BW - ___036___

COMPLIANCE REVIEW

2018

GARY SCHUBERT
P.O. BOX 6056
HOBBS, NEW MEXICO 88240
(505) 393-3194

JOB _____

SHEET NO. _____ OF _____

CALCULATED BY _____ DATE _____

CHECKED BY _____ DATE _____

SCALE _____

CARL,

PLEASE SEE TOTAL EMAIL THREAD OF MY REQUEST OF BASIN SURVEYS REGARDING "ELEVATION TRANSECT" (WHICH I HAVE NO UNDERSTAND OFF) PLEASE ADVISE ME IF I NEED TO ENGAGE ANOTHER FIRM TO COMPLY.

THANKS.

CG

P.S. LET ME BE CLEAR -- I'M MORE THAN WILLING TO DO WHAT YOU WANT REPORTED ON THESE ELEVATIONS.

THANKS AGAIN.

CG

Gmail

Gary Schubert <garymschubert@gmail.com>

FEB 28 2018 PM02:55

BW-31 & BW-36

1 message

Gary Schubert <garymschubert@gmail.com> Mon, Feb 26, 2018 at 3:25 PM
To: "Chavez, Carl J, EMNRD" <CarlJ.Chavez@state.nm.us>

Carl,

Per your correspondence of 1/4/18 I am sending you today a revised report of well injection and production with the corresponding pressures noted for 2017 and 2018 (though 2/22/18). I do not have a "confirmed" explanation of the "variance" between the production and injection volumes being over 10% (1 instance on BW-36 and 2 instances on BW-31). I have done a bit of investigation and I have a couple of possibilities:
1) In August we had a direct lightning hit that burned up our power supply and the control panel that controls the injection pump on BW-36. Although the meter was not damaged a fuse was blown on the fresh water supply meter. I am suspicious that the pressured supply of water to our injection supply tanks sent some unmetered water to the tanks (we have had similar issues on BW-31 in the past and noted that on our reports but I failed to do so on the 2017 report).
2). I have had some conversations with the manufacturer of the McCrometer "ultra mag" meters that we use (these meters on BW-31 are approx. 8 years old--I am ordering a couple of replacements/spares) and they have indicated several things we intend to check including checking calibration, cleaning the electrodes, confirming that the meters have a full pipe of water at all times, and confirming minimal turbulence as the water is moving through the meter.

Although there are 3 instances where the "variance" is above 10%, the yearly totals on both wells are well within the limits (106% and 103% respectively).

It is my intention to monitor all of these items very closely and as we submit more information to you monthly to confirm that we are getting accurate metering and to confirm that we are operating within the limits. We have corrected so far the turbulence issue and the "full pipe" issue and we seem to be getting more accurate and consistent readings. I am attaching information for 2018 up to within the last few days.

Regarding the survey question, I forwarded the "elevation transect" to my surveyor and I am attaching His explanation. I am also attaching a table of the elevation readings and a graph of same as per your request. Since we have had no variance whatsoever in the elevations I would request that we possibly reduce the frequency of the surveys.

The last MIT we performed on BW-31 was in November 2016 and I found your email acceptance and approval. The last MIT on BW-36 was in May of 2017 and I also have your email approval of that. I am sending attached copies of that information for your reference. I am also attaching some information that Karen Sharp at the Hobbs OCD office requested that I hand delivered in 2017.

Also on 2/16/18 I received a request from you regarding supplemental information on both wells (confirming the files are current and complete). I will be sending you copies of complete files on both wells well before the May deadline and I am preparing to apply for permit renewal on BW-31.

