BW-036

ANNUAL REPORT

2017

2017 ANNUAL CLASS III WELL REPORT

H.R.C. INC.

Schubert Farms Well # 1 (BW-036)

API 30-025-37548

Resubmitted May 11, 2022

GARY M. SCHUBERT

ADDENDUM TO
2017 ANNUAL CLASS III WELL REPORT
-ANNUAL CERTIFICATION-

H.R.C. INC.

Schubert Farms Well # 1 (BW-036)

API 30-025-37548

ANNUAL CERTIFICATION

H.R.C. Inc. certifies that continued salt solution mining of the Schubert Farms Well #1 (BW-36) will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.

Signature Gary M. Schubert for H.R.C., Inc. Date 5/5/22

Name GARY M. SCHUBERT Title PRES.

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SUMMARY OF CLASS III OPERATIONS 2017

Schubert Farms Well # 1 (BW-36) production operations began in March of 2017 following approval of a discharge permit in October 2016 and subsequent well completion in February of 2017. Water was injected throughout the months of March and April to reach a stable flow, pressure, and acceptable level of saturation. Acceptable saturation was achieved on April 17, 2017 and steady injection / production volumes took place from that point forward. An annual total of 153,518 bbl. of brine was extracted at an average weight of 9.89 PPG (1.1851 SG).

Analysis of water samples from the designated monitor well showed no changes in water quality throughout the year 2017.

All facility lines and connections receive a daily visual inspection. Readings on pressure gauges are recorded daily, along with the produced brine and injected water volumes. Safety shut off mechanisms are tested to ensure that the high and low pressure shut down systems are fully functional. In 2017 there were no leaks that occurred during the year. The fresh water systems and well are insulated to protect the fresh water system from freezing. All meters and valves were protected and are in good working condition.

H.R.C., Inc. preventive maintenance plan is to replace any connections or valves that could be showing wear. This will continue as a safe operating procedure in 2018. Connections are changed when the first sign of salt is seen behind the threaded end. During 2017 the transfer pump that transports brine to the sales tanks required a mechanical seal replaced in the month of December. This is a common task due to the abrasion of the 9.89 PPG brine. When replacing the seals, fresh water was used to clean out the lines, and valves were shut in allowing the connecting unions to be broken to prevent any impact to the ground within the pump shop where the pump resides.

There were no deviations from normal operations of the well.

Surface subsidence monitoring results show no changes in elevations at the designated monitoring points.

Solution cavern characterization results show that the cavern size and shape remain within NMOCD recommended limits.

H.R.C., Inc. Schubert Farms # 1 is an asset to industry and continues to support oil & gas production operations in New Mexico.

FLUID INJECTION & BRINE PRODUCTION VOLUMES

2017 MONTHLY TOTALS PRODUCED BRINE & INJECTED FRESH WATER

MONTH	PROD. BRINE	INJ. FRESH WATER
JANUARY	0	0
FEBRUARY	0	0
MARCH	13,011	12,833
APRIL	5,636	5,238
MAY	11,060	10,143
JUNE	9,831	9,902
JULY	14,400	14,362
AUGUST	11,962	10,340
SEPTEMBER	20,945	21,183
OCTOBER	21,988	20,795
NOVEMBER	19,764	19,522
DECEMBER	24,921	24,360
TOTAL	153,518	148,678

ANNUAL TOTALS PRODUCED BRINE & INJECTED FRESH WATER

YEAR	PROD. BRINE	INJ. FRESH WATER
2017	153,518	148,678
TOTAL	153,518	148,678

EXTRACTION VS. INJECTION RATIOS

2017 FLUID INJECTION & BRINE PRODUCTION VOLUME RATIO

MONTH	BRINE	BRINE PSI	FRESH WATER	FW PSI	RATIO (RAW)	RATIO (CALC)
JANUARY	0	0	0	0	0	0
FEBRUARY	0	0	0	0	0	0
MARCH	13011	22	12833	256	13011:12833	1.0139
APRIL	5636	20	5238	255	5636:5238	1.0760
MAY	11060	22	10143	254	11060:10143	1.0904
JUNE	9831	20	9902	255	9831:9902	0.9928
JULY	14400	21	14362	256	14400:14362	1.0026
AUGUST	11962	23	10340	257	11962:10340	1.1569
SEPTEMBER	20945	20	21183	255	20945:21183	0.9888
OCTOBER	21988	22	20795	257	21988:20795	1.0574
NOVEMBER	19764	20	19522	256	19764:19522	1.0124
DECEMBER	24921	23	24360	257	24921:24360	1.0230

INJECTION PRESSURE

Injection pressure remains consistent with 2017. Annulus average is 21 PSIG and the tubing average is at 255 PSIG. RFD pump runs at 54.2 Hz. with a yield of 28 to 29 GPM. The lease operator checks the pressure daily and records it on his daily logs.

Please find production & injection pressure and volume data attached in Appendix A, and can be seen in the table above.

MONITOR WELL WATER SAMPLE CHEMICAL ANALYSIS DATA

The BW-36 order requires that the specified monitor well be sampled semi-annually and chemical analysis results be reported to the OCD. H.R.C. Inc. has been performing this sampling on a semi-annual basis. However, quarterly sampling and analysis for the produced brine and injected fresh water has been instituted as of January 2022 and the monitor well will be sampled at the same time and same interval, so therefore will also begin and then remain on a quarterly basis going forward. Cardinal Laboratories analyzed water sampled from the designated monitor well on 04/20/2017 and 11/16/2017. Summary of the analyses from April 2017 and November 2017 for Inorganic Compounds and Total Recovery Metals by ICP (E200.7) are shown below. There were no appreciable changes in the designated monitor well water quality throughout 2017.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8 for 04/20/17 and certificate number T104704398-17-9 for 11/16/17.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:
Method EPA 552.2 Total Halo acetic 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 Halo acetic Acids (HAA-5)

Full details of the analytical results are attached at the end of this report in Appendix B.

APRIL 2017 RESULTS

MONITOR WELL INOGRANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	244		5.0	MG/L	4-24-17	310.1
Alkalinity Carbonate	< 1.00		1.0	MG/L	4-24-17	310.1
Chloride	316		4.0	MG/L	4-25-17	4500-C1.B
Conductivity	1700		1.0	US/CM	4-21-17	120.1
pH	7.58		0.100	pH Units	4-20-17	150.1
Sulfate	221		50	MG/L	4-26-17	375.4
TDS	1090		5.0	MG/L	4-25-17	160.1
Alkalinity Total	200		4.0	MG/L	4-24-17	310.1

MONITOR WELL TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	161		2.00	MG/L	5-1-17	EPA200.7
Magnesium	46.3		2.00	MG/L	5-1-17	EPA200.7
Potassium	<20		20	MG/L	5-1-17	EPA200.7
Sodium	131		20	MG/L	5-1-17	EPA200.7

NOVEMBER 2017 RESULTS

MONITOR WELL INORGANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	327		5.00	MG/L	11-17-17	310.1
Alkalinity Carbonate	<1.00		1.00	MG/L	11-17-17	310.1
Chloride	356		4.00	MG/L	11-20-17	4500. C1.B
Conductivity	1790		1.00	UMHOS/CM	11-17-17	120.1
pH	7.60		0.100	pH units	11-16-17	150.1
Sulfate	264		50.0	MG/L	11-22-17	375.4
TDS	1180		5.00	MG/L	11-17-17	160.1
Alkalinity Total	268		4.00	MG/L	11-17-17	310.1

MONITOR WELL TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	171		1.00	MG/L	11-29-17	EPA 200.7
Magnesium	45.3		1.00	MG/L	11-29-17	EPA 200.7
Potassium	<10.0		10.00	MG/L	11-29-17	EPA 200.7
Sodium	125		10.00	MG/L	11-29-17	EPA 200.7

PRODUCED BRINE & INJECTED FRESH WATER CHEMICAL ANALYSIS DATA

The BW-36 order requires that the produced brine and injected fresh water be sampled quarterly and chemical analysis results be reported to the OCD. H.R.C. Inc. has erroneously been performing this sampling on a semi-annual basis instead of quarterly. Quarterly sampling and analysis has been instituted as of January 2022, and will remain on a quarterly basis going forward. Cardinal Laboratories sampled produced brine and injected fresh water from the BW-36 facility on 04/20/2017 and 11/16/2017. Summary of the analyses from April 2017 and November 2017 for Inorganic Compounds and Total Recovery Metals by ICP (E200.7) are shown below. There were only no appreciable changes in both the produced brine chemistry and injected fresh water chemistry throughout 2017.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8 for 04/20/17 and certificate number T104704398-17-9 for 11/16/17.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:
Method EPA 552.2 Total Halo acetic 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 Halo acetic Acids (HAA-5)

Full details of the analytical results are attached at the end of this report in Appendix B.

BRINE ANALYTICAL RESULTS: APRIL 2017

INORGANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity, Bicarbonate	268		5.00	MG/L	4-24-17	310.0
Alkalinity Carbonate	<1.00		1.00	MG/L	4-24-17	310.0
Chloride	122,000		4.00	MG/L	4-25-17	4500.C1.B
Conductivity	357,000		1.00	UMHOS/CM	4-21-17	120.1
pH	6.85		0.100	Ph Units	4-20-17	150.1
Sulfate	4430		833	MG/L	4-26-17	375.4
TDS	198,000		5.00	MG/L	4-25-17	160.1
Alkalinity Total	220		4.00	MG/L	4-24-17	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	920		10.0	MG/L	5-1-17	EPA 200.7
Magnesium	524		10.0	MG/L	5-1-17	EPA200.7
Potassium	950		100	MG/L	5-1-17	EPA 200.7
Sodium	80,100		100	MG/L	5-1-17	EPA 200.7

FRESH WATER ANALYTICAL RESULTS: APRIL 2017

INORGANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Alkalinity, Bicarbonate	244		5.00	MG/L	4-24-17	310.1
Alkalinity Carbonate	<1.00		1.00	MG/L	4-24-17	310.1
Chloride	510		4.00	MG/L	4-25-17	4500.C1.B
Conductivity	2710		1.00	UMHOS/CM	4-21-17	120.1
pH	7.32		0.100	pH units	4-20-17	150.1
Sulfate	579		125	MG/L	4-26-17	375.1
TDS	1870		5.00	MG/L	4-25-17	160.1
Alkalinity Total	200		4.00	MG/L	4-24-17	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Calcium	254		0.100	MG/L	5-1-17	EPA 200.7
Magnesium	86.9		0.100	MG/L	5-1-17	EPA 200.7
Potassium	7.62		1.00	MG/L	5-1-17	EPA 200.7
Sodium	228		1.00	MG/L	5-1-17	EPA 200.7

