaks and spill reports; NA

this month are estimated.

8. An Area of Review (AOR) update summary;

HRC, Inc knows of no new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius.

9. A summary with interpretation of MITs, surface subsidence surveys, cavern volume and geometry measurements with conclusion(s) and recommendation(s); NA- MIT of MAT of MATHE APPROVED.

10 .A summary of the ratio of the volume of injected fluids to the volume of produced brine; All measured flows of injected fluids to produced brine were 98% to 100%. An estimated amount of injected fluid was reported for Dec 2014. MITHIN GUIDELINES

V11. A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations; NA

12. Annual Certification in accordance with Permit Condition 2.B.3.

HRC, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.

V 13. A summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; NA

BW - 31

SCHUBERT 7 – WELL # 1

2016 Report

Report of Fluid Injection and Production

MONTH	BRINE PRODUCTION (BY Meter)	FRESH WATER INJECTED (By Meter)	Ratio %	
January	24,405	23,636	103	
February	10,170	10,279	99	
March	21,995	21,955	103	
April	19,500	20,240	96	
May	27,833	25,664	100	
June	30,024	28,565	105	
July	*** 24,200	23,700	102	
August	25,310	24,233	104	
September	20,905	21,531	97	
October	*** 29,900	28,900	103	
November	20,024	19,533	103	
December	29,475	28,357	104	

***Estimated (Meter Power Failure)



February 17, 2016

GARY SCHUBERT ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 02/05/16 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg & Keine

Celey D. Keene Lab Director/Quality Manager



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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Project: oject Number: oject Manager: Fax To:	Reported: 17-Feb-16 08:59	
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WATER SAMPLE	H600270-01	Water	04-Feb-16 00:00	05-Feb-16 13:30

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Reported: 17-Feb-16 08:59							
				ER SAMP 270-01 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	414		5.00	mg/L	1	6021206	AP	15-Feb-16	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	6021206	AP	15-Feb-16	310.1	
Chloride*	86000		4.00	mg/L	1	6021104	АР	11-Feb-16	4500-CI-B	
Conductivity*	171000		0.250	uS/cm	1	6020902	AP	08-Feb-16	120.1	
Nitrate as N	3.20		1.00	mg/L	I	6020809	AP	05-Feb-16	353.3	
Nitrite as N	< 0.05		0.05	mg/L	1	6020809	AP	05-Feb-16	354.1	
pH*	8.70		0.100	pH Units	1	6020813	AP	08-Feb-16	150.1	
Sulfate*	1340		500	mg/L	50	6021105	AP	11-Feb-16	375.4	
TDS*	147000		5.00	mg/L	1	6020808	AP	12-Feb-16	160.1	
Alkalinity, Total*	340		4.00	mg/L	I	6021206	АР	15-Feb-16	310.1	
VOLATILES BY GC/MS										
Dichlorodifluoromethane*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Chloromethane*	0.002		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Vinyl chloride*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Bromomethane*	< 0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Chloroethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Trichlorofluoromethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1-Dichloroethene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Carbon disulfide*	0.034		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Iodomethane	<0.001		0.001	mg/L	l	6020903	MS	13-Feb-16	8260B	
Acrolein*	<0.050		0.050	mg/L	1	6020903	MS	13-Feb-16	8260B	
Methylene chloride*	100.0		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Acetone*	< 0.005		0.005	mg/L	1	6020903	MS	13-Feb-16	8260B	
trans-1,2-Dichloroethene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Methyl t-Butyl Ether*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1-Dichloroethane*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Acrylonitrile*	<0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Vinyl acetate*	< 0.005		0.005	mg/L	I	6020903	MS	13-Feb-16	8260B	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Reported: 17-Feb-16 08:59							
				ER SAMF 270-01 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
VOLATILES BY GC/MS										
cis-1,2-Dichloroethene*	<0.001		0.001	mg/L	i	6020903	MS	13-Feb-16	8260B	
2,2-Dichloropropane*	< 0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Bromochloromethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Chloroform*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Carbon tetrachloride*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1,1-Trichloroethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1-Dichloropropene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
2-Butanone*	< 0.250		0.250	mg/L	50	6020903	MS	15-Feb-16	8260B	
Benzene*	1.26		0.050	mg/L	50	6020903	MS	15-Feb-16	8260B	
1,2-Dichloroethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Trichloroethene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Dibromomethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,2-Dichloropropane*	< 0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Bromodichloromethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
cis-1,3-Dichloropropene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Toluene*	0.188		0.050	mg/L	50	6020903	MS	15-Feb-16	8260B	
4-Methyl-2-pentanone*	0.041		0.005	mg/L	I	6020903	MS	13-Feb-16	8260B	
Tetrachloroethene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
trans-1,3-Dichloropropene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1,2-Trichloroethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Dibromochloromethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,3-Dichloropropane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,2-Dibromoethane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
2-Hexanone*	0.012		0.005	mg/L	1	6020903	MS	13-Feb-16	8260B	
Chlorobenzene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Ethylbenzene*	0.004		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,1,1,2-Tetrachloroethane*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
m+p - Xylene*	0.007		0.002	mg/L	1	6020903	MS	13-Feb-16	8260B	
o-Xylene*	0.005		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Reported: 17-Feb-16 08:59							
				R SAMI 0-01 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardinal	l Laborat	ories					
VOLATILES BY GC/MS										
Total Xylenes*	0.012		0.003	mg/L	1	6020903	MS	13-Feb-16	8260B	
Bromoform*	< 0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Styrene*	<0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Isopropylbenzene*	<0.001		0.001	mg/L	ł	6020903	MS	13-Feb-16	8260B	
Bromobenzene*	<0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
n-Propylbenzene*	<0.001		0.001	mg/L	i	6020903	MS	13-Feb-16	8260B	
1,1,2,2-Tetrachloroethane*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
2-Chlorotoluene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1.2.3-trichloropropane*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,3,5-Trimethylbenzene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
trans-1,4-Dichloro-2-butene	0.002		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
4-Chlorotoluene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
tert-Butylbenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,2,4-Trimethylbenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
sec-Butylbenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
p-Isopropyltoluene*	<0.001		0.001	mg/L	l	6020903	MS	13-Feb-16	8260B	
1,3-Dichlorobenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,4 Dichlorobenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
n-Butylbenzene*	<0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,2-Dichlorobenzene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
1,2-Dibromo-3-chloropropane *	0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Hexachlorobutadiene*	<0.001		0.001	mg/L	ł	6020903	MS	13-Feb-16	8260B	
1,2,4-Trichlorobenzene*	< 0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
Naphthalene*	0.001		0.001	mg/L	I	6020903	MS	13-Feb-16	8260B	
1,2,3-Trichlorobenzene*	< 0.001		0.001	mg/L	1	6020903	MS	13-Feb-16	8260B	
Surrogate: Dibromofluoromethane			90.9 %	86.5	-122	6020903	MS	13-Feb-16	8260B	
Surrogate: Toluene-d8			99.3 %		-112	6020903	MS	13-Feb-16	8260B	
Surrogate: 4-Bromofluorobenzene			108 %		-117	6020903	MS	13-Feb-16	8260B	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nun Project Mana	nber: NAI		R #1		1	Reported: 7-Feb-16 08:	59
				ER SAMI 70-01 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	No

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		WATER SAMPLES NADINE WATER #1 GARY SCHUBERT	Reported: 17-Feb-16 08:59
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Inorganic Compounds - Quality Control

		Spike	%REC		RPD					
Analyte	Result	Reporting Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6020808 - Filtration										
Blank (6020808-BLK1)				Prepared: 0)8-Feb-16 A	Analyzed: 1	2-Feb-16			
TDS	ND	5.00	mg/L							
LCS (6020808-BS1)				Prepared: 0)8-Feb-16 A	Analyzed: I	1-Feb-16			
TDS	556	5.00	mg/L	527		106	80-120			
Duplicate (6020808-DUP1)	Sour	rce: H600257	-03	Prepared: 0)8-Feb-16 A	Analyzed: I	1-Feb-16			
ſDS	2070	5.00	mg/L		2040		· · · · · · ·	1.07	20	
Batch 6020809 - General Prep - Wet Chem										
Blank (6020809-BLK1)				Prepared &	Analyzed:	05-Feb-16				
Nitrite as N	ND	0.05	mg/L							
Nitrate as N	ND	1.00	mg/L							
LCS (6020809-BS1)				Prepared &	Analyzed:	05-Feb-16				
Nitrate as N	5.00	1.00	mg/L	5.00		100	80-120			
Nitrite as N	0.19	0.05	mg/L	0.200		94.5	80-120			
Duplicate (6020809-DUP1)	Sou	rce: H600270	-01	Prepared &	Analyzed:	05-Feb-16				
Nitrate as N	3.20	1.00	mg/L		3.20			0.00	20	
Nitrite as N	0.003	0.05	mg/L		0.003			0.00	20	
Batch 6020813 - General Prep - Wet Chem										
Daten 0020015 - General I rep - wet Chem										
LCS (6020813-BS1)				Prepared &	Analyzed:	08-Feb-16				

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NADINE WATER #1 Project Manager: GARY SCHUBERT Fax To:								Reported: 17-Feb-16 08:59			
	Inor	ganic Com	-	- •	Control							
		Cardi	nal Lab	oratories								
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 6020813 - General Prep - Wet Chem												
Duplicate (6020813-DUP1)				Prepared & Analyzed: 08-Feb-16								
pH	12.1	0.100	pH Units		12.1			0.248	20			
Batch 6020902 - General Prep - Wet Chem												
LCS (6020902-BS1)				Prepared &	Analyzed:	09-Feb-16						
Conductivity	504		uS/cm	500		101	80-120					
Duplicate (6020902-DUP1)	Sour	ce: H600270	-01	Prepared &	Analyzed:	09-Feb-16						
Conductivity	153000	0.250	uS/cm		171000			10.8	20			
Batch 6021104 - General Prep - Wet Chem												
Blank (6021104-BLK1)				Prepared &	Analyzed:	11-Feb-16						
Chloride	ND	4.00	mg/L									
LCS (6021104-BS1)				Prepared &	Analyzed:	11-Feb-16						
Chloride	96.0	4.00	mg/L	100		96.0	80-120					
LCS Dup (6021104-BSD1)				Prepared &	Analyzed:	11-Feb-16						
Chloride	104	4.00	mg/L	100		104	80-120	8.00	20			
Batch 6021105 - General Prep - Wet Chem												
Blank (6021105-BLK1) Sulfate	ND	10.0	mg/L	Prepared &	2 Analyzed:	11 - Feb-16						

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NADINE WATER #1 Project Manager: GARY SCHUBERT Fax To:							Reported: 17-Feb-16 08:59				
	Ino	rganic Com	-	s - Quality boratories	Control							
		Reporting		Spike	Source		%REC		RPD			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes		
Batch 6021105 - General Prep - Wet Chem												
LCS (6021105-BS1)				Prepared &	Analyzed:	11-Feb-16						
Sulfate	21.0	10.0	mg/L	20.0		105	80-120					
LCS Dup (6021105-BSD1)	Prepared & Analyzed: 11-Feb-16											
Sulfate	20.8	10.0	mg/L	20.0		104	80-120	0.956	20			
Batch 6021206 - General Prep - Wet Chem												
Blank (6021206-BLK1)				Prepared:	12-Feb-16 A	nalyzed: 1	5-Feb-16					
Alkalinity, Carbonate	ND	0.00	mg/L									
Alkalinity, Bicarbonate	ND	5.00	mg/L									
Alkalinity, Total	ND	4.00	mg/L									
LCS (6021206-BS1)				Prepared:	12-Feb-16 A	alyzed: 1	5-Feb-16					
Alkalinity, Carbonate	ND	0.00	mg/L				80-120					
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120					
Alkalinity, Total	104	4.00	mg/L	100		104	80-120					
LCS Dup (6021206-BSD1)				Prepared:	12-Feb-16 A	nalyzed: I	5-Feb-16					
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20			
Alkalinity, Bicarbonate	131	5.00	mg/L				80-120	3.89	20			
Alkalinity, Total	108	4.00	mg/L	100		108	80-120	3.77	20			

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMP Project Number: NADINE WATI Project Manager: GARY SCHUBE Fax To:	TER #1 17-Feb-16 08:59
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020903 - Volatiles										
Blank (6020903-BLK1)				Prepared: (09-Feb-16 A	nalyzed: 12	2-Feb-16			
Dichlorodifluoromethane	ND	0.001	mg/L							
Chloromethane	ND	0.001	mg/L							
vinyl chloride	ND	0.001	mg/L							
Bromomethane	ND	0.001	mg/L							
Chloroethane	ND	0.001	mg/L							
richlorofluoromethane	ND	0.001	mg/L							
,1-Dichloroethene	ND	0.001	mg/L							
Carbon disulfide	ND	0.001	mg/L							
odomethane	ND	0.001	mg/L							
Acrolein	ND	0.050	mg/L							
Aethylene chloride	ND	0.001	mg/L							
cetone	ND	0.005	mg/L							
rans-1,2-Dichloroethene	ND	0.001	mg/L							
fethyl t-Butyl Ether	ND	0.001	nıg/L							
, I-Dichloroethane	ND	0.001	mg/L							
crylonitrile	ND	0.001	mg/L							
/inyl acetate	ND	0.005	mg/L							
is-1,2-Dichloroethene	ND	0.001	nıg/L							
2,2-Dichloropropane	ND	0.001	mg/L							
Bromochloromethane	ND	0.001	mg/L							
Chloroform	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.001	mg/L							
,1,1-Trichloroethane	ND	0.001	mg/L							
, I-Dichloropropene	ND	0.001	mg/L							
Butanone	ND	0.005	mg/L							
Benzene	ND	0.001	mg/L							
,2-Dichloroethane	ND	0.001	mg/L							
richloroethene	ND	0.001	mg/L							
Dibromomethane	ND	0.001	nıg/L							
,2-Dichloropropane	ND	0.001	nıg/L							
Bromodichloromethane	ND	0.001	mg/L							
is-1,3-Dichloropropene	ND	0.001	mg/L							

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NADINE WATER #1 Project Manager: GARY SCHUBERT Fax To:						Reported: 17-Feb-16 08:59						
	VOL	ATILES BY	GC/N	1S - Quality	y Control	l							
	Cardinal Laboratories												
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes			
Batch 6020903 - Volatiles													
Blank (6020903-BLK1)				Prepared: 0	9-Feb-16 A	analyzed: 12	2-Feb-16						
Toluene	ND	0.001	mg/L										
4-Methyl-2-pentanone	ND	0.005	mg/L										
Fetrachloroethene	ND	0.001	mg/L										
rans-1,3-Dichloropropene	ND	0.001	mg/L										
,1,2-Trichloroethane	ND	0.001	mg/L										
Dibromochloromethane	ND	0.001	mg/L										
,3-Dichloropropane	ND	0.001	mg/L										
,2-Dibromoethane	ND	0.001	mg/L										
-Hexanone	ND	0.005	mg/L										
Chlorobenzene	ND	0.001	mg/L										
Ethylbenzene	ND	100.0	mg/L										
,1,1,2-Tetrachloroethane	ND	0.001	mg/L										
n+p - Xylene	ND	0.002	mg/L										
-Xylene	ND	0.001	mg/L										
fotal Xylenes	ND	0.003	mg/L										
Bromoform	ND	0.001	nıg/L										
styrene	ND	0.001	mg/L										
sopropylbenzene	ND	0.001	mg/L										
Bromobenzene	ND	0.001	mg/L										
n-Propylbenzene	ND	100.0	mg/L										
1,1,2,2-Tetrachloroethane	ND	0.001	mg/L										
2-Chlorotoluene	ND	0.001	mg/L										
.2.3-trichloropropane	ND	0.001	mg/L										
1,3,5-Trimethylbenzene	ND	0.001	mg/L										
rans-1,4-Dichloro-2-butene	ND	0.001	mg/L										
-Chlorotoluene	ND	0.001	mg/L										
ert-Butylbenzene	ND	0.001	mg/L										
,2,4-Trimethylbenzene ec-Butylbenzene	ND	0.001	mg/L										
-Isopropyltoluene	ND ND	0.001	mg/L										
1,3-Dichlorobenzene	ND	0.001 0.001	nıg/L mg/L										
I,4 Dichlorobenzene	ND	0.001	mg/L										

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	•	WATER SAMPLES NADINE WATER #1 GARY SCHUBERT	Reported: 17-Feb-16 08:59
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020903 - Volatiles					,					
Blank (6020903-BLK1)				Prepared: ()9-Feb-16 A	nalyzed: 1	2_Eeb_16			
n-Butylbenzene	ND	0.001	mg/L	Trepared. (//-I CO-10 //	indiy2cu. i	2-100-10			
1,2-Dichlorobenzene	ND	0.001	mg/L							
1,2-Dibromo-3-chloropropane	ND	0.001	mg/L							
Hexachlorobutadiene	ND	0.001	mg/L							
1,2,4-Trichlorobenzene	ND	0.001	mg/L							
Naphthalene	ND	0.001	mg/L							
1,2,3-Trichlorobenzene	ND	0.001	mg/L							
2-Chloroethylvinyl ether	ND	0.005	mg/L							
1,4-Dioxane	ND	0.125	mg/L							
Surrogate: Dibromofluoromethane	0.0102		mg/L	0.0100		102	86.5-122			
Surrogate: Toluene-d8	0.0102		mg/L	0.0100		102	85.7-112			
Surrogate: 4-Bromofluorobenzene	0.00994		mg/L	0.0100		99. 4	86.3-117			
LCS (6020903-BS1)				Prepared: (09-Feb-16 A	nalyzed: 1	2-Feb-16			
Dichlorodifluoromethane	0.055	0.001	mg/L	0.0200		275	58.8-146			BS
Chloromethane	0.018	0.001	mg/L	0.0200		90.2	63.7-134			
Vinyl chloride	0.021	0.001	mg/L	0.0200		107	69.6-123			
Bromomethane	0.026	0.001	mg/L	0.0200		129	57.9-133			
Chloroethane	0.026	0.001	mg/L	0.0200		131	62.4-134			
Trichlorofluoromethane	0.028	0.001	mg/L	0.0200		142	62.6-142			
1, I-Dichloroethene	0.019	0.001	mg/L	0.0200		93.4	65-126			
Carbon disulfide	0.026	0.001	mg/L	0.0200		129	65-148			
Iodomethane	0.022	0.001	mg/L	0.0200		111	70.4-138			
Acrolein	0.096	0.050	mg/L	0.100		96.2	2.76-187			
Methylene chloride	0.019	0.001	mg/L	0.0200		96.2	43.1-162			
Acetone	0.021	0.005	mg/L	0.0200		103	43.2-175			
trans-1,2-Dichloroethene	0.019	100.0	mg/L	0.0200		92.8	76.6-122			
Methyl t-Butyl Ether	0.019	0.001	mg/L	0.0200		97.0	81.5-128			
1,1-Dichloroethane	0.019	0.001	mg/L	0.0200		97.4	80.9-121			
Acrylonitrile	0.020	0.001	mg/L	0.0200		102	44.6-163			
Vinyl acetate	0.021	0.005	mg/L	0.0200		106	19.7-207			
cis-1,2-Dichloroethene	0.020	0.001	mg/L	0.0200		97 .6	76.8-126			