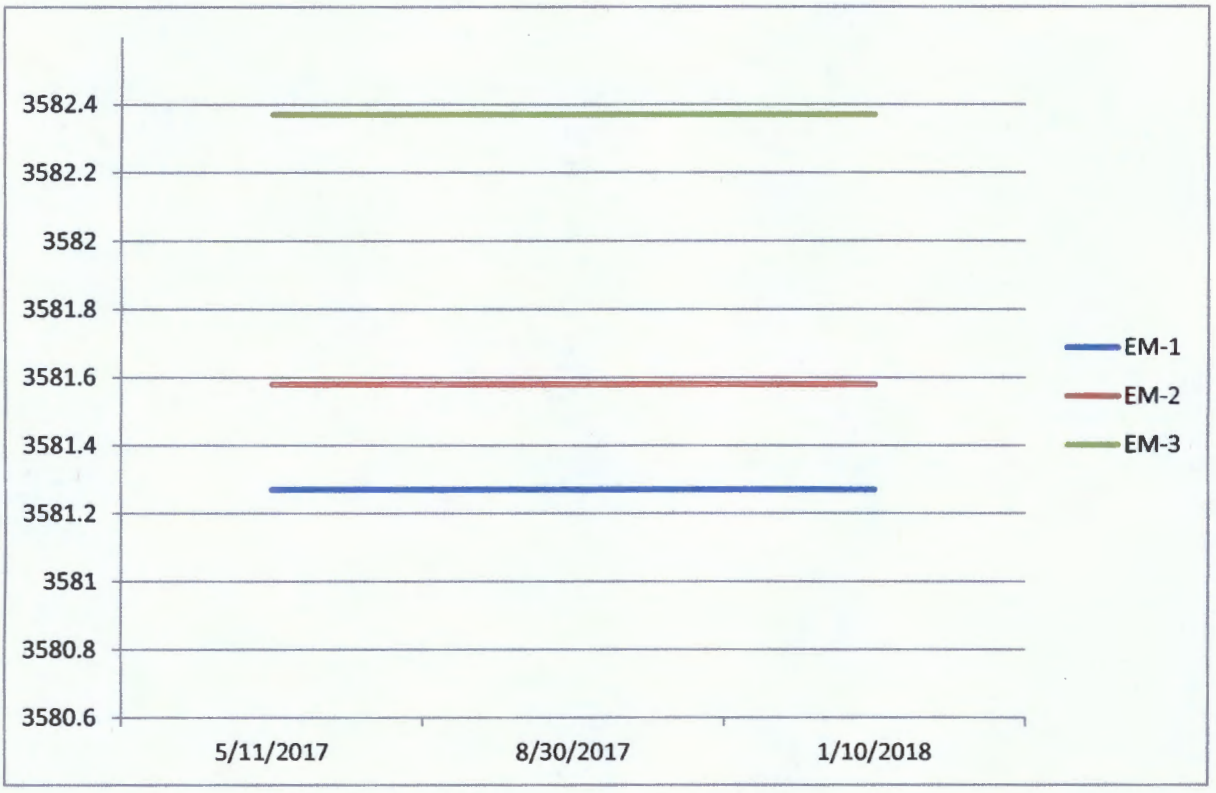
As always thank you for your cooperation. Because of the volume of information that you are to receive I am sending via FedEx.

Thanks again,

Gary
--
Gary M. Schubert

SCHUBERT FARMS #1

Date Read	EM-1	EM-2	EM-3
5/11/2017	3581.27	3581.58	3582.37
8/30/2017	3581.27	3581.58	3582.37
1/10/2018	3581.27	3581.58	3582.37



SCHUBERT FARMS #1

Year 2018

Month	Production PSI	Brine Production (By Meter) Bbls	Injection PSI	Fresh Water Injected (By Meter) Bbls
January	25	25,912	245	25,360
February	35	14,861 *	250	14,969 *
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
Yearly Totals		25,912		25,360

Notes:

