BW-035

ANNUAL REPORT

2018

2018
Annual Class III Well Report
Llano Disposal, LLC
BW-35
API – 30-25-30701

Submitted by: Laura Angell, 4/26/22

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Summary of Class III Well Operations

BW35 (Siringo ACS State # 1) was put into operation in mid-2017. After initial circulation and cleanup of the newly re-entered wellbore, the well started producing good, commercial quality brine water of 10# per gallon. Well operation was as expected, with the psi of injected fresh water very close to the calculated pressure needed to force the heavier brine water to the surface. The amount of fresh water injected as compared to the amount of brine water recovered, considering the known use of injected water to fill the void created by the continual solution mining of halite, has been as planned. All numbers are reported monthly per OCD requirement and is also noted and used on the brine cavern characterization report. In general, the operation of BW35 has not been difficult, and has done a good job of servicing the requirements of industry in the Lea/Eddy County areas.

Changes to well construction: No changes were made to well construction as would concern the 2018 annual report. At a later time, the dual port Baker packer was omitted. Specifics will be included in later reports.

Changes to tankage/loading facility: During the time period that would include the 2018 report, some aspects of the facility were still under construction, so there are no changes to report for that period. See **Appendix E** for a well diagram.

A chronological list of C103 forms that Llano Disposal has filed on subject well can be found in **APPENDIX D** at the end of this report.

Monthly Fluid Injection and Brine Production

2018

Month	Brine Monthly BBLS	Brine Cumulative BBLS	Fresh Monthly BBLS	Fresh Cumulative BBLS	PSI
Jan	51,240	51,240	56,374	56,374	265
Feb	40,748	91,988	44,823	101,197	265
Mar	42,350	134,338	46,606	147,803	265
Apr	28,715	163,053	31,842	179,645	265
May	25,915	188,968	28,589	208,235	265
Jun	28,572	217,540	31,463	239,698	265
Jul	37,135	254,675	40,960	280,658	265
Aug	45,887	300,562	50,880	331,538	265
Sep	42,113	342,675	46,387	377,925	265
Oct	40,160	382,835	44,188	422,113	265
Nov	38,910	421,745	42,836	464,949	265
Dec	48,960	470,705	53,856	518,805	265

Year	Brine Yearly BBLS	Brine Cumulative BBLS	Fresh Yearly BBLS	Fresh Cumulative BBLS
2017	56,721	56,721	62,499	62,499
2018	470,705	527,426	518,805	581,304

Annual Monitor Well Analytical Data Results

Please see page 7 of this report for deviations.

Injection Pressure Data

Injection pressure at the well (tubing) averages 260/PSI. The brine well casing pressure (brine to battery), averages about 35 PSI. The field operator checks the pressures daily and records them on the daily log.

Pipeline Hydrostatic Test Results

Service piping both to and from BW35 is 3" SDR11 high density poly. These 2 lines are tested accordingly to 160 psi. The feeder line (fresh water) runs due west from the fresh water well to BW35. Testing is accomplished by closing a steel ball valve on the well head, then allowing the freshwater pump to bring pressure up to 160 psi. The line is then isolated by valving installed at each end of the line. Pressure is held static on the line for 1 hour, during which time the entire line is visually inspected. The 3" SDR11 HD poly line leading from BW35 to the tankage facility, is tested in the same manner. A valve in the line is closed at the tankage facility. Then the freshwater line at the wellhead is allowed to pressure to 160 psi. A jumper line between the freshwater line and the brine line has been installed at BW35 well head to accomplish this. After brine line pressure has risen to 160 psi, the entire system is shut down, then the brine line is isolated by closing valving in place at each end of the line. Pressure is held for 1 hour, during which time the line is visually inspected. The freshwater line and the brine line run across land that is under the same ownership as Llano Disposal, LLC. Therefore, driving these lines for inspection during testing, and during normal operations, is frequent and at will. The lines between the storage tanks and the truck loading valves, are all 6" SDR11 high density poly. These lines carry normal head pressure of 0 psi (emptied tanks) to 8.4 psi (full tankage) but are virtually always under positive pressure. These lines are under continual live camera observation and viewed daily both by truckers and by Llano field personnel. All tanks are 16' fiberglass and are manifolded together with said 6" SDR11 HD poly line. Valving is installed on the outlet of each tank so that anyone, or all of the tanks can be closed off if needed. All valving and connections are plastic coated steel, stainless steel, poly, or fiberglass.

Pipeline Visual Inspections for leaks are done at minimum every other day, monitoring lines, joints, tanks, and recording volumes and pressure.

Quarterly Chemical Analysis

The full report can be viewed in **APPENDIX F** at the end of this report.

CARDINAL Laboratories

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

Analytical Results For:

LLANO BRINE
DARR ANGELL
P. O. BOX 250
LOVINGTON NM, 88260
Fax To:

Received:	04/26/2018	Sampling Date:	04/26/2018
Reported:	04/27/2018	Sampling Type:	Water
Project Name:	WATER SAMPLES	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: FRESH WATER (H801168-01)

Chloride, SM4500Cl-B mg/L **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**128**	4.00	04/27/2018	ND	100	100	100	0.00	

Sample ID: BRINE WATER (H801168-02)

Chloride, SM4500Cl-B mg/L **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**188000**	4.00	04/27/2018	ND	100	100	100	0.00	

Cardinal Laboratories

*=Accredited Analyte

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 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. Keene, Lab Director/Quality Manager

Mechanical Integrity Test

A MIT was performed on 9/15/17: Llano scheduled, then ran a MIT on BW35 using a calibrated chart recorder with OCD witness (Hobbs OCD, George Bowers). Meter was within meter calibration date requirements (calibrated 8/2/17). The well was tested to regulation psig for the regulation period and exhibited no psig leak-off. See Chart No. 1 in **APPENDIX A**.

Another MIT was ran on 7/2/18: A MIT was ran on the brine line used to carry brine from BW35 well to the tankage facility. The line was disconnected and isolated at each end, then was pressured to 195 psig. After the regulation test period, the observed test pressure had risen to 205 psig. Observed air temperature was 104 degrees F on a clear, windless day. Line is black poly, and is exposed to air temperature, and sunlight. See Chart No. 2 in **APPENDIX A**.

Deviations from normal Operations

1. Annual Monitor Well Analytical Data

There was no data for this period since the well had been in operation for a short period of time.

2. Quarterly Chemical Analysis

Analysis was done only for the first quarter of this year.