BRINE ANALYTICAL RESULTS: NOVEMBER 2017

INORGANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Alkalinity Bicarbonate	476		5.00	MG/L	11-17-17	310.1
Alkalinity Carbonate	<1.00		1.00	MG/L	11-17-17	310.1
Chloride	162,000		4.00	MG/L	11-20-17	4500. C1.B
Conductivity	475,000		1.00	UMHOS/CM	11-17-17	120.1
pH	6.96		0.100	Ph Units	11-16-17	150.1
Sulfate	6580		833	MG/L	11-22-17	375.1
TDS	266,000		5.00	MG/L	11-17-17	160.1
Alkalinity Total	390		4.00	MG/L	11-17-17	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed Date	Method
Calcium	844		1.00	MG/L	11-29-17	EPA 200.7
Magnesium	455		1.00	MG/L	11-29-17	EPA 200.7
Potassium	1420		10.0	MG/L	11-29-17	EPA 200.7
Sodium	91,100		200	MG/L	11-29-17	EPA 200.7

FRESH WATER ANALYTICAL RESULTS: NOVEMBER 2017

INORGANIC COMPOUNDS

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Alkalinity, Bicarbonate	283		5.00	MG/L	11-17-17	310.1
Alkalinity Carbonate	<1.00		1.00	MG/L	11-17-17	310.1
Chloride	224		4.00	MG/L	11-20-17	4500. C1.B
Conductivity	1420		1.00	UMHOS/CM	11-17-17	120.1
pH	7.98		0.100	Ph Units	11-16-17	150.1
Sulfate	195		25.0	MG/L	11-22-17	375.1
TDS	896		5.00	MG/L	11-17-17	160.1
Alkalinity Total	232		4.00	MG/L	11-17-17	310.1

TOTAL RECOVERABLE METALS by ICP (E220.7)

Analyte	Result	MDL	Reporting Limit	Units	Analyzed	Method
Calcium	119		5.00	MG/L	11-22-17	EPA 200.7
Magnesium	25.6		5.00	MG/L	11-22-17	EPA 200.7
Potassium	<50.0		50.00	MG/L	11-22-17	EPA 200.7
Sodium	130		50.00	MG/L	11-22-17	EPA 200.7

PIPE LINE HYDROSTATIC TEST RESULTS

Lines that lead to the storage tanks from the wellhead have a hydrostatic pressure of 8.3 pounds of pressure at the base of the line at the fill tank when idle. The operating static pressure average is 11.7 psi respectively. The operating pressure is at around 20 psig. Discharge line is of 3" Polyethylene SDR 11 with a max operating pressure of 160 PSI.

Brine Water transfer line from storage tanks at the Schubert Farms Well # 1 facility to the storage point located 1.5 miles south of the Schubert Farms Well # 1 has an operating pressure of 130 psi. The second point of diversion is the transfer of brine from the storage tanks known as the Peanut Shed to the A.N. ETZ sales facility located 0.8 miles east of HWY 18 on Nadine Rd. (P-26-19S-38E) this line is constructed of 2" SDR 11 Polyethylene Line with a max pressure of 160 psi the line enters into the west 16' holding tank at the top and has a hydrostatic pressure at the base of the line of 0 pounds of pressure at the base of the line due to the (Peanut Shed) storage tanks being higher in elevation. In the transferring operation of brine from the storage tanks (Peanut Shed) it takes 20 to 30 static pounds to move fluid through the 2" line to the A.N. ETZ sales point. Pump # 1 runs at 26 GPM and Pump # 2 runs at 42 GPM depending on demand both pumps can be run together.

VISUAL LEAK INSPECTION MONITORING

H.R.C. Inc. operations personnel walks each above ground facility line daily, and inspects all lines and connections for any sign of leaks or sweating of threads.

The H.R.C. lease operator drives out the lines that are underground and below frost level and visually inspects for any signs of compromised line integrity. This is done up to four times daily, but at a minimum once daily.

No leaks were detected in 2017. Because there were no leaks or spills detected in 2017, there are no leak or spill corrective action reports required.

MECHANICAL INTEGRITY TESTS

A cavern mechanical integrity test was performed on 6/2/17. Please find a copy of the Cavern MIT Chart, Procedure Report, and acceptance letter in Appendix C.

A casing mechanical integrity test was performed on 2/23/17. Please find a copy of the Casing MIT Chart, Procedure Report, and C-103 in Appendix D.

AREA OF REVIEW (AOR) UPDATE

H.R.C., Inc. has updated the 2017 AOR for the Schubert Farms Well # 1 (BW-36), showing no new permits or new drilled wells have been located within the ½ or 2 mile AOR since the 2016 report.

Please find a copy of the ½ and 2 mile AOR review map in Appendix E.

DEVIATIONS FROM NORMAL FLOW CONFIGURATION

H.R.C. Inc. certifies that the well was operated in compliance with its permitted normal flow configuration throughout 2017 (inject fresh water down tubing, produce brine up annulus).

MAJOR FACILITY ACTIVITIES OR EVENTS

This being the first year this well has operated there were many items done to set up the facility for operation. Prior to workover on the well, the site was cleaned free of weeds and debris. Caliche was brought in as needed to prep the site for the new well house and to level the tank battery location. Two 500 Bbl Fiberglass brine tanks were set and one 500 Bbl steel tank was set for fresh injection water storage. Head switches were set to control flow in and out of the tanks as well as high/low shutoff controls. All Electrical ditching and secondary power to the location was completed and readied for production.
Upon completion of the workover the well house was dragged into place over the wellhead and the Grundfos CR-32 Injection pump was connected to the supply lines and to the wellhead. The transfer pump was set into place and connected to the production line that runs to the peanut shed. A test was performed to ensure the lines integrity before brine water was pumped through it. Once into production there were no more facility activities for the year 2017.

SURFACE SUBSIDENCE MONITORING PLAN RESULTS

Surface subsidence surveys were conducted in May 2017, and August 2017, by Basin Surveys, certified by Gary L. Jones, Texas PLS. Three elevation markers are in place. No changes in elevation have been found.

Please find a copy of the BW-36 surveyor's plat in Appendix G, with locations of the BW-36 EM markers, and stating no changes found as of August 30, 2017.

SOLUTION CAVERN CHARACTERIZATION DATA RESULTS

The characterization of the cavern can be mathematically calculated using $V=\Pi R^2h/3$, where the cavern is assumed to be conical in shape, V=volume of salt removed in ft^3, R= cavern radius in ft at bottom, and h = height of cavern in ft.

The Litho Density Compensated Neutron logs showed approximately 54' of good Halite net pay showing less than 4 API units on the Gamma Ray side of the log that is presently being mined. This interval is from 2661'-2715'. Height of cavern, h=54 ft.

BW-36 has produced 153,518 Bbl. of brine from the Salado formation from March, 2017 to December 31, 2017. It takes 122.136 Lbs. of salt to produce one barrel of quality brine yielding a Specific Gravity of 1.195. Multiplying salt ratio to total fluid bbl. equals 18,750,074 lbs of salt mined during this period. The amount of salt mined, 18,750,074 lbs, divided by 80 lbs salt/$ft.^3$ equals 234,375 $ft.^3$ volume of salt removed through December 31, 2017. Volume of cavern, V=234,375 ft^3.

Substituting into $V=\Pi R^2h/3$ for V and h, and solving for R shows that the radius of the cavern, R=64 ft. Diameter of cavern, D=2R=128 ft.

Depth of cavern is taken to be depth of casing window, 2661 ft.

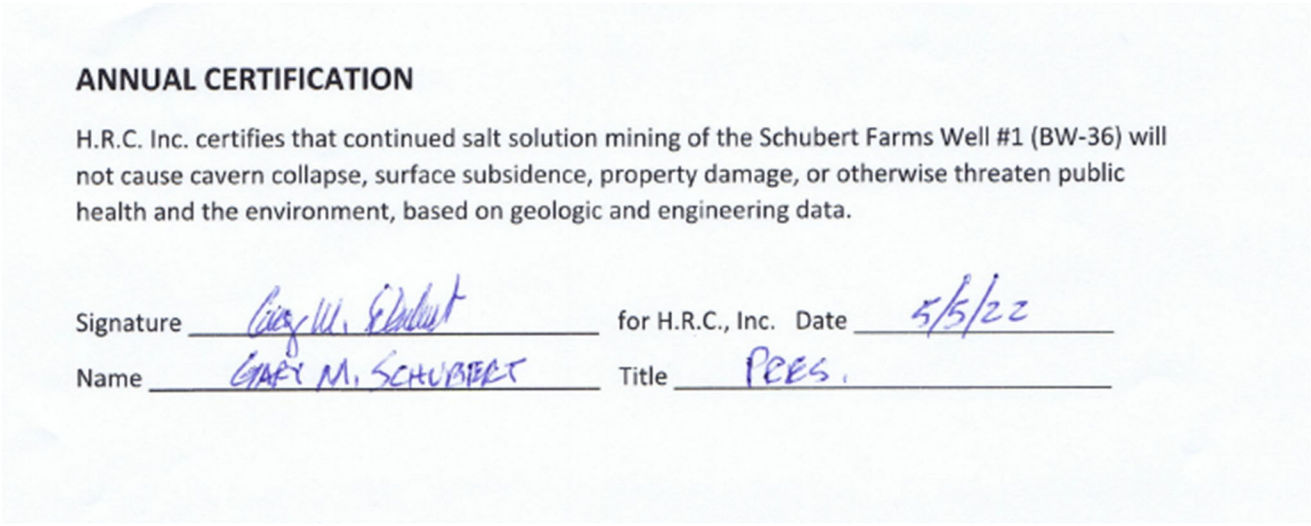
In respect to the recommended maximum allowable D/depth cavern size factor of 0.5, the Schubert Farms Well No. 1 (BW-36) has a factor value of (128'/2661') = 0.048, which is well below the maximum allowable.

BW-36 has years of remaining life to continue mining for the salt that is used throughout the oil and gas industry in Southeastern New Mexico. New horizons above 2661' can be considered in the future to increase the lifespan of this facility.

Please find a copy of the BW-36 wellbore schematic and input data for the cavern characterization calculations in Appendix H.