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	,	WATER SAMPLES NADINE WATER #1 GARY SCHUBERT	Reported: 17-Feb-16 08:59
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6020903 - Volatiles										
LCS (6020903-BS1)				Prepared: 0	9-Feb-16 A	nalyzed: 1	2-Feb-16			
2,2-Dichloropropane	0.020	0.001	mg/L	0.0200		99.0	66.5-137			
Bromochloromethane	0.021	0.001	mg/L	0.0200		103	76.7-128			
Chloroform	0.020	0.001	mg/L	0.0200		99.1	82.5-123			
Carbon tetrachloride	0.021	0.001	mg/L	0.0200		105	77.5-136			
1,1,1-Trichloroethane	0.020	0.001	mg/L	0.0200		99.0	88.3-127			
1,1-Dichloropropene	0.021	0.001	mg/L	0.0200		105	82.4-122			
2-Butanone	0.022	0.005	mg/L	0.0200		109	55.2-151			
Benzene	0.019	0.001	mg/L	0.0200		96.2	84.9-121			
1,2-Dichloroethane	0.019	0.001	mg/L	0.0200		97.0	76.9-133			
Trichloroethene	0.020	0.001	mg/L	0.0200		100	82.8-120			
Dibromomethane	0.019	0.001	mg/L	0.0200		96.8	78.8-128			
1,2-Dichloropropane	0.020	0.001	mg/L	0.0200		99.4	80.2-126			
Bromodichloromethane	0.019	0.001	mg/L	0.0200		97.0	84.1-130			
cis-1,3-Dichloropropene	0.019	0.001	mg/L	0.0200		95.8	76.8-130			
Toluene	0.018	0.001	mg/L	0.0200		88.8	76.1-122			
4-Methyl-2-pentanone	0.021	0.005	mg/L	0.0200		106	54.5-143			
Tetrachloroethene	0.019	0.001	mg/L	0.0200		97.3	65.3-133			
trans-1,3-Dichloropropene	0.020	0.001	mg/L	0.0200		98.7	80.1-132			
1,1,2-Trichloroethane	0.019	0.001	mg/L	0.0200		97.0	82.3-117			
Dibromochloromethane	0.019	0.001	mg/L	0.0200		96.4	75.2-137			
1,3-Dichloropropane	0.020	0.001	mg/L	0.0200		99.8	82.9-118			
1,2-Dibromoethane	0.020	0.001	mg/L	0.0200		98.4	78.4-126			
2-Hexanone	0.020	0.005	mg/L	0.0200		102	52.1-149			
Chlorobenzene	0.019	0.001	mg/L	0.0200		95.4	76.8-125			
Ethylbenzene	0.019	0.001	mg/L	0.0200		93.2	78.5-126			
1,1,1,2-Tetrachloroethane	0.019	0.001	mg/L	0.0200		96.3	78.6-127			
m+p - Xylene	0.038	0.002	mg/L	0.0400		94.8	81.1-129			
o-Xylene	0.020	0.001	mg/L	0.0200		98.6	77.5-134			
Total Xylenes	0.058	0.003	mg/L	0.0600		96.0	80.2-130			
Bromoform	0.018	0.001	mg/L	0.0200		87.9	54.1-155			
Styrene	0.020	0.001	mg/L	0.0200		98.8	78-122			
Isopropylbenzene	0.018	0.001	mg/L	0.0200		90.0	80.2-122			

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Celey D. Keene, Lab Director/Quality Manager



VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		2iii								
Batch 6020903 - Volatiles										
LCS (6020903-BS1)				Prepared: 0	9-Feb-16 A	nalyzed: 1	2-Feb-16			
Bromobenzene	0.017	0.001	mg/L	0.0200		86.6	73.2-126			
n-Propylbenzene	0.018	0.001	mg/L	0.0200		88.8	76.8-123			
1,1,2,2-Tetrachloroethane	0.018	0.001	mg/L	0.0200		92.3	72.8-123			
2-Chlorotoluene	0.018	0.001	mg/L	0.0200		90.0	76.6-125			
1.2.3-trichloropropane	0.020	0.001	mg/L	0.0200		98.2	58.3-141			
1,3,5-Trimethylbenzene	0.016	0.001	mg/L	0.0200		82.1	80.8-118			
trans-1,4-Dichloro-2-butene	0.024	0.001	mg/L	0.0200		118	12.5-215			
4-Chlorotoluene	0.018	0.001	mg/L	0.0200		88.8	80.2-120			
tert-Butylbenzene	0.022	0.001	mg/L	0.0200		111	72-128			
1,2,4-Trimethylbenzene	0.016	0.001	mg/L	0.0200		81.5	77.2-128			
sec-Butylbenzene	0.016	0.001	mg/L	0.0200		81.8	74.2-121			
p-lsopropyltoluene	0.017	0.001	mg/L	0.0200		82.9	75-122			
1,3-Dichlorobenzene	0.017	0.001	mg/L	0.0200		87.2	69.5-126			
1,4 Dichlorobenzene	0.017	0.001	mg/L	0.0200		87.2	71.5-122			
n-Butylbenzene	0.018	0.001	mg/L	0.0200		89.4	72.7-128			
1,2-Dichlorobenzene	0.018	0.001	mg/L	0.0200		88.8	73.9-123			
1,2-Dibromo-3-chloropropane	0.018	0.001	mg/L	0.0200		87.6	53.1-145			
Hexachlorobutadiene	0.017	100.0	mg/L	0.0200		86.0	62.2-136			
1,2,4-Trichlorobenzene	0.017	0.001	mg/L	0.0200		84.8	69.2-123			
Naphthalene	0.018	0.001	mg/L	0.0200		91.9	64.4-132			
1,2,3-Trichlorobenzene	0.018	0.001	mg/L	0.0200		90.4	69.7 - 119			
2-Chloroethylvinyl ether	ND	0.005	mg/L				0-200			
1,4-Dioxane	ND	0.125	mg/L				0-200			
Surrogate: Dibromofluoromethane	0.00993		mg/L	0.0100		99.3	86.5-122			
Surrogate: Toluene-d8	0.0100		mg/L	0.0100		100	85.7-112			
Surrogate: 4-Bromofluorobenzene	0.0108		mg/L	0.0100		108	86.3-117			
LCS Dup (6020903-BSD1)				Prepared: (09-Feb-16 A	nalyzed: 1	2-Feb-16			
Dichlorodifluoromethane	0.050	0.001	mg/L	0.0200		250	58.8-146	9.48	24.6	B
Chloromethane	0.017	0.001	mg/L	0.0200		87.0	63.7-134	3.67	20.9	
Vinyl chloride	0.021	0.001	mg/L	0.0200		104	69.6-123	3.27	16.7	
Bromomethane	0.025	0.001	mg/L	0.0200		125	57.9-133	2.95	33.2	

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER S Project Number: NADINE Project Manager: GARY SC Fax To:	WATER #1 17-F	eported: eb-16 08:59
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
							2			
Batch 6020903 - Volatiles										
LCS Dup (6020903-BSD1)				Prepared: 0)9-Feb-16 A	nalyzed: 1	2-Feb-16			
Chloroethane	0.025	0.001	mg/L	0.0200		127	62.4-134	3.52	29.5	
Trichlorofluoromethane	0.028	0.001	mg/L	0.0200		138	62.6-142	3.43	24.9	
1,1-Dichloroethene	0.018	0.001	mg/L	0.0200		89.3	65-126	4.49	15.4	
Carbon disulfide	0.025	0.001	mg/L	0.0200		124	65-148	3.44	22.4	
Iodomethane	0.018	0.001	mg/L	0.0200		91.2	70.4-138	19.4	13.2	QR-0
Acrolein	0.093	0.050	mg/L	0.100		92.6	2.76-187	3.87	75.4	
Methylene chloride	0.019	0.001	mg/L	0.0200		94.2	43.1-162	2.05	9.96	
Acetone	0.020	0.005	mg/L	0.0200		001	43.2-175	2.07	82.2	
trans-1,2-Dichloroethene	0.014	0.001	mg/L	0.0200		69.4	76.6-122	28.9	11.5	QR-02, BS
Methyl t-Butyl Ether	0.018	0.001	mg/L	0.0200		92.4	81.5-128	4.75	11.7	
I, I-Dichloroethane	0.019	0.001	mg/L	0.0200		96.1	80.9-121	1.34	7.62	
Acrylonitrile	0.019	0.001	mg/L	0.0200		96.3	44.6-163	5.41	59.2	
Vinyl acetate	0.020	0.005	mg/L	0.0200		102	19.7 -2 07	3.98	24.5	
cis-1,2-Dichloroethene	0.019	0.001	mg/L	0.0200		95.6	76.8-126	2.07	8.74	
2,2-Dichloropropane	0.019	0.001	mg/L	0.0200		96.4	66.5-137	2.71	14	
Bromochloromethane	0.020	0.001	mg/L	0.0200		100	76.7-128	2.85	8.39	
Chioroform	0.019	0.001	mg/L	0.0200		94.6	82.5-123	4.59	8.33	
Carbon tetrachloride	0.020	0.001	mg/L	0.0200		100	77.5-136	4.39	9.31	
1,1,1-Trichloroethane	0.020	0.001	mg/L	0.0200		97.6	88.3-127	1.47	7.44	
1,1-Dichloropropene	0.020	0.001	mg/L	0.0200		101	82.4-122	3.70	6.49	
2-Butanone	0.020	0.005	mg/L	0.0200		101	55.2-151	7.65	55	
Benzene	0.019	0.001	mg/L	0.0200		94.2	84.9-121	2.10	7.79	
1,2-Dichloroethane	0.019	0.001	mg/L	0.0200		94.0	76.9-133	3.19	8.3	
Trichloroethene	0.019	0.001	mg/L	0.0200		97.2	82.8-120	2.84	6.6	
Dibromomethane	0.019	0.001	mg/L	0.0200		93.0	78.8-128	3.95	11.7	
1,2-Dichloropropane	0.020	0.001	mg/L	0.0200		98.2	80.2-126	1.26	6.21	
Bromodichloromethane	0.019	0.001	mg/L	0.0200		95.5	84.1-130	1.61	7.88	
cis-1,3-Dichloropropene	0.019	0.001	mg/L	0.0200		94.2	76.8-130	1.68	10.6	
Toluene	0.018	0.001	mg/L	0.0200		89 .6	76.1-122	0.897	9.78	
4-Methyl-2-pentanone	0.020	0.005	mg/L	0.0200		102	54.5-143	3.61	44.3	
Tetrachloroethene	0.019	0.001	mg/L	0.0200		97.3	65.3-133	0.00	21.1	
trans-1,3-Dichloropropene	0.020	0.001	mg/L	0.0200		98.8	80.1-132	0.152	12.4	

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Celeg D. Kene



ETZ WATER STATION	Project:	WATER SAMPLES	Reported:
PO BOX 6056	Project Number:	NADINE WATER #1	17-Feb-16 08:59
HOBBS NM, 88241	Project Manager:	GARY SCHUBERT	
	Fax To:		
4			

VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020903 - Volatiles										
LCS Dup (6020903-BSD1)				Prepared: 0)9-Feb-16 A	nalyzed: 1	2-Feb-16			
1,1,2-Trichloroethane	0.019	0.001	mg/L	0.0200		95.4	82.3-117	1.56	12.7	
Dibromochloromethane	0.019	0.001	mg/L	0.0200		94.4	75.2-137	2.10	10.7	
1,3-Dichloropropane	0.019	0.001	mg/L	0.0200		96.3	82.9-118	3.57	13.4	
1,2-Dibromoethane	0.019	0.001	mg/L	0.0200		94.7	78.4-126	3.88	17.5	
2-Hexanone	0.020	0.005	mg/L	0.0200		100	52.1-149	1.58	50.1	
Chlorobenzene	0.019	0.001	mg/L	0.0200		95.5	76.8-125	0.105	10.9	
Ethylbenzene	0.018	0.001	mg/L	0.0200		91.8	78.5-126	1.51	8.74	
1,1,1,2-Tetrachloroethane	0.019	0.001	mg/L	0.0200		96.0	78.6-127	0.312	12.3	
m+p - Xylene	0.039	0.002	mg/L	0.0400		96.4	81.1-129	1.73	8.94	
o-Xylene	0.019	0.001	mg/L	0.0200		97.4	77.5-134	1.28	11.4	
Total Xylenes	0.058	0.003	mg/L	0.0600		96.7	80.2-130	0.709	9.04	
Bromoform	0.017	0.001	mg/L	0.0200		85.6	54.1-155	2.65	23.6	
Styrene	0.019	0.001	mg/L	0.0200		97.2	78-122	1.68	8.83	
Isopropylbenzene	0.018	100.0	mg/L	0.0200		88.7	80.2-122	1.51	11.3	
Bromobenzene	0.016	0.001	mg/L	0.0200		81.8	73.2-126	5.70	7.75	
n-Propylbenzene	0.017	0.001	mg/L	0.0200		85.0	76.8-123	4.32	7.13	
1,1,2,2-Tetrachloroethane	0.017	0.001	mg/L	0.0200		85.0	72.8-123	8.23	26	
2-Chlorotoluene	0.017	0.001	nig/L	0.0200		85.4	76.6-125	5.19	6.49	
1.2.3-trichloropropane	0.019	0.001	mg/L	0.0200		94.1	58.3-141	4.21	28.4	
1,3,5-Trimethylbenzene	0.016	0.001	mg/L	0.0200		79.0	80.8-118	3.79	7.59	BS
trans-1,4-Dichloro-2-butene	0.022	0.001	mg/L	0.0200		112	12.5-215	5.28	49.1	
4-Chlorotoluene	0.017	0.001	mg/L	0.0200		85.0	80.2-120	4.38	6.92	
tert-Butylbenzene	0.021	0.001	mg/L	0.0200		106	72-128	5.35	9.03	
1,2,4-Trimethylbenzene	0.016	0.001	mg/L	0.0200		78.8	77.2-128	3.43	7.81	
sec-Butylbenzene	0.016	0.001	mg/L	0.0200		78.2	74.2-121	4.50	9.05	
p-Isopropyltoluene	0.016	0.001	mg/L	0.0200		79.3	75-122	4.44	6.88	
1,3-Dichlorobenzene	0.016	0.001	mg/L	0.0200		82.3	69.5-126	5.72	7.91	
1,4 Dichlorobenzene	0.017	0.001	mg/L	0.0200		82.6	71.5-122	5.48	7.03	
n-Butylbenzene	0.017	0.001	mg/L	0.0200		84.8	72.7-128	5.22	8.58	
1,2-Dichlorobenzene	0.017	0.001	mg/L	0.0200		85.6	73.9-123	3.61	9.07	
1,2-Dibromo-3-chloropropane	0.017	0.001	mg/L	0.0200		85.2	53.1-145	2.83	49	
Hexachlorobutadiene	0.016	0.001	mg/L	0.0200		79.8	62.2-136	7.42	10.3	

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Celey D. Keene, Lab Director/Quality Manager



PO BOX 6056 Project Number	t: WATER SAMPLES Reported: r: NADINE WATER #1 17-Feb-16 08:59 r: GARY SCHUBERT p:
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VOLATILES BY GC/MS - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6020903 - Volatiles										
LCS Dup (6020903-BSD1)				Prepared: 0	9-Feb-16 A	nalyzed: 1	2-Feb-16			
1,2,4-Trichlorobenzene	0.016	0.001	mg/L	0.0200		80.9	69.2-123	4.65	14	
Naphthalene	0.017	0.001	mg/L	0.0200		86.1	64.4-132	6.52	26.4	
1,2,3-Trichlorobenzene	0.017	0.001	mg/L	0.0200		84.0	69.7-119	7.45	15.4	
2-Chloroethylvinyl ether	ND	0.005	mg/L				0-200		50	
I,4-Dioxane	ND	0.125	mg/L				0-200		50	
Surrogate: Dibromofluoromethane	0.00985		mg/L	0.0100		98.5	86.5-122			-
Surrogate: Toluene-d8	0.0104		ng/L	0.0100		104	85.7-112			
Surrogate: 4-Bromofluorobenzene	0.0111		mg/L	0.0100		111	86.3-117			

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Calley 2 Kenne-



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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.
BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
	Chloride by SM4500CI-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Calley 2 Kara



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		and, Hobbs <mark>, NM</mark> 88 5 FAX (575) 393-247																								
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Cardinal cannot accept verbal changes. Please fax written changes to (576) 393-6326

Page 19 of 19



May 24, 2016

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 05/06/16 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an esterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celay 2 Keine

Celey D. Keene Lab Director/Quality Manager



PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	oject: WAT mber: NON nager: BEN ax To:	E GIVEN			24	Reported: 4-May-16 15:	18
				CSH WATE 000-03 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	ial Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	24.4		5.00	mg l	1	6042804	AP	12-May-16	310.1	a an
Alkalinity, Carbonate	<1.00		1.00	mæ L	1	6042804	AP	12-May-16	3101	
Chloride*	116		4.00	ing.L	1	6050906	AP	10-May-16	4500-Ci-B	
Conductivity	992		1.00	uS cm	1	6051218	AP	12-May-16	120.1	
11*	8,30		0.100	pH Units	ł	6051217	AP	12-May-16	150.1	
fulfate*	166		25.0	mg L	2.5	6050903	AP	E0-May-16	375.4	
rds*	728		5.00	ing L	1	6050403	AP	17-May-16	160-1	
Alkalinity, Totał*	200		4.00	ing L	1	6042804	AP	12 May-16	310.1	
			Green Ana	dytical Lab	oratories					
Total Recoverable Metals by	ICP (E200.7)									
Catelum*	84.9		0.020	mg L	1	B605200	LLG	20-May-16	EPA200.7	
Magnesium*	25.6		0.100	mg-L	1	B605200	LLG	20-May-16	EPA 200-7	
Potassium*	3.83		1.00	mg-L	t	B605200	t.EG	20-May-16	EPA 200-7	
Sodium*	110		1.00	nik f	J	B605200	LLG	20-May-16	EPA200 "	

Cardinal Laboratories

*=Accredited Analyte

PLASE NOTE: Labolity and Damages. Cardenal's followly and cleret's exclusive remedy for any care anisony, whether SASed in contract or for yach be limited to the precur sum to cerem ter analyses. All others, including those kip negagines or any other sace whatsoever shall be beemed waived unics, made in including and increased by Cardenal wither truty (30) takes after competion or investigation uniced increases. Increases all clerent ter analyses all others, including those by negagines or including, without innutation, hyseries interruptions, loss of use, or row of trucks, normal be clerent as void-balled terms shored and or consideration of the above stated reasons or other processing on the above stated reasons or other states in the service interview. This report the new states region for any other approach of cardinal balled reasons or other states induced by Cardenal be clerent as void-balled report or so so of trucks or other states or other states or other states and of the above states region and on the above states region and on the above states or other states are not on the states or other states or other states or other the above states are not and the above states or other states are not one states are not and the above states are independent of a states or other states or other states or other states are not one states are not any other above states are not accessed are the regardles or other states are states are not any other above states are not as the states are on the states or other states are not as the states are not one states are not are states are not any other above states are not accessed at the states are not any other above states are not accessed at the states are not any states are not as the states are not any states are not are not any states are not any states are not are not are not any states are not any states are not any states are not any states are not are not are not any state

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 24-May-16 15:18
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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting	Units	Spike Level	Source Result	%RE.	%REC Limits	RPD	RPD Limit	Notes
Batch 6042804 - General Prep - Wet Chem					· · · · · · · · · · · · · · · · · · ·					
Blank (6042804-BLK1)				Prepared &	Analyzed.	28-Api 16				
Alkalinity, Carbonate	ND	1.00	mg L							
Alkalmity, Bicarbonate	ND	5.00	ուց Լ							
Alkalınıty, Total	ND	4,00	mg L							
LCS (6042804-BS1)				Prepared &	Analyzed:	28-Api-16				
Alkalinity, Carbonate	ND	1.00	mg L				80-120			
Alkalimity, Bicarbonate	126	5.00	mg L				80-120			
Alkalimity, Total	164	4.00	mg l	106		1914	80-120			
LCS Dup (6042804-BSD1)				Prepared &	e Analyzed:	28-Apr 16				
Alkalinity. Carbonate	ND	1.00	mg k				80-120		20	
Alkalimity, Bicarbonate	126	5.00	mg L				80-120	0.00	20	
Alkalimty, Total	104	4,00	mg I,	100		104	80-120	0.00	20	
Batch 6050403 - Filtration										
Blank (6050403-BLK1)				Prepared:	04-May-16	Analyzed: (96-May-16			
TDS	ND	5 00	mg L							
LCS (6050403-BS1)				Prepared:	04-May-16	Analyze E. ()6-May-16			
TDS	502	\$ 00	mg I.	527		9 5 (80-120			
Duplicate (6050403-DUP1)	Sou	rce: H600965	-02	Prepared:	04-May-16	Analyzef: (06-May-16			
TOS	60.50	5 00	mg L	·	6260			3 08	20	
Batch 6050903 - General Prep - Wet Chem										
Blank (6050903-BLK1)				Prepared:	09-May-16	Analyzed	10-May-16			
Suffate	ND	10.0	nig L	•	•					