3. Surface Subsidence Monitoring Plan Data Results

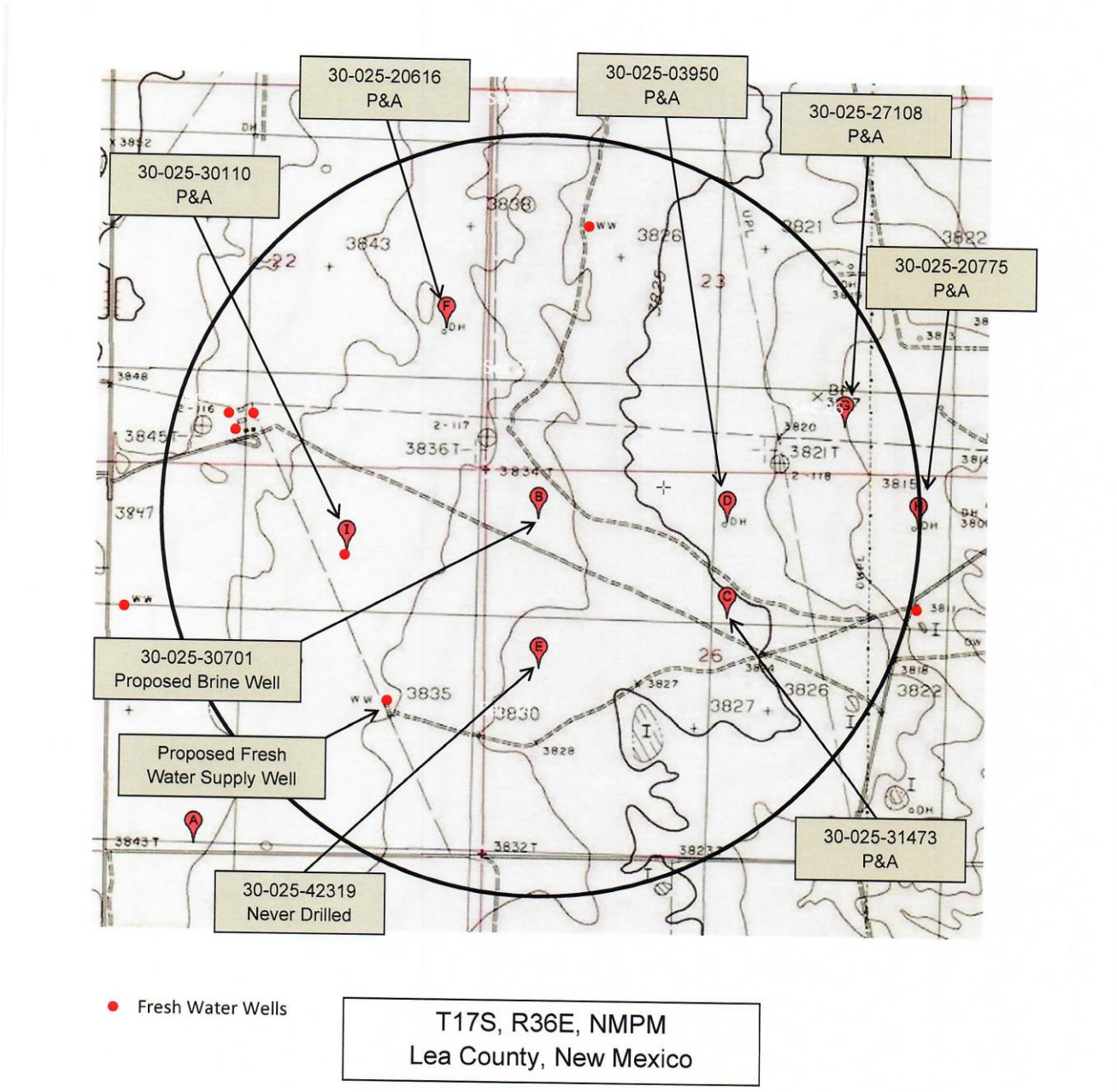
Other than the initial survey and plan creation, there was no other survey done, since the well had only been in operation for a very short period.

Leaks and Spills Corrective Action Reports

There were no leaks, spills, or corrective action during this period.

Area of Review Update Summary

Please see below, the original AOR document that was submitted as part of the original application for BW-35. A current, location-by-location review of this brine permit has been completed, and it was found that there has been no oil or gas well development in the area since the original AOR document was created and submitted to NMOCD as part of the original brine permit.



Summary MITs, Surface Subsidence Surveys, Cavern Size & Shape, Cavern Volume and Geometry Measurements with Conclusion(s) and Recommendation(s)

There were two MITs issued thru 12/31/18. A MIT was performed on September 15, 2017 and witnessed by OCD after the installation of permanent injection equipment. There was no leak off. Another MIT was performed in July 2018 for Llano verification purposes. There was no leak off. See Chart No. 2 in **APPENDIX A** at the end of this report.

Please find the Subsidence Plan and Report in **APPENDIX C** at the end of this report, that was prepared for us by Pettigrew and Associates out of their Hobbs, NM office. The importance and purpose of the report is to closely monitor any geological shifting, either vertically or horizontally, in the earth surrounding the brine well. All parameters of Pettigrew's investigation are included in the report, along with a review of the monitoring points as installed and archived during the initial development of the well. The full report/plan is included in **APPENDIX C**.

A description of the Cavern Size & Shape, Cavern Volume and Geometry Measurements, are in **APPENDIX B** at the end of this report.

In conclusion, the operational history of BW35 could be described as "good", meaning that the well has performed very well in producing 10# brine. There are no recommendations at this time.

Injected Fluids to Brine Ratio

Total Brine for the year	470,705
Total Fresh for the year	518,805
Ratio of Fresh to Brine	**1.10**

Summary of Major Facility Activities

There were no major activities during this period. However, this is the first annual report for the well. All the startup C103s and their descriptions are included in **Appendix D** at the end of this report.

Surface Subsidence Monitoring Plan Data Results

The initial plan and survey were done and are included in **Appendix C** at the end of this report.

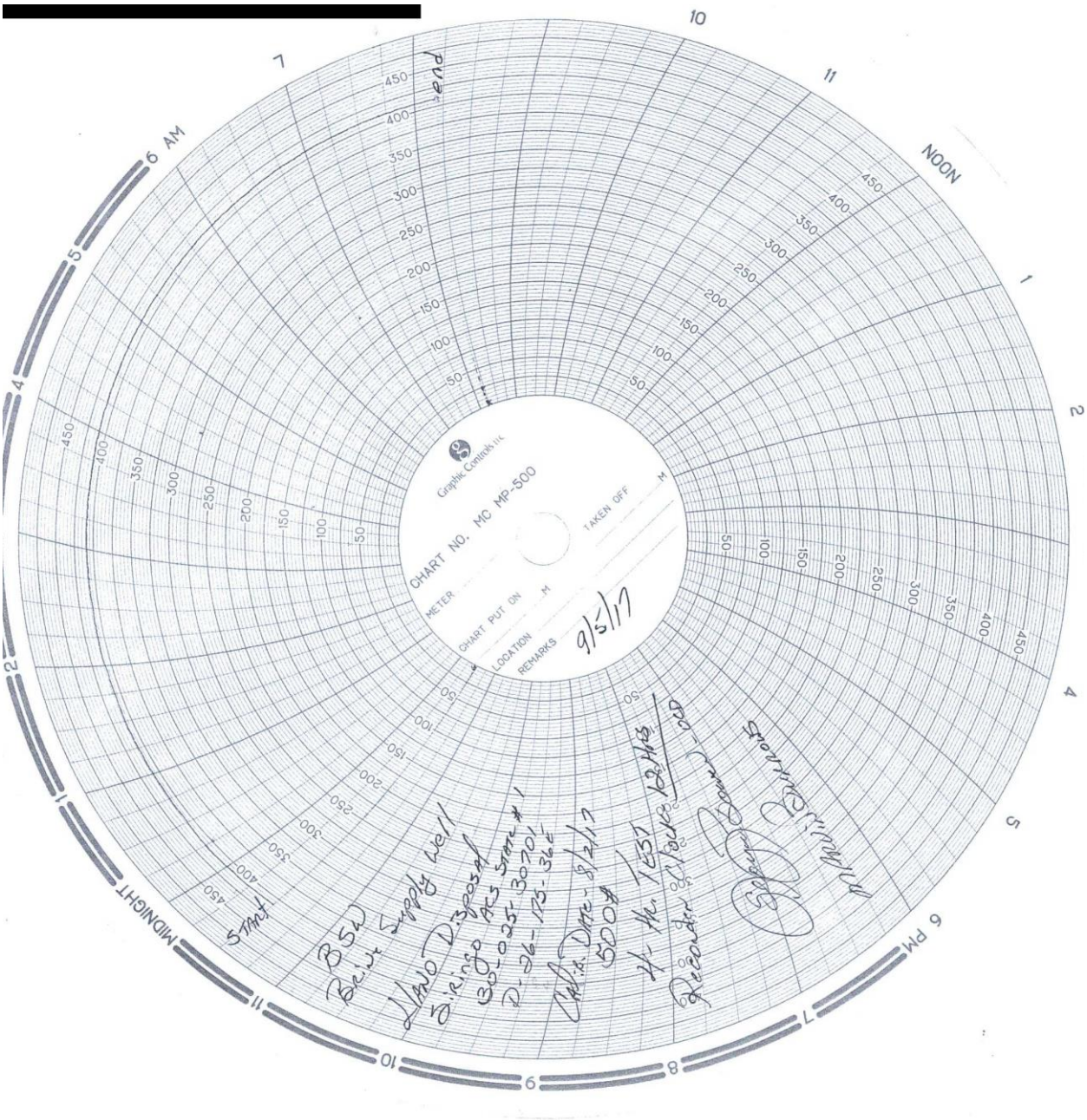
Solution Cavern Characterization Data Results

Please see **APPENDIX B** at the end of this report for a full description.