CONCLUSIONS & RECOMMENDATIONS

This well and facility are in good working order and maintained regularly. The cavern diameter/depth ratio is well within recommended maximum limits, and will not cause cavern collapse. There has been no evidence of surface subsidence. The nearby monitor well shows no evidence of contamination of USDW's. H.R.C. Inc. has not been fully in compliance with reporting to OCD, but procedures have been implemented to bring this well into full reporting compliance, and will remain so going forward.



ANNUAL CERTIFICATION

H.R.C. Inc. certifies that continued salt solution mining of the Schubert Farms Well #1 (BW-36) will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment, based on geologic and engineering data.

Signature Craig M. Schubert for H.R.C., Inc. Date 5/5/22

Name CRAIG M. SCHUBERT Title PRES.

APPENDIX A

BW-36 Injection / Production

2017 Production & Injection Pressures and Volumes

Month	Brine Production (Bbls) Average Pressure (psi)	Fresh Injection (Bbls) Average Pressure (psi)
January	N/A	N/A
February	N/A	N/A
March	13,011 22	12,833 255
April	5,636 20	5,238 254
May	11,060 22	10,143 255
June	9,831 20	9,902 253
July	14,400 21	14,362 254
August	11,962 23	10,340 253
September	20,945 20	21,183 256
October	21,988 22	20,795 255
November	19,764 20	19,522 256
December	24,921 23	24,360 255

Yearly Total	153,518 21.3	148,678 254.6

APPENDIX B

CARDINAL Laboratories

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

May 04, 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 04/20/17 12:00.

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.

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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRESH WATER	H701043-01	Water	20-Apr-17 08:00	20-Apr-17 12:00
BRINE WATER	H701043-02	Water	20-Apr-17 08:00	20-Apr-17 12:00
MONITOR WELL	H701043-03	Water	20-Apr-17 08:00	20-Apr-17 12:00

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

FRESH WATER

H701043-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**244**		5.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Chloride*	**510**		4.00	mg/L	1	7042103	AC	25-Apr-17	4500-Cl-B	
Conductivity*	**2710**		1.00	uS/cm	1	7042105	AC	21-Apr-17	120.1	
pH*	**7.32**		0.100	pH Units	1	7042007	AC	20-Apr-17	150.1	
Sulfate*	**579**		125	mg/L	12.5	7042613	AC	26-Apr-17	375.4	QM-07
TDS*	**1870**		5.00	mg/L	1	7042114	AC	25-Apr-17	160.1	
Alkalinity, Total*	**200**		4.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**254**		0.100	mg/L	1	B704200	JDA	01-May-17	EPA200.7	
Magnesium*	**86.9**		0.100	mg/L	1	B704200	JDA	01-May-17	EPA200.7	
Potassium*	**7.62**		1.00	mg/L	1	B704200	JDA	01-May-17	EPA200.7	
Sodium*	**228**		1.00	mg/L	1	B704200	JDA	01-May-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

BRINE WATER

H701043-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**268**		5.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Chloride*	**122000**		4.00	mg/L	1	7042103	AC	25-Apr-17	4500-Cl-B	
Conductivity*	**357000**		1.00	uS/cm	1	7042105	AC	21-Apr-17	120.1	
pH*	**6.85**		0.100	pH Units	1	7042007	AC	20-Apr-17	150.1	
Sulfate*	**4430**		833	mg/L	83.3	7042613	AC	26-Apr-17	375.4	
TDS*	**198000**		5.00	mg/L	1	7042114	AC	25-Apr-17	160.1	
Alkalinity, Total*	**220**		4.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**920**		10.0	mg/L	100	B704200	JDA	01-May-17	EPA200.7	
Magnesium*	**524**		10.0	mg/L	100	B704200	JDA	01-May-17	EPA200.7	
Potassium*	**950**		100	mg/L	100	B704200	JDA	01-May-17	EPA200.7	
Sodium*	**80100**		100	mg/L	100	B704200	JDA	01-May-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

MONITOR WELL

H701043-03 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**244**		5.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Chloride*	**316**		4.00	mg/L	1	7042103	AC	25-Apr-17	4500-Cl-B	
Conductivity*	**1700**		1.00	uS/cm	1	7042105	AC	21-Apr-17	120.1	
pH*	**7.58**		0.100	pH Units	1	7042007	AC	20-Apr-17	150.1	
Sulfate*	**221**		50.0	mg/L	5	7042613	AC	26-Apr-17	375.4	
TDS*	**1090**		5.00	mg/L	1	7042114	AC	25-Apr-17	160.1	
Alkalinity, Total*	**200**		4.00	mg/L	1	7041918	AC	24-Apr-17	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**161**		2.00	mg/L	20	B704200	JDA	01-May-17	EPA200.7	
Magnesium*	**46.3**		2.00	mg/L	20	B704200	JDA	01-May-17	EPA200.7	
Potassium*	<20.0		20.0	mg/L	20	B704200	JDA	01-May-17	EPA200.7	
Sodium*	**131**		20.0	mg/L	20	B704200	JDA	01-May-17	EPA200.7	

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:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7041918 - General Prep - Wet Chem										
Blank (7041918-BLK1)				Prepared & Analyzed: 19-Apr-17						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	10.0	5.00	mg/L							
Alkalinity, Total	8.00	4.00	mg/L							
LCS (7041918-BS1)				Prepared & Analyzed: 19-Apr-17						
Alkalinity, Carbonate	ND	1.00	mg/L				80-120			
Alkalinity, Bicarbonate	132	5.00	mg/L				80-120			
Alkalinity, Total	108	4.00	mg/L	100		108	80-120			
LCS Dup (7041918-BSD1)				Prepared & Analyzed: 19-Apr-17						
Alkalinity, Carbonate	ND	1.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	127	5.00	mg/L				80-120	3.86	20	
Alkalinity, Total	104	4.00	mg/L	100		104	80-120	3.77	20	
Batch 7042007 - General Prep - Wet Chem										
LCS (7042007-BS1)				Prepared & Analyzed: 20-Apr-17						
pH	7.23		pH Units	7.00		103	90-110			
Duplicate (7042007-DUP1)		**Source: H701041-04**		Prepared & Analyzed: 20-Apr-17						
pH	7.83	0.100	pH Units		7.82			0.128	20	
Batch 7042103 - General Prep - Wet Chem										
Blank (7042103-BLK1)				Prepared & Analyzed: 21-Apr-17						
Chloride	ND	4.00	mg/L							

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:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7042103 - General Prep - Wet Chem										
LCS (7042103-BS1)				Prepared & Analyzed: 21-Apr-17						
Chloride	104	4.00	mg/L	100		104	80-120			
LCS Dup (7042103-BSD1)				Prepared & Analyzed: 21-Apr-17						
Chloride	100	4.00	mg/L	100		100	80-120	3.92	20	
Batch 7042105 - General Prep - Wet Chem										
LCS (7042105-BS1)				Prepared & Analyzed: 21-Apr-17						
Conductivity	498		uS/cm	500		99.6	80-120			
Duplicate (7042105-DUP1)	**Source: H701041-01**			Prepared & Analyzed: 21-Apr-17						
Conductivity	707	1.00	uS/cm		703			0.567	20	
Batch 7042114 - Filtration										
Blank (7042114-BLK1)				Prepared: 21-Apr-17 Analyzed: 27-Apr-17						
TDS	ND	5.00	mg/L							
LCS (7042114-BS1)				Prepared: 21-Apr-17 Analyzed: 27-Apr-17						
TDS	229	5.00	mg/L	240		95.4	80-120			
Duplicate (7042114-DUP1)	**Source: H701021-01**			Prepared: 21-Apr-17 Analyzed: 27-Apr-17						
TDS	2260	5.00	mg/L		2310			1.84	20	
Batch 7042613 - General Prep - Wet Chem										
Blank (7042613-BLK1)				Prepared & Analyzed: 26-Apr-17						
Sulfate	ND	10.0	mg/L							

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:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7042613 - General Prep - Wet Chem										
LCS (7042613-BS1)				Prepared & Analyzed: 26-Apr-17						
Sulfate	20.1	10.0	mg/L	20.0		101	80-120			
LCS Dup (7042613-BSD1)				Prepared & Analyzed: 26-Apr-17						
Sulfate	19.8	10.0	mg/L	20.0		99.0	80-120	1.55	20	

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:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT FARMS Project Number: NONE GIVEN Project Manager: BEN DONAHUE Fax To:	Reported: 04-May-17 14:52

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 B704200 - Total Rec. 200.7/200.8/200.2										
Blank (B704200-BLK1)				Prepared: 28-Apr-17 Analyzed: 01-May-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 (B704200-BS1)				Prepared: 28-Apr-17 Analyzed: 01-May-17						
Magnesium	20.7	0.100	mg/L	20.0		104	85-115			
Sodium	6.81	1.00	mg/L	6.48		105	85-115			
Potassium	8.36	1.00	mg/L	8.00		104	85-115			
Calcium	4.07	0.100	mg/L	4.00		102	85-115			
LCS Dup (B704200-BSD1)				Prepared: 28-Apr-17 Analyzed: 01-May-17						
Calcium	4.07	0.100	mg/L	4.00		102	85-115	0.0739	20	
Sodium	6.83	1.00	mg/L	6.48		105	85-115	0.275	20	
Magnesium	20.8	0.100	mg/L	20.0		104	85-115	0.274	20	
Potassium	8.32	1.00	mg/L	8.00		104	85-115	0.396	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: ETZ Water Station	**BILL TO**
Project Manager: Ben Donahue	P.O. #:
Address: P.O. 5102	Company:
City: Hobbs State: NM Zip: 88241	Attn:
Phone #: 575 393 3194 Fax #:	Address:
Project #: Schubert Farms LLC/Project Owner: Gary Schubert	City:
Project Name: " "	State: Zip:
Project Location:	Phone #:
Sampler Name: Ben Donahue	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Cation/Anion
H701043															
1	Fresh Water	G	2	✓									4/20/17	8:00	✓
2	Brine Water	C	2	✓											✓
3	Monitor Well	C	2	✓											

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 the client for the 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 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.

Relinquished By:	Date: 4/20/17	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 12:00 PM		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: gary@schubert@gmail.com
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: #75		Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

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

CARDINAL Laboratories

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

December 05, 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 10:22.