* February readins is through 2/22/18

SCHUBERT FARMS #1

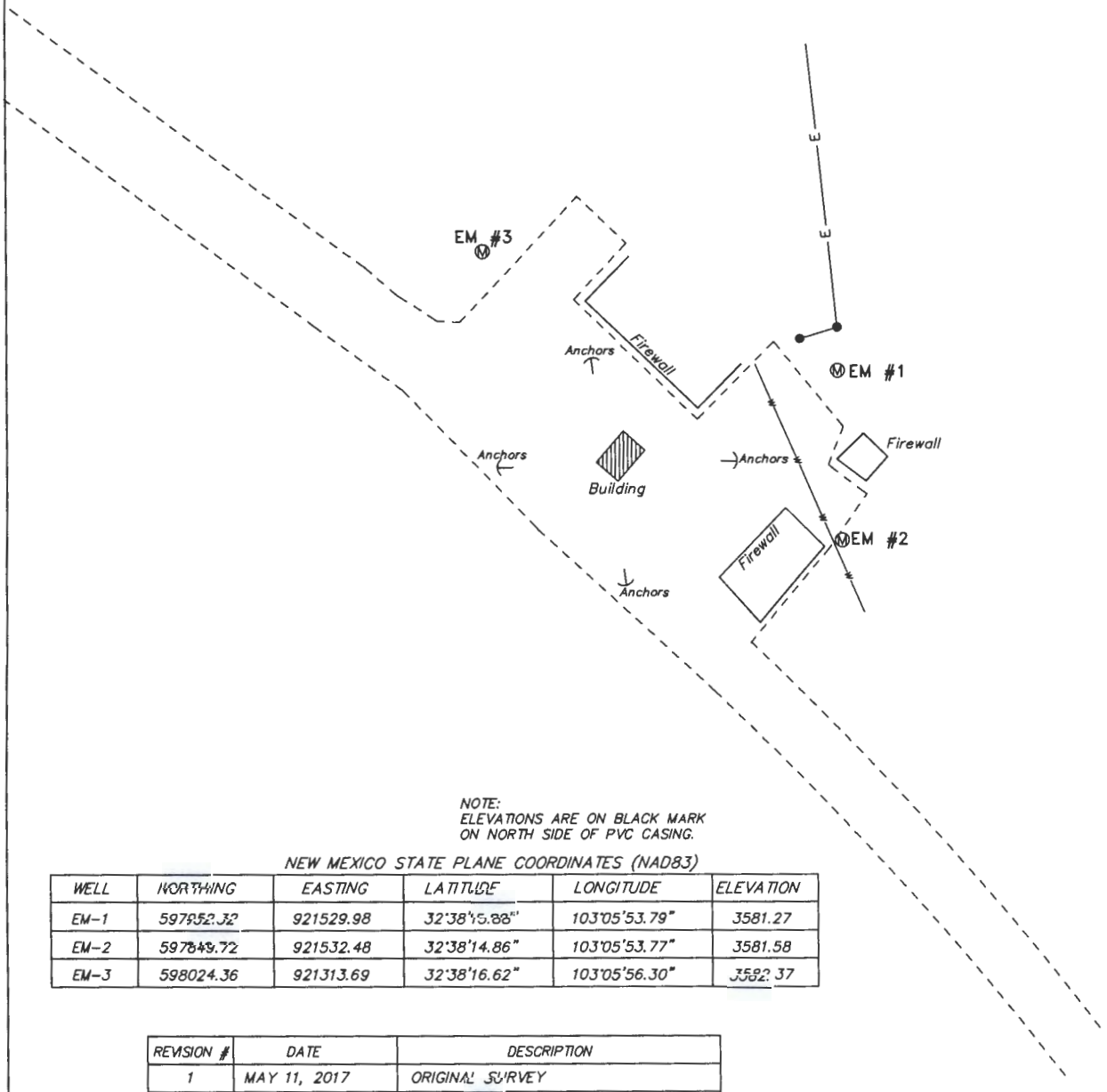
Year 2017

Month	Production PSI	Brine Production (By Meter)	Injection PSI	Fresh Water Injected (By Meter)
January	~	~	~	~
February	~	~	~	~
March	70	13,011	230	12,833
April	70	5,636	230	5,238
May	90	11,060	270	10,143
June	100	9,831	270	9,902
July	85	14,400	270	14,362
August	35	11,962	250	10,340
September	40	20,945	245	21,183
October	40	21,988	250	20,795
November	40	19,764	250	19,522
December	20	24,921	230	24,360
Yearly Totals		153,518		148,678

Notes:

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
EM-2	597848.72	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

REVISION #	DATE	DESCRIPTION
1	MAY 11, 2017	ORIGINAL SURVEY
2	AUGUST 30, 2017	RESURVEY--NO CHANGE IN ELEVATIONS
3	JANUARY 10, 2018	RESURVEY--NO CHANGE IN ELEVATIONS

H.R.C. INC.
P.O. Box 5102
Hobbs, NM 88241-5102
Office (575) 393-6662 – Fax (575) 397-2725

November 14, 2017

Karen Sharp, EMNRD
New Mexico OCD, District 1
1625 N. French Dr.
Hobbs, New Mexico 88240

Ref: Schubert Farms Brine Well No. 1 Discharge Permit (BW-036)

Karen,

Here is a copy of our permit approval and the C-103 that was approved as per Carl Chavez email of October 14, 2016.