APPENDIX A

MITs

Chart No. 1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METER
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LOCATION
REMARKS
TAKEN OFF
9/5/17
NOON
MIDNIGHT
6 AM
6 PM
BSW
Brine Supply well
LLANO Disposal
Disposal
30-025-30701
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Chk. Date 8/21/17
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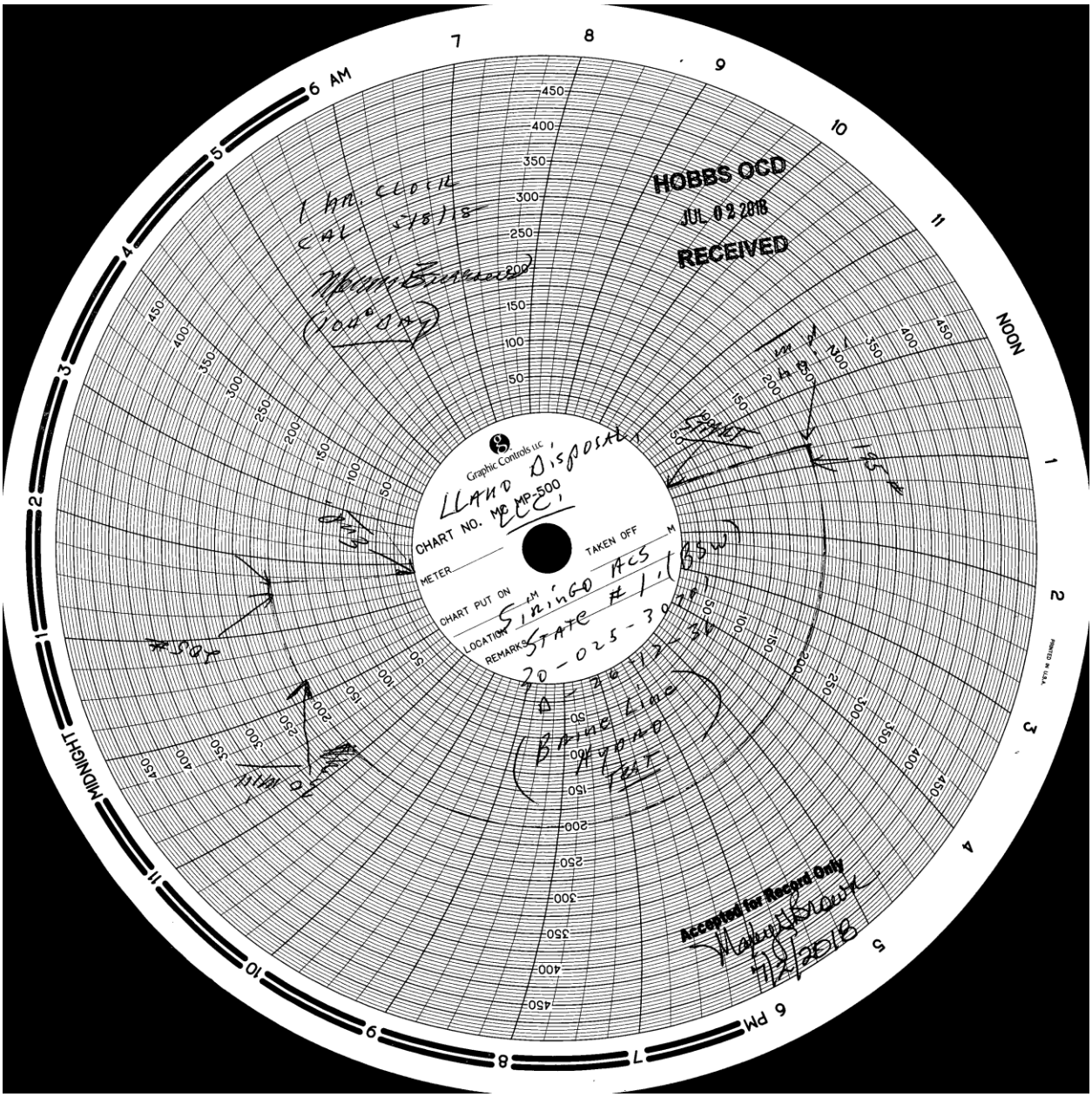
Start

Chart No. 2


HOBBS OCD
JUL 02 2018
RECEIVED
Graphic Controls LLC
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METER
TAKEN OFF
CHART PUT ON
LOCATION
REMARKS
Accepted for Record Only
7/12/2018
6 AM
NOON
6 PM
MIDNIGHT

APPENDIX B

Cavern Characterization

Cavern Characterization

For 2018, 518,805 bbls of fresh water have been injected into salt strata for the purpose of brine generation (21,789,816 gallons). Well production history has shown that the well reliably produces 10.0 + pound quality brine water. It therefore follows that each gallon of fresh water (testing 8.34 pounds per gallon) has dissolved 1.66 pounds of halite. By simple calculation, 36,171,094.6 pounds of halite have gone into solution this year. Halite has a SG of 2.17 (compared to fresh water), so is calculated and known to weigh 137.47 pounds per cubic foot. It follows then, that 263,119.91 cubic feet of halite has gone into solution this year. The amount of fresh water injected (518,805 bbls) as compared to the amount of brine produced (470,705 bbls) shows that water is being used to fill the cavity as the cavity increases in volume:

470,705 bbls / 518,805 bbls = 90.73% of water is being recovered as brine, 9.27 is being used to fill the brine cavity.

Total cu ft of salt that has gone into solution since operation of BW35 began, is 295,087.33 cu ft.

Since it is impossible to know the exact dimensions of the cavity, some assumptions are reasonably made. OCD regulations require that fresh water be injected down a tubing string so that brine may be produced up the tubing/casing anulus. Therefore, brine generation begins at depth, and by the time water so circulated reaches that anulus, it has become saturated brine (or “10# brine”). It is logical then, that dissolution will be rapid at first, then tapers off as saturation is achieved. Such action would imply a cone shaped (inverted cone) cavity.

The teaching to calculate the volume of a truncated cone is :