Cardinal Laboratories

*=Accredited Analyte

MLCASE NOTC: Lubbery and Damages. Cardina's liaberly and clients evolusive remedy for any dam ansing, whether based in curbaid or tart, public be invited to the anisis for analos stands of an applicable or any office curbaid or tart, public be invited to the anisis for any dam ansing, whether based in curbaid or tart, public be invited to the anisis for any dam, including those for negligence or any office curbaid or tart, public be invited to the anisis for any dam ansing, whether based in curbaid or tart, public be invited to the anisis formed to the anisis for any dam any office curbaid or tart, public be invited invited to the anisis formed to the anisis of tart or tart or tart. The invites the inducted or curbaid or tart, public be invited to the anisis of tart of tart and tart or tart of the services networker by Cardinal, regardless of whether and anistic tart approximate of the services networker by Cardinal, regardless of whether and or tart o

Chelley I. Ander and



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	oject: WAT mber: NON nager: BEN ax To:	E GIVEN			2	Reported: 4-May-16 15:	18
				CSH WATE 000-03 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	ial Laborat	ories					
Inorganic Compounds	·····							~		
Alkalinity, Bicarbonate	244		5.00	mg-L	I	6042804	ΔP	12-May-16	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	6042804	AP	12-May-16	310.1	
Chloride*	116		4.00	mg/L	1	6050906	AP	10-May-16	4500-CI-B	
Conductivity	992		1.00	uS-cm	1	6051218	AP	12-May-16	120.1	
h*	8,30		0.100	pH Units	1	6051217	AP	12-May-16	150.1	
Sulfate*	166		25.0	mg/L	2.5	6050903	AP	10-May-16	375.4	
ſDS*	728		5.00	mg L	1	6050403	AP	17-May-16	160.1	
Alkalinity, Total*	200		4.00	mg L	1	6042804	AP	12-May-16	330.1	
			Green Ana	ilytical Lab	oratories					
Fotal Recoverable Metals by	1CP (E200.7)									
Calcium*	84.9		0.020	mg/L	I	B605200	LLG	20-May-16	EPA200.7	
Magnesium*	25.6		0.100	mg/L	I	B605200	LLG	20-May-16	EPA200.7	
Potassium*	3.83		1.00	mg/L	I	B605200	LLG	20-May-16	EPA 200.7	
Sodium*	110		1.00	mg/L	1	B605200	LLG	20-May-16	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

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May 24, 2016

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 05/06/16_14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

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Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg 2 trance

Celey D. Keene Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name	(575) 393-2326 FAX (575) 393- 8: ETZ Water State	-								Ì	:11	LTO		Ż				AN	AL	YSIS	RE	QUE	ST		
Project Manage	" Ben Donahue							P.(0. #:	-				Τ		Γ	Τ	Т	Т						
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Project #:	Project O	wner:	and the second second					Сн	ty:	11		- "A basedon de la constante da se		N											
	ETZ Water Samj	Les						Sta	ate:			Zip:													
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FOR LAS USE ONLY			T		M	ATR	IX	Т	PRE	ESEF	۲V.	SAMPL	ING	₹ \											
Lab I.D. H601000 H600166	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SUL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Catiens											
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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 CONFECTED 4.32 454

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Company Name	ETZ Wat	er Sta	_	n							11	1. 70						ANAI	YSI	S RE	QUE	ST	
Project Manage	" Gary Sch	ubert						P.(D. #	:				Γ									
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Project #:	· · · · · · · · · · · · · · · · · · ·	Project Owner	•		7			Cit	y:	in and the second				I Ç		1	1 N						
	Nadine Wat							St	ate:			Zip:		Anio			÷ .	1:5					
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Sampler Name:		Taylor						Fa	x #:					Ł	$\frac{1}{2}$		<u> </u>	k +					
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Lab I.D. H600270	Sample I.D		(G)RAB OR (C)OMP	# CONTAINERS GROUNDWATER	WASTEWATER	Soil		OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cation	VOC 3	Ba, Cd.	T N	Nitrat					
	Water sa	mple.	4	1 								<i>- 2/</i> Ч/۱۵											
analyses. All claima includi service. In no event shall C	nd Damages. Cardinal's fability and client's ng those for negligence and any other caus arismal be liable for incidential or conseque ng out of or related to the performance of a V.	e whatsoever shall be ntal damages, including	without I ardinal, r	naived u mitation	n leas m , busin s of wh	ade in ess inte ether si	writing : rruption	and rece 15, 1555 c	ived b tuse,	y Cardin or lioss o	aalwi ofpro	khin 30 days afte ofts incurred by c above stated rea	r completion of lient, its subsidi	the applica aries, ise. Sult:	ble Ve		No	Add'I		#:			

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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Q.



December 16, 2016

BEN DONAHUE ETZ WATER STATION

PO BOX 6056

HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 12/02/16 9:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg & Keine

Celey D. Keene Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		oject Number:	WATER SAMPLES NONE GIVEN BEN DONAHUE	Reported: 16-Dec-16 12:24		
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received		
MONITOR WELL	H602700-01	Water	30-Nov-16 16:30	02-Dec-16 09:55		
FRESH WATER	H602700-02	Water	30-Nov-16 16:45	02-Dec-16 09:55		
BRINE WATER	H602700-03	Water	30-Nov-16 16:45	02-Dec-16 09:55		

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Celeg Z. Kerne



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	roject: WAT mber: NON nager: BEN ax To:	E GIVEN			Reported: 16-Dec-16 12:24							
				ITOR WE						-					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes					
			Cardir	nal Laborat	ories										
Inorganic Compounds															
Alkalinity, Bicarbonate	229		5.00	mg/L	1	6120110	AC	06-Dec-16	310.1						
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	6120110	AC	06-Dec-16	310.1						
Chloride*	132		4.00	mg/L	1	6120202	AC	02-Dec-16	4500-CI-B						
Conductivity*	846		1.00	uS/cm	I.	6120604	AC	06-Dec-16	120.1						
oH*	7.57		0.100	pH Units	1	6120603	AC	06-Dec-16	150.1						
Sulfate*	69.2		10.0	mg/L	I	6120605	AC	06-Dec-16	375.4						
rds*	486		5.00	mg/L	1	6112915	AC	07-Dec-16	160.1						
Alkalinity, Total*	188		4.00	mg/L	1	6120110	AC	06-Dec-16	310.1						

Green Analytical Laboratories

Total Recoverable Me	tals by ICP (E200.7)								
Calcium*	57.0	1.00	mg/L	20	B612089	LLG	13-Dec-16	EPA200.7	
Magnesium*	17.4	2.00	mg/L	20	B612089	LLG	13-Dec-16	EPA200.7	
Potassium*	<20.0	20.0	mg/L	20	B612089	LLG	13-Dec-16	EPA200.7	
Sodium*	91.3	20.0	mg/L	20	B612089	LLG	13-Dec-16	EPA200.7	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	roject: WAT mber: NON nager: BEN ax To:	ie given			1	Reported: 6-Dec-16 12:	24
				CSH WATE 700-02 (Wa						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardir	nal Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	224		5.00	mg/L	1	6120110	AC	06-Dec-16	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	I	6120110	AC	06-Dec-16	310.1	
Chloride*	128		4.00	mg/L	I	6120202	AC	02-Dec-16	4500-CI-B	
Conductivity*	962		1.00	uS/cm	I	6120604	AC	06-Dec-16	120.1	
pH*	7.55		0.100	pH Units	1	6120603	AC	06-Dec-16	150.1	
Sulfate*	137		25.0	mg/L	2.5	6120605	AC	06-Dec-16	375.4	
TDS*	572		5.00	mg/L	1	6112915	AC	07-Dec-16	160.1	
Alkalinity, Total*	184		4.00	mg/L	I	6120110	AC	06-Dec-16	310.1	
			Green Ana	lytical Lab	oratories					
Total Recoverable Metals by 1	CP (E200.7)									
Calcium*	85.9		0.500	mg/L	10	B612086	LLG	13-Dec-16	EPA200.7	
Magnesium*	23.4		1.00	mg/L	10	B612086	LLG	13-Dec-16	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B612086	LLG	13-Dec-16	EPA200.7	
Sodium*	81.7		10.0	mg/L	10	B612086	LLG	13-Dec-16	EPA200.7	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	oject: WAT mber: NON lager: BEN lax To:	E GIVEN			Reported: 16-Dec-16 12:24					
				NE WATE 700-03 (Wa									
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
			Cardin	al Laborat	ories								
Inorganic Compounds													
Alkalinity, Bicarbonate	93.0		5.00	mg/L	1	6120110	AC	06-Dec-16	310.1				
Alkalinity, Carbonate	<1.00	•	1.00	mg/L	1	6120110	AC	06-Dec-16	310.1				
Chloride*	188000		4.00	mg/L	1	6120202	AC	02-Dec-16	4500-Cl-B				
Conductivity*	490000		1.00	uS/cm	1	6120604	AC	06-Dec-16	120.1				
pH*	6.88		0.100	pH Units	1	6120603	AC	06-Dec-16	150.1				
Sulfate*	4440		833	nıg/L	83.3	6120605	AC	06-Dec-16	375.4				
TDS*	312000		5.00	mg/L	1	6112915	AC	07-Dec-16	160.1				
Alkalinity, Total*	76.0		4.00	mg/L	1	6120110	AC	06-Dec-16	310.1				
			Green Ana	lytical Lab	oratories								
Total Recoverable Metals by	ICP (E200.7)												
Calcium*	1800		10.0	mg/L	200	B612086	LLG	13-Dec-16	EPA200.7				
Magnesium*	459		20.0	mg/L	200	B612086	LLG	13-Dec-16	EPA200.7				
Potassium*	<200		200	mg/L	200	B612086	LLG	13-Dec-16	EPA200.7				
Sodium*	137000		200	mg/L	200	B612086	LLG	13-Dec-16	EPA200.7				

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 16-Dec-16 12:24
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Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6112915 - Filtration										
Blank (6112915-BLK1)				Prepared: 2	29-Nov-16 A	Analyzed: ()1-Dec-16			
TDS	ND	5.00	mg/L							
LCS (6112915-BS1)				Prepared: 2	29-Nov-16 A	Analyzed: 0)1-Dec-16			
TDS	522		mg/L	527		99.1	80-120			
Duplicate (6112915-DUP1)	Sou	rce: H602655-	-01	Prepared: 2	29-Nov-16 A	Analyzed: 0	1-Dec-16			
TDS	3890	5.00	mg/L		3780			2.87	20	
Batch 6120110 - General Prep - Wet Chem										
Blank (6120110-BLK1)				Prepared: (01-Dec-16 A	Analyzed: 0	7-Dec-16			
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	9.76	5.00	mg/L							
Alkalinity, Total	8.00	4.00	ing/L							
LCS (6120110-BS1)				Prepared: (01-Dec-16 A	Analyzed: 0	07-Dec-16			
Alkalinity, Carbonate	ND	1.00	mg/L				80-120			
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120			
Alkalinity, Total	112	4.00	mg/L	100		112	80-120			
LCS Dup (6120110-BSD1)				Prepared: (01-Dec-16 A	Analyzed: 0)7-Dec-16			
Alkalinity, Carbonate	ND	1.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	132	5.00	mg/L				80-120	3.72	20	
Alkalinity, Total	108	4.00	mg/L	100		108	80-120	3.64	20	
Batch 6120202 - General Prep - Wet Chem										
Blank (6120202-BLK1)				Prepared &	& Analyzed:	02-Dec-16	5			
Chloride	ND	4.00	mg/L							

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:					Reported: 16-Dec-16 12:24				
	Inor	ganic Com Cardii	•	- Quality (oratories	Control					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120202 - General Prep - Wet Chem										
LCS (6120202-BS1) Chloride	104	4.00	mg/L	Prepared & 100	Analyzed:	02-Dec-16 104	80-120			
LCS Dup (6120202-BSD1)				Prepared &	Analyzed:	02-Dec-16				
Chloride	104	4.00	mg/L	100	·	104	80-120	0.00	20	
Batch 6120603 - General Prep - Wet Chem										
LCS (6120603-BS1)				Prepared &	Analyzed	06-Dec-16				
pH	7.17		pH Units	7.00		102	90-110			
Duplicate (6120603-DUP1)	Sou	rce: H602700	-01	Prepared &	Analyzed:	06-Dec-16		DF		
pH	7.62	0.100	pH Units		7.57			0.658	20	
Batch 6120604 - General Prep - Wet Chem										
LCS (6120604-BS1)				Prepared &	2 Analyzed:	06-Dec-16				
Conductivity	467		uS/cm	500		93.4	80-120			
Duplicate (6120604-DUP1)	Sou	rce: H602700	-01	Prepared &	Analyzed:	06-Dec-16				
Conductivity	841	1.00	uS/cm		846			0.593	20	
Batch 6120605 - General Prep - Wet Chem										
Blank (6120605-BLK1)				Prepared &	2 Analyzed:	06-Dec-16				
Sulfate	ND	10.0	mg/L							

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HOBBS NM, 88241 Fax To:	PO BOX 6056 HOBBS NM, 88241	Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	16-Dec-16 12:24
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Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120605 - General Prep - Wet Chem										
LCS (6120605-BS1)				Prepared &	k Analyzed:	06-Dec-16				
Sulfate	23.3	10.0	mg/L	20.0		117	80-120			
LCS Dup (6120605-BSD1)				Prepared &	& Analyzed:	06-Dec-16				
Sulfate	23.2	10.0	mg/L	20.0		116	80-120	0.387	20	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 16-Dec-16 12:24
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Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B612086 - Total Recoverable, Dir	ect Analysis E200	0.7/E200.8								
Blank (B612086-BLK1)				Prepared:	12-Dec-16 A	Analyzed: 1	3-Dec-16			
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	0.050	mg/L							
LCS (B612086-BS1)				Prepared	12-Dec-16 A	Analyzed: 1	3-Dec-16			
Calcium	5.50	0.050	mg/L	5.00		110	85-115			
Sodium	8.83	1.00	mg/L	8.10		109	85-115			
Magnesium	27.5	0.100	mg/L	25.0		110	85-115			
Potassium	10.9	1.00	mg/L	10.0		109	85-115			
LCS Dup (B612086-BSD1)				Prepared:	12-Dec-16 A	Analyzed: I	3-Dec-16			
Sodium	7.86	1.00	mg/L	8,10		97.0	85-115	11.6	20	
Calcium	4.88	0.050	mg/L	5.00		97.6	85-115	11.9	20	
Potassium	9.77	1.00	mg/L	10.0		97.7	85-115	11.3	20	
Magnesium	24.4	0.100	mg/L	25.0		97.6	85-115	12.0	20	
Batch B612089 - EPA 200.2 Total Rec.										
Blank (B612089-BLK1)				Prepared a	& Analyzed:	13-Dec-16				
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Calcium	ND	0.050	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B612089-BS1)				Prepared a	& Analyzed:	13-Dec-16	,			
Potassium	7.67	1.00	mg/L	8.00		95.9	85-115			
Magnesium	18.8	0.100	mg/L	20.0		94.1	85-115			
Sodium	6.18	1.00	mg/L	6.48		95.4	85-115			
Calcium	3.80	0.050	mg/L	4.00		95.0	85-115			

Cardinal Laboratories

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Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B612089 - EPA 200.2 Total Rec.										
LCS Dup (B612089-BSD1)				Prepared &	Analyzed:	13-Dec-16				
Magnesium	19.4	0.100	mg/L	20.0		96.9	85-115	2.93	20	
Potassium	7.94	1.00	mg/L	8.00		99.2	85-115	3.45	20	
Sodium	6.34	1.00	mg/L	6.48		97.8	85-115	2.48	20	
Calcium	3.93	0.050	mg/L	4.00		98.2	85-115	3.33	20	

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Notes and Definitions

 ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference

 **
 Samples not received at proper temperature of 6°C or below.

 Insufficient time to reach temperature.

 Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

	(575) 393-2326 FAX	(575) 393-2476												-									
Company Name	ETZ Water	Station								BI	LL TO						AN	ALY	SIS	REQL	EST		
Project Manage	" Ben Doro	ihne					ļ	P. <i>O.</i>	#:														
Address:		-					c	Com	pany	/ :													
city: Hobb	5	State: NM Z	ip:	88	124	(4	Attn															
Phone #: 57	53933194	Fax #:					4	Add	ress:														
Project #:		Project Owner:					d	City:															
Project Name:	ETZ Water S	angles					s	State: Zip:					2										
	n: Brine Wel		tal	nes			F	Phone #:				1.	HUNDLI										
Sampler Name:	Ben Brai					ter i skiler op	F	ax	#:			annen er site sonskriven		2									
FOR LAB USE ONLY					MA	TRIX		Р	RES	ERV.	SAMPL	ING	- <	≭									
Lab I.D. H602700 1 2 3	Sample I. Moniter II Fresh Was Brine Was	.D. Jell (Xer Ter -	# CONTAINERS		WASTEWATER SOIL		SLUDGE			OTHER :	ДАТЕ 111 70 /и	тіме 4:30 4:45 1		MAILERI									
	nd Damages. Cardinal's liability and de																					 L	
service, in no event shall C	ng those for negligence and any other i lardinal beliable for incidental or conse	quental damages, including with	hout limit	tation, b	URIPHENS IF	terruptie	ons, łos	as of us	e, or los	ss of pr	todis incurred by	cheral, its subsid	diaries.	mcati k									
Relinquished B	brahe	Date 12/2/16	tecel Hecel	vod A	By: Ú	L	1					Phone R Fax Resi REMARK	esult ult: (S:	٢	Yes Yes	I No No	Add	fi Pho fi Fax	#:	ar1.4	iun		
Delivered By	· (Circle One)		-		Sample	Con	ditio		CH	FCK	ED BY:	0		•				\sim	•				

101 East Marland, Hobbs, NM 88240

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

5.

E Yes

Sampler - UPS - Bus - Other:

HRC, Inc.