I am attaching a C-103 of the workover procedure of the conversion of the well To a brine injection well (BW-036).

If I can furnish you with any further information please let me know.

Best Regards,

Gary M. Schubert
Owner/Manager

GMS/br

Gmail **Gary Schubert <garymschubert@gmail.com>**

BWs 31 and 36 Annual Reports

6 messages

Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> Thu, Jan 4, 2018 at 10:37 AM
To: Gary Schubert <garymschubert@gmail.com>
Cc: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>

Gary:

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

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

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

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

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

Please contact me if you have questions. Thank you.

Mr. Carl J. Chavez, CHMM (#13099)

New Mexico Oil Conservation Division

Energy Minerals and Natural Resources Department

1220 South St Francis Drive

Santa Fe, New Mexico 87505

Ph. (505) 476-3490

E-mail: 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")**

Gary Schubert <garymschubert@gmail.com> Fri, Jan 12, 2018 at 9:19 AM
To: Kendall Goad <kgoad@basinsurveys.com>

Kendall,

Please see the paragraph from Carl addressing the monument elevations and let me know what we need to include to comply
with his request.

Thanks,

Gary
[Quoted text hidden]
--
Gary M. Schubert

Gary Jones <gljones@basinsurveys.com> Mon, Jan 15, 2018 at 10:16 AM
To: garymschubert@gmail.com
Cc: Kendall Goad <kgoad@basinsurveys.com>

Afternoon Gary,

We do not perform an "elevation transect with close-out elevation for every survey" when we do these types of surveys.

What the State of New Mexico is attempting to do, is check my work, which they are not qualified to do. As a Registered Professional Surveyor in the State of New Mexico, if I certify to the accuracy of the survey, which I have done in this case, be it x, y or z, it has to be accepted as accurate and cannot be questioned. On the plats, I have certified the x, y and z to the one-hundredth in northing, easting, latitude, longitude and elevation. That means the x, y and z are accurate to the one-hundredth of a foot. End of story.

Once again, I am a Professional Surveyor, registered to survey in the State of New Mexico. If I say the elevations are what they are, that is it. No one, and I cannot stress this enough, no one, has the authority to question my work. It is insulting and unethical.

Thanks – Gary

Gary Jones

Basin LLC

575-393-7316

From: Kendall Goad [mailto:kgoad@basinsurveys.com]
Sent: Friday, January 12, 2018 3:04 PM
To: Gary Jones <gljones@basinsurveys.com>
Subject: FW: BWs 31 and 36 Annual Reports

From: Gary Schubert [mailto:garymschubert@gmail.com]
Sent: Friday, January 12, 2018 9:19 AM
To: Kendall Goad <kgoad@basinsurveys.com>
Subject: Fwd: BWs 31 and 36 Annual Reports

Kendall,

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Thanks,

Gary

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Date: Thu, Jan 4, 2018 at 10:37 AM
Subject: BWs 31 and 36 Annual Reports
To: Gary Schubert <garymschubert@gmail.com>
Cc: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>

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Please contact me if you have questions. Thank you.