Volume = (1/3) x pi (Rsq + (R x r) + rsq) H

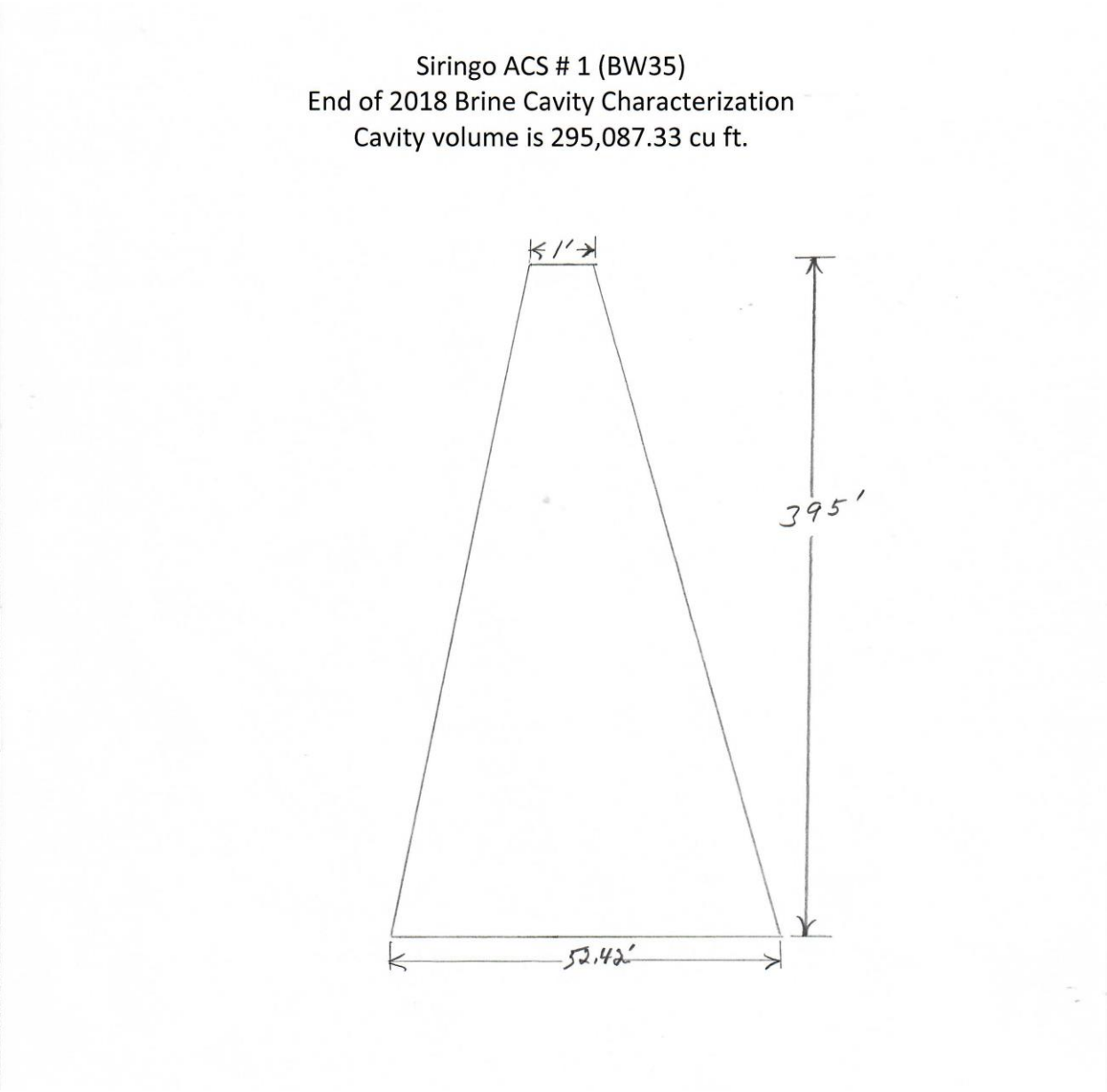
Where :

1) r equals the radius of the small end cone diameter in feet
2) R equals the radius of the large end cone diameter in feet
3) Rsq is “R squared”. rsq is “r squared”.
4) H is depth in feet from tubing depth to top of salt (casing shoe).

Fresh water used at BW35 fo9r the purpose of brine generation is known to weigh 8.4 lbs. per gallon. Therefore 1.6 lbs. of salt must be taken up by each gallon of fresh water so injected to result in 10 ppg brine water, which is the known industry standard. It follows then that each barrel of brine water (one API barrel = 42 gallons) contains 42 x 1.6 lbs. of salt, or 67.2 lbs. of salt. One cubic foot of salt weights 137.47 lbs. Continuing, the cubic feet of salt consumed in one year is equal to the total amount of salt that is calculated to have gone into solution divided by 137.47 lbs.

The illustration on the following page, with dimensions shown, satisfies the number of cubic feet of halite in solution since operations began, hence size of cavern.

Cavern Size, Shape, & Volume Estimate



Estimated height (H) to Casing Shoe is 2043’

Estimated cavern floor diameter (D) is 52.42’

Estimated * Cavern Collapse Ratio is **.03** where 52.42/2043 = .025658

* Per the OCD, the Cavern Collapse Ratio is D/H

APPENDIX C

Subsidence Survey Results

PETTIGREW & ASSOCIATES PA

ENGINEERING | SURVEYING | TESTING
DEFINING QUALITY SINCE 1965

Darr Angell, Llano Disposal LLC
PO Box 190
Lovington, New Mexico, 88260
575-704-2777

10 April, 2017

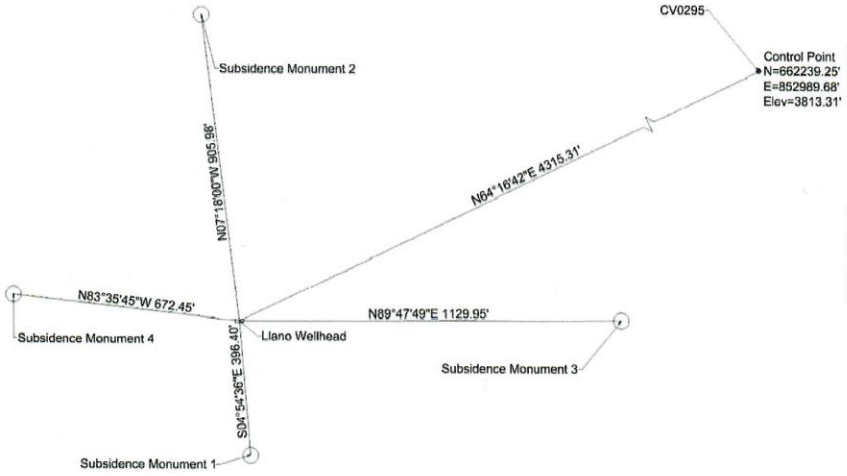
RE: Survey Report
Llano Well Subsidence Monitoring
2017.1005

100 E. Navajo Drive Suite 100 Hobbs NM 88240 T 575 393 9827 F 575 393 1543 Pettigrew.us

SUBSIDENCE MONUMENT SURVEY

On March 9, 2017 a field survey was conducted to set and observe positions of four new subsidence monuments surrounding the Llano Wellhead located at N32°48'59.1", W103°19'08.02301". The well location and associated subsidence monuments can be accessed from NM 483 by turning East on the first road to the South of Buckeye Road, in Lea County.

The Google Earth image and the sketch below illustrate locations of the monuments.



The positions for the four set monuments were placed based on a conversation with Carl Chavez from the Energy Minerals and Natural Resources Department. The discussion was to set at least three monuments at varying distances from the well head. The distances were to be kept to a minimum of 400 feet and a maximum of 1200 feet. The four monuments were set at differing distances in the given interval and in 4 separate directions.

This survey was conducted using Trimble R8 GNSS Receivers and a Trimble DiNi digital level. The GNSS Receivers were used to establish the locations of the monuments and the well head through Differential GNSS observations. In an effort to tie into an existing published control point, the National Geodetic Survey website was reference to find the nearest published benchmark. Vertical Control point CV0295 is located approximately 4,300 feet northeast of the well site. Once the monument was recovered, a GNSS base was setup over the point and static data was observed for over 5 hours. The data was then submitted to an online positioning service to firmly establish the horizontal coordinates: Latitude N32°48'40.92945", Longitude W103°19'53.77433". The published elevation of 3813.31 was held.

While the published/accepted elevation for the point was used. The Trimble DiNi was then used to accurately establish the elevation of the monuments and the wellhead in relation to the NGS control point. The DiNi reads a barcode off of a special rod in order to determine difference in elevation from a known control point. The accuracy of this level helps to eliminate human reading errors. The data is stored onboard and may be transferred directly into the computer software at the office for analysis of results, ensuring greater accuracy.

SUBSIDENCE MONITORING PLAN

The NGS Control Point CV0295, with an elevation of 3813.31 feet above mean sea level (MSL), will be used as the Reference Control Point for determining the elevations of the newly placed Subsidence Monuments. The elevations of these monuments will be observed semi-annually by a level loop run with the DiNi level to ensure accuracy and precision.

Future observations will made on all available points and tabulated to compare the elevations to the base elevations established on March 9, 2017. The results will be graphically represented by trend lines representing measurements made on each monument. The continual change will be monitored by P.A. and presented to you semi-annually.

MONUMENT DESCRIPTIONS

Each of the monuments set and observed are shown below with a description and images of the point.