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,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BRINE WATER	H703207-01	Water	16-Nov-17 09:00	16-Nov-17 10:22
MONITOR WELL	H703207-02	Water	16-Nov-17 09:00	16-Nov-17 10:22
FRESH WATER	H703207-03	Water	16-Nov-17 09:00	16-Nov-17 10:22

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

BRINE WATER

H703207-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**476**		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*	**162000**		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-Cl-B	
Conductivity*	**475000**		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	**6.96**		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	**6580**		833	mg/L	83.3	7112201	AC	22-Nov-17	375.4	
TDS*	**266000**		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	**390**		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**844**		1.00	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Magnesium*	**455**		1.00	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Potassium*	**1420**		10.0	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Sodium*	**91100**		200	mg/L	200	B711206	JDA	29-Nov-17	EPA200.7	

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:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

MONITOR WELL

H703207-02 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**327**		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*	**356**		4.00	mg/L	1	7112001	AC	20-Nov-17	4500-Cl-B	
Conductivity*	**1790**		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	**7.60**		0.100	pH Units	1	7111701	AC	16-Nov-17	150.1	
Sulfate*	**264**		50.0	mg/L	5	7112201	AC	22-Nov-17	375.4	
TDS*	**1180**		5.00	mg/L	1	7111608	AC	17-Nov-17	160.1	
Alkalinity, Total*	**268**		4.00	mg/L	1	7110705	AC	17-Nov-17	310.1	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**171**		1.00	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Magnesium*	**45.3**		1.00	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Potassium*	<10.0		10.0	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	
Sodium*	**125**		10.0	mg/L	10	B711206	JDA	29-Nov-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

FRESH WATER

H703207-03 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
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-Cl-B	
Conductivity*	**1420**		1.00	uS/cm	1	7111701	AC	17-Nov-17	120.1	
pH*	**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	
TDS*	**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 Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Calcium*	**119**		5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Magnesium*	**25.6**		5.00	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Potassium*	<50.0		50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	
Sodium*	**130**		50.0	mg/L	50	B711172	JDA	22-Nov-17	EPA200.7	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110705 - General Prep - Wet Chem										
Blank (7110705-BLK1)				Prepared & Analyzed: 07-Nov-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 (7110705-BS1)				Prepared & Analyzed: 07-Nov-17						
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 & Analyzed: 07-Nov-17						
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: 17-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)	**Source: 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: 16-Nov-17 Analyzed: 17-Nov-17						
Conductivity	507		uS/cm	500		101	80-120			
pH	6.97		pH Units	7.00		99.6	90-110			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

Inorganic Compounds - Quality Control

Cardinal Laboratories

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)	**Source: H703206-01**			Prepared: 16-Nov-17 Analyzed: 17-Nov-17						
Conductivity	501000	1.00	uS/cm		494000			1.46	20	
pH	7.07	0.100	pH Units		7.06			0.142	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		118	80-120	1.79	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

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 B711172 - Total Rec. 200.7/200.8/200.2										
Blank (B711172-BLK1)				Prepared: 20-Nov-17 Analyzed: 22-Nov-17						
Sodium	ND	1.00	mg/L							
Magnesium	ND	0.100	mg/L							
Calcium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
LCS (B711172-BS1)				Prepared: 20-Nov-17 Analyzed: 22-Nov-17						
Magnesium	20.8	0.100	mg/L	20.0		104	85-115			
Calcium	4.23	0.100	mg/L	4.00		106	85-115			
Sodium	6.68	1.00	mg/L	6.48		103	85-115			
Potassium	8.07	1.00	mg/L	8.00		101	85-115			
LCS Dup (B711172-BSD1)				Prepared: 20-Nov-17 Analyzed: 22-Nov-17						
Magnesium	20.8	0.100	mg/L	20.0		104	85-115	0.0742	20	
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	
Batch B711206 - Total Rec. 200.7/200.8/200.2										
Blank (B711206-BLK1)				Prepared: 27-Nov-17 Analyzed: 29-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 (B711206-BS1)				Prepared: 27-Nov-17 Analyzed: 29-Nov-17						
Magnesium	20.7	0.100	mg/L	20.0		104	85-115			
Potassium	8.35	1.00	mg/L	8.00		104	85-115			
Calcium	4.15	0.100	mg/L	4.00		104	85-115			
Sodium	6.64	1.00	mg/L	6.48		102	85-115			

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

ETZ WATER STATION PO BOX 6056 HOBBS NM, 88241	Project: SCHUBERT Project Number: FARMS #1 Project Manager: BEN DONAHUE Fax To:	Reported: 05-Dec-17 14:36

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 B711206 - Total Rec. 200.7/200.8/200.2										
LCS Dup (B711206-BSD1)				Prepared: 27-Nov-17 Analyzed: 29-Nov-17						
Potassium	8.07	1.00	mg/L	8.00		101	85-115	3.36	20	
Magnesium	20.0	0.100	mg/L	20.0		100	85-115	3.34	20	
Sodium	6.43	1.00	mg/L	6.48		99.2	85-115	3.28	20	
Calcium	3.99	0.100	mg/L	4.00		99.7	85-115	4.11	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: ETZ Water Station
Project Manager: Ben Donahue
Address:
City: State: Zip:
Phone #: 575 393 3194 Fax #:
Project #: Project Owner:
Project Name: Schubert Farms #1
Project Location:
Sampler Name: Ben Donahue

BILL TO

P.O. #:
Company:
Attn:
Address:
City:
State: Zip:
Phone #:
Fax #:

ANALYSIS REQUEST

Cation / Anions

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME
H703207														
1	Brine Water	G	1	✓									11-16-17	9:00
2	Monitor Well	C	1		✓									
3	fresh Water	C	1		✓									

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 the client for the 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 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.

Relinquished By: Date: 11/16/17 Time: 10:22AM Received By: Tamara Oldaker
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler UPS - Bus - Other: 0.3°c Corrected 0.5°c

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials) T.O. #75

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS: email to: garymschubert@gmail.com

Please fax written changes to (575) 393-2326

APPENDIX C

SCHUBERT FARMS WELL No.1
API 30-025-37548
MIT ACCEPTANCE OCD LETTER

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, June 27, 2017 9 41 AM
To 'Gary Schubert'
Cc: Griswold, Jim, EMNRD, Whitaker, Mark A, EMNRD, Fortner, Kerry, EMNRD
Subject: RE BW-36 Schubert Farms Well No 1 (API# 30-025-37548) OCD June 2, 2017 MIT Approval

Gary

Good morning The New Mexico Oil Conservation Division (OCD) is in receipt of and has completed its evaluation of the requested information.

OCD has determined that the above subject well MIT passed.

OCD review and reading from the original MIT chart indicates a start pressure of 325 psig and end pressure of 300 psig However, based on the spring weight, 24-hr chart scale, and clock speed, etc run for the MIT, OCD does not discount your stated pressures below

OCD evaluated this Cavern MIT Method utilizing the "Casing MIT" Pressure of +/- 10% Pass/Fail due to the low volume of fluids associated with the new brine well and small cavern size. As the cavern size matures, and fluid volume increases, OCD will communicate closely with the Permittee on MIT interpretations, and will eventually implement the +/- 1% Pass/Fail evaluation for the Cavern MIT method. In addition, OCD may require a Casing MIT to be run in lieu of a Cavern MIT in the future.

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 CarlJ Chavez@state nm us
"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: http //www emnrd state nm us/OCD and see "Publications")

From: Gary Schubert [mailto garymschubert@gmail com]
Sent: Tuesday, June 27, 2017 8 22 AM
To: Chavez, Carl J, EMNRD <CarlJ Chavez@state nm us>
Subject: BW-36

Mr Chavez,

Attached is the requested information regarding the MIT test on the Schubert Farms Well No. 1 (BW-36).
1 Signed letter from Mr. Larry Scott
2 Calibration information on Chart Recorder from Maclaskey Oilfield Services

1

SCHUBERT FARMS WELL No.1
API 30-025-37548
LETTER OF EXPLANATION

Lynx Petroleum Consultants, Inc.
PO Box 1708
3325 Enterprise Drive
Hobbs, New Mexico 88241
575 392-6950 Fax 575 392-7886
June 9, 2017

New Mexico Oil Conservation Division
1625 N French Drive
Hobbs, New Mexico 88240

Re HRC Inc Schubert Farms Brine Well No 1 (BW-36)
API#230-025-2976

Gentlemen

I was requested by the principal to review the pressure tests run on the above well which were performed on June 2, 2017 and exhibited a pressure loss over several test intervals of some 12-15 psig The concern expressed was that this loss slightly exceeded that allowed by the OCD (9 6 psig)

This wellbore was recently completed in the halite interval and has no significant operational history in this zone The well was originally drilled and completed in several intervals below the halite in attempts to establish hydrocarbon production This history would lead to the conclusion that there has been no significant "mining" of the salt with the operations that have been conducted so far

Although I am unable to develop a quantitative analysis due to incomplete data, there is a qualitative observation that can be drawn from the wellbore history along with the charts The pressure tests were conducted with fresh water It is therefore probable that solution mining was underway during the test period Water chemistry dictates that volume losses converting fresh water to brine are on the order of 3%, that is, 43 3 gallons of material (water + halite) are required to generate 42 gallons of saturated brine The volume decrease as a result of salt going into solution could very well be the cause of the pressure loss This effect is masked during pressure tests on established brine wells due to the fact that there is already a large reservoir of brine in the cavern I am of the opinion that there is nothing leaking here and that the wellbore should be approved to commence operations

Sincerely
Lynx Petroleum Consultants, Inc

Larry R. Scott

Larry R Scott
President

SCHUBERT FARMS WELL No. 1
API 30-025-37548
SUBSEQUENT MIT TEST

HRC INC.
P. O. Box 5011
Hobbs, NM 88241
(Office) 575-393-6662 (Fax) 575-397-2976

HRC Inc. Schubert Farms Brine Well No. 1 (BW-36)

MIT TEST

6-2-2017

7:30 AM
Rig up Maclaskey Oilfield Services Pump Truck - (David Arron) at 7:30AM

Hook up backside CSG Pump 5 5 bbl to 500 psi for 5 minutes; bleed down to 360 psi for 1.5 hours.