Mr. Carl J. Chavez, CHMM (#13099)

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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

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--

Gary M. Schubert

Gary Jones <gljones@basinsurveys.com> Mon, Jan 15, 2018 at 10:38 AM
To: garymschubert@gmail.com

PS Gary, my irritation is with the state of NM, not you....Gary

From: Kendall Goad [mailto:kgoad@basinsurveys.com]
Sent: Friday, January 12, 2018 3:04 PM
To: Gary Jones <gljones@basinsurveys.com>
Subject: FW: BWs 31 and 36 Annual Reports

From: Gary Schubert [mailto:garymschubert@gmail.com]
Sent: Friday, January 12, 2018 9:19 AM
To: Kendall Goad <kgoad@basinsurveys.com>
Subject: Fwd: BWs 31 and 36 Annual Reports

[Quoted text hidden]

Gary Schubert <garymschubert@gmail.com> Mon, Jan 15, 2018 at 11:17 AM
To: Gary Jones <gljones@basinsurveys.com>

Gary,

I understand your feelings on this and as you know I trust you totally--that's why you're doing the work.
I was just passing on something I have no understanding of to you.
I'll convey your thoughts to them. (FYI--I assume they are sending the same responses to other operators if you do the same services for them)

Thanks,

Gary

[Quoted text hidden]
--
Gary M. Schubert

Gary Jones <gljones@basinsurveys.com> Mon, Jan 15, 2018 at 11:30 AM
To: Gary Schubert <garymschubert@gmail.com>

Thanks Gary,

This is 100% of me being irritated with the OCD and has nothing to do with you. This is the first time I have seen this particular request. Although a couple months ago I had to send the OCD the same letter when they questioned another of my surveys I did for an oil company. They do this every now and then.

Yes if you would cc Carl, maybe they will back off. Most of the time they don't understand what they are doing or asking for. Hopefully this is the case.

Thanks - Gary

From: Gary Schubert [mailto:garymschubert@gmail.com]
Sent: Monday, January 15, 2018 11:18 AM
To: Gary Jones <gljones@basinsurveys.com>
Subject: Re: FW: BWs 31 and 36 Annual Reports

[Quoted text hidden]

Gmail

Gary Schubert <garymschubert@gmail.com>

RE: BW-36 Schubert Farms Well No. 1 (API# 30-025-37548) OCD June 2, 2017 MIT Approval

1 message

Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us> Tue, Jun 27, 2017 at 9:41 AM
To: Gary Schubert <garymschubert@gmail.com>
Cc: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>, "Whitaker, Mark A, EMNRD" <MarkA.Whitaker@state.nm.us>, "Fortner, Kerry, EMNRD" <Kerry.Fortner@state.nm.us>

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

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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
3. I am sending the originals in mail today.

A couple of clarifications/comments:

1. I made an error on OCD employee; Mr. Bowers is correct.

2. I was advised by Mr. Bowers on our phone conversation to start the test as the procedure states. When Mr. Fortner arrived (approximately 1 hour later) I believe he spoke with you and was advised to bleed the pressure off of the chart recorder and then open the recorder back to the formation (please see submitted procedure). My interpretation of the test pressure at that time was approximately 320 psi. The test was conducted for 4 hours from that time to an ending pressure of approximately 305 psi (these were the interpretations of myself, Mr. Scott as he stated in his letter) and the Maclaskey personnel, which would indicate a 12 to 15 psi loss as stated by Mr. Scott.

3. It is my opinion that since the formation cavern volume is as you stated virtually nil any seepage or saturation of fluid into the formation (which had previously not seen anything above static pressure) would show more than normal pressure drop (because of the small cavern volume). I see no spike or irregular "blip" on the chart that would indicate a leak out of the salt formation.

4. I would recommend that we operate the well as permitted, monitor very closely the injection volumes, pressures, and brine weight, and report monthly to the OCD. If anything out of the norm is observed we should retest with a 500 lb. spring chart recorder (the 500 lb. recorder is hard to come by; none of the trucking companies have them). I am currently on a waiting list from a meter company to rent or buy a 500 lb. recorder when one is available and calibrated.

Please let me know your thoughts and let me know if you require any further information. Thanks for your cooperation and help.