CV0295

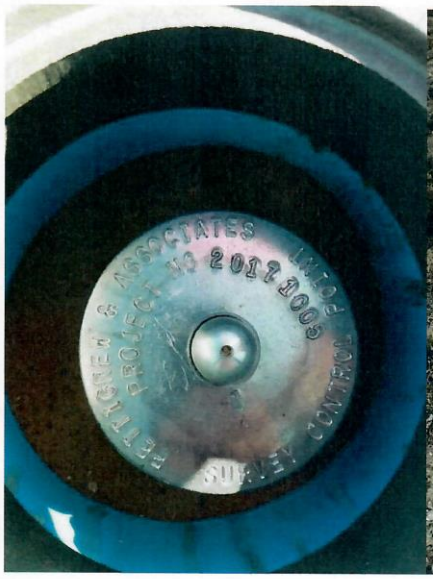
NGS Control Point CV0295 is a brass U.S. Coast & Geodetic Survey Benchmark set in concrete projecting approximately one foot out of the ground. It is stamped with an X and with the year it was set as shown below, followed by the NGS datasheet:

Llano Wellhead

The existing wellhead was measured on the top of the First Flange leaving the wellhead on the horizontal plane. There is an X Filed into the metal that may fade with rust.

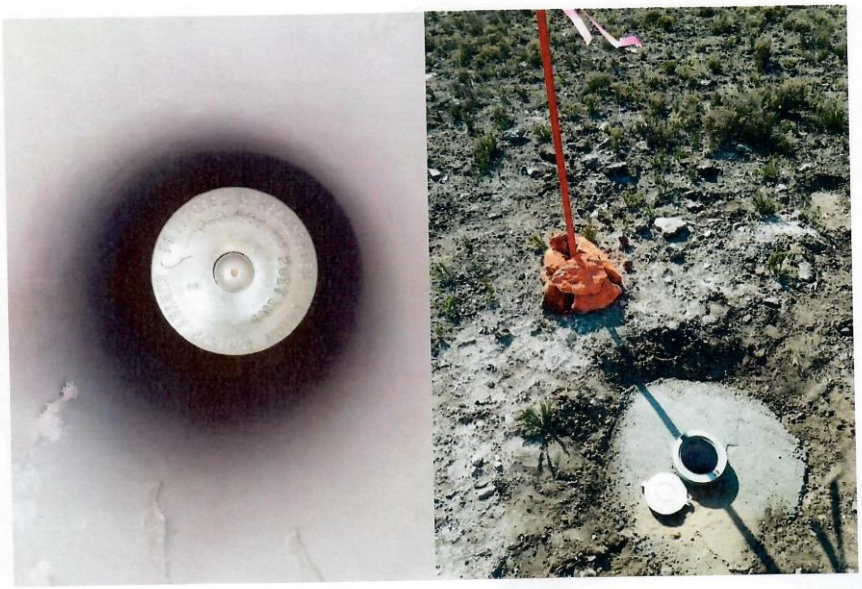
Subsidence Monument 1

A Berntsen three quarter inch Aluminum Top Security Sleeve Monument was set. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:



Subsidence Monument 2

A Berntsen three quarter inch Aluminum Top Security Sleeve Monument was set. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:



Subsidence Monument 3

A Berntsen three quarter inch Aluminum Top Security Sleeve Monument was set. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:

Subsidence Monument 4

A Berntsen three quarter inch Aluminum Top Security Sleeve Monument was set. It consists of a rod driven till refusal into a pre drilled three-foot deep hole with a twelve inch diameter. The sleeved rod is encased in six-inch PVC filled with sand, then topped with a Datum Point and an Aluminum Floating Datum Cap. It is then capped with an Access Cover that must be removed with a flathead screw driver or similar tool. The Monument is pictured below:

STATE PLANE POINT REPORT FROM TRIMBLE BUSINESS CENTER

Project file data		Coordinate System	
Name:	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence.vce	Name:	United States/State Plane 1983
Size:	66 KB	Datum:	NAD 1983 (Conus)
Modified:	3/31/2017 11:26:28 AM (UTC:-6)	Zone:	Default
Time zone:	Mountain Standard Time	Geoid:	GEOID12A (Conus)
Reference number:		Vertical datum:	
Description:			
Comment 1:			
Comment 2:			
Comment 3:			

Additional Coordinate System Details

Local Site Settings			
Project latitude:	N32°48'59.08897"	Ground scale factor:	1.00015857066738
Project longitude:	W103°19'08.02301"	False northing offset:	0.000
Project height:	3747.243	False easting offset:	0.000

Point List

ID	Northing (US survey foot)	Easting (US survey foot)	Elevation (US survey foot)	Feature Code	Combined Scale Factor	Meridian convergence angle
100	660370.412	850231.908	3826.913	SUBSIDENCE MONUMENT 3	0.9999973961	0°32'41"
101	661265.048	848986.847	3827.323	SUBSIDENCE MONUMENT 2	0.9999964984	0°32'34"
102	660441.416	848433.714	3830.030	SUBSIDENCE MONUMENT 4	0.9999959805	0°32'30"
103	659971.468	849135.891	3828.318	SUBSIDENCE MONUMENT 1	0.9999965553	0°32'34"
104	660366.410	849101.963	3827.868	LLANO WELLHEAD	0.9999965526	0°32'34"
295	662239.254	852989.679	3813.310	7080 NGS CV0295	1.0000000000	0°32'59"

4/20/2017 9:09:47 AM	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence.vce	Trimble Business Center

LAT/LONG POINT REPORT FROM TRIMBLE BUSINESS CENTER

Project file data		Coordinate System	
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Size:	66 KB	Datum:	NAD 1983 (Conus)
Modified:	3/31/2017 11:26:28 AM (UTC:-6)	Zone:	Default
Time zone:	Mountain Standard Time	Geoid:	GEOID12A (Conus)
Reference number:		Vertical datum:	
Description:			
Comment 1:			
Comment 2:			
Comment 3:			

Additional Coordinate System Details

Local Site Settings			
Project latitude:	N32°48'59.08897"	Ground scale factor:	1.00015857066738
Project longitude:	W103°19'08.02301"	False northing offset:	0.000
Project height:	3747.243	False easting offset:	0.000

Point List

ID	Latitude	Longitude	Height (US survey foot)	Feature Code
100	32.811351	103.327927	3760.741	Subsidence Monument 3
101	32.813842	103.331951	3761.132	Subsidence Monument 2
102	32.811593	103.333776	3763.824	Subsidence Monument 4
103	32.810283	103.331506	3762.14	Subsidence Monument 1
104	32.811369	103.331604	3761.696	Llano Wellhead
295	32.816414	103.318895	3747.243	7080 NGS CV0295

4/27/2017 3:53 PM	Z:\2017.1005\Survey\Subsidence_Survey\Field Data\Llano Subsidence.vce	Trimble Business Center

The NGS Data Sheet

See file dsdata.pdf for more information about the datasheet.

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 CV0295  COUNTRY     -  US
 CV0295  USGS QUAD   -  LOVINGTON SE (1985)
 CV0295
 CV0295                         *CURRENT SURVEY CONTROL
 CV0295
 CV0295* NAD 83(1986) POSITION- 32 48 57.     (N) 103 19 08.     (W)   SCALED
 CV0295* NAVD 88 ORTHO HEIGHT -  1163.883 (meters)     3818.51  (feet) ADJUSTED
 CV0295
 CV0295  GEOID HEIGHT    -        -21.727 (meters)                     GEOID12B
 CV0295  DYNAMIC HEIGHT  -       1162.298 (meters)     3813.31  (feet) COMP
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 CV0295
 CV0295.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 CV0295.See file dsdata.pdf to determine how the superseded data were derived.
 CV0295
 CV0295_MARKER: DB = BENCH MARK DISK
 CV0295_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 CV0295_STAMPING: X 151 1935
 CV0295_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 CV0295+STABILITY: SURFACE MOTION
```

```
CV0295
CV0295  HISTORY     - Date     Condition        Report By
CV0295  HISTORY     - 1935     MONUMENTED       CGS
CV0295  HISTORY     - 1979     GOOD             USGS
CV0295
CV0295                          STATION DESCRIPTION
CV0295
CV0295'DESCRIBED BY COAST AND GEODETIC SURVEY 1935
CV0295'6.1 MI W FROM HUMBLE CITY.
CV0295'6.1 MI W ALONG ROADS TOWARDS BUCKEYE RANCH WEST OF HUMBLE CITY ON THE
CV0295'ROAD TO BUCKEYE RANCH, AND 15. FT. S. OF THE CENTER LINE OF THE ROAD.
CV0295
CV0295                          STATION RECOVERY (1979)
CV0295
CV0295'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1979
CV0295'COURT HOUSE LOVINGTON, LEA CO. NEW MEXICO 12.6 MILES SE ALONG NM 18
CV0295'THENCE 1.3 MI. SE ALONG GRAVEL RD. TO KIMBOROUGH RANCH, THENCE FOLLOW
CV0295'SECTION LINE AND FENCE WEST FOR 3.3 MILES, 620 FEET NORTH OF A FENCE,
CV0295'600 FEET EAST OF A PIPE LINE, 1500 FEET NW OF THE SE COR OF SEC. 23 T
CV0295'17S R 36 E, IN A PATCH OF MESQUITE. A STANDARD DISK STAMPED X 151
CV0295'1935 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 1.0 FEET.