Call OCD to request witness of test talk to George Saenz (OCD) He advises to bleed pressure to 320 psi and start chart at 11:15AM

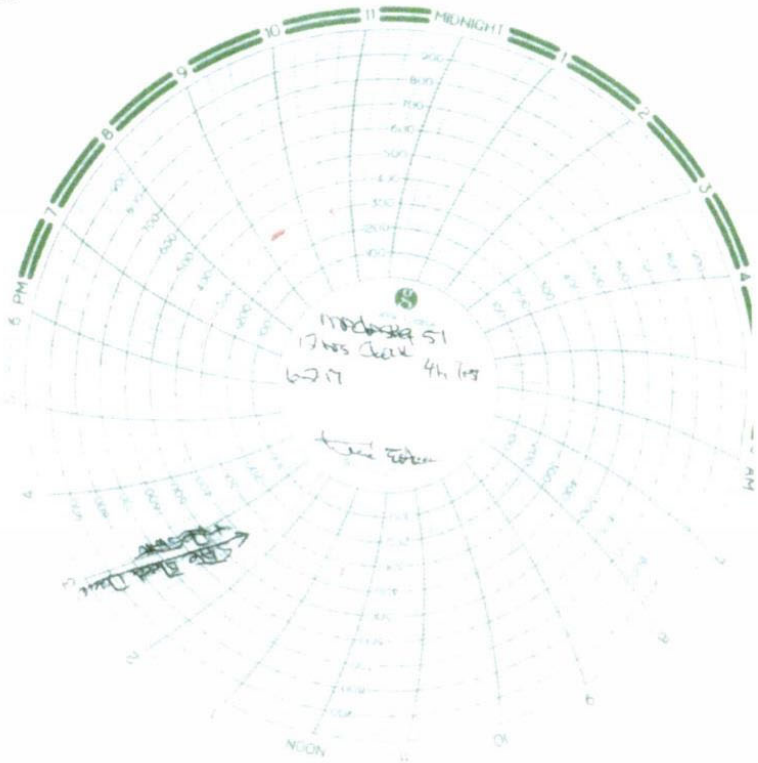
Kerry Fortner, (OCD) arrives to witness test Kerry Fortner witnessed chart recorder calibration. He advises to bleed pressure off chart recorder to 0 psi and then open pressure back to chart recorder (note on chart) Run chart. Test for 4 hours Begin test 12:20 pm Complete test at 4:20 pm

David Arron (Maclaskey Oilfield Services)

See enclosed test explanation from Lynx Petroleum Consultants, Inc

SCHUBERT FARMS WELL No. 1 BW-36
API 30-025-37548
330'FNL, 1650 FEL
UL:B, SEC 25, T19S, R38E
LAT:32.6375999
LONG:-103.0988007
LEA COUNTY NM

MIT CHART 6-2-17



SCHUBERT FARMS WELL No. 1
CERTIFICATE OF CALABRATION
CHART RECORDER

MACLASKEY
OILFIELD SERVICES

5960 WEST LOVINGTON HWY HOBBS NM 88240
575-393-4116

THIS IS TO CERTIFY THAT. DATE 5-1-17

I Albert Rodriguez METER TECHNICAN FOR MACLASKEY OILFIELD SERVICES, INC HAS CHECKED THE CALIBRATION ON THE FOLLOWING INSTRUMENT. 1000 PRESSURE RECORDER.

SERIAL NUMBER 9501

TESTED AT THESE POINTS.

PRESSURE 500

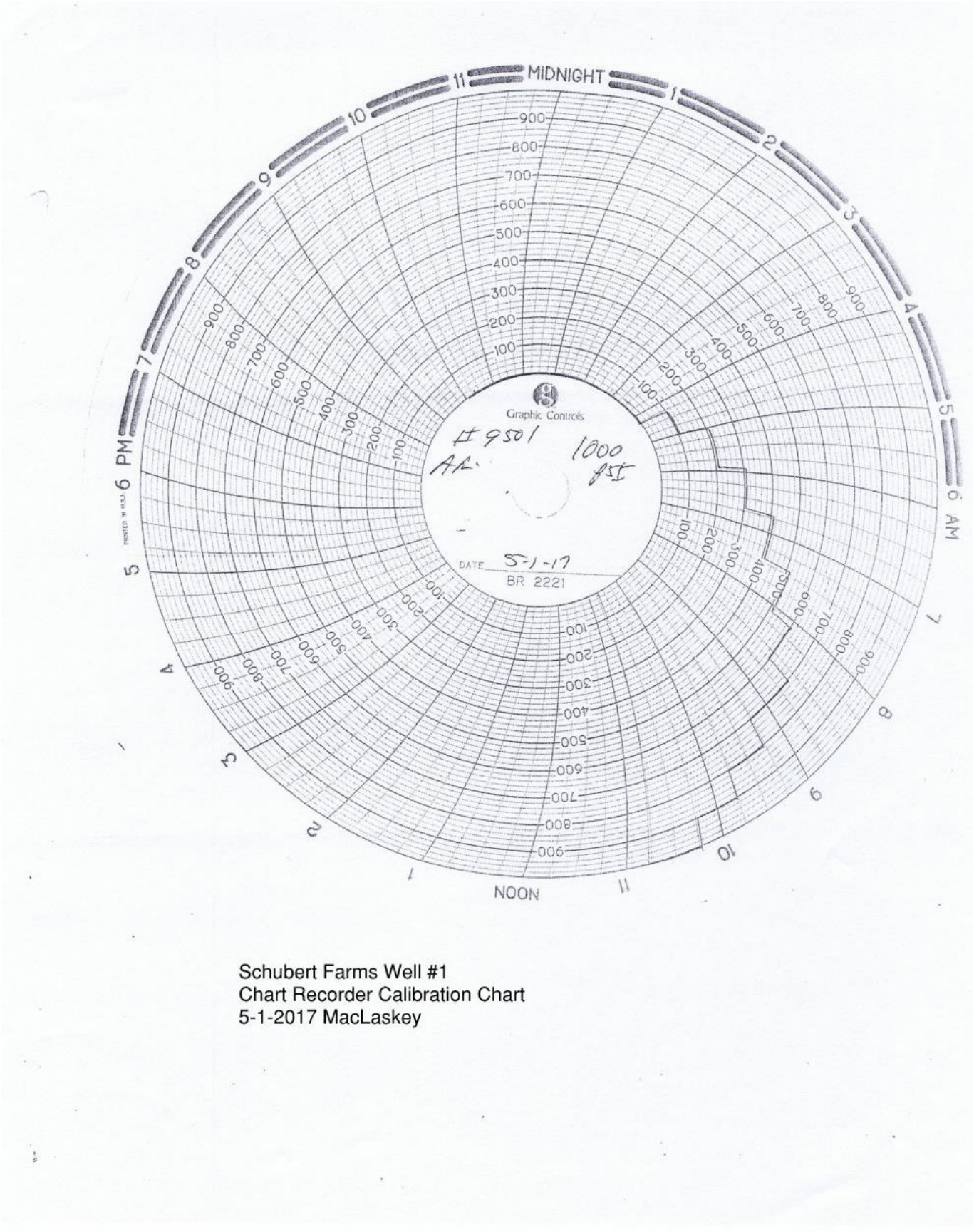
TEST	AS FOUND	CORRECTED
0	100	✓
100	200	✓
200	300	✓
300	400	✓
400	500	✓

PRESSURE 1000

TEST	AS FOUND	CORRECT
500	600	✓
600	700	✓
700	800	✓
800	900	✓
900	1000	✓

REMARKS

SIGNED Albert Rodriguez



Schubert Farms Well #1
Chart Recorder Calibration Chart
5-1-2017 MacLaskey

APPENDIX D

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO.
30-025-37548

5. Indicate Type of Lease
STATE ☐ FEE X

6. State Oil & Gas Lease No.
N/A

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
SCHUBERT FARMS

1. Type of Well: Oil Well ☐ Gas Well X Other

8. Well Number 001

2. Name of Operator
H.R.C. Inc.

9. OGRID Number

3. Address of Operator
P.O. Box 5102, Hobbs, NM 88241

10. Pool name or Wildcat
Salado

4. Well Location
Unit Letter B : 330 feet from the _____ line and _____ feet from the _____ line
Section 25 Township 19S Range 38E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3575

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			OTHER: WORKOVER TO CONVERT TO BRINE WELL X			

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

*****SEE ATTACHED WORKOVER PROCEDURE/COMPLETION REPORT

Spud Date: Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cindy M. Schubert TITLE OWNER/OPS DATE 11/17

Type or print name CINDY M. SCHUBERT E-mail address: CINDYMSCHUBERT@GMAIL.COM PHONE: 575-393-6662

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):

HRC INC.
P. O. Box 5011
Hobbs, NM 82841
(Office) 575-393-6662 (Fax) 575-397-2976

HRC Inc. Schubert Farms Brine Well No. 1 (BW-36)

Work Over

June 20, 2016
Rig Up Lucky Well Service. Install BOP, Pressure on csg.
Rig up Vac Truck to take fluid off csg.
Pump stuck – broke at push rod, pull 122 rods – lay down - swab tubing .
Pull 95 jt tbg, sub, pump, seat nipple, mud plug - lay down tbg.
SDFN

June 21, 2016
Lucky Well Service
Rig up Vac Truck
Rig up Capitan Wireline
Capitan Wireline set CIBP @ 2750
Release Vac Truck
Rig up Maclaskey pump truck (Luis Bilvao) - pressure up to test CIBP @ 780 psi, held 5 min,
Bleed off & run cbl tool, tag bottom calibrate, pressure to 1000 psi (maintain) log CBL up hole, begin log @ 2750 (log up hole)

Run 2 ½ sacks cement on wireline bailer (#1 run), run 2 ½ sacks cement on wireline bailer (#2 run)
Close BOP –test pressure to 500# 30 min (chart)
Put 4' pup joint in well head w/2" valve – (csg. full fluid)
Release Maclasky Pump truck,
Release Lucky Rig 311 at 1:00 pm.
Submit CBL to OCD (Carl Chavez)

Feb 9, 2017
Rig up Capitan Wireline and set CIBP @ 2667'; above previous CIBP and cement plug that was set @ 2750' on June 21, 2016. (CIBP above top of cement was required to set whip stock by Baker Hughes).

Feb. 20, 2017
Rig up Lucky Services and Baker Hughes reverse unit
Set BOP; run in hole with 2 7/8" tubing and csg. scraper, circulate; tag CIBP @ 2660 ,
Run in hole with whipstock and set, lay down 2 joints
SDFN.