Best Regards,

Gary

--

Gary M. Schubert

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 _____ TITLE _____ DATE 10/17

Type or print name _____ E-mail address: _____ PHONE: _____

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

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
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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
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Santa Fe, NM 87505

Copies

Form C-103
Revised July 18, 2013

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30-025-37548

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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 DATE

Type or print name E-mail address: PHONE:

For State Use Only

APPROVED BY: TITLE DATE

Conditions of Approval (if any):

Gmail **Gary Schubert <garymschubert@gmail.com>**

RE: BW-36 Schubert Farms Well No. 1 (API# 30-025-37548) OCD June 2, 2017 MIT Approval

1 message

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Cc: "Griswold, Jim, EMNRD" <Jim.Griswold@state.nm.us>, "Whitaker, Mark A, EMNRD" <MarkA.Whitaker@state.nm.us>, "Fortner, Kerry, EMNRD" <Kerry.Fortner@state.nm.us>

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A couple of clarifications/comments:

1. I made an error on OCD employee; Mr. Bowers is correct.

2. I was advised by Mr. Bowers on our phone conversation to start the test as the procedure states. When Mr. Fortner arrived (approximately 1 hour later) I believe he spoke with you and was advised to bleed the pressure off of the chart recorder and then open the recorder back to the formation (please see submitted procedure). My interpretation of the test pressure at that time was approximately 320 psi. The test was conducted for 4 hours from that time to an ending pressure of approximately 305 psi (these were the interpretations of myself, Mr. Scott as he stated in his letter) and the Maclaskey personnel, which would indicate a 12 to 15 psi loss as stated by Mr. Scott.

3. It is my opinion that since the formation cavern volume is as you stated virtually nil any seepage or saturation of fluid into the formation (which had previously not seen anything above static pressure) would show more than normal pressure drop (because of the small cavern volume). I see no spike or irregular "blip" on the chart that would indicate a leak out of the salt formation.

4. I would recommend that we operate the well as permitted, monitor very closely the injection volumes, pressures, and brine weight, and report monthly to the OCD. If anything out of the norm is observed we should retest with a 500 lb. spring chart recorder (the 500 lb. recorder is hard to come by; none of the trucking companies have them). I am currently on a waiting list from a meter company to rent or buy a 500 lb. recorder when one is available and calibrated.

Please let me know your thoughts and let me know if you require any further information. Thanks for your cooperation and help.

Best Regards,

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)

State of New Mexico
Energy, Minerals and Natural Resources Department

FEBRUARY 17, 2016

CERTIFIED MAIL
RETURN RECEIPT NO: 7923 1312

Mr. Gary M. Schubert
H.R.C., Inc.
P.O. Box 5102
Hobbs, NM 88241

Re: Discharge Plan Permit (BW-036), H.R.C. Inc., UIC Class III Brine Well Schubert Farms Brine Well No. 1, API No. 30-025-37548, UL: B, Section 25, Township 19 South, Range 38 East, 330 FNL, 1650 FEL, Lat. 32.63759, Long. 103.09880, NMPM, Lea County, New Mexico

Dear Mr. Schubert,

The discharge permit (BW-036) for H.R.C. Inc. (HRC) Class III Brine Well "Schubert Farms Brine Well No. 1" located 330 FNL, 1650 FEL Unit Letter "B", Section 25, Township 19 South Range 38 East, Lea County, New Mexico, is hereby approved under the terms and conditions specified in the enclosed discharge permit.

The New Mexico Oil Conservation Division (OCD) hereby approves this discharge permit renewal pursuant to 20.6.2.3109A NMAC. Please note 20.6.2.31090 NMAC, which provides for possible future amendment of the permit. Please be advised that approval of this discharge permit does not relieve Llano of liability if operations result in pollution of surface water, groundwater, or the environment.

Please note that 20.6.2.3104 NMAC specifies "When a permit has been issued, discharges must be consistent with the terms and conditions of the permit." Pursuant to 20.6.2.3107C NMAC, Llano is required to notify the Director of any increase in the injection volume or injection pressure, or process modification that would result in any change in the water quality or volume of the discharge.

This discharge permit will expire on September 30, 2021, and HRC should submit a discharge permit renewal application in ample time before this date. Note that under 20.6.2.3106F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved discharge permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit renewal application for the Schubert Farms Class III Brine Well is subject to 20.6.2.3114 NMAC. Every billable facility submitting a discharge permit renewal application is assessed a non-refundable filing fee of $100.00. OCD has already received the required $100.00 filing fee and the $1,700.00 permit fee for a Class III Brine Well is now required by check made payable by HRC to the "Water Quality Management Fund."