*** retrieval complete.
Elapsed Time = 00:00:07
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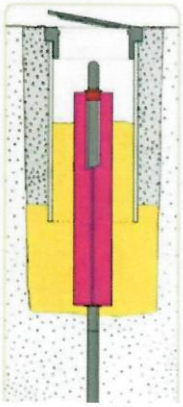
Top Security Sleeve Rod Monuments

9/16" Stainless Steel Top Security Sleeve Monument	3/4" Aluminum Top Security Sleeve Monument
	
More Info	More Info

Berntsen Sectional Rod Monument with Floating Sleeve

Berntsen's exclusive Top Security™ Sleeve 3-Dimensional Rod Monument System is specifically designed for high-precision geodetic and GPS surveys. Its patented design helps protect against excessive movements in the control monument. The Berntsen extendible rods, when driven to refusal, provide excellent vertical stability. The unique Y-shaped design of the Top Security Sleeve adds the second and third dimension to provide the most stable 3-D survey monument available.

Eliminate most common and unexpected shifts in stability by eliminating most of the direct transfer of shifts in movement from ground level or surface movement. Here's how: Rod markers (driven to refusal) have good vertical stability but can be disturbed by the natural phenomenon known as frost heave. Rod markers, installed with a greased-filled PVC pipe surrounding the upper three or four feet (900 or 1200 mm) (or more) of rod, are known to be effective in combating movement caused by frost heave but offer little protection against possible horizontal movement of surrounding earth (another major cause of differences in readings on rod markers). For the first time, Berntsen's Top Security Sleeve™ with the horizontal stability of the original Berntsen Top Security™ finned rod marker system, this is now available in a commercially available survey monument.



It's even extendible! 3' (914mm) lengths of Top Security Sleeves can also be connected together by Berntsen's exclusive End Cap Alignment Bushings and a little PVC Cement. When used in combination(s), nearly any even-foot length over six feet long (1.83m) of support for the rod marker is possible. That's innovative and flexible design at work for you.

More good news! The Top Security Sleeves' greatest advantage at installation time is speed. Simply drive standard Berntsen round rods to refusal, slip on the grease-filled finned Top Security Sleeve (recommended sleeve length greater than maximum recorded local frost depth), back-fill around the fins with sand, tamp firmly. The color coded End Cap Alignment Bushings follow Berntsen's long established universal color codes for rod marker systems and tell other surveyor's at a glance what size rod is installed - 9/16" (14 mm) Yellow; 3/4" (19 mm) Blue. We recommend NO-TOX lubricating grease to fill the Top Security Sleeve. It is specially formulated to be non-toxic and environmentally safe. It is available in an easy to use cartridge that fits a standard "grease gun". One cartridge should be used for each 36" (915mm) long Top Security Sleeve.

APPENDIX D

Sundries

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.
30-025-30701

5. Indicate Type of Lease
STATE x FEE

6. State Oil & Gas Lease No.

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
Siringo ACS State

1. Type of Well: Oil Well Gas Well Other BSW

8. Well Number 1

HOBBS OCD
JAN 28 2016
RECEIVED

2. Name of Operator
Llano Disposal, LLC

9. OGRID Number
370661

3. Address of Operator
PO Box 190, Lovington NM 88260

10. Pool name or Wildcat
Brine Supply Well (Salado)

4. Well Location
Unit Letter D : 660 feet from the North line and 660 feet from the West line
Section 26 Township 17S Range 36E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3831'MSL

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	X Re-enter well to run CBL		
CLOSED-LOOP SYSTEM			
OTHER:		OTHER:	

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.

Llano Disposal LLC intends to dig out cellar, cut off P&A marker, weld head on 8 5/8" casing, install riser(s), re-fill cellar, rig up work over rig and reverse unit, then drill out cement plugs to 2043'. We will pressure test casing to 300 PSI, run a CBL, then shut down to review CBL w/ OCD. Drilling will be by closed loop system, Lucky Services. We hope to have the rig and reverse unit on location Monday morning, Feb 1, 2016.

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 Marvin Burrows TITLE Agent DATE 1/27/16

Type or print name Marvin Burrows E-mail address: burrowsmarvin@gmail.com PHONE: 575-631-8067

For State Use Only

APPROVED BY: TITLE Petroleum Engineer DATE 02/18/16
Conditions of Approval (if any):

FEB 19 2016

The above C103 was filed to notify the OCD of Llano's intention to dig out cellar, install a wellhead, then drill cement to the original 8 5/8" casing set depth of 2043'. Drilling was halted, then a pressure test (MIT) and a CBL log were both ran. The pressure test indicated that the casing had no leaks. The bond log indicated that the 8 5/8" casing had indeed been cemented to surfa9ce, and that the bonding was good.

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.
30-025-30701

5. Indicate Type of Lease
STATE x FEE

6. State Oil & Gas Lease No.
Salt lease.

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
Siringo ACS State

1. Type of Well: Oil Well Gas Well Other Brine Generation (BSW)

8. Well Number 1

HOBBS OCD
OCT 28 2016
RECEIVED

2. Name of Operator
Llano Disposal, LLC

9. OGRID Number
370661

3. Address of Operator
PO Box 190, Lovington NM 88260

10. Pool name or Wildcat
Salado interval.

4. Well Location
Unit Letter D : 660 feet from the N line and 660 feet from the W line
Section 26 Township 17S Range 36E NMPM County Lea

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3831 'MSL

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: Complete re-entry.		OTHER:	

Condition of Approval: notify OCD Hobbs office 24 hours prior of running MIT Test & Chart

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.

It is the intention of Llano Disposal, LLC to rig up on our Siringo ACS State # 1 to continue re-entry operations. Previous re-entry was to the 8 5/8" casing shoe at which point re-entry was halted and a CBL was ran. The original bore into the Salado will be re-entered to a point 375' below the 8 5/8" shoe (to 2418'). At that point, the hole will be swept clean with brine. We will then POH and lay down drilling equipment and run production equipment as indicated on attached well bore schematic.

Will notify 48 hr before Rig up.

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 Agent DATE 10/27/16

Type or print name Marvin Burrows E-mail address: burrowsmarvin@gmail.com PHONE: 575-631-8067

For State Use O

APPROVED BY: TITLE Dist Supervisor DATE 10/31/2016

This C103 was to notify OCD of impending re-entry into the open hole portion of the original well bore.