P.O. Box 1606 Hobbs, NM 88241-6056 (575) 393-6662 (575) 393-6662 Fax RECEIVED OCD

January 20, 2012

Mr. Carl Chavez Environmental Bureau Chief Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, NM 87505

Ref: Annual Brine Well Report – BW-31 Name of Operator: HRC – Schubert Date of Report: 1-20-2011

Mr. Chavez,

Please see attached information:

- 1. Copies of monthly brine water production and fresh water injection for the year 2011.
- 2. Analysis of injection fluid (2011)
- 3. Analysis of brine produced (2011)
- 4. Analysis of monitor well samples. (2011)
- 5. 2011 MIT TEST CHARTS

Sincerely,

Gary M. Schubert, President GMS/br

Enclosure

ANNUAL BRINE WELL REPORT API# 30-025-36781 H.R.C. INC. Gary M. Schubert BW-31 January 27, 2012

BW - 31

SCHUBERT 7 – WELL # 1

YEAR 2011

MONTH	BRINE PRODUCTION (BY Meter)	FRESH WATER INJECTED (By Meter)	
January	34,390	37,121	
February	26,653	27,131	
March	31,870	32,821	
April	35,172	36,426	
May	35,766	36,794	
June	28,147	27,429	
July	37,842	37,155	
August	28,805	29,498	
September	34,852	35,519	
October	33,969	36,438	
November	37,140	38,305	
December	31,672	33,800 ***	
Total	396,278	408,437	

*** Estimated (meter malfunction – actual reading @ 27,017 -- meter adjusted January 6, 2012)

H. R. C., INC. SCHUBERT 7 WELL # 1 (BW - 31)

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YEAR	BRINE PRODUCTION	FRESH WATER INJECTED
2006	42,950	44,800
2007	312,800	315,000
2008	305,990	316,000
2009	212,779	226,058
2010	341,134	350,887
2011	396,278	401,654
Total Cumulative Produc	tion	
(Thru 12-31-2011)	1,611,931	1,654,399

BW 31 SCHUBERT 7 - WELL # 1

MONTH/YEAR	ETZ BRINE WATER BBLS	WATER	TOTAL BRINE WATER BBLS	FRESH WATER INJECTED	DATE FRESH WATER METER READ	FRESH WATER METER READING BY	FRESH WATER USED BY GALLONS	TOTAL FRESH WATER BBLS
				BBLS		GALLONS (X 100)	(X 100)	
Jan. 2011	29,260	5,130	34,390	37,121	01/31/11	244,914	15,591	37,121
Feb. 2011	24,660	1,993	26,653	27,131	02/28/11	256,039	11,395	27,131
March. 2011	28,010	3,860	31,870	32,821	03/31/11	270,092	13,785	32,821
April. 2011	31,529	3,643	35,172	36,426	04/30/11	285,391	15,299	36,426
May. 2011	34,464	1,302	35,766	36,974	05/31/11	300,920	15,529	36,974
June. 2011	25,590	2,557	28,147	27,429	06/30/11	312,440	11,520	27,429
July. 2011	33,128	4,354	37,842	37,155	07/31/11	328,045	15,605	37,155
Aug. 2011	24,560	4,245	28,805	29,498	08/31/11	340,434	12,389	29,498
Sept. 2011	31,621	3,231	34,852	35,519	09/30/11	355,352	14,918	35,519
Oct. 2011	25,702	8,267	33,969	36,438	10/31/11	370,656	15,304	36,438
Nov. 2011	33,633	3,507	37,140	38,305	11/30/11	386,744	16,088	38,305
Dec. 2011	27,029	4643		27,017	12/31/2011	398,091	11,347	27,017
2011 Total	349,186	46,732	396,278	401,834				401,834



PHONE (575) 393-2826 * 101 E. MARLAND * HOBBS, NM 88240

January 04, 2012

HRC

HRC

P. O. BOX 5011

HOBBS, NM 88241

RE: ETZ

Enclosed are the results of analyses for samples received by the laboratory on 12/30/11 13:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list on accredited analytes and matrices visit the TCEQ website at <u>www.tceq.texas.gov/field/ga/lab_accred_certif.html</u>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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Celey D. Kune

Celey D. Keene Lab Director/Quality Manager



H102797-03

Wøter

PHONE (875) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

30-Dec-11 13:55

Analytical Results For:

HRC P. O. BOX 5011 HOBBS NM, 88241		Project: Project Number: Project Manager: Fax To:	NONE GIVEN	Reported: 04-Jan-12 15:00		
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received		
FRESH WATER INJECTION	N H102797-01 H102797-02	Water Water	30-Dec-11 13:30 30-Dec-11 13:30	30-Dec-11 13:55 30-Dec-11 13:55		

30-Dec-11 13:30

Cardinal Laboratories

BRINE FILL LINE

*= Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

HRC P. O. BOX 5011 HOBB5 NM, 88241		Project Nun Project Mana		ie given	2		(Reported: 04-Jan-12 15:(00
	ſ	RESH WA	TER INJ 97-01 (Wa						
Analyte	Result	Reporting Limit	Unita	Dilution	Batch	Anniyat	Analyzed	Method	Notes
		Cardin	al Laborate	orios					
torganic Compounds									
Ikalinity, Bicarbonnto	239	5.00	mg/f_	I	1122802	HM	02-Jan-12	310,1M	
alcium	119	1.60	ng/L	I	1 (219/19	MM	03-180-12	SM3500Ca- D	
Ikalinity, Carbonate	ND	0.00	mg/L	1	1122802	HM	02-Jan-12	310.IM	
hloride	236	4.00	mg/L	1	1122711	HM	02-lon-12	4500-CI-FI	
onductivity	1380	1.00	uS/em	1	2010203	ЯM	02-Jan-12	120.1	
lagnesium	21.4	1.00	uit/1	I.	1121909	HM	03-Inn-12	SM3500Mg. E	
લ	7.16	0.100	pH Units	I	2010203	нм	02-Jon-12	L50. I	
องสหรับขอ	10.6	1.00	nın/l	I.	1121009	HM	03-Jan-12	HACH 8049	
dium	.145	1,00	m¢/L	I	1121909	HM	03-Jan-12	Calculation	
nifate	179	10.0	ጦ ጵ ^ብ ታ	1	2010406	HM	03-Jan-17	375,4	
DS	948	5.00	mg/i.	ı	1122712	нм	02-Jan-12	160.1	
Ikalinity, Total	196	4.00	mg/L	I	1122802	HM	02-Jon-12	310.1M	

Cardinal Laboratories

*=Accredited Analyte

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Celang T. Karne -

Coley D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND * HOBB5, NM 88240

Analytical Results For:

HRC P. O. BOX 5011 HOBBS NM, 88241	Project: ETZ Project Number: NONE GIVEN Project Manager: HRC Fax To: (575) 393-6662						Reported: 04-Jan-12 15:00			
			TOR WE							
Analyce	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
		Cardina	al Laborat	ories						
norganic Compounds										
Ikalinky, Bicarbonate	210	5.00	,ו/קוים	i i	1122602	HM	02-Jan-12	310, IM		
Calcium	160	1.60	ຕາຍູ/L	1	1121909	НМ	03-Jan-12	SM3500Ca+ D		
likelinity, Carbonate	ND	0.00	mc/1.	1	1122802	HM	02~1nm-12	310.1M		
Islaride	200	4.00	mg/l	1	1122711	нм	02-1m-12	4500-CI-B		
Conductivity	2120	1,00	uS/cm	t	2010203	HM	02-1413-12	120.1		
fagnesium	41.8	1.UD	mg/1 .	ı	1 (21909	HM	03-lan-12	SM3500Mg- E		
FI	7.62	0,100	pH Units	1	2010203	HM	02-148-12	150,1		
orassium	2.70	1.00	ന്ദ്വ/1	1	1/21909	HM	03-Jan-17	HACH 8049		
odium	40.0	1.00	mg/l_	ι	112 (909	нм	03-Jan-12	Cotentation		
iul fat c	201	10.0	nig/L	I I	2010406	HM	03-Jan-12	375.4		
TDS	1350	5.00	mg/l_	1	1122712	HM	02-Jan-12	160.1		
Alkalinity, Total	172	4,00	mg/L	I.	1122802	нм	02.(nn-12	310.1M		

Cardinal Laboratories

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RIGANG NOTE: LINDING AND Demogratic Constant's Registry and commits notional marking 19 Ring from and non- by register and and non-regist unapproved ball as annual world policies marks and increased by Checkel within Mark (3) She what constants in the September routes, in a non-rest shall be sended world policies marks and increased by Checkel increased and register and the september routes, and the sender of the sende

College T. Hame-

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 86240

Analytical Results For:

HRC P. O. BOX 501.1 HOBBS NM, 88241	Project: ETZ Project Number: NONE GIVEN Project Manager: HRC Fax To: (575) 393-6662						Reported: 04-Jan-12 15:00			
			E FILL I. 97-03 (Wa							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Noice	
		Cardin	al Laborat	01 16 3						
Inorganic Compounds										
Alkalinity, Bicarbonate	305	5,00	mg/!_	1	1122802	HM	02-Jan-12	310.IM		
Calcium	1160	1.60	mņ/L	ı	1121909	нм	03-Jan-12	SM3500Ca- D		
Alkalinity, Carbonate	ND	0.00	mg/1	I	1122802	HM	02-Jpn-12	310, IM		
Chloride	192000	4.00	mg/l.	t	2010402	HM	02-Jan-12	4500-CI-B		
Conductivity	551000	1,00	uS/cm	1 I	2010203	HM	02-inn-12	120.1		
Magnesium	4710	1.00	ጣቢ/፤_	I	1121909	Ηм	03-Jan-12	5M3500Mg- E		
pH	6.59	0.100	pH Units	I.	2010203	нм	02-Jan-12	150.1		
Potassium	1060	1.00	mg/l	1	1121909	HM	03-Inn-12	MACH 1049		
Sodium	118000	1.00	⊓ เต/L	I.	1121909	ЫM	03-Jan+12	Calculation		
Sulfate	8630	10.0	nıg/L	1	2010406	нм	03-Jan-12	375.4		
TD5	335000	5.00	mę/L	I.	2010407	HM	03-1an-12	160.1		
Alkalinity, Total	250	4.00	nı <u>e</u> /1,	1	1122802	HM	02-Jan-12	310.IM		

Cardinal Laboratorles

*=Accredited Analyte

PLYARE DOTES Lightly and Contents address of the set of

Colory Z: Kenne-

Celey D. Keene, Lab Director/Quality Manager

Page 5 of 12

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND " HOBBS, NM 88240

Analytical Results For:

HRC P. O. BOX 5011 HOBBS NM, 88241.	Project: ETZ Project Number: NONE GIVEN Project Manager: HRC Fax To: (575) 393-6662	Reported: 04-Jan-12 15:00
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Inorganic Compounds - Quality Control **Cardinal Laboratorics**

		Cartin		AN AUTICS						
Analyte	Reault	Reporting Limit	Units	Spike Levol	Source Result	*REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1121909 - *** DEFAULT PREP ***										
Blank (1121909-BLKI)				Prepared &	Analyzed:	19-Dec-11				
alcium	ND	1,60	mg/1.							
fagnesium	ND	1.00	mg∕1,							
orasatum	ND	1.00	mg/l							
ottium	ųи	1,00	mg/L							
CS (1121909-BSI)				Prepared &	Analyzed:	19-Doc-11				
alcium	22,4		mg/L	20,0		112	80-120			•
lagnesium	51.5		mg/1,	50.0		1.03	80-120			
otassium	7.30		nıɛ/L	8,00		91.2	80-120			
Duplicate (1121909-DUP1)	Sour	ce: #102619.	.01	Propared &	Analyzed:	19-Dec-11				
alcium	9620	1.60	nig/l_		9620		-	0,00	20	
กัญสาธรรณ	2430	1.00	mg/L		2530			4,03	20	
umstium	763	1.00	nig/L		676			12.1	20	
Batch 1122711 - General Prep - Wet Chem										
Blank (1122711-BLKI)				Propared &	Analyzed;	27-Dcc-11				
Intoride	חא	4,00	กเร/เ							
_CS (1122711-RS1)				Prepared &	Analyzed;	27.Dec-11				
Thioride	108	4.00	mŗ/L	100		108	80-120		-	
LCS Dup (1122711-BSD1)				Prepared &	Analyzed	27-Dec-11				
Thoride	108	4.00	កាម្ល/វៃ	100		108	80-120	0.00	20	
Duplicate (1122711-DUP1)	Sour	cc: H102733-	-01	Propared &	Analyzed:	27-Dec-11				
"htorido	220	4.00	n1g/1.		220			0.00	20	

Cardinal Laboratories

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Page 6 of 12

CARDINAL Laboratories

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

CARDINAL LABS

HRC P. O. BOX 5031 HOBBS NM, 88241		Project Nu Project Ma	nager:	NONE GIVE					teported Jan-12	
	[no)	ganic Com	-		Control					
		Cardin	al Lai	boratorics						
Analyse	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1122711 - General Prep - Wet Chen	n									
Matrix Spike (1122711-MSJ) Informe		rce: H102733- 4.00	01 n1g/l,	Prepared &	Analyzed: 220	27-Dec-11 108	AU-150			
Batch 1122712 - Filtration										
Nank (1122712-BI.K.I) TDS	מא	5,00	mg/1.	Prepared &	Analyzed	21-Dec-11				
CS (1122712-BS1) DS	224		mŗ/l_	Prepared &	Anniyzed;	21-Dec-11 93.3	R0-120	. <u>.</u>		
DupHcate (1122712-DUPI)	Sour 334000	rce: H102712- 5.00	02 mņ/1.	Prepared &	Analyzed: 332000	21-Doc-11		0.601	20	· · · · · · · · · · · · · · · · · · ·
Batch 1122802 - General Prep - Wet Chen	1									
Blank († 122802-BLK) Vikilinity, Carbounte Vikalinity, Ricarbounte Vikalinity, Total	תא טא חא	0,00 5.00 4,00	ബ്യ/L_ നള/L_ നള/L_	Prepared &	Analyzed:	27-Dcc-11				
.CS (1122802-BS1)				Prepared &	Analyzed	27-Dec-11				
Alkalinity. Carhanate	ND	0,00	mg/1_				80-120			
Alkalinity, Ricarbonalc Alkalinity, Total	137	5,00 4,00	ന്നg/1. ന്യൂ/1,	109		112	80-120 80-120			
LCS Dup (1122802-BSD1) Altalinity. Carbonate Altalinity, Bicarbonate Altalinity, Total	ND 132	0.00 5.00 4.00	mg/l mg/l ing/L	Prepared &	Analy2cd:	27-Dec-11	80-120 80-120 80-120	3.72 3.64	20 20 20	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

HRC P. O. BOX 5011 HOBBS NM, 88241	Project: ETZ Project Number: NONE GIVEN Project Manager: HRC Fax To: (575) 393-6662				Reported: 04-Jan-12 15:00					
	Inorg		-	- Quality	Control					
		Cardin	al Lab	oratories						
Inslyte	Result	Reporting Limit	Unita	Spike Level	Source Result	MREC	%REC Limits	RPD	RPD Limit	Notes
atch 1122802 - Goneral Prep - Wet Che	n									
uplicate (1122802-DUPI)	Sourc	e: 1102770-	10	Propared &	Analyzod;	27-Dec-11				
Ikalinity, Carbonalc	ND	0.00	nig/L		0.00			•••	20	
Italinity, Blearbonate	830	5,00	mg/l_		830			v'úÒ	20	
Ikalinity, Total	680	4.00	nıg/l_		680			0.00	20	
atch 2010203 - General Prep - Wet Cher	n									
lank (2010203-B).K()				Prepared &	Annlyzed	02-Jan-12				
4	ND	0,100	pH Units							
onductivity	DN	1.00	uS/cm							
C5 (2011)203-BS1)				Prepared &	Analyzed:	02-Jan-12				
4	7.08		pf 1 Units	7.00		101	90-110			
onductivity	508		u5/cm	500		102	10-120			
upHcate (2010203-DUPI)	Sourc	e: 11102787-	01	Prepared &	Analyzed:	02-Jan-12				
4	8,28	0.100	pH Units		8.26			0,242	20	
onductivhy	556000	1.00	115/cm		552000			0.722	20	
atch 2010402 - General Prep - Wet Cher	n									
lank (2010402-RI,K1)				Prepared &	Analyzed	02-Jan-12				
hloride	ND	1.00	,1/קוח							
CS (2010402-BS1) hloride	100	4,00		Prepared &	Analyzed	02-Jan-12	80-120		· · · ·	

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL

PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Analytical Results For:

HRC P. O. BOX 5011 HOBBS NM, 88241							Reported: 04-Jan-12 15:00				
	Inor	ganic Compour	ds - Quality	Control							
		Cardinal L	aboratories								
\nalyse	Result	Reporting Limit Unit	Spike s Level	Source Result	%REC	MREC Limita	RPD	RPD Limit	Notes		
atch 2010402 - General Prep - Wet Chem											
CS Dup (2010402-BSD1) Norice	104	4,00 ng/		Analyzed;	02-Jan-12 104	<u> ३</u> ०- १२०	3,92	20			
Hipliente (2010402-DUP1) Norilla	50112 190000	се: H102797-63 4.00 mg/		Analyzed:	02-Jan-12		 1.05	20	.		
(ntrix Spike (2010402-MS1) bloride	5000 240000	ee: [1102797-03 4,00 mg/		Analyzed	02-Jan-12 96,0	80-120					
atch 2010406 - General Prep - Wet Chem											
lank (201 A406-RLK1)	ND	10.0 mg/)3-Jan-12 A	nalyzed: 04	-Jan-12					
CS (2019406-BSI) Nfate	20.6			13-Jan-12 A	nalyzed: 04 103	-Jan-12 80-120					
CS Dup (2010406-BSD1) ulfate	21.3	10.Ú mp/	·	k Anulyzed;	03-Jan-12 106	R0-120	3.M	20			
uplicate (2018406-DUP1)	Sour-	cc: 11102766-01 10.0 mc/		k Analyzed: 1560	03-Jan-12		0,643	20	• ••••		
latvix Spike (2010404-MS1) Alfate	Sour 2020	ce: 11.102766-01 10.0 mp/		z Analyzed: 1560	03Ian=12 NR	70-130					
atch 2010407 - Filtration											
lank (2010407-BI,KI) DS	 מא	5.00 mg/		02-Jan-12 A	nulyzed; 03	- Jan-12		• 11 = 11.1.9 -21.1			

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 . 101 E. MARLAND . HOBBS, NM 88240

Analytical Results For:

HRC Project: ETZ P. O. BOX 5011 Project: Number: NONE GIVEN HOBBS NM, 88241 Project: Manager: HRC Fax To: (575) 393-6662	Reported: 04-Jan-12 15:00
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Inorganic Compounds - Quality Control

Cardinal Laboratories

Anniyte	Result	Reporting Limit	Linita	Spike Level	Source Result	%REC	%REC Limits	RPD	RFD Limit	Notes
Batch 2010407 - Filtration										
LCS (2010407-BS1)				Prepared: 0	2-lan-12 A	nalyzed: 03	-Jan-12			
TOS	243	5.00	mg/i.	240		101	80-120			
Duplicate (2010407-DUP1)	Sou	rce: 11102797-	03	Propared: 0		nalyzed 0				
TDS	336000	5.00	mp/L		335000			0.260	20	

Cardinal Laboratories

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Celey D. Keene, I.ab Director/Quality Manager



PHONE (575) 393-2326 * 101 E. MARLAND * HOBBS, NM 88240

Notes and Definitions

	Samples reported on an as received basis (wet) unless otherwise noted on report
	Chloride by SM4500Cl-B does not require samples be received at an below 6°C
***	Insufficient time to reach temperature.
-	Samples not received at proper temperature of 6°C or below.
RPD	Rolative Percent Difference
ND	Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

Company Name	: HRC.	010/ 000-24/0						1.0	AI)	· 当()					-	ANAL	YSK	RE	OUF	ŚŤ			
Project Manager		-				·· •	_	2. 5.							1-					<u> </u>			
• •). BOX 5011							mpam				1											
city: HULCE	\sim	State Alyn ;	Zin-	~	5	101	At					10											
Phone #:		Fax #:	<u></u>				-	ldress				12		!	i i								
Project #:		Project Owner:					Cil		·			Anioris											
Project Name:	ETZ.		·					ate:		Zip:		17											
Project Location		· · · ·						ione #		<u> </u>		1.											
Sampler Name:	Bill Hise							x f:	•			-	L										
TERLABUSED LY	0111 11126		Т		1	MATRIX		PRES	ERV	SAMPL	ING	۸. ۲											
Lab I.D. <u>H1D2797</u> <u></u> 	Sample I.I Fresh Water Manitor L Bring Fill	D.		CONTAINERS	WASTEWATER		SLUDGE SLUDGE	ACIDIBASE:		DATE	1:30	SULT IN STORE									-		
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1		Time:																					

CHECKED BY:

t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

12°c

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition Cool Intact Ves Ves VNo No 01/04/2012

15:52

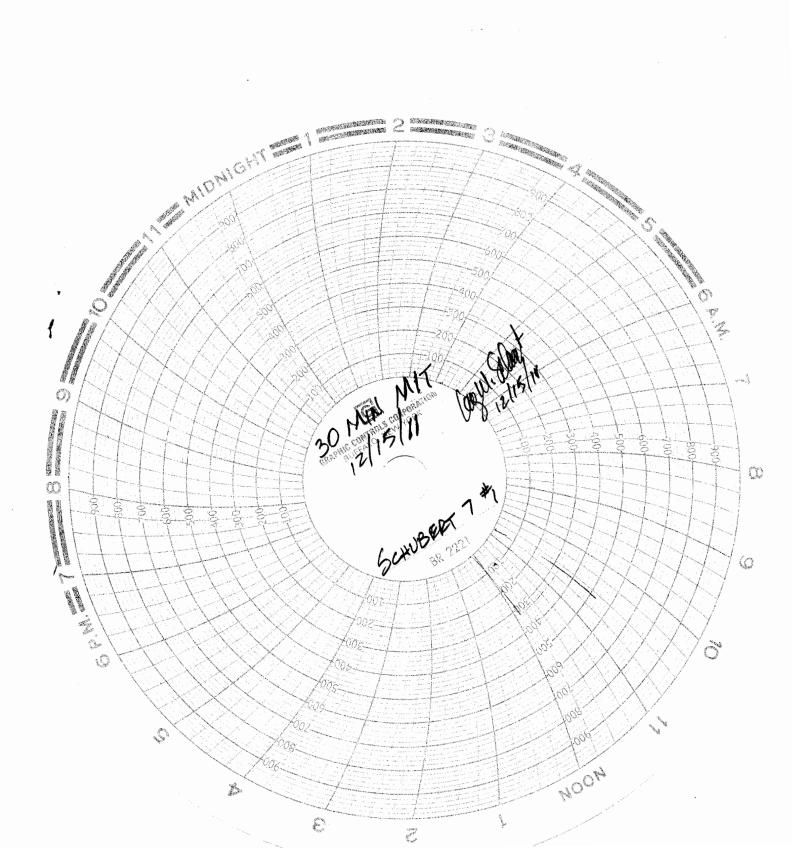
5753932476

CARDINAL LABS

Page 12 of 12

CHART RECORDER SET @ 12 HR PER REVOLUTION

> 10:30 AM TO ≈11:05 AM 12/15/11



MACLASKEY OILFIELD SERVICES

5900 WEST LOVINGTON HWY. HOBBS, N.M. 88240 505-393-1016

THIS IS TO CERTIFY THAT:

DATE: 9-2-11

 I. Albert Actuacion METER TECHNICAN FOR MACLASKEY OILFIELD

 SERVICES, INC. HAS CHECKED THE CALIBRATION ON THE FOLLOWING

 INSTRUMENT.
 1000 PRESSURE RECORDER.