Feb. 21, 2017
Rig up swivel; mill csg. from 2651 to 2661", come out of hole and rig up with bit assembly,
POOH with mill, lay down, make up bit assy.
Run in hole begin drill into salt, drill from 2661' to 2715.
Rig down swivel and pull up into csg.
SDFN

Feb 22, 2017
RIH tag @ 2703; wash to 2715, circulate; space out tbg. with sub
Set bottom of tbg./ bit assembly @ 2680'
Rig down swivel and pulling unit
Install well head
Hook up reverse unit.
Circulate and pressure to 275 psi
SDFN

Feb. 23, 2017
Pressure to 300 psi; make chart;
Circulate 5 hours at 150 to 200 psi;
Water turns salty; rig down reverse unit;
Shut well in.
Begin installing surface equipment.

April 17, 2017
Begin injecting water to produce brine water.

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS, NM 88240

DATE: 02/23/17

T0: RENTAL

This is to certify that :

I, R L LARSON Technician for American Valve & Meter Inc.

has checked the calibration of the following instrument.

8"_Pressure recorder Ser# 8818avm

at these points:

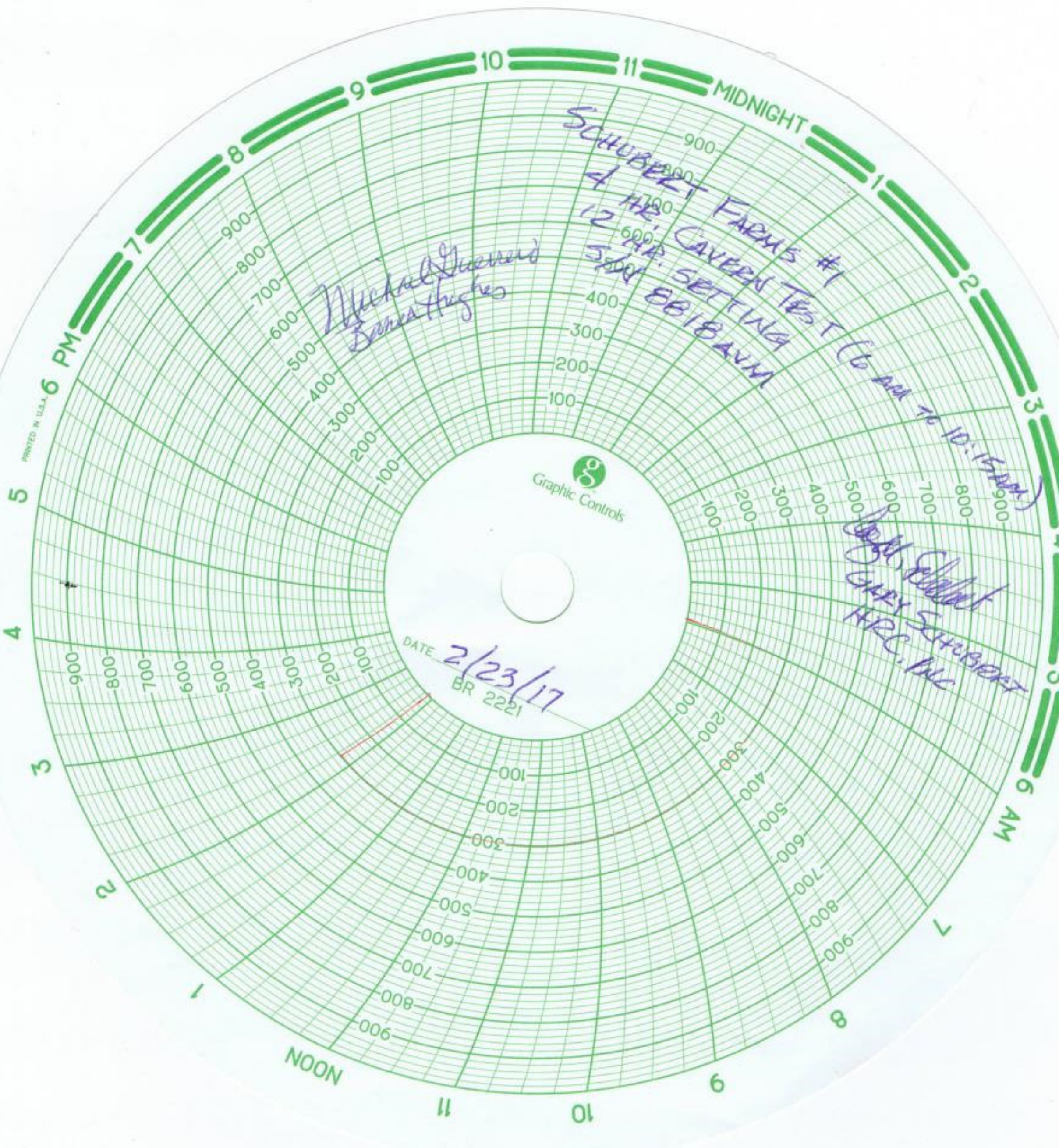
Pressure #1000			Temperature *or Pressure #		
Test	Found	Left	Test	Found	Left
- 0	-	- 0	-	-	-
- 500	-	- 500	-	-	-
- 700	-	- 700	-	-	-
- 1000	-	- 1000	-	-	-
- 200	-	- 200	-	-	-
- 0	-	- 0			

Remarks: _____

_____

_____

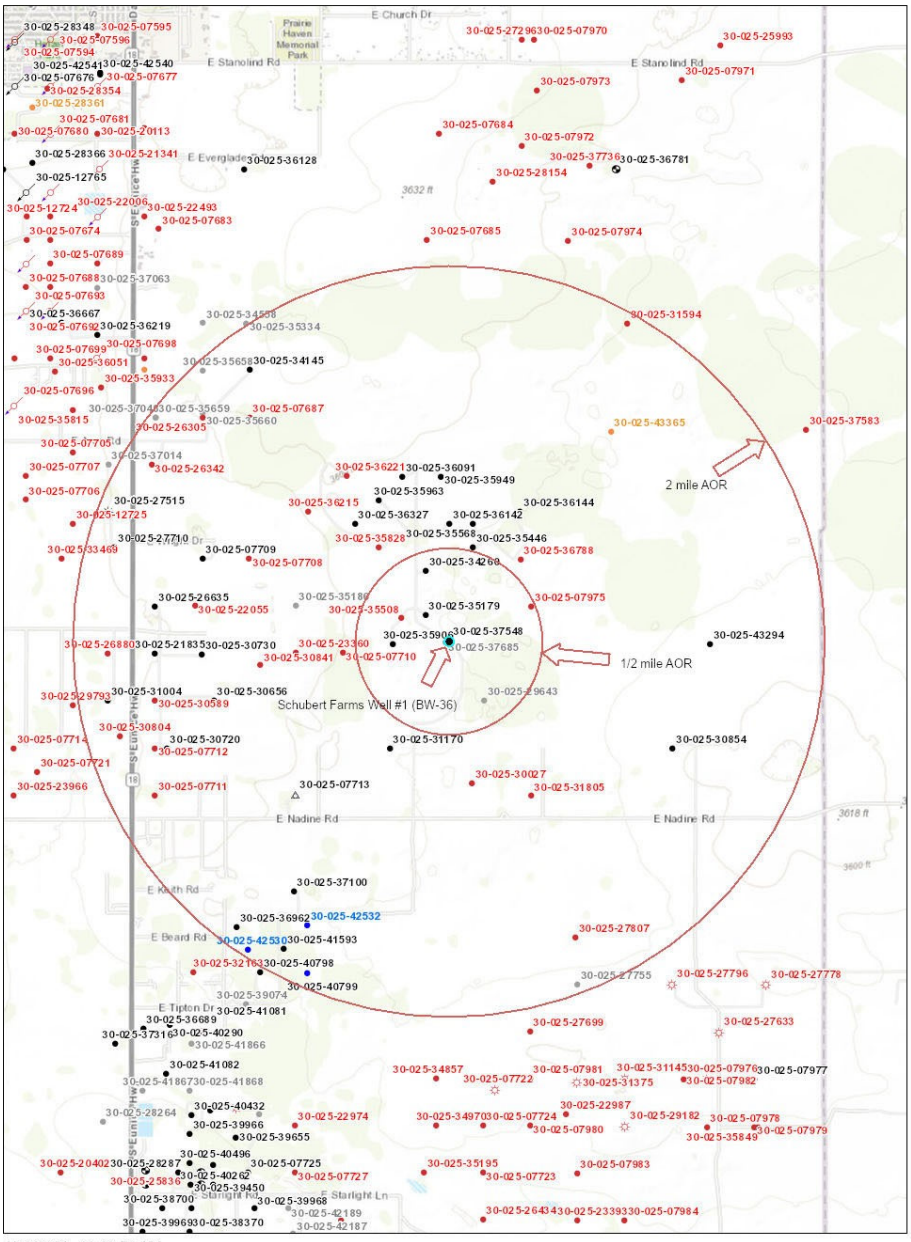
Signature: R L L



MIDNIGHT
PM
AM
NOON
SCHUBERT FARMS #1
4 HR. CAVERN TEST (6 AM TO 10:15 AM)
12 HR. SETTING
Graphic Controls
DATE 2/23/17
BR 2221
GARY SCHUBERT
HRC, INC