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,
District III – (505) 334-61
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

DEC 0 8 2016
RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised July 18, 2013

WELL API NO.
30-025-30701

5. Indicate Type of Lease
X STATE FEE

6. State Oil & Gas Lease No.
SLO Salt Lease for BSW

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
Siringo ACS State

1. Type of Well: Oil Well Gas Well Other *** BSW

8. Well Number #1

2. Name of Operator
Llano Disposal, LLC

9. OGRID Number
370661

3. Address of Operator
PO Box 190, Lovington NM 88260

10. Pool name or Wildcat
BSW in Salado

4. Well Location
Unit Letter D : 660 feet from the N line and 660 feet from the W line
Section Township 17S Range 36E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3831' MSL

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: **** Finish re-entry/test salt for BSW	

13. Describe proposed or completed operations.
11/21/16 : Move in, rig up Lucky Services rig. Move in and rig up reverse unit and drilling equipment. Loaded reverse unit steel pit w/ 110 bbls 10# brine water. Put on BOP. Picked up and ran bit, drill collars, and 2 7/8" work string tubing in 8 5/8' 24# casing to 2032' by tally. Tagged cement, broke circulation, started drilling. Drilled cement through 8 5/8" casing shoe at 2043', and continued drilling cement. Reamed and cleaned out original open hole to 2405'. POH w/ 14 stands tubing, secure well, SDON.
11/22/16 : Ran tubing out of derrick to previous clean out depth of 2405'. Dropped bit into clean open hole to 2424'. Circulate hole clean. POH w/ tubing. Laid down bit and drill collars. Ran back in hole w/ tubing w/ SN on bottom to 2418'. Set frac tank and loaded with 500 bbls fresh water. Set two empty frac tanks to circulate in to. Circulated well down tubing w/ 170 bbls fresh water at 7.75 bbls/ min to sweep clean of debri. Water cleaned up after 80 bbls and started coming back 9.4# brine by scale weight. Secured well, SDON.
11/23/16 : Tied pump back onto tubing. Started pumping fresh water down tubing at .82 bpm. Pumped volume to circulate from bottom of tubing to surface via C/T annulus. At volume, water was 10#/gallon brine per mud engineer scales. POH, lay all equipment down, remove BOP, release all equipment. Secure well. Will obtain tubing and packer, then will rig back up.

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 Marvin Agent for DATE 12/3/16

Type or print name Marvin Burrows E-mail address: burrowsmarvin@gmail.com PHONE: 575-631-8067

For State Use Only

The C103 from the previous page was filed to report the results of reentry into the open hole section of the original well bore. Drilling was halted at 2424' because the interval of pure halite had been penetrated, and red clay/gray sand returns began circulating to surface. A temporary tubing string was run for the purpose of well testing, after a brief period of clean-up by circulating fresh water, clean 10# brine began circulating to surface.

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

Energy, Minerals and Natural Resources

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

HOBBS OCD
APR 10 2017
RECEIVED

Revised July 18, 2013

WELL API NO. 30-025-30701	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No. SALT LEASE	
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 SIRINGO ACS State.
1. Type of Well: Oil Well ☐ Gas Well ☐ Other BSW	8. Well Number 1
2. Name of Operator LLANO DISPOSAL, LLC	9. OGRID Number 370661
3. Address of Operator P. O. BOX 190, LOVINGTON NM 88260	10. Pool name or Wildcat BSW in SALADO
4. Well Location Unit Letter D : 660 feet from the N line and Section Township 17S Range 36E	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL	

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: Run Brine Prod. Eq. ☒		OTHER: ☐	

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.

It is the intention of Llano Disposal, LLC to rig up on our Siringo #1 Brine Supply well to run tubing, packer, and test pipe per permit. We will rig up Monday 4/10/17, Commence work 4/11/17.

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 Marvin Burrows TITLE Agent DATE 4/9/17

Type or print name MARVIN BURROWS E-mail address: BURROWSMARVIN@GMAIL.COM PHONE: 575-631-8067

For State Use Only

APPROVED BY: TITLE Petroleum Engineer DATE 04/14/17

Conditions of Approval (if any):

The above 103 was filed to notify of the intention to pull the test tubing string, then run the permanent injection string.

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

Energy, Minerals and Natural Resources

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

HOBBS OCD
MAY 16 2017
RECEIVED

Revised July 18, 2013

WELL API NO. 30-025-30701
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. SALT Lease

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: SIRINGO ACS ST.
1. Type of Well: Oil Well ☐ Gas Well ☒ Other BSW
8. Well Number 1
2. Name of Operator: LLANO DISPOSAL, LLC
9. OGRID Number 370661
3. Address of Operator: P. O. Box 190, Lovington n.m. 88260
10. Pool name or Wildcat: SALT (BSW)
4. Well Location
660 feet from the N line and 660
Township 17S Range 36E NMPM
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831'

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: MIT ☒		OTHER: ☐	

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.

It is the intention of LLANO DISPOSAL, LLC TO RIG up A pump TRUCK on the Above well AT 9:00 AM, THURSDAY, MAY 18, 2017, TO perform A MIT (BRINE CAVITY) TEST.

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 Marvin Burrows TITLE AGENT DATE 5/15/17

Type or print name MARVIN BURROWS E-mail address: BURROWSMARVIN@GMAIL.COM PHONE: 575-631-8067

For State Use Only

APPROVED BY: Maley Brown TITLE AO/II DATE 5/17/2017
Conditions of Approval (if any):

This 103 was filed to notify the OCD of intention to run a MIT on the well post installation of injection equipment.

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

Energy, Minerals and Natural Resources

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

HOBBS OCD
MAY 16 2017
RECEIVED

Revised July 18, 2013

WELL API NO. 30-025-30701
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. SALT

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: SIRINGO ACS ST.
1. Type of Well: Oil Well ☐ Gas Well ☒ Other RSW
8. Well Number 1
2. Name of Operator: LLANO DISPOSAL, LLC
9. OGRID Number 370661
3. Address of Operator: P.O. Box 190, Lovington N.M. 88260
10. Pool name or Wildcat: RSW in the SALT
4. Well Location
Unit Letter D : 660 feet from the N line and 660 feet from the W line
Section 26 Township 17S Range 36E NMPM County LEA
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL

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: Run Prod Eq. ☒	

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.

Per previous C-103 notice of intent (4/9/17), we RiggedUp and ran Brine Water Generation equipment per Attached Wellbore Schematic.

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 TITLE Agent DATE 5/15/17

Type or print name Marvin Burrows E-mail address: BurrowsMarvin@Gmail.com PHONE: 575-631-8067

For State Use Only

APPROVED BY: TITLE DATE

Accepted for Record Only

Conditions of Approval (if any):

MBrown 5/23/2017

The chronological placement of the C103 from the previous page, is reflective of the order these 103s were scanned into record by OCD District 1 office. However, the above 103 was filed to notify OCD that Llano had rigged up and had run permanent injection tubing.

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. 30-025-30701
5. Indicate Type of Lease STATE X FEE
6. State Oil & Gas Lease No. SALADO

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: SIRINGO ACS ST.
1. Type of Well: Oil Well Gas Well Other X
8. Well Number 1
2. Name of Operator: LLANO DISPOSAL, LLC
9. OGRID Number 370661
3. Address of Operator: P.O. Box 190, Lovington NM 88260
10. Pool name or Wildcat: BSW (Brine)
4. Well Location
Unit Letter D : 660 feet from the N line and 660 feet from the W line
Section 26 Township 17S Range 36E NMPM County LEA
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3831' MSL

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	Brine CAVITY		
CLOSED-LOOP SYSTEM	PR. TEST.		
OTHER: X		OTHER:	

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.

We will be perform a Brine CAVITY pressure TEST on this well on Tuesday, SEPTEMBER 5th AT 8:30 A.M.

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 Marvin Burrows TITLE Agent for DATE 8/30/17

Type or print name MARVIN BURROWS E-mail address: BURROWSMARVIN@GMAIL.COM PHONE: 575-631-8067

For State Use Only

APPROVED BY: Maley Brown TITLE AO/II DATE 8/30/2017

Conditions of Approval (if any):

The above 103 was filed to notify OCD that Llano intended to run a casing pressure test (MIT) on this well on September 5, 2017.

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
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. 30-025-30701
5. Indicate Type of Lease STATE X FEE
6. State Oil & Gas Lease No. SALT Lease

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: SIRINGO ACS ST.
1. Type of Well: Oil Well Gas Well Other BSW
8. Well Number 1
2. Name of Operator: LLANO DISPOSAL, LLC
9. OGRID Number 370661
3. Address of Operator: P.O. BOX 190, LOVINGTON NM 88260
10. Pool name or Wildcat: SALADO
4. Well Location
Unit Letter O : 660' feet from the N ~~660~~ line and 660 feet from the W line
Section Township 17S Range 36E NMPM County
11. Elevation (Show whether DR, RKB, RT, GR, etc.)