SERIAL NUMBER 11853

TESTED AT THESE POINTS.

PR	ESSURE_5	00		PRI	SSURE 100	
TEST	AS FOUND	CORRECTI	ED	TEST	AS FOUND	CORRECT
<u> </u>	100			500	600	
100	200	1	-	600	200	
<u> </u>	300	. /		200	800	
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REMARKS:

SIGNED

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CHART RECORDER SET @ 12 HR. PER REVOLUTION В:30 AM TO 12:30 PM 1/12/12 1. - 0 (f)SCHUBERT 7 #1 No. ()A. S. O Q E.ale NOON 8 Û Section .



HRC, INC.

P. O. Box 5102 Hobbs, NM 88241-5102 Phone # (575) 393-6662 Fax # (575) 393-6662

RECEIVED OCCU 2016 APR 25 P D IT

April 25, 2016

Jim Griswold Senior Hydrologist ENMRD/Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Ref: 2015 Annual Report B-31 Schubert 7 – Well #1

Dear Mr. Griswold,

Enclosed please find the monthly freshwater injection and brine production numbers for the Hobbs facility for the year 2015. Included also are Cardinal Laboratories' results of analyses for samples for the month of May and December, 2015.

Thank you,

Sincerely,

Sary 111 Schubert

Gary M. Schubert GMS/br

BW – 31

SCHUBERT 7 – WELL # 1

YEAR 2015

MONTH	BRINE PRODUCTION	FRESH WATER INJECTED	
	<u></u>		
January	22,483	22,650	
February	20,840	21,043	
March	25,417	25,919	
April	20,460	20,441	
May	21,462	20,838	
June	24,012	24,640	
July	26,952	24,317	
August	29,071	29,776	
September	25,880	25,327	
October	24,977	25,012	
November	24,792	24,793	
December	24,859	24,900	



December 07, 2015

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 11/23/15 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



,

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		oject Number:	WATER SAMPLES NONE GIVEN BEN DONAHUE	Reported: 07-Dec-15 16:25
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BRINE WATER MONITOR WELL FRESH WATER	H503087-01 H503087-02 H503087-03	Water Water Water	23-Nov-15 11:00 23-Nov-15 11:00 23-Nov-15 11:00	23-Nov-15 13:30 23-Nov-15 13:30 23-Nov-15 13:30

Cardinal Laboratories

*=Accredited Analyte

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 07-Dec-15 16:25
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BRINE WATER

H503087-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborate	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	112		5.00	mg/L	1	5112009	AP	02-Dec-15	310.1	
Alkalinity, Carbonate	<0.00		0.00	mg/L	i	5112009	AP	02-Dec-15	310.1	
Chloride*	184000		4.00	mg/L	1	5112001	AP	25-Nov-15	4500-CI-B	
Conductivity*	389000		1.00	uS/cm	I	5120115	AP	03-Dec-15	120.1	
pH*	7.21		0.100	pH Units	1	5120117	AP	03-Dec-15	150.1	
Sulfate*	4560		1000	mg/L	100	5113005	AP	30-Nov-15	375.4	
TDS*	306000		5.00	mg/L	1	5112304	AP	01-Dec-15	160.1	
Alkalinity, Total*	92.0		4.00	mg/L	1	5112009	AP	02-Dec-15	310.1	

Green Analytical Laboratories

<u>Total Recoverable Met</u>	als by ICP (E200.7)								
Calcium*	1490	2.00	mg/L	100	B512007	JGS	01-Dec-15	EPA200.7	
Magnesium*	396	10.0	mg/L	100	B512007	JGS	01-Dec-15	EPA200.7	
Potassium*	171	100	mg/L	100	B512007	JGS	01-Dec-15	EPA200.7	
Sodium*	116000	1000	mg/L	500	B512007	JGS	02-Dec-15	EPA200.7	

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	roject: WAT mber: NON nager: BEN ax To:	E GIVEN			0	Reported: 7-Dec-15 16:	25
				ITOR WE						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	nal Laborat	ories					
Inorganic Compounds										····
Alkalinity, Bicarbonate	214		5.00	mg/L	1	5120206	AP	02-Dec-15	310.1	
Alkalinity, Carbonate	<0.00		0.00	mg/L	i	5120206	AP	02-Dec-15	310.1	
Chloride*	152		4.00	mg/L	1	5112001	AP	25-Nov-15	4500-CI-B	
Conductivity*	990		1.00	uS/cm	1	5120115	AP	03-Dec-15	120.1	
pH*	8.65		0.100	pH Units	1	5120117	AP	03-Dec-15	150.1	
Sulfate*	71.4		10.0	mg/L	1	5120203	AP	02-Dec-15	375.4	
TDS*	452		5.00	mg/L	1	5112304	AP	01-Dec-15	160.1	
Alkalinity, Total*	176		4.00	mg/L	1	5120206	AP	02-Dec-15	310.1	
			Green Ana	lytical Lab	oratories					
Total Recoverable Metals by I	CP (E200.7)									
Calcium*	58.3		0.200	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Magnesium*	18.4		1.00	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Sodium*	143		20.0	mg/L	01	B512007	JGS	01-Dec-15	EPA200.7	

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Nu Project Mar	roject: WAT mber: NON nager: BEN ax To:	E GIVEN			0	Reported: 7-Dec-15 16:	25
FRESH WATER H503087-03 (Water)										
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	nal Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	229		5.00	mg/L	1	5120206	AP	02-Dec-15	310.1	
Alkalinity, Carbonate	< 0.00		0.00	mg/L	1	5120206	AP	02-Dec-15	310.1	
Chloride*	120		4.00	mg/L	1	5112001	AP	25-Nov-15	4500-Cl-B	
Conductivity*	1070		1.00	uS/cm	1	5120115	AP	03-Dec-15	120.1	
pH*	8.38		0.100	pH Units	1	5120117	AP	03-Dec-15	150.1	
Sulfate*	158		25.0	mg/L	2.5	5120203	AP	02-Dec-15	375.4	
TDS*	700		5.00	mg/L	1	5112304	AP	01-Dec-15	160.1	
Alkalinity, Total*	188		4.00	mg/L	1	5120206	AP	02-Dec-15	310.1	
			Green Ana	lytical Lab	oratories					
Total Recoverable Metals by I	CP (E200.7)									
Calcium*	81.8		0.200	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Magnesium*	25.0		1.00	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	
Sodium*	112		20.0	mg/L	10	B512007	JGS	01-Dec-15	EPA200.7	

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAM Project Number: NONE GIVE Project Manager: BEN DONAM Fax To:	N 07-Dec-15 16:25
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Inorganic Compounds - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5112001 - General Prep - Wet Chem										
Blank (5112001-BLK1)				Prepared & Analyzed: 25-Nov-15						
Chłoride	ND	4.00	mg/L							
LCS (5112001-BS1)				Prepared & Analyzed: 25-Nov-15						
Chloride	120	4.00	mg/L	100		120	80-120			
LCS Dup (5112001-BSD1)				Prepared: 25-Nov-15 Analyzed: 02-Dec-15						
Chloride	104	4.00	mg/L	100		104	80-120	14.3	20	
Batch 5112009 - General Prep - Wet Chem										
Blank (5112009-BLK1)	Prepared & Analyzed: 25-Nov-15									
Alkalinity, Carbonate	ND	0.00	mg/L	Tiopulou o	c / mai j zeu.		,			
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (5112009-BS1)				Prepared & Analyzed: 25-Nov-15						
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120			
Alkalinity, Total	104	4.00	mg/L	100		104	80-120			
LCS Dup (5112009-BSD1)	Prepared & Analyzed: 25-Nov-15									
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120	0.00	20	
Alkalinity, Total	104	4.00	mg/L	100		104	80-120	0.00	20	
Batch 5112304 - Filtration										
Blank (5112304-BLK1)				Prepared: 2	23-Nov-15	Analyzed: 2	25-Nov-15			
TDS	ND	5.00	mg/L							

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:								Reported: 07-Dec-15 16:25			
	Ino	rganic Com	pounds	- Quality	Control							
		Cardi	nal Lab	oratories								
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 5112304 - Filtration												
LCS (5112304-BS1)				Prepared: 2	23-Nov-15	Analyzed: 2	5-Nov-15					
rDs	524	5.00	mg/L	527		99.4	80-120					
Duplicate (5112304-DUP1)	Sou	rce: H503065	-01	Prepared: 2	23-Nov-15	Analyzed: 2	5-Nov-15					
rds	1750	5.00	mg/L		1780			1.93	20			
Batch 5113005 - General Prep - Wet Chem												
Blank (5113005-BLK1)				Prepared &	Analyzed:	30-Nov-15	;					
Sulfate	ND	10.0	mg/L									
LCS (5113005-BS1)				Prepared 8	Analyzed:	30-Nov-15	;					
Sulfate	23.1	10.0	mg/L	20.0		116	80-120			Pr		
LCS Dup (5113005-BSD1)				Prepared 8	k Analyzed:	30-Nov-15						
Sulfate	21.3	10.0	mg/L	20.0		106	80-120	8.30	20			
Batch 5120115 - NO PREP												
LCS (5120115-BS1)				Prepared &	k Analyzed:	03-Dec-15						
Conductivity	511		uS/cm	500		102	80-120					
Duplicate (5120115-DUP1)	Sou	rce: H503087	-01	Prepared &	2 Analyzed	03-Dec-15						
Conductivity	422000	1.00	uS/cm		389000			8.14	20			
Batch 5120117 - General Prep - Wet Chem												
LCS (5120117-BS1)				Prepared &	k Analyzed	03-Dec-15						
pH	7.14		pH Units	7.00		102	90-110					

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Froject N Project Ma	Reported: 07-Dec-15 16:25							
	Ino	rganic Com	-	- •	Control					
		Cardi	nal Lab	oratories						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5120117 - General Prep - Wet Chem										
Duplicate (5120117-DUP1)	Sou	irce: H503077	-01	Prepared &	Analyzed:	03-Dec-15				
рН	7.37	0.100	pH Units		7.32			0.681	20	
Batch 5120203 - General Prep - Wet Chem										
Blank (5120203-BLK1) Sulfate	ND	10.0	mg/L	Prepared &	Analyzed:	02-Dec-15				
LCS (5120203-BS1)				Prepared &	Analyzed:	02-Dec-15				
Sulfate	20.4	10.0	mg/L	20.0		102	80-120			
LCS Dup (5120203-BSD1)				Prepared &	Analyzed:	02-Dec-15				
Sulfate	19.9	10.0	mg/L	20.0		99.6	80-120	2.68	20	
Batch 5120206 - General Prep - Wet Chem										
Blank (5120206-BLK1)				Prepared &	Analyzed:	02-Dec-15				
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (5120206-BS1)				Prepared &	Analyzed:	02-Dec-15				
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120			
Alkalinity, Total	104	4.00	ıng/L	100		104	80-120			
LCS Dup (5120206-BSD1)				Prepared &	Analyzed:	02-Dec-15				
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120	0.00	20	
Alkalinity, Total	104	4.00	mg/L	100		104	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager



ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: W Project Number: N Project Manager: Bl Fax To:		Reported: 07-Dec-15 16:25
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Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B512007 - EPA 200.2										
Blank (B512007-BLK1)				Prepared &	Analyzed:	01-Dec-15				
Calcium	0.035	0.020	mg/L							В
Magnesium	ND	0.100	mg/L							
Sodium	1.26	1.00	mg/L							В
Potassium	ND	1.00	mg/L							
LCS (B512007-BS1)				Prepared &	Analyzed:	01-Dec-15				
Magnesium	19.6	0.100	mg/L	20.0		97.9	85-115			
Sodium	7.20	1.00	mg/L	6.48		111	85-115			
Potassium	7.95	1.00	mg/L	8.00		99.3	85-115			
Calcium	4.06	0.020	mg/L	4.00		102	85-115			
LCS Dup (B512007-BSD1)				Prepared &	Analyzed:	01-Dec-15				
Magnesium	19.6	0.100	mg/L	20.0		97.8	85-115	0.0694	20	
Sodium	6.69	1.00	mg/L	6.48		103	85-115	7.27	20	
Calcium	4.08	0.020	mg/L	4.00		102	85-115	0.394	20	
Potassium	7.98	1.00	mg/L	8.00		99.8	85-115	0.465	20	

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Notes and Definitions

B3	Target analyte detected in method blank or continuing calibration blank. Reporting limit elevated to account for blank result.
B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

Page 10 of 11



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 11 of 11

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101 East Marland, Hobbs, NM 88240

Company Name	(5/3) 333-2328 FAX (5/3) 33	tun				ULL TO				ANA	LYSIS	REQUE	EST			
Project Manage	" Ben Dorahure			ļ	P.O. #:								1			
Address:	~				Company:											
city: Hobb	NM State:/	Vh zip:	3324	0	Attn:										i	
Phone #:	Fax #:			4	Address:											
Project #:	Project	Owner:		(City:	Martin Ve U. at		3		1						
Project Name: 4	Water Samples	projektione agrice concentration of the test of the second		<u>،</u> ا	State:	Zip:		Inious								
Project Location	n: Brive well, Munito	well.	Statu	F	hone #:			r								
Sampler Name:					ax #:			Ø								
FOR LAB USE ONLY			MAT	RIX	PRESER	V. SAMPL	ING									
Lab I.D. HSD3087 1. 3	Sample I.D. Brine Water Monifox Wel Fresh Water	(G)RAB OR (C)OMP	GROUNDWATER WASTEWATER SOIL	OIL	OTHEK : ACIDIBASE: ICE / COOL		TIME [100	1 Cation								
	nd Damages. Cardinal's fabely and clent's exclusive re												-			
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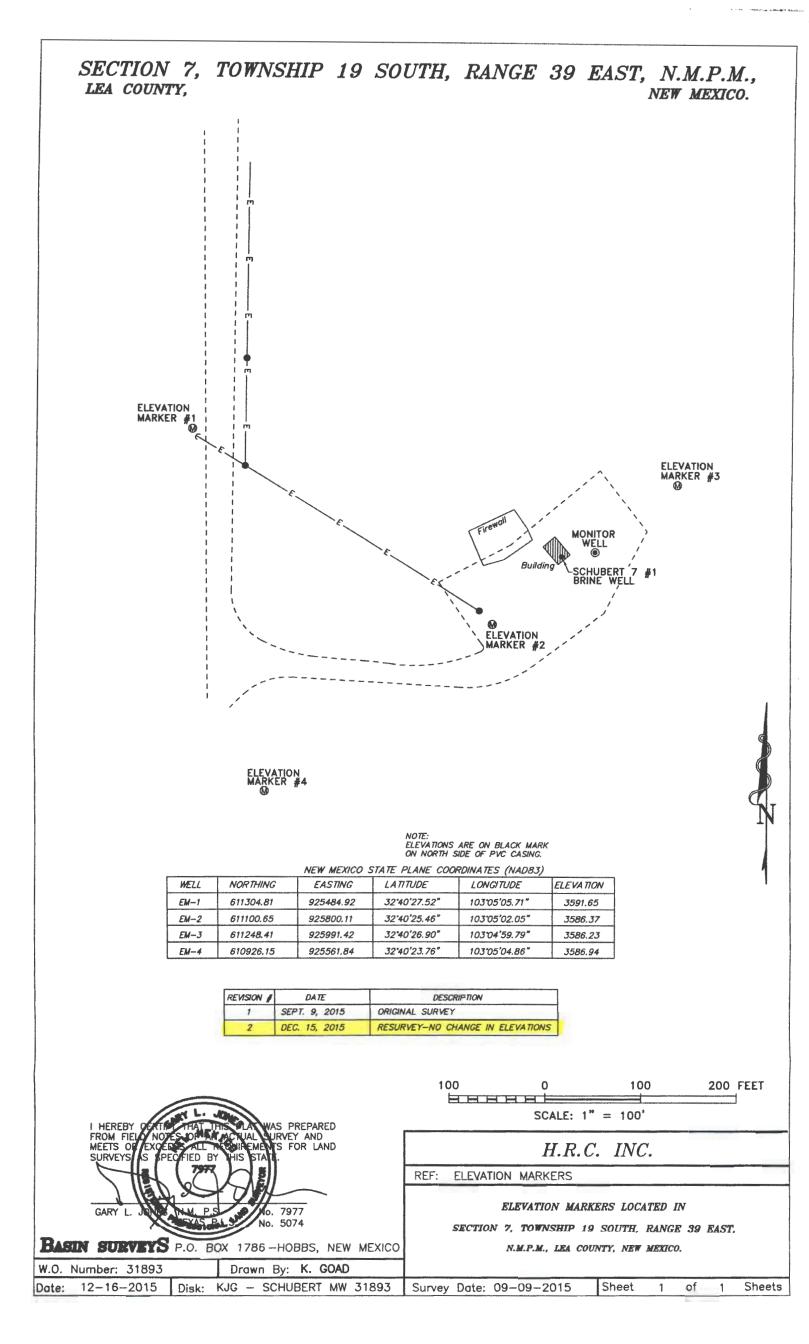
Delivered By: (Circle One) Sampler - UPS - Bus - Other:

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 396/2326

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May 12, 2015

BEN DONAHUE ETZ WATER STATION PO BOX 6056 HOBBS, NM 88241

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 05/01/15 12:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D. Keine



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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		oject Number:	WATER SAMPLES NONE GIVEN BEN DONAHUE	Reported: 12-May-15 13:25
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESH H20	H501138-01	Water	01-May-15 08:15	01-May-15 12:35
BRINE H20	H501138-02	Water	01-May-15 08:15	01-May-15 12:35
MONITOR WELL H20	H501138-03	Water	01-May-15 08:15	01-May-15 12:35