APPENDIX E

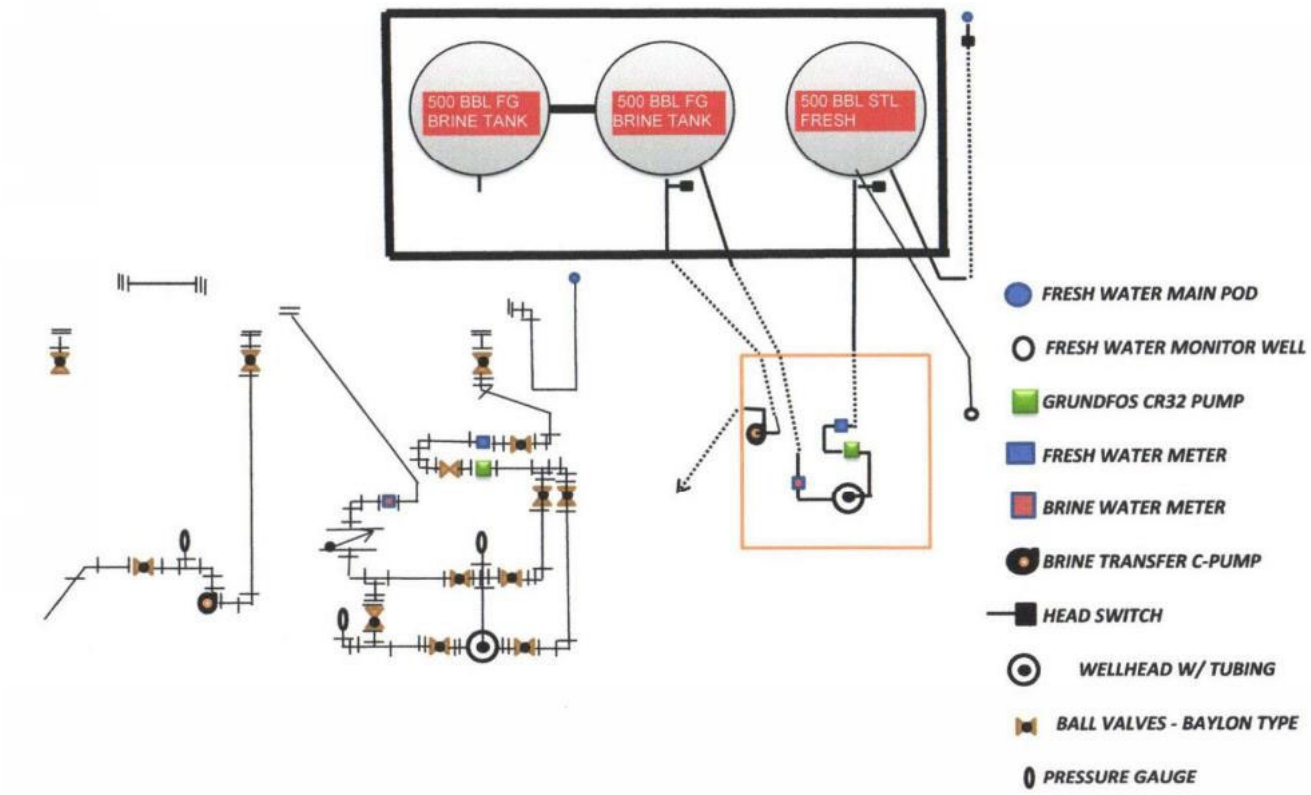
Schubert Farms Well #1 (BW-36) 1/2 & 2 Mi AOR



APPENDIX F

SCHUBERT FARMS No. 1
API # 30-025-37548
UL: B, SEC 25, T19S, R34E

FACILITY ISOTOPE

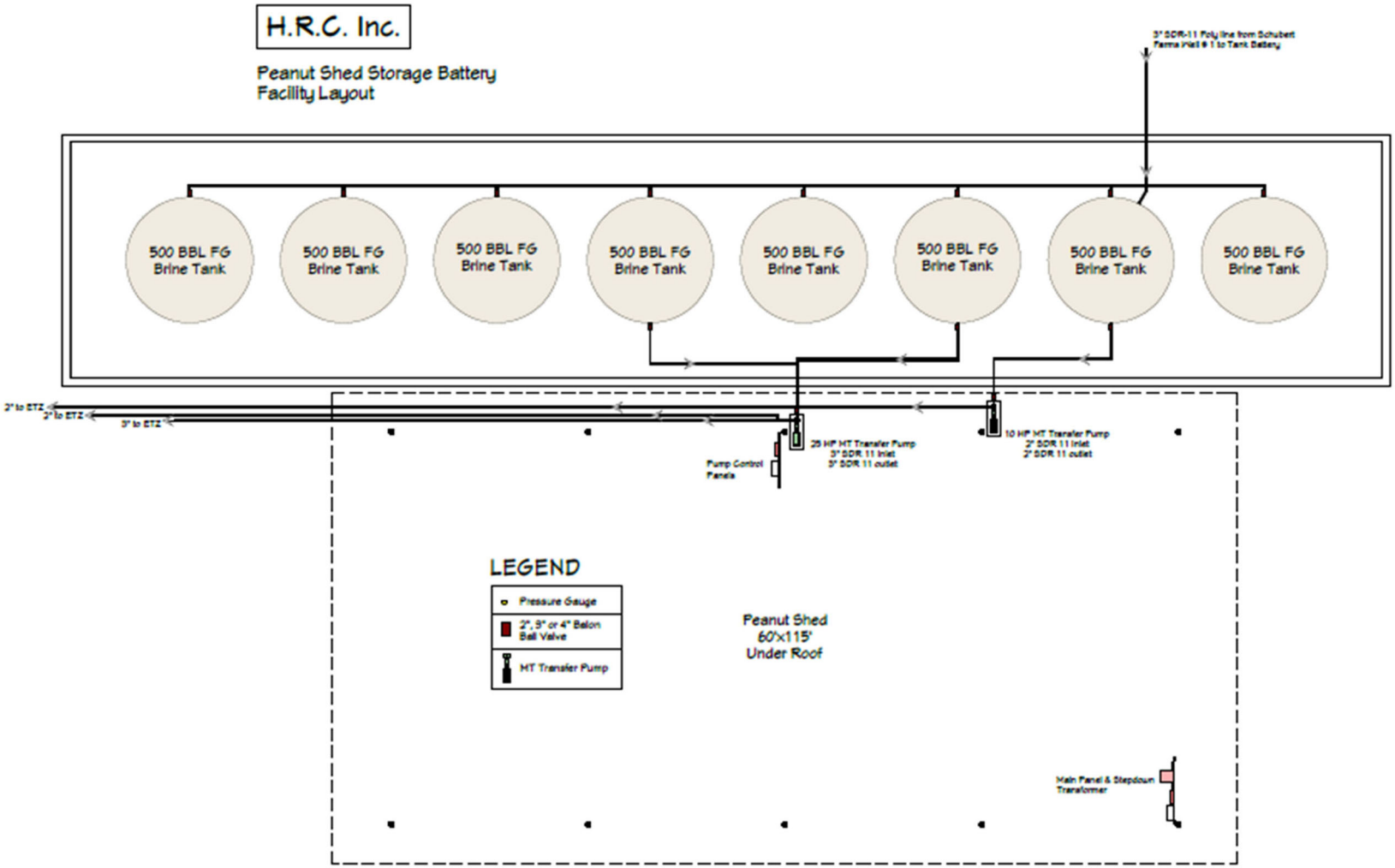


H.R.C. Inc.

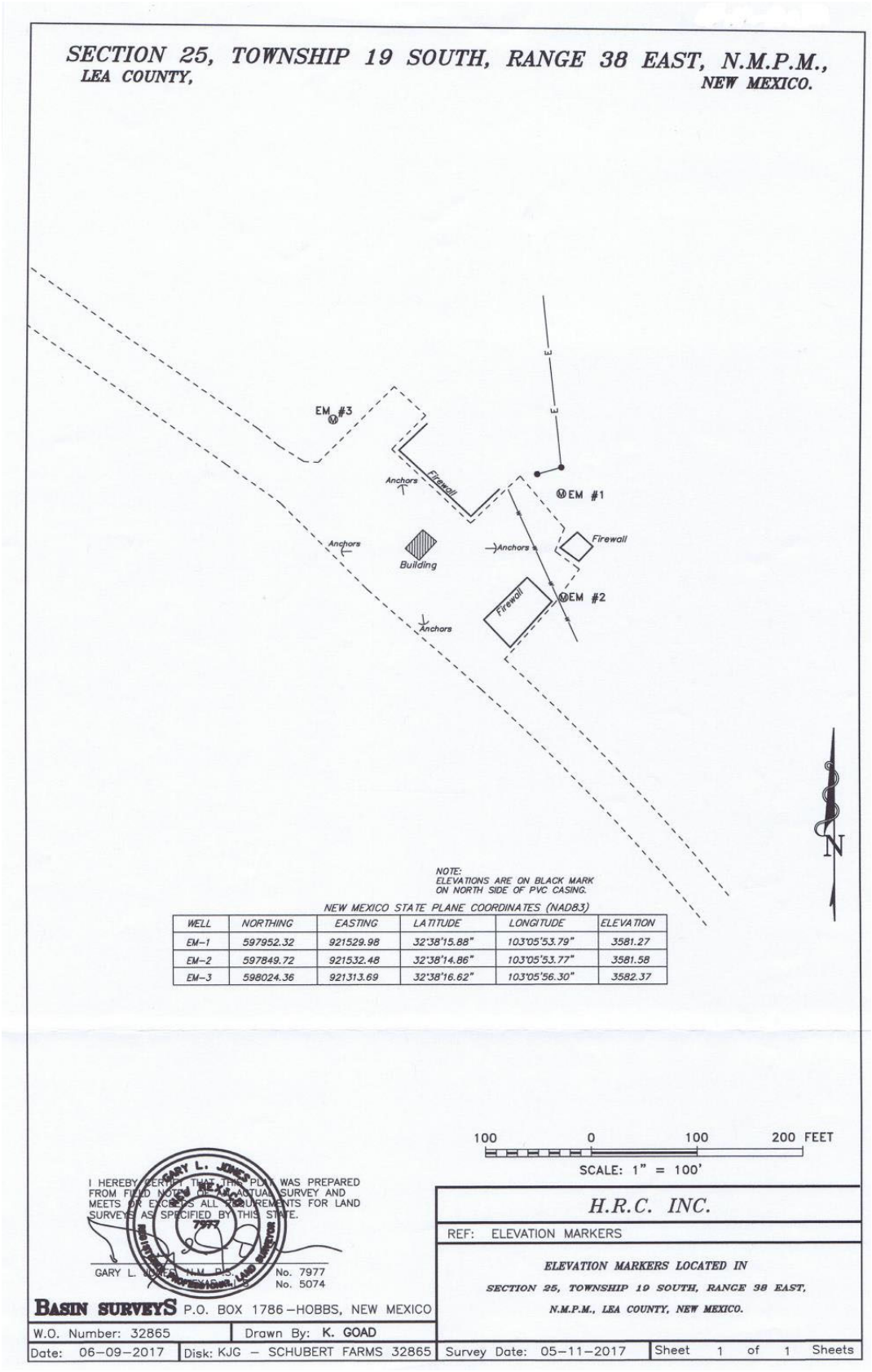
Pipeline Overlay Map

A	Schubert 7 Well # 1 32.673935, -103.083677
B	Schubert Farms Well # 1 32.637603, -103.098728
C	Peanut Shed Storage Battery 32.628787, -103.111053
D	ETZ Water Station 32.624077, -103.113627