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: X Brine Cavity Test.	

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.

Per previous C-103 notice, performed Brine Cavity Pressure Test w/ OCD witness on 9/5/17. Please find pressure chart attached.

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 [signature] TITLE Agent for DATE 9/5/17

Type or print name MARVIN BURROWS E-mail address: BURROWSMARVIN@GMAIL.COM PHONE: 575-631-8067

For State Use Only

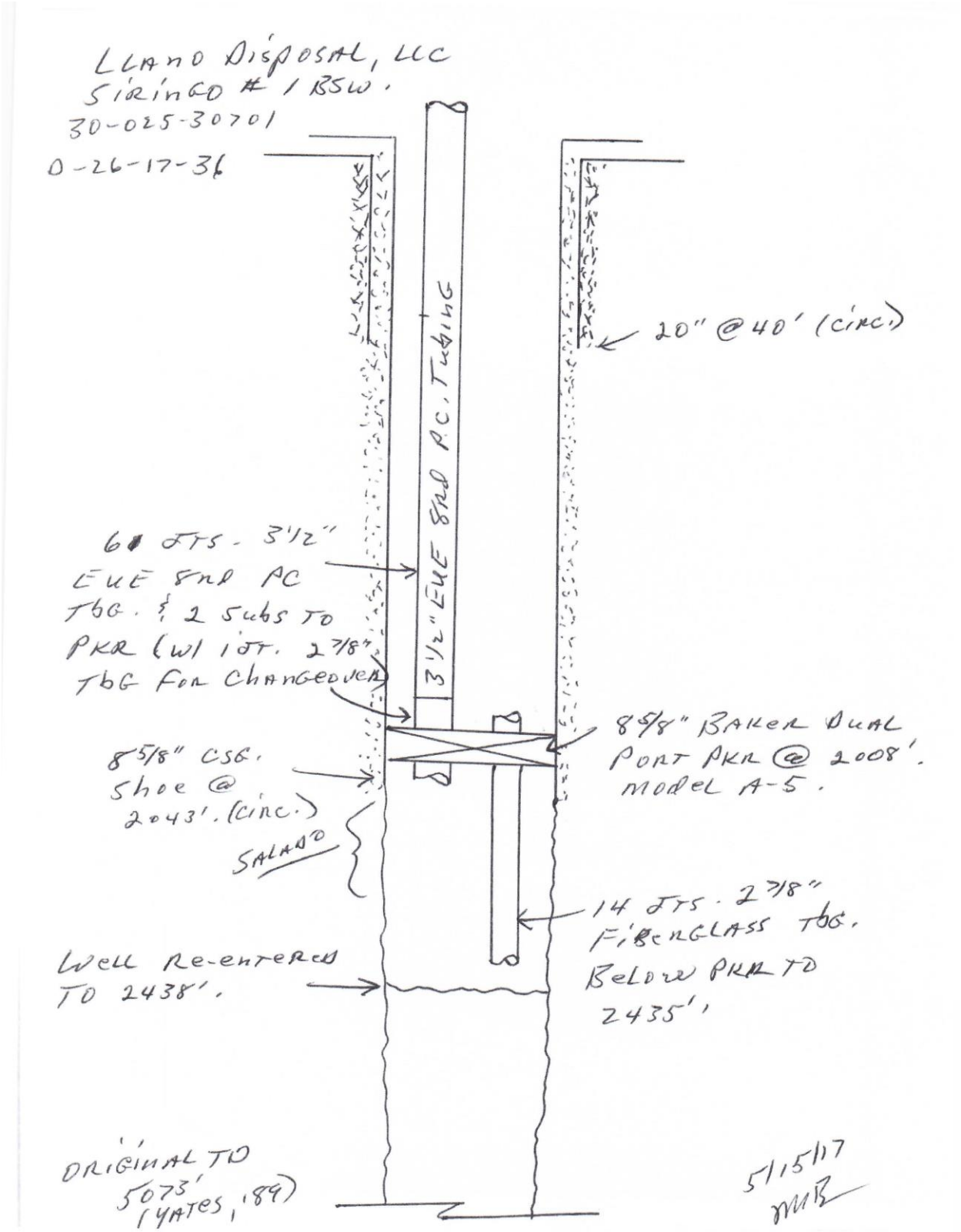
APPROVED BY: [signature] TITLE AO/II DATE 9/6/2017

Conditions of Approval (if any): RBDMS - CHART -

The above 103 was filed to notice the OCD that a OCD witnessed MIT had been performed on the well.

APPENDIX E

Well Diagrams



APPENDIX F

Chemical Analysis

CARDINAL Laboratories

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

April 27, 2018

DARR ANGELL

LLANO BRINE

P. O. BOX 250

LOVINGTON, NM 88260

RE: WATER SAMPLES

Enclosed are the results of analyses for samples received by the laboratory on 04/26/18 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. 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	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,

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:

LLANO BRINE
DARR ANGELL
P. O. BOX 250
LOVINGTON NM, 88260
Fax To:

Received:	04/26/2018	Sampling Date:	04/26/2018
Reported:	04/27/2018	Sampling Type:	Water
Project Name:	WATER SAMPLES	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

Sample ID: FRESH WATER (H801168-01)

Chloride, SM4500Cl-B mg/L **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**128**	4.00	04/27/2018	ND	100	100	100	0.00	

Sample ID: BRINE WATER (H801168-02)

Chloride, SM4500Cl-B mg/L **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**188000**	4.00	04/27/2018	ND	100	100	100	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

RUSH!!

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

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

Company Name: Llano Brine
Project Manager: Darr Angell
Address: P.O. Box 250
City: Lovington State: NM Zip: 88260
Phone #: 575-704-2777 Fax #:
Project #: Project Owner:
Project Name: Water Samples
Project Location:
Sampler Name:

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

ANALYSIS REQUEST

Lab I.D. (FOR LAB USE ONLY)	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	Cl
H801168 1	Fresh water	G	1										4/26/18	4:15	✓
2	Brine water	ꟾ	1										ꟾ	ꟾ	✓

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: [signature] Date: 4/26/18 Time: 4:45 Received By: Jodi Henson
Relinquished By: Date: Time: Received By:
Delivered By: (Circle One) #75
Sampler - UPS - Bus - Other: 20.4°c / 20.35°c
Sample Condition: Cool ☐ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials) [initials]

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

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326 — Correction #050

APPENDIX G

Certification

Annual Report Llano Disposal, LLC BW35 API 30-025-30701 2018

Llano Disposal, LLC 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 provided herein.

Darr Angell	Owner/Permittee Holder
Name	Title
	4/26/22
Signature	Date

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 123447

COMMENTS

Operator: LLANO DISPOSAL, L.L.C. P.O. Box 250 Lovington, NM 88260	OGRID: 370661
	Action Number: 123447
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

COMMENTS

Created By	Comment	Comment Date
cchavez	Annual Report 2018	7/13/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 123447

CONDITIONS

Operator: LLANO DISPOSAL, L.L.C. P.O. Box 250 Lovington, NM 88260	OGRID: 370661
	Action Number: 123447
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
cchavez	1) Environmental Analytical Laboratory Data Results Sheet “Sample ID” descriptors based on permit should include: Monitor Well (GW)- Annually, Injection Fresh Water- Quarterly and Brine- Quarterly. 2) AOR should include all wells within ½ mile of the brine well. 3) Appendix A MIT Chart(s) shall include Chart Recorder Calibration Sheet(s) with last date of calibration, calibration results, spring weight, and clock setting. 4) Appendix B “Right Circular Cone” volume algorithm “H” estimated cavern height value shall be the base of cavern depth minus the casing shoe depth value. A depth of salt cavern sounding shall be performed during well workovers to assist in monitoring cavern height in algorithm calculations. 5) Appendix F permit sample frequency, sample parameters for monitor well (groundwater), injected freshwater, and brine quality shall be completed.	7/13/2022