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Reported: Project Number: NONE GIVEN 12-May-15 13:25 Project Manager: BEN DONAHUE Fax To:										
				ESH H20 38-01 (Wat							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	l Laborat	ories						
Inorganic Compounds											
Alkalinity, Bicarbonate	219		5.00	mg/L	1	5050510	AP	07-May-15	310.1		
Alkalinity, Carbonate	ND		0.00	mg/L	I	5050510	AP	07-May-15	310.1		
Chloride*	132		4.00	mg/L	1	5042913	AP	03-May-15	4500-CI-B		
Conductivity*	1080		1.00	uS/cm	1	5050404	AP	05-May-15	120.1		
pH*	8.20		0.100	pH Units	1	5050403	AP	05-May-15	150.1		
- Sulfate*	137		25.0	mg/L	2.5	5042911	AP	03-May-15	375.4		
TDS*	706		5.00	mg/L	1	5042902	AP	05-May-15	160.1		
Alkalinity, Total*	180		4.00	mg/L	1	5050510	AP	07-May-15	310.1		

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<u>Total Recoverable Metals by IC</u>	<u>CP (E200.7)</u>							
Calcium*	87.6	0.020 mg/L	1	B505032	JGS	06-May-15	EPA200.7	
Magnesium*	27.7	0.100 mg/L	1	B505032	JGS	06-May-15	EPA200.7	
Potassium*	4.28	1.00 mg/L	1	B505032	JGS	06-May-15	EPA200.7	
Sodium*	95.1	1.00 mg/L	1	B505032	JGS	06-May-15	EPA200.7	

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: WATER SAMPLES Reported: Project Number: NONE GIVEN 12-May-15 13: Project Manager: BEN DONAHUE Fax To: Fax To:									
				INE H20 38-02 (Wat						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	117		5.00	mg/L	1	5050510	AP	07-May-15	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	5050510	AP	07-May-15	310.1	
Chloride*	212000		4.00	mg/Ł	1	5050301	AP	03-May-15	4500-CI-B	
Conductivity*	460000		1.00	uS/cm	1	5050404	AP	05-May-15	120.1	
pH*	6.92		0.100	pH Units	1	5050403	AP	05-May-15	150.1	
Sulfate*	2650		1000	mg/L	100	5042911	AP	03-May-15	375.4	
TDS*	313000		5.00	mg/L	1	5042902	AP	05-May-15	160.1	
Ałkalinity, Total*	96.0		4.00	mg/L	1	5050510	АР	07-May-15	310.1	
		(Green Analy	ytical Labo	oratories					
Total Recoverable Metals by IC	P (E200.7)									
Calcium*	1520		5.00	mg/L	250	B505032	JGS	06-May-15	EPA200.7	
Magnesium*	447		25.0	mg/L	250	B505032	JGS	06-May-15	EPA200.7	
Potassium*	ND		250	mg/L	250	B505032	JGS	06-May-15	EPA200.7	
Sodium*	118000		250	mg/L	250	B505032	JGS	06-May-15	EPA200.7	

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241			Project Num roject Mana	ber: NON					Reported: 12-May-15 13:	25
			MONITO H50113	DR WEL 38-03 (Wat						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	244		5.00	mg/L	1	5050510	AP	07-May-15	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	5050510	AP	07-May-15	310.1	
Chloride*	108		4.00	mg/L	1	5050301	AP	03-May-15	4500-CI-B	
Conductivity*	807		1.00	uS/cm	1	5050404	AP	05-May-15	120.1	
pH*	8.25		0.100	pH Units	I	5050403	AP	05-May-15	150.1	
Sulfate*	45.8		10.0	mg/L	1	5042911	AP	03-May-15	375.4	
TDS*	528		5.00	mg/L	1	5042902	AP	05-May-15	160.1	
Alkalinity, Total*	200		4.00	mg/L	1	5050510	AP	07-May-15	310.1	
		(Green Analy	ytical Labo	oratories					
Total Recoverable Metals by ICP	(E200.7)									
Calcium*	53.7		0.020	mg/L	1	B505032	JGS	06-May-15	EPA200.7	
Magnesium*	18.4		0.100	mg/L	1	B505032	JGS	06-May-15	EPA200.7	
Potassium*	2.96		1.00	mg/L	I	B505032	JGS	06-May-15	EPA200.7	
Sodium*	84.2		1.00	mg/L	1	B505032	JGS	06-May-15	EPA200.7	

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Inorganic Compounds - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5042902 - Filtration										
Blank (5042902-BLK1)				Prepared: 2	29-Apr-15 A	analyzed: 0	1-May-15			
rds	ND	5.00	mg/L							
LCS (5042902-BS1)				Prepared: 2	29-Apr-15 A	nalyzed: 0	1-May-15			
TDS	512	5.00	mg/L	527		97.2	80-120			
Duplicate (5042902-DUP1)	Source: H501092-02			Prepared: 29-Apr-15 Analyzed: 01-May-15						
TDS	642	5.00	mg/L		628			2.20	20	
Batch 5042911 - General Prep - Wet Chem										
Blank (5042911-BLK1)				Prepared &	Analyzed:	03-May-15	5			
Sulfate	ND	10.0	mg/L							
LCS (5042911-BS1)				Prepared &	Analyzed:	03-May-15	5			
Sulfate	18.9	10.0	mg/L	20.0		94.4	80-120			
LCS Dup (5042911-BSD1)				Prepared &	Analyzed:	03-May-15	5			
Sulfate	19.1	10.0	mg/L	20.0		95.6	80-120	1.21	20	
Batch 5042913 - General Prep - Wet Chem										
Blank (5042913-BLK1)				Prepared &	Analyzed:	29-Apr-15				
Chloride	ND	4.00	mg/L							
LCS (5042913-BS1)				Prepared &	Analyzed:	29-Apr-15				
Chloride	108	4.00	mg/L	100		108	80-120		1.1.1	

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Project N Project Ma	umber: N	Vater Sam Jone Give Ben Donaf	N				Reported: May-15 13	3:25
	Ino	rganic Com Cardii	-	- Quality oratories	Control					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5042913 - General Prep - Wet Chem										·····
LCS Dup (5042913-BSD1)				Prepared &	Analyzed:	29-Apr-15				
Chloride	112	4.00	mg/L	100		112	80-120	3.64	20	
Batch 5050301 - General Prep - Wet Chem	,									
Blank (5050301-BLK1)				Prepared &	Analyzed:	03-May-15	i			
Chloride	ND	4.00	mg/L							
LCS (5050301-BS1)				Prepared 8	Analyzed:	03-May-15				
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (5050301-BSD1)				Prepared &	Analyzed:	03-May-15	i			
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	
Batch 5050403 - General Prep - Wet Chem										
LCS (5050403-BS1)				Prepared: (04-May-15	Analyzed: 0	5-May-15			
рН	7.15		pH Units	7.00		102	90-110			
Duplicate (5050403-DUP1)	Sou	rce: H501138	-01	Prepared: (04-May-15	Analyzed: 0	5-May-15			
рН	8.19	0.100	pH Units		8.20			0.122	20	
Batch 5050404 - General Prep - Wet Chem										
LCS (5050404-BS1)				Prepared:	04-May-15	Analyzed: ()5-May-15			
Conductivity	993	-	uS/cm	1010		98.3	80-120			

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Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241		Project Nu Project Ma	umber:	WATER SAM NONE GIVE BEN DONAH	N				Reported: May-15 1	3:25
	Inor	ganic Com Cardin	-	- Quality						
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5050404 - General Prep - Wet (Duplicate (5050404-DUP1)	Source: H501116-03			Prepared: 04-May-15 Analyzed: 05-May-15						
Conductivity	45.1	1.00	uS/cin		44.6			1.11	20	
Batch 5050510 - General Prep - Wet (Chem									
Blank (5050510-BLK1)				Prepared: 05-May-15 Analyzed: 07-May-15						
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (5050510-BS1)				Prepared: (05-May-15	Analyzed: ()7-May-15			
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	122	5.00	mg/L				80-120			
Alkalinity, Total	100	4.00	mg/L	100		100	80-120			
LCS Dup (5050510-BSD1)				Prepared: (05-May-15	Analyzed: (07-May-15			
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	122	5.00	mg/L				80-120	0.00	20	
Alkalinity, Total	100	4.00	mg/L	100		100	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager

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ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:		Reported: 12-May-15 13:25
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Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B505032 - EPA 200.2										
Blank (B505032-BLK1)				Prepared &	Analyzed:	06-May-15	5			
Sodium	ND	1.00	ing/L							
Magnesium	ND	0.100	mg/L							
Calcium	0.026	0.020	mg/L							В
Potassium	ND	1.00	mg/L							
LCS (B505032-BS1)				Prepared &	Analyzed:	06-May-1	5			
Calcium	4.16	0.020	mg/L	4.00		104	85-115			
Potassium	8.58	1.00	mg/L	8.00		107	85-115			
Sodium	7.01	1.00	mg/L	6.48		108	85-115			
Magnesium	21.4	0.100	mg/L	20.0		107	85-115			
LCS Dup (B505032-BSD1)				Prepared &	Analyzed:	06-May-1	5			
Potassium	8.40	1.00	mg/L	8.00		105	85-115	2.13	20	
Sodium	6.98	1.00	mg/L	6.48		108	85-115	0.517	20	
Calcium	4.13	0.020	mg/L	4.00		103	85-115	0.723	20	
Magnesium	21.1	0.100	mg/L	20.0		106	85-115	1.48	20	

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

81	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 882 (575) 393-2326 FAX (575) 393-2471		Y.	
Company Name: ETZ Wester Station		BILL TO	ANALYSIS REQUEST
Project Manager: Ben Brohne		P.O. #:	
Address: P-O. Box 6056		Company:	
	Zip: 8824	Attn:	
Phone #: 575 393 3194 Fax #:		Address:	
Project #: Project Owner		City:	
Project Name:		State: Zip:	Aniens
Project Location:		Phone #:	4
Sampler Name:		Fax #:	
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	eus
Lab I.D. Sample I.D. H501138 I Fresh H2D Z Brine H20 3 Monitor Well H20	CONTAINERS CONTAINERS CONTAINERS CONTAINERS CONTAINERS SOIL SOIL	OTHER: ACIDIBASE ACIDIBASE ICE / COOL CE / COOL	Ladie Ladie
Relinquished By: Relinquished By: Date: Date: Time: Delivered By: (Circle One)	deshied waved unless made in writing at without limitation, business interruptions ardinal, regardless of whether such claim Received By:	tion CHECKED BY:	the explorable increm, cea.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 395-2326

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No No



HRC, INC.

P. O. Box 5102 RECEIVED OCD Hobbs, NM 88241-5102 Phone # (575) 393-6662 2914 FEB - 3 All: 23 Fax # (575) 393-6662

January 17, 2013

Jim Griswold Senior Hydrologist ENMRD/Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Ref: 2013 Annual Report B-31 Schubert 7 – Well #1

Dear Mr. Griswold,

Enclosed please find the monthly freshwater injection and brine production numbers for the Hobbs facility for the year 2013. Included also are Cardinal Laboratories' results of analyses for samples for the month of May and November, 2013.

Thank you,

Sincerely,

Gary M. Schubert GMS/br

BW - 31

SCHUBERT 7 – WELL # 1

YEAR 2013

MONTH	BRINE PRODUCTION (BY Meter)	FRESH WATER INJECTED (By Meter)		
_				
January	19,065	20,333		
February	20,164	20,714		
March	25,141	25,460		
April	25,531	26,048		
May	23,532	23,910		
June	23,412	24,733		
July	27,890	28,862		
August	29,912	30,119		
September	27,110	27,919		
October	32,134	29,557-		
November	25,865	24,643		
December	25,037	25,510-		

Total

BW 31 SCHUBERT 7 - WELL # 1

MONTH/YEAR	ETZ BRINE	PATE BRINE	TOTAL BRINE	FRESH	DATE FRESH	FRESH WATER	FRESH WATER	TOTAL FRESH
2013	WATER	WATER	WATER	WATER	WATER METER	METER	USED BY	WATER
	BBLS	BBLS	BBLS	INJECTED	READ	READING BY	GALLONS	BBLS
				BBLS		GALLONS	(X 100)	
						(X 100)		
Jan. 2013	18,870	195	19,065	20,333	1/31/2013	587,861	8,540	20,333
Feb. 2013	20,100	64	20,164	20,714	02/28/12	596,561	8,700	20,714
March. 2012	24,960	181	25,141	25,460	03/31/13	607,254	10,693	25,460
April. 2013	25,410	121	25,531	26,048	04/30/13	618,194	10,940	26,048
May. 2013	23,530	2	23,532	23,910	05/31/13	628,236	10,042	23,910
June. 2013	23,400	12	23,412	24,733	06/30/13	638,624	10,388	24,733
July. 2013	27,820	70	27,890	28,862	07/31/13	650,746	12,122	28,862
Aug. 2013	29,900	12	29,912	30,119	08/31/13	663,396	12,650	30,119
Sept. 2013	27,110		27,110	27,919	09/30/13	675,122	11,726	27,919
Oct. 2013	32,048	86	32,134	29,557	10/31/13	687,536	12,414	29,557
Nov. 2013	25,761	104	25,865	24,643	11/30/13	697,886	10,350	24,643
Dec. 2013	24,714	323	25,037	25,510	12/31/13	708,600	10,714	25,510



December 19, 2013

GARY SCHUBERT SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS, NM 88241

RE: WATER WELL

Enclosed are the results of analyses for samples received by the laboratory on 11/18/13 15:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accredited certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celeg D.Keine

Celey D. Keene Lab Director/Quality Manager



SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	Project: WATER WELL Project Number: ETZ Project Manager: GARY SCHUBERT Fax To: (575) 393-3194	Reported: 19-Dec-13 11:44
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
MONITOR WELL	H302815-01	Water	23-May-13 09:00	18-Nov-13 15:35	
BRINE WELL	H302815-02	Water	23-May-13 09:00	18-Nov-13 15:35	
FRESH	H302815-03	Water	23-May-13 09:00	18-Nov-13 15:35	
MONITOR WELL	H302815-04	Water	18-Nov-13 09:00	18-Nov-13 15:35	
BRINE WELL	H302815-05	Water	18-Nov-13 09:00	18-Nov-13 15:35	
FRESH	H302815-06	Water	18-Nov-13 09:00	18-Nov-13 15:35	

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Celey D. Keene, Lab Director/Quality Manager



	CONTRACTOR	Project: WATER WELL	Reported:	
1	SCHUBERT CONSTRUCTION	•	19-Dec-13 11:44	
	P. O. BOX 6056	Project Number: ETZ		
	HOBBS NM, 88241	Project Manager: GARY SCHUB	ERT	
1		Fax To: (575) 393-31	94	

MONITOR WELL

H302815-01 (Water)

Analyte	Result	Reporting MDL Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes				
	Cardinal Laboratories												
Inorganic Compounds													
Alkalinity, Bicarbonate	215	5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	I-02				
Alkalinity, Carbonate	ND	0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	I-02				
Chloride*	409	4.00	mg/L	1	3112502	AP	25-Nov-13	4500-Cl-B	I-02				
Conductivity*	1920	1.00	uS/cm	1	3112007	AP	20-Nov-13	120.1	I-02				
рН*	7.98	0.100	pH Units	1	3112005	AP	20-Nov-13	9045	I-02				
Sulfate*	181	25.0	mg/L	2.5	3112504	AP	25-Nov-13	375.4	1-02				
TDS*	1150	5.00	mg/L	1	3112508	AP	25-Nov-13	160.1	I-02				
Alkalinity, Total*	176	4.00	mg/L	1	3112110	AP	25-Nov-13	310.1	I-02				

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)											
Calcium*	148	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		
Magnesium*	41.7	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		
Potassium*	7.16	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		
Sodium*	210	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	Project:WATER WELLReported:Project Number:ETZ19-Dec-13 11:44Project Manager:GARY SCHUBERTFax To:(575) 393-3194									14
				NE WEL						
			H3028	15-02 (Wa	ter)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	159		5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	1-02
Alkalinity, Carbonate	ND		0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	1-03
Chloride*	186000		4.00	mg/L	1	3112502	AP	25-Nov-13	4500-CI-B	I-0.
Conductivity*	463000		1.00	uS/cm	1	3112007	AP	20-Nov-13	120.1	1-0
pH*	6.84		0.100	pH Units	1	3112005	AP	20-Nov-13	9045	I-02
Sulfate*	4560		1000	mg/L	100	3112504	AP	25-Nov-13	375.4	I-02
TDS*	312000		5.00	mg/L	1	3112508	AP	25-Nov-13	160.1	I-02
Alkalinity, Total*	130		4.00	mg/L	l	3112110	AP	25-Nov-13	310.1	1-02
		(Green Anal	ytical Lab	oratories					
Total Recoverable Metals by ICP (E200.7)									
Calcium*	1530		200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7	н
Magnesium*	514		200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7	н

200

200

mg/L

mg/L

200

200

B311167

B311167

JGS

JGS

17-Dec-13

17-Dec-13

Cardinal Laboratories

Potassium*

Sodium*

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EPA200.7

EPA200.7

Hl

HI

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Celey D. Keene, Lab Director/Quality Manager



P. O. BOX 6056 Project Number: HOBBS NM, 88241 Project Manager:	
--	--

FRESH

H302815-03 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes			
Cardinal Laboratories													
Inorganic Compounds													
Alkalinity, Bicarbonate	195		5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	I-02			
Alkalinity, Carbonate	ND		0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	I-02			
Chloride*	176		4.00	mg/L	1	3112502	AP	25-Nov-13	4500-CI-B	I-02			
Conductivity*	1080		1.00	uS/cm	1	3112007	AP	20-Nov-13	120.1	I-02			
pH*	8.07		0.100	pH Units	1	3112005	AP	20-Nov-13	9045	I-02			
Sulfate*	110		25.0	mg/L	2.5	3112504	AP	25-Nov-13	375.4	I-02			
TDS*	666		5.00	mg/L	1	3112508	AP	25-Nov-13	160.1	I-02			
Alkalinity, Total*	160		4.00	mg/L	I	3112110	AP	25-Nov-13	310.1	I-02			

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)											
Calcium*	75.1	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		
Magnesium*	17.7	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	H1		
Potassium*	14.4	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		
Sodium*	124	5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	HI		

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241		1	Reported: 19-Dec-13 11:44							
				TOR W						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Labora	tories					
Inorganic Compounds										
Alkalinity, Bicarbonate	229		5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
-										

Chloride*	240	4.00 m	g/L 1	3112502	AP	25-Nov-13	4500-CI-B	
Conductivity*	1170	1.00 uS	/cm 1	3112007	AP	20-Nov-13	120.1	
pH*	8.02	0.100 pH	Units 1	3112005	AP	20-Nov-13	9045	
Sulfate*	65.6	10.0 m	g/L I	3112504	AP	25-Nov-13	375.4	
TDS*	719	5.00 m	g/L 1	3112508	AP	25-Nov-13	160.1	
Alkalinity, Total*	188	4.00 m	g/L 1	3112110	AP	25-Nov-13	310.1	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)										
Calcium*	75.6	5.00 mg/L	5	B311167	JGS	21-Nov-13	EPA200.7			
Magnesium*	23.3	5.00 mg/L	5	B311167	JGS	21-Nov-13	EPA200.7			
Potassium*	ND	5.00 mg/L	5	B311167	JGS	21-Nov-13	EPA200.7			
Sodium*	158	5.00 mg/L	5	B311167	JGS	21-Nov-13	EPA200.7			

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241		Project: WATER WELL Project Number: ETZ Project Manager: GARY SCHUBERT Fax To: (575) 393-3194								14
				NE WEL						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	l Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	117		5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
Chloride*	184000		4.00	mg/L	1	3112502	AP	25-Nov-13	4500-CI-B	
Conductivity*	402000		1.00	uS/cm	1	3112007	AP	20-Nov-13	120.1	
pH*	6.78		0.100	pH Units	1	3112005	AP	20-Nov-13	9045	
Sulfate*	4250		1000	mg/L	100	3112504	AP	25-Nov-13	375.4	
TDS*	312000		5.00	mg/L	1	3112508	AP	25-Nov-13	160.1	
Alkalinity, Total*	96.0		4.00	mg/L	1	3112110	AP	25-Nov-13	310.1	