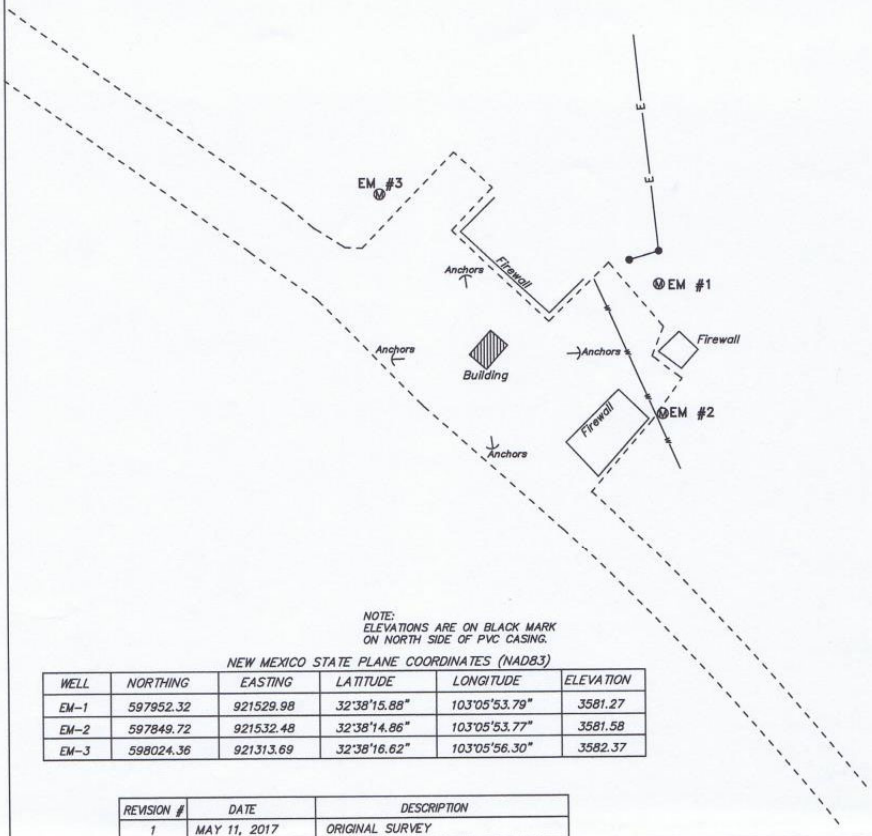
	3" SDR 11 Poly pipeline from Schubert 7 Well # 1 to ETZ Water Station
	3" SDR 11 Poly pipeline from Schubert Farms Well # 1 to Peanut Shed Storage Battery
	3" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station
	2" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station
	2" SDR 11 Poly pipeline from transfer pump at Peanut Shed to ETZ Water Station


H.R.C. Inc.
Peanut Shed Storage Battery
Facility Layout
3" SDR-11 Poly line from Schubert Farms Well # 1 to Tank Battery
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
500 BBL FG Brine Tank
3" to ETZ
3" to ETZ
3" to ETZ
Pump Control Panels
25 HP MT Transfer Pump
3" SDR 11 Inlet
3" SDR 11 outlet
10 HP MT Transfer Pump
2" SDR 11 inlet
2" SDR 11 outlet
LEGEND
Pressure Gauge
2", 3" or 4" Balon Ball Valve
MT Transfer Pump
Peanut Shed
60'x115'
Under Roof
Main Panel & Stepdown Transformer

APPENDIX G


SECTION 25, TOWNSHIP 19 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY,
NEW MEXICO.
EM #3
Anchors
Firewall
EM #1
Anchors
Building
Anchors
Firewall
Anchors
Firewall
EM #2
N
NOTE:
ELEVATIONS ARE ON BLACK MARK
ON NORTH SIDE OF PVC CASING.
NEW MEXICO STATE PLANE COORDINATES (NAD83)
WELL | NORTHING | EASTING | LATITUDE | LONGITUDE | ELEVATION
EM-1 | 597952.32 | 921529.98 | 32°38'15.88" | 103°05'53.79" | 3581.27
EM-2 | 597849.72 | 921532.48 | 32°38'14.86" | 103°05'53.77" | 3581.58
EM-3 | 598024.36 | 921313.69 | 32°38'16.62" | 103°05'56.30" | 3582.37
100 0 100 200 FEET
SCALE: 1" = 100'
I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.
GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR
GARY L. JONES, N.M. P.S. No. 7977
TEXAS R.P.L.S. No. 5074
BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO
H.R.C. INC.
REF: ELEVATION MARKERS
ELEVATION MARKERS LOCATED IN
SECTION 25, TOWNSHIP 19 SOUTH, RANGE 38 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.
W.O. Number: 32865
Drawn By: K. GOAD
Date: 06-09-2017
Disk: KJG – SCHUBERT FARMS 32865
Survey Date: 05-11-2017
Sheet 1 of 1 Sheets

SECTION 25, TOWNSHIP 19 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



NOTE:
ELEVATIONS ARE ON BLACK MARK
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
EM-1	597952.32	921529.98	32°38'15.88"	103°05'53.79"	3581.27
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REVISION #	DATE	DESCRIPTION
1	MAY 11, 2017	ORIGINAL SURVEY
2	AUGUST 30, 2017	RESURVEY-NO CHANGE IN ELEVATIONS

100 0 100 200 FEET

SCALE: 1" = 100'

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

GARY L. JONES, N.M. P.S. No. 7977
TEXAS R.P.L.S. No. 5074

GARY L. JONES 7977 PROFESSIONAL SURVEYOR

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

H.R.C. INC.

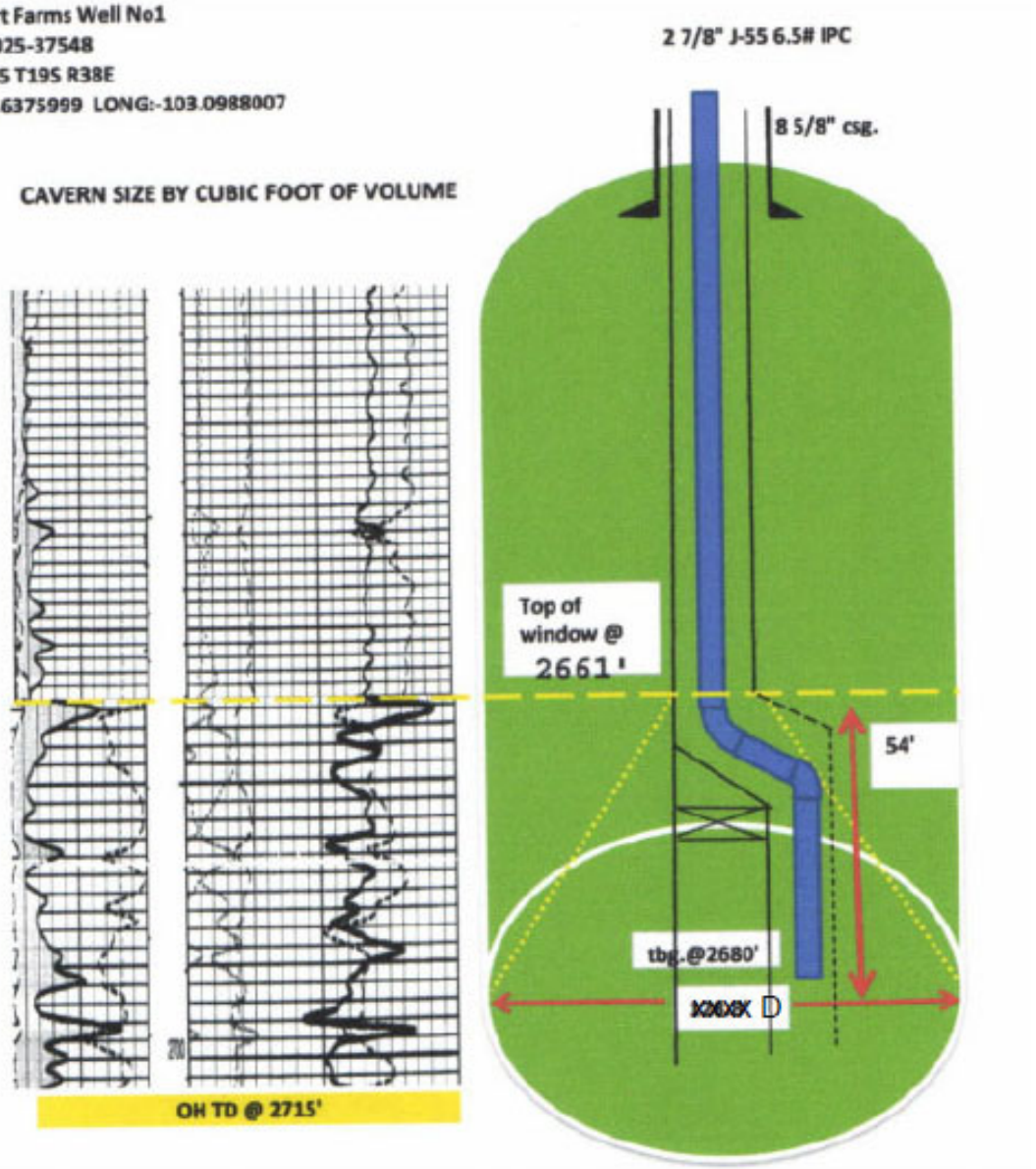
REF: ELEVATION MARKERS

ELEVATION MARKERS LOCATED IN
SECTION 25, TOWNSHIP 19 SOUTH, RANGE 38 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 33294	Drawn By: K. GOAD		
Date: 09-15-2017	Disk: KJG – SCHUBERT FARMS 33294	Survey Date: 08-30-2017	Sheet 1 of 1 Sheets

APPENDIX H

Schubert Farms Well No1
API 30-025-37548
B SEC 25 T19S R38E
LAT: 32.6375999 LONG:-103.0988007



PPG 9.97 brine
PPG 8.34 fresh
SG 1.1951

Total Brine = 153,518 bbl through 12/31/2017 (date)
122.136 lbs of salt/bbl = 18,750,074 lbs salt mined
lbs / (80 lbs/cu. ft. salt) = 234,375 cu. ft. cavern volume

Using $V=\Pi R^2 h/3$, h=54 ft., and V= 234,375 cu. ft

Cavern radius, R= 64 ft.
Cavern Diameter, D= 128 ft.
Cavern depth, d=2661 ft

D/d ratio = 0.048, <0.5 max

EXHIBIT N