Green Analytical Laboratories

Total Recoverable Metals by ICP (E200.7)										
Calcium*	1630	200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7		
Magnesium*	547	200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7		
Potassium*	310	200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7		
Sodium*	126000	200	mg/L	200	B311167	JGS	17-Dec-13	EPA200.7		

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	v		Project Num roject Mana		Y SCHUBE				Reported: 19-Dec-13 11:	44
				FRESH 15-06 (Wai	ter)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Inorganic Compounds										
Alkalinity, Bicarbonate	268		5.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	3112110	AP	25-Nov-13	310.1	
Chloride*	240		4.00	mg/L	1	3112502	AP	25-Nov-13	4500-CI-B	
Conductivity*	1360		1.00	uS/cm	1	3112008	AP	20-Nov-13	120.1	
pH*	8.07		0.100	pH Units	1	3112005	AP	20-Nov-13	9045	
Sulfate*	138		25.0	mg/L	2.5	3112504	AP	25-Nov-13	375.4	
TDS*	839		5.00	mg/L	1	3112508	AP	25-Nov-13	160.1	
Alkalinity, Total*	220		4.00	mg/L	I	3112110	AP	25-Nov-13	310.1	
		(Green Anal	ytical Labo	oratories					
Total Recoverable Metals by ICP (E	200.7)									
Calcium*	108		5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	
Magnesium*	23.4		5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	
Potassium*	17.5		5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	
Sodium*	153		5.00	mg/L	5	B311167	JGS	21-Nov-13	EPA200.7	

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	Project: WATER WELL Project Number: ETZ Project Manager: GARY SCHUBERT Fax To: (575) 393-3194	Reported: 19-Dec-13 11:44
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Inorganic Compounds - Quality Control

		Cardi	nal Lab	oratories						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3112005 - NO PREP										
LCS (3112005-BS1)				Prepared &	Analyzed:	20-Nov-13				
pH	7.09		pH Units	7.00		101	90-110			
Duplicate (3112005-DUP1)	Sou	rce: H302806	-01	Prepared &	Analyzed:	20-Nov-13				
рН	7.45	0.100	pH Units		7.39			0.809	20	
Batch 3112007 - General Prep - Wet Chem										
LCS (3112007-BS1)				Prepared &	Analyzed:	20-Nov-13				
Conductivity	470		uS/cm	500		94.0	80-120			
Duplicate (3112007-DUP1)	Sou	rce: H302806	-01	Prepared &	Analyzed:	20-Nov-13				
Conductivity	4120	1.00	uS/cm		4160			0.966	20	
Batch 3112008 - General Prep - Wet Chem										
LCS (3112008-BS1)				Prepared &	& Analyzed:	20-Nov-13				
Conductivity	471		uS/cm	500		94.2	80-120			
Duplicate (3112008-DUP1)	Sou	rce: H302815	-06	Prepared &	k Analyzed	20-Nov-13				
Conductivity	1360	1.00	uS/cm		1360			0.147	20	
Batch 3112110 - General Prep - Wet Chem										
Blank (3112110-BLK1)				Prepared &	k Analyzed	21-Nov-13				
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	Project: WATER WELL Project Number: ETZ Project Manager: GARY SCHUBERT	Reported: 19-Dec-13 11:44
HOBBS NM, 88241	Fax To: (575) 393-3194	

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyte	Result	Chint	- Cinta		Result				- Chint	
Batch 3112110 - General Prep - Wet Chem										
LCS (3112110-BS1)				Prepared &	Analyzed:	21-Nov-13				
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	122	5.00	mg/L				80-120			
Alkalinity, Total	100	4.00	mg/L	100		100	80-120			
LCS Dup (3112110-BSD1)				Prepared &	Analyzed:	21-Nov-13				
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	136	5.00	mg/L				80-120	10.9	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	11.3	20	
Batch 3112502 - General Prep - Wet Chem										
Blank (3112502-BLK1)				Prepared &	Analyzed:	25-Nov-13				
Chloride	ND	4.00	mg/L							
LCS (3112502-BS1)				Prepared &	Analyzed:	25-Nov-13				
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (3112502-BSD1)				Prepared &	Analyzed:	25-Nov-13				
Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	
Batch 3112504 - General Prep - Wet Chem										
Blank (3112504-BLK1)				Prepared &	Analyzed:	25-Nov-13				
Sulfate	ND	10.0	mg/L							
LCS (3112504-BS1)				Prepared &	Analyzed:	25-Nov-13				

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241		Project Nu Project Mar	mber: nager:	WATER WEI ETZ GARY SCHU (575) 393-3	BERT				Reported: Dec-13 11	1:44
	Ino	rganic Comj Cardin		s - Quality boratories	Control					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3112504 - General Prep - Wet Chem										
LCS Dup (3112504-BSD1)				Prepared &	Analyzed:	25-Nov-13	i			
Sulfate	20.1	10.0	mg/L	20.0		101	80-120	1.86	20	
Batch 3112508 - Filtration						·				
Blank (3112508-BLK1)				Prepared: 2	21-Nov-13	Analyzed: 2	5-Nov-13			
TDS	ND	5.00	mg/L							
LCS (3112508-BS1)				Prepared: 2	21-Nov-13	Analyzed: 2	5-Nov-13			
TDS	245		mg/L	240		102	80-120			
Duplicate (3112508-DUP1)	Sou	irce: H302812-(01	Prepared: 2	21-Nov-13 A	Analyzed: 2	5-Nov-13			
TDS	2080	5.00	mg/L		2080			0.0480	20	

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SCHUBERT CONSTRUCTION P. O. BOX 6056 HOBBS NM, 88241	Project: WATER WELL Project Number: ETZ Project Manager: GARY SCHUBERT	Reported: 19-Dec-13 11:44
	Fax To: (575) 393-3194	

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B311167 - EPA 200.2			·····							
Blank (B311167-BLK1)				Prepared: 2	20-Nov-13 A	Analyzed: 2	1-Nov-13			
Calcium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
Magnesium	ND	1.00	mg/L							
LCS (B311167-BS1)				Prepared: 2	20-Nov-13 A	Analyzed: 2	1-Nov-13			
Magnesium	20.9	1.00	mg/L	20.0		105	85-115			
Potassium	7.61	1.00	mg/L	8.00		95.1	85-115			
Sodium	6.75	1.00	mg/L	6.48		104	85-115			
Calcium	4.11	1.00	mg/L	4.00		103	85-115			
LCS Dup (B311167-BSD1)	Prepared: 20-Nov-13 Analyzed: 21-Nov-13									
Potassium	8.48	1.00	mg/L	8.00		106	85-115	10.8	20	
Magnesium	21.5	1.00	mg/L	20.0		107	85-115	2.59	20	
Sodium	7.35	1.00	mg/L	6.48		113	85-115	8.53	20	
Calcium	4.22	1.00	mg/L	4.00		105	85-115	2.60	20	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Lability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliables or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

I-02	This result was analyzed outside of the EPA recommended holding time.
H1	Sample was received several days after collected and subsequently analyzed past hold time.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Lability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed wahed unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager

Page 13 of 14





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240		
(575) 393-2326 FAX (575) 393-2476 Company Name: FTZ SChl. hest Construction	BILL TO	ANALYSIS REQUEST
Company Name: ETZ SCHUbert Construction Project Manager:	P.O. #:	
Address: P. O. BOY 6056	Company:	
city: HOODS State MM Zip: 68241	Attn:	
Phone #: 393-3194 Fax #: 393-6662	Address:	
Project #: FT7 Project Owner:	City:	
Project Name:	State: Zip:	
Project Location:	Phone #:	
sampler Name: Ben Donahue	Fax #:	
FOR LAB USE ONLY	PRESERV. SAMPLING	
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Lab I.D. Sample I.D.	<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	
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affiliates or successors arising out of br related to the performance of services hereunder by Cardinal, regardless of whether such claim Relinquished By:	Phone Result: Ves No	Add'l Phone #:
PALL MOL	Fax Result: Yes No REMARKS:	Add'I Fax #:
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Sampler - UPS - Bus - Other: 5.82 Over 100 No	intrate sec hold	-3 past the EPA time.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2926



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		nd, Hobbs, NM 88 FAX (575) 393-247																									
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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2926

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PHONE (575	5) 393-2326 •	101	Ε.	MARLAND	HOBBS,	NM 88240

BILL TO SCHUBERT CONST P. O. BOX 6056 HOBBS, NEW MEX	DHG, M	170	DATE : INVOICE	12/19/2013 E NO. : H302815
LAB NUMBER :	H302815		TERMS:	DUE UPON RECEIPT
DESCRIPTION :	ETZ		P.O. NO. :	NONE GIVEN
NO. SAMPLES :	6			
LOG IN DATE :	11/18/2013			

CARDINAL Laboratories

QUANTITY	DESCRIPTION	PER SAMPLE	TOTAL
6	CATION/ANION FOR SOIL/WATER(CATIONS BY ICP)	150.00	900.00

AN 0.2 pm

SUBTOTAL : \$900.00

- **SALES TAX : (6.8125%)** \$61.31
- PLEASE PAY THIS AMOUNT : \$961.31

NOTE- Cardinal Laboratories is now accepting credit card payments! This service is available to all of our customers for a 3.5% service charge. Please call Jodi if you would like more information.

THANK YOU FOR YOUR BUSINESS!

Chavez, Carl J, EMNRD

From: Sent: To: Cc: Subject: Chavez, Carl J, EMNRD Friday, February 12, 2010 2:48 PM 'Gary Schubert' VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD RE: BW-31 Annual Brine Well Report (Report)

Gary:

The OCD is in receipt of the requested information for the above subject.

The injection and production values indicate a relative percent difference (RPD) of 3%, which is good. RPDs exceeding 10% may indicate a well problem. The OCD encourages well operators to monitor injection and production values daily to determine when a well MIT problem occurs.

The ground water monitor well chloride (640 mg/L) and TDS (1440 mg/L) analytical data results seem elevated. If there is reason to believe that you may have a leak to the Ogallala fresh water aquifer at about 50 ft. bgl, please contact me. . Otherwise, OCD will revisit the water quality data next year.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD Sent: Thursday, January 21, 2010 4:47 PM To: 'Gary Schubert' Subject: FW: BW-31 Annual Brine Well Report (Report)

Gary:

Good afternoon. The OCD appreciates your efforts to comply with the terms and conditions of your discharge permit. Your OCD discharge permit requirements are:

- 6. <u>Production/Injection Volumes/Annual Report:</u> The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.
- 7. <u>Analysis of Injection Fluid and Brine:</u> Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (Method 40 CFR 136.3) using EPA methods.

- 25. <u>Capacity/ Cavity Configuration and Subsidence Survey</u>: The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment. This information shall be supplied in each annual report. OCD may require the operator to perform additional well surveys, test, and install subsidence monitoring in order to demonstrate the integrity of the system. If the operator cannot demonstrate the integrity of the system to the satisfaction of the Division then the operator may be required to shut-down, close the site and properly plug and abandoned the well.
- 26. <u>Monitor Well:</u> The monitor well shall be located along the local groundwater flow direction and directly down-gradient of the brine well and situated within 50 feet of the brine well. The well shall be constructed, developed, purged and samples analyzed pursuant to approved EPA methods. Except for the initial well sampling event as proposed in the discharge plan, the monitor well shall be sampled and analyzed for general chemistry twice a year with the results submitted in the annual report. Discovery of groundwater contamination shall be reported pursuant to Item #18 above.

You have addressed Item 6 above; however, the OCD requests the cumulative fresh water injection and brine production volumes to date in order help estimate the volume of your brine cavern. As I recall, the well is fairly new and was exempted from the recent CCD sonar test mandate due to this, but we do want to track total injection and production volumes. Please submit this information by 2/22/2010.

You partially addressed Item 7 above as you did not submit General Chemistry data, which need to be assayed for pH, total dissolved solids, anions and cations (fluoride, chloride, nitrate, nitrite, phosphorus, and sulfate) by Method 300, and dissolved metals (arsenic, barium, cadmium, calcium, chromium, lead, magnesium, potassium, selenium, silver, and sodium) by Method 6010. Please resubmit General Chemistry data by 2/22/2010.

You have been exempted from the sonar testing for the duration of your current discharge permit due to the age of your well; howver, you are welcome to voluntarily perform a sonar test anytime between now and the renewal of your permit. The new permit will likely require a sonar test be run on your cavern.

Please confirm in Item 26 that you have installed the monitor well, and if so, provide the information to the OCD by 2/22/2010.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD Sent: Thursday, January 21, 2010 3:49 PM To: 'Gary Schubert' Subject: BW-31 Annual Brine Well Report (Report)

Gary:

Good afternoon. OCD is in receipt of your Report. OCD will contact you if we have questions or need to discuss your well in more detail.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

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RECEIVED 2010 FEB 12 PM 1 49

HRC, Inc. P.O. Box 1606 Hobbs, NM 88241-6056 (575) 393-6662 (575) 393-6662 Fax

February 8th, 2010

Mr. Carl Chavez Environmental Bureau Chief Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, NM 87505

Ref: Analysis of Injection Fluid and Brine (General Chemistry Data)

Mr. Chavez,

Please see information requested.

- 1. Total cumulative brine production and fresh water injection volumes.
- 2. Analytical lab results from brine tanks (samples 11/20/2009).
- 3. Analytical lab results from monitor well (sampled 11/20/2009). (The #20 sample is an unrelated sample)

*The monitor well has been installed since 2006 and samples have been submitted since then (see attached well records).

Sincerely,

Gary M. Schubert, President GMS/br

Enclosure

H. R. C., INC. SCHUBERT 7 WELL # 1 (BW - 31)

YEAR	BRINE PRODUCTION	FRESH WATER INJECTED
2006	42,950	44,800
2007	312,800	315,000
2008	305,990	316,000
2009	212,779	226,058
Total Cumulative Production (Thru 12/31/2009)	874,519	901,858

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PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

February 1, 2010

Gary Schubert 1720 N. Dal Paso Hobbs, NM 88241

Rc: Water Samples

Enclosed are the results of analyses for sample number H19106, received by the laboratory on 01/20/10 at 2:00 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021 Method SW-846 8260 Method TX 1005 Benzene, Toluene, Ethyl Benzene, and Total Xylenes Benzene, Toluene, Ethyl Benzene, and Total Xylenes Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely. eene

Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABS



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR GARY SCHUBERT 1720 N. DAL PASO HOBBS, NM 88241 FAX TO: (575) 393-6662

Receiving Date: 01/20/10 Reporting Date: 02/01/10 Project Number: NOT GIVEN Project Name: NOT GIVEN Project Location: NOT GIVEN Sampling Date: 01/20/10 Sample Type: WATER Sample Condition: INTACT @ 19°C Sample Received By: JH Analyzed By: HM

		Na	Ca	Mg	к	Conductivity	T-Alkatinity
LAB NUMBE	R SAMPLE ID	(mg/L)	(mg/L)	(mg/l_)	(mg/l_)	(<i>u</i> S/cm)	(mgCaCO ₃ /L)
ANALYSIS D	ATE	01/26/10	01/26/10	01/26/10	01/26/10	01/22/10	01/22/10
1-119106-1	#20 SAMPLE	106	115	32.0	3.7	1,300	160
H19106-2	BRINE	124,000	1,810	692	229	354,000	140
I-I19106-3	MONITOR WELL	266	161	45.9	3.7	2,660	168
Quality Contr		8.38	5,19	4,93	10.3	1,420	NR
True Value Q		8.10	5.00	5.00	10.0	1,413	NR
% Recovery		103	104	98.6	103	100	NR
	cent Difference	2.8	3.0	2.6	1.4	0.8	NR
METHODS:		200.7	200.7	200.7	200.7	120.1	310.1

		ÇI	SO₄	CO3	HCO3	pН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS C	DATE:	02/01/10	01/27/10	01/22/10	01/22/10	01/22/10	01/26/10
H19106-1	#20 SAMPLE	164	215	0	195	8.14	843
H19108-2	BRINE	188,000	4,420	0	171	7.06	303,000
H19106-3	MONITOR WELL	640	82.0	0	205	7.76	1,440
Quality Cont	ro	510	37.7	NR	976	7.02	NR
True Value C		500	40.0	NR	1000	7.00	NR
% Recovery		102	94	NR	97.6	100	NR
Relative Per	cent Difference	2.0	3.6	NR	1.2	< 0,1	8.9

SM4500-CI-B

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METHODS Chemist

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····								Revis	ed June
\mathbf{V}				engin Ell Re					<u> </u>
		Sea	tion 1. G	ENERAL	. INFC	RMATION			
(A) Owner	ofwell	Gary Schubert					Owner's Well	No	
Street	or Post Offic	e Address Hobbs, New I	Stanolii	nd Koad					<u> </u>
									<u> </u>
							and is located in		
							Range		
b. Tra	ct No	of M	ap No		of	the			·
c. Lot	No.	of Bloc	k No			of the			
Sub	division, re	corded in		Lea		C	ounty.		
d. X=		_feet, Y=		feet, N	1.M. C	Coordinate	System		Zone in Grant.
the				<u> </u>					
(B) Drillin	ng Contracto	or <u>A&KV</u>	ater We	<u>ll Drillin</u>	<u>g, Kr</u>	istopher Gl	lasspoole, Licen	se No. <u>WD</u> -	1641
Address 6	01 West Co	pe Place, H	obbs, Ne	ew Mexic	<u>:0 882</u>	42-8053			
Drilling beg	an 11-12-0	06 Complete	ed 11-1	<u>9-06</u> Ty	pe To	ols <u>Cabl</u>	e Size of Ho	le <u>8-1/2"</u>	_
	_								
Elavation of	f land surfac	ce or		at w	ell 15		ft. Total dep	th of well <u> </u>	<u>//_</u> n.
Completed	well is <u>X</u>	_Shallow _	Artes	ian.	D	epth of wat	er upon completi	on of well _	<u>89_ft</u> .
							IG STRATA		
Depth i	n Feet	Thicknes	s	Descripti	ion of	Water-Bea	ring Formation		ted Yield
From	То	in feet	ł					(gallons j	per minute)
89	177		88 V	Vater Sar	nd ~ N	ledium Bro	wn	35 gpn	 N
•••			·		•		• • • • • • • • • • • • • • • • • • •	or	
			. ,						
		4	Section	3. REC	ORD	OF CASIN	G		
Diameter	Pounds	Threads	Dep	oth in Fee	7	Length	Type of Shoe	Perfo	rations
(inches)	per foot	per inch.	Тор	Bo	ttom	(feet)		From	То
5-1/2"		· None	+18"	177		178' 6"	None	89	177 I
	•			;					}
		·	i			• , • • • •		1. Internet way 1	1 4
	• :	•					CEMENTING		
Depth in	n Feet	Hole Diameter	1	cks Mud		bic Feet) Acat-	d of Dia	
From	То	Diameter			or	Cement	Meuno	d of Placemo	สน

5 sacks 177 8-1/2* Т

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A & K WATERWELL

Section 6. RECORD OF FORMATION

D	epth in	Feet	Thickness in Feet	Color & Type of Material Encountered
Fro	m	To		
Ì	0	14 .	14	Dk. Brown – Top Soil
	14	27	13	Lt. Brown - Caliche
	27	30	3	Lt. Brown/ Red – Red Sand
4 44 5 - 100 1	30	35	5	Lt. Brown – Rock
	35	45	10	Lt. Brown – Caliche
`	45	48 .	3	Med. Brown/ Red – Red Sand
	48	73		Med. Brown -Sand Stone/ Rock
	73	89	16	Med. Brown – Sand Stone
	89	124	35	Med. Brown – Water Stone
	124	145	21	Med. Brown - Water Sand w/Red Clay
•••				a constant constant of the second
	145	177	32	Med. Brown – Water Sand
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Section 7. REMARKS AND ADDITIONAL INFORMATION

HP LaserJet 3050

Fax Call Report

GARY SCHUBERT"S OFFICE 5753936662 Feb-9-2010 14:15

Job	Date	Time	Туре	Identif	ication	Duration	Pages	Result
3395	2/ 9/2010	14:14:33	Receive	5753922241		1:00	2	Comm Error 283
0000	2, 0,2010	1111100		0.000122.1		1.00	2	
			02/09/2010 02:15 575	53922241	A & K WATERW	ELL PAG	E 01	
						Revised Jun		
			\sim	STATE ENGR WELL RI			<u> </u>	
				Section 1. GÉNERA	L INFORMATION			
			(A) Owner of well <u>Gary S</u> Street or Post Office Add City and State <u>Hobb</u>	iress <u>Stanolind Road</u>		Owner's Well No		
			Well was drilled under Permi		r Wellan	d is located in the:		
			a 1/41/4 .	1/4 of Section _	Township	Range N.M.P.M		
			b. Tract No	_ of Map No	of the		<u> </u>	
			c. Lot No. Subdivision, recorder	of Block No d in Lea	of theCoun	ity.		
			d. X=feet,			stemZor	ne in Grant.	
						spoole, License No. WD-164		
			Address 601 West Cope Pl					
			Drilling began <u>11-12-06</u> C	completed <u>11-19-06</u> T	ype Tools <u>Cable</u>	Size of Hole8-1/2"		
			Elavation of land surface or	at v	well is	ft. Total depth of well _177_1	ħ.	
			Completed well is X_Sha	llow Artesian.	Depth of water	upon completion of well <u>89</u> f	l.	
				ection 2. PRINCIPAL				
				in feet	tion of Water-Bearin	(gallons per m	linute)	
			89 177	88 Water Sa	nd - Medium Brown	35 gpm	· ·	
						· ·	· · · · ·	
					CORD OF CASING			
			Diameter Pounds Th (inches) per foot ; per	inch	ottom	ype of Shoe Perforation From To		
			5-1/2" No	1 1 E	178'6*	None 89	177	
				1		I []		
				tion 4. RECORD OF N	the second se	MENTING	ŀ	
			Dia	lole Sacks meter of Mud	Cubic Feet of Cement	Method of Placement		
			From To					
			0 177 8-1/2	** 5 sacks	· · · · · · · · · · · · · · · · · · ·			
							÷	
			Plugging Contractor	Section 5. P		Depth in Feet Cubic Feet		
			Address Plugging Method		<u>I</u>	<u>p Bottom</u>	-	
			Date Well Plugged Plugging approved by:		23			
			State	Engineer Representative	4		_	
			Date Received	FOR USE OF STATI		r		
					QuadF	WLFSL		
			EDa Na	11-0	I anation Ma			



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Chavez, Carl J, EMNRD

From:Chavez, Carl J, EMNRDSent:Thursday, January 21, 2010 4:47 PMTo:'Gary Schubert'Subject:FW: BW-31 Annual Brine Well Report (Report)

Gary:

Good afternoon. The OCD appreciates your efforts to comply with the terms and conditions of your discharge permit. Your OCD discharge permit requirements are:

- 6. <u>Production/Injection Volumes/Annual Report:</u> The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.
- 7. <u>Analysis of Injection Fluid and Brine:</u> Provide an analysis of the injection fluid and brine with each annual report. Analysis will be for General Chemistry (Method 40 CFR 136.3) using EPA methods.
- 25. <u>Capacity/ Cavity Configuration and Subsidence Survey</u>: The operator shall provide information on the size and extent of the solution cavern and geologic/engineering data demonstrating that continued brine extraction will not cause surface subsidence, collapse or damage to property, or become a threat to public health and the environment. This information shall be supplied in each annual report. OCD may require the operator to perform additional well surveys, test, and install subsidence monitoring in order to demonstrate the integrity of the system. If the operator cannot demonstrate the integrity of the system to the satisfaction of the Division then the operator may be required to shut-down, close the site and properly plug and abandoned the well.
- 26. <u>Monitor Well:</u> The monitor well shall be located along the local groundwater flow direction and directly down-gradient of the brine well and situated within 50 feet of the brine well. The well shall be constructed, developed, purged and samples analyzed pursuant to approved EPA methods. Except for the initial well sampling event as proposed in the discharge plan, the monitor well shall be sampled and analyzed for general chemistry twice a year with the results submitted in the annual report. Discovery of groundwater contamination shall be reported pursuant to Item #18 above.

You have addressed Item 6 above; however, the OCD requests the cumulative fresh water injection and brine production volumes to date in order help estimate the volume of your brine cavern. As I recall, the well is fairly new and was exempted from the recent OCD sonar test mandate due to this, but we do want to track total injection and production volumes. Please submit this information by 2/22/2010.

You partially addressed Item 7 above as you did not submit General Chemistry data, which need to be assayed for pH, total dissolved solids, anions and cations (fluoride, chloride, nitrate, nitrite, phosphorus, and sulfate) by Method 300, and dissolved metals (arsenic, barium, cadmium, calcium, chromium, lead, magnesium, potassium, selenium, silver, and sodium) by Method 6010. Please resubmit General Chemistry data by 2/22/2010.

You have been exempted from the sonar testing for the duration of your current discharge permit due to the age of your well; howver, you are welcome to voluntarily perform a sonar test anytime between now and the renewal of your permit. The new permit will likely require a sonar test be run on your cavern.

Please confirm in Item 26 that you have installed the monitor well, and if so, provide the information to the OCD by 2/22/2010.

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Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD Sent: Thursday, January 21, 2010 3:49 PM To: 'Gary Schubert' Subject: BW-31 Annual Brine Well Report (Report)

Gary:

Good afternoon. OCD is in receipt of your Report. OCD will contact you if we have questions or need to discuss your well in more detail.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>Carl J. Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

RECEIVED HRC, Inc. P.O. Box 1606 2010 JAN 21 PM 2 43 Hobbs, NM 88241-6056 (575) 393-6662 (575) 393-6662 Fax

January 19, 2010

10

Mr. Carl Chavez Environmental Bureau Chief Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, NM 87505

Ref: Annual Brine Well Report – BW-31 Name of Operator: HRC – Schubert Date of Report: 1-19-2010

Mr. Chavez,

Please see attached information:

1. Copies of monthly brine water production and fresh water injection for the year 2009.

2. Analysis of injection fluid (2009)

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- 3. Analysis of brine produced (2009)*
- 4. Analysis of monitor well samples. (2009)*

*Although I am sending the report today, I am awaiting the lab results from the November sampling. I expect to have you that information by January 31, 2010.

Sincerely,

Gary M. Schubert, President GMS/br

Enclosure

ANNUAL BRINE WELL REPORT API# 30-025-36781 H.R.C. INC. Gary M. Schubert BW-31 January 19, 2010

BW - 31

SCHUBERT 7 – WELL # 1

YEAR 2009

MONTH	BRINE PRODUCTION (BY Meter)	FRESH WATER INJECTED (By Meter)	
_			
January	29,196	30,947*	
February	17,626	19,038	
March	8,385	9,521	
April	11,213	10,376	
May	16,182	16,145	
June	16,742	19,045	
July	24,802*	26,381	
August	11,679	13,271	
September	13,182	14,819	
October	17,009	18,590	
November	16,808	17,492	
December	29,955	<u>30,433</u>	
Total	212,779	226,058	

*Corrected from previous report, mathematical error.

SCHUBERT 7 - WELL # :	BW 31
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195,111				226,058	212,779	70,177	142,602	2009 Total
30,433	12,782	81,948	12/30/09	30,433	29,955	9,260	20,695	Dec, 09
17,492	7,347	69,166	11/30/09	17,492	16,808	4,479	12,329	Nov, 09
18,590	7,808	61,819	10/31/09	18,590	17,009	1,493	15,516	Oct, 09
14,819	6,224	54,011	09/30/09	14,819	13,182	1,762	11,420	Sept, 09
13,271	5,574	47,787	08/31/09	13,271	11,679	5,271	6,408	Aug, 09
26,381	11,080	42,213	07/31/09	26,381	24,802	9,490	15,312	July, 09
19,045	7,999	31,133	06/30/09	19,045	16,742	8,674	8,068	June, 09
16,145	6,781	23,134	05/31/09	16,145	16,182	9,733	6,449	May. 09
10,376	4,358	16,353	04/30/09	10,376	11,213	6,736	4,477	Apr. 09
9,521	3,999	11,995	03/31/09	9,521	8,385	1,975	6,410	Mar. 09
19,038	7,996	7,996	02/28/09	19,038	17,626	4,754	12,872	Feb. 09
			01/03/09	30,947	29,196	6,550	22,646	Jan. 09
		(X 100)				 		
	(X 100)	GALLONS		BBLS				
BBLS	GALLONS	READING BY	READ	INJECTED	BBLS	BBLS	BBLS	
WATER		METER	WATER METER	WATER	WATER		WATER	
TOTAL FRESH	FRESH WATER	FRESH WATER	DATE ERESH	FRFSH	TOTAL BRINE	DATE BRINE	ETT BRINE	AONITH/VEAR



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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ANALYTICAL RESULTS FOR HRC ATTN: GARY SCHUBERT 1720 N. TURNER HOBBS, NM 88240

Receiving Date: 08/17/09 Reporting Date: 08/17/09 Project Owner: NOT GIVEN Project Name: MAY-09 SAMPLING Project Location: NOT GIVEN Analysis Date: 08/17/08 Sampling Date: MAY-09 Sample Type: WATER Sample Condition: INTACT @ 24^oC Sample Received By: AB Analyzed By: AB

		CI
LAB NO.	SAMPLE ID	(mg/L)
H18014-1	BRINE WEST TANKS	188,000
H18014-2	BRINE EAST TANKS	192,000
H18014-3	MONITOR WELL	760
Quality Con	trol	500
	and a second s	and share and share a second second programmer is a second second second second second second second second se
True Value		500
% Recovery		100
Dolativa Da	rcent Difference	< 0.1

METHOD: Standard Methods 4500-CI B Samples analyzed outside the EPA recommended hold time of 28 days.

Chem

H18014 HRC

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Facility
Reclamation
Wastewater F
City of Hobbs

MONTH	FLOW (MG)	TKN (mg/l)	NO3 -N (mg/l)	TOTAL-N (mg/l)	TDS (mg/l)	CL (mg/l)		BOD (mg/l)		Ш	FECALS (cfu/100 mls)	mls)
							MAX	AVG	# TESTS	MAX	AVG	# TESTS
NAL	109.563	3.0	14.60	17.60	748	165	29.6	24.9	12	2048	21.6	37
FEB	000.68	29.6	0.00	29.60	874	280	36.5	29.9	12	864	52.4	30
MAR	99.997	32.1	0.01	32.11	871	290	44.7	24.9	12	256	34.5	31
APR	101.421	6.1	4.71	10.81	704	260	17.3	10.0	14	1196	32.2	30
МАУ	105.744	1.1	4.80	5.90	828	185	12.5	7.8	14	313	26.4	31
NUL	112.440	1.4	4.39	5.79	750	270	8.7	7.2	13	648	17.9	30
JUL	115.930	1.9	4.34	6.24	750	235	5.9	4.6	15	504	16.8	30
AUG	113.953	3.2	1.66	4.86	718	235	6.5	3.7	12	83	14.2	30
SEP	100.438	1.0	4.97	5.97	793	255	4.4	3.5	12	267	9.7	29
OCT	96.798	0.9	6.46	7.36	734	245	4.5	3.3	14	216	3.1	30
VOV	79.614	0.6	4.41	5.01	703	235	5.0	3.2	11	60	1.8	30
DEC	85.619	1.4	3.86	5.26	665	220	3.6	2.9	15	220	7.6	31
TOTAL	1210.517											
AVG	100.876	6.86	4.52	11.38	761.5	239.6	14.9	10.5	13.0	556.3	19.9	31

JUNCTION BOX EFFLUENT (S&H FARMS) 2009

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ANALYSIS OF INJECTION FLUID 2009 BW-31

Chavez, Carl J, EMNRD

From:	Chavez, Carl J, EMNRD
Sent:	Wednesday, November 18, 2009 7:02 AM
То:	'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'David Pyeatt'; 'garymschubert@aol.com'; 'Gary Schubert'
Cc:	Griswold, Jim, EMNRD; VonGonten, Glenn, EMNRD; Sanchez, Daniel J., EMNRD
Subject:	UIC Class III Well Annual Report Schedule for Submittal & Content REMINDER- 2010
Attachments:	Annual Reports 2010.xls

Gentlemen:

Good morning. You may recall an e-mail message from me this past Summer alerting you to the reporting provision of your current discharge permit (permit) and how the New Mexico Oil Conservation Division (OCD) is stepping up its efforts to track reporting under issued permits.

Please find attached a spreadsheet listing the dates that OCD expects to receive your Annual Reports and/or any reporting requirements from your permit. If you are an operator with limited reporting requirements based on your permit, you are welcome to follow the format and content required from more recent permit renewals issued by the OCD, which are more comprehensive and constitute a report, Any renewed permits will likely require similar content anyway.

Please plan on meeting the Annual Report submittal dates in January of 2010 as failure to submit the report will constitute a violation under the Federal Underground Injection Control (UIC) Program and reporting to the United States Environmental Protection Agency, which could result in the shut-in and/or plug and abandonment of your brine production well.

Please contact me if you have questions. Thank you in advance for your cooperation in this matter.

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")

CC: Brine Well File "Annual Reporting"

Permit ID		al Reports e Date Submitted	Annual Report Contents
BW-2	Basic Energy		All operators shall submit an annual
			year. The report shall include the following information:
		B	 Cover sheet marked as "Annual Brine Well Report, name of operator, BW
			permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and reason for
			any remedial or major work on the well. Copy of C- 103. 3 Production volumes as required above in 21–G-including a running total
		S	should
		0	be carried over to each year. The maximum and average injection pressure.
		- -	4. A copy of the chemical analysis as required above in 21.1-1.
			 A copy of any mechanical integrity test chart, including the type of test, i.e.
			open to formation or easing test. 6. Brief explanation describing deviations from normal production
		C	methods.
			 A copy of any leaks and spills reports. If applicable, results of any groundwater monitoring.
			9. Information required from cavity/subsidence 21 .F. above.
			10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.

L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:	 Cover sheet marked as "Annual Brine Well Report, name of operator, BW permit #, API# of well(s), date of report, and person submitting report. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C- 103. 	 Production volumes as required above in 21G. including a running total should be carried over to each year. The maximum and average injection pressure. A copy of the chemical analysis as required above in 21.1-1. A copy of any mechanical integrity test chart, including the type of test, i.e. 	 open to formation or easing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21. F. above. 10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101. 	
01/31/10	١			Mo. w/ Qtly Rpts.
Gandy Corp.				PAB- Salty Dog
BW-4	1			BW-8

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L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:	 Cover sheet marked as "Annual Brine Well Report, name of operator, BW BW permit #, API# of well(s), date of report, and person submitting report. Brief summary of brine wells operations including description and reason for Brief summary of brine wells operations including description and reason for Brief summary of brine wells operations including description and reason for Brief summary of brine wells operations including description and reason for Brief summary of brine wells operations including description and reason for Brief summary of brine wells operations including description and reason for Broduction volumes as required above in 21. G. including a running total should be carried over to each year. The maximum and average injection 	 pressure. 4. A copy of the chemical analysis as required above in 21.H. 5. A copy of any mechanical integrity test chart, including the type of test, i.e. 5. A copy of any mechanical integrity test chart, including the type of test. i.e. open to formation or casing test. 6. Brief explanation describing deviations from normal production methods. 7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring. 9. Information required from cavity/subsidence 21. F. above. 10. An Area of Review (AOR) summary. 	 Froduction/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.
01/31/10			01/31/10
Gandy Corp.			Basic Energy
BW-22			BW-25

 Production/Injection Volumes: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Sanla Fe Office in an annual report due on the first day of January of each year. 	L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:	1. Cover sheet marked as "Annual Brine Well Report, name of operator, BW	permit #, API# of well(s), date of report, and person submitting report. 2. Brief summary of brine wells operations including description and	reason for any remedial or major work on the well. Copy of C-103. 3. Production volumes as required above in 21 .G. including a running	total should be carried over to each year. The maximum and average injection	pressure. 4. A copy of the chemical analysis as required above in 21 .H.	A copy of any mechanical integrity test chart, including the type of test, i.e.	open to formation or casing test. 6. Brief explanation describing deviations from normal production	methods.	7. A copy of any leaks and spills reports. 8. If applicable, results of any groundwater monitoring.	9. Information required from cavity/subsidence 21.F. above.	10. An Area of Review (AOR) summary. 11. Sign-off requirements pursuant to WQCC Subsection G 20.6.2.5101.	
01/01/10	01/31/10												
Mesquite	ey Ernergy Services LJ.												
BW-27	BW-28												

L. Annual Report: All operators shall submit an annual report due on January 31 of each year. The report shall include the following information:	 Cover sheet marked as "Annual Brine Well Report, name of operator, BW BW permit ", API" of well(s), date of report, and person submitting report. Brief summary of brine wells operations including description and reason for any remedial or major work on the well. Copy of C-103. Production volumes as required above in 21. G. including a running total should be carried over to each year. The maximum and average injection be carried over to each year. The maximum and average injection be carried over to each year. The maximum and average injection brosp of the chemical analysis as required above in 21. H. 5. A copy of the chemical integrity test chart, including the type of test, ie. open to formation or casing test. f. A copy of any mechanical integrity test chart, including the type of test, ie. open to formation or casing test. f. A copy of any leaks and spills reports. f. A copy of any leaks and spills reports. f. A copy of any leaks and spills reports. f. A popicable, results of any groundwater monitoring. f. A copy of any leaks and spills reports. f. A copy of any leaks and spills reports. f. A copy of any leaks and spills reports. f. A copy of any leaks and spills reports. f. A policable, results of any groundwater monitoring. 	 Froduction/Injection Volumes/Annual Report: The volumes of fluids injected (fresh water) and produced (brine) will be recorded monthly and submitted to the OCD Santa Fe Office in an annual report due on the thirty-first (31) day of January of each year.
01/31/10		01/31/10
Liquid Resources		HRC- Schubert
BW-30		BW-31

Chavez, Carl J, EMNRD

From:	Chavez, Carl J, EMNRD
Sent:	Friday, September 25, 2009 1:48 PM
То:	'Prather, Steve'; 'gandy2@leaco.net'; 'James Millett'; 'Clay Wilson'; 'Bob Patterson'; 'Blevins, Sam'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc:	Sanchez, Daniel J., EMNRD; VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD; Jones, William V., EMNRD
Subject:	New Mexico Oil Conservation Division Class III Solution Mining Well Operator Notice ANNUAL REPORTS

Gentlemen:

Re: Annual Reporting

You are receiving this message because you are currently operating a Underground Injection Control (UIC) Class III Solution Mining Well in New Mexico under an Oil Conservation Division (OCD) Discharge Permit. You may be aware of the most recent events related to OCD Class III Wells in New Mexico and can find out more by visiting the OCD's Webste at http://www.emnrd.state.nm.us/OCD/brinewells.htm and OCD Brine Well Work Group Website at http://www.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pCJC0906359521.

The OCD is writing to inform you that it will be monitoring the receipt of your "Annual Reports" under the applicable section of your OCD discharge permit. The OCD has been deficient in tracking reporting obligations in the past; however, the OCD has recently upgraded our online system to track operators who are not meeting the reporting requirements specified in OCD Discharge Permits. Please plan on submitting the report with the required information by the date required in your discharge permit.

To access your OCD Discharge Permit Online for the date of submittal and contents of the report, please go to OCD Online at <u>http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx</u> (enter "Order Type" as BW and your "Order Number"). If you have not submitted an Annual Report (report) for your well, a historical review of your injection and production records will be required in order to provide cumulative injection and production information in this year's report.

Please contact me if you have questions or need assistance.

Thank you in advance for your cooperation in this matter.

Copy: Brine Well Files BWs 2, 4, 8, 22, 25, 27, 28, 30 & 31

Carl J. Chavez, CHMM New Mexico Energy, Minerals & Natural Resources Dept. Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505 Office: (505) 476-3490 Fax: (505) 476-3462 E-mail: <u>CarlJ.Chavez@state.nm.us</u> Website: <u>http://www.emnrd.state.nm.us/ocd/</u>index.htm (Pollution Prevention Guidance is under "Publications")