If you have any questions, please contact Carl Chavez of my staff at (505-476-3490) or email: Carl J.Chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

David R. Catanach
OCD Director

DRC/cc

Enclosure

cc: Hobbs District Office

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.

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director
Oil Conservation Division

FEBRUARY 16, 2018

Mr. Gary M. Schubert
H.R.C., Inc.
P.O. Box 5102
Hobbs, NM 88241

Re: Discharge Plan Permit (BW-36) H.R.C., Inc. UIC Class III Brine Well "Schubert Farms Brine Well No. 1" API No. 30-025-37548, UL: B Section 25 Township 19 South, Range 38 East, NMPM, Lea County, New Mexico

Mr. Schubert,

The Oil Conservation Division (OCD) notices HRC's discharge permit will expire on September 30, 2021. The OCD requests HRC review the submittal deadlines for documents since the permit was issued, which are required under the permit, i.e.,

- Section 2.A Quarterly analysis of injected fluids and brine
- Section 2.A.1 Monitor well installation with semi-annual sampling information
- Section 2.B.1 Surface Subsidence Monitoring Plan information
- Section 2.B.2 Solution Cavern Characterization Plan
- Section 2.B.3 Annual Certification
- Section 2.H.3 Environmental Monitoring from the installed MW
- Section 2.J Annual Report (note list of items to be included) due by June 1st of each year
- Section 3.A.3 Initial hydrostatic testing of pipeline hydrostatic test report with "as-built" pipeline transect and associated construction information, and
- Section 3.F Fluids Injection and Brine Production Volumes and Pressures submittal of monthly reports of injection and production volumes on or before the 10th day of the following month.

The OCD has some of these submittals, but however, but other required information appears to be absent. Therefore, the OCD is requesting HRC review the OCD administrative record (BW-36) on "OCD Online" and submit all required and/or missing information no later than May 4, 2018. OCD will then complete its review of the records to determine the scope of any actions, if any, it may take to bring the discharge permit into compliance.

If you have any questions, please contact Carl Chavez at (505) 476-3490 or by email at Car1J.Chavez@state.nm.us.

Sincerely,

Jim Griswold
Environmental Bureau Chief

JG/cc

Enclosure: Discharge Permit BW-36

cc: Hobbs District Office

DISCHARGE PERMIT APPROVAL CONDITIONS

All discharge permits are subject to Water Quality Control Commission regulations.

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY : The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues a Discharge Permit BW-36 to H.R.C., Inc. (Permittee) to operate a Underground Injection Control (UIC) Class III Well for the solution mining of salt (Schubert Farms Brine Well No. 1 API # 30-025-37548) is located 330 FNL, and 1650 FEL, Unit Letter B (NW/4 NE/4) of Section 25, Township 19S Range 38E, Lat. 32.63759°, Long. -103.09880°, NMPM, Lea County, New Mexico. This brine well is located approximately 1 mile north of Nadine Road and 1.7 miles east of NM-18. The brine station or sales terminal is located approximately 1.1 miles SW of the brine well or at 1914 East Nadine Rd., Hobbs, NM 88240. Produced brine is metered at surface and transported approximately 2 miles via a buried 3- inch polyethylene pipeline to the brine station for sale. The brine station is permitted with the same operator under OCD Permit BW-31.

The Permittee is permitted to inject water into the subsurface salt layers and produce brine for use in the oil and gas industry. Ground water that may be affected by a spill, leak, or accidental discharge of brine occurs at a depth of approximately 50 - 70 feet below ground surface and has a total dissolved solids (TDS) concentration of approximately 700 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class III wells associated with the oil and gas industry (See Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (See 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class III Brine Well is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil-field waste.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

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

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health, (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified of 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through

20.6.2.5299 NMAC) for Class III wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified at 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject non-hazardous fluids into ground water having 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (See Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT: This Discharge Permit is a new permit application. Future replacement of a prior permit does not relieve the Permittee of its responsibility to comply with the terms of that prior permit while that permit was in effect.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has already received the required $100.00 filing fee. The Permittee is now required to submit the $1,700.00 permit fee for a Class III well. Please remit payment made payable to the "Water Quality Management Fund" in care of OCD at 1220 South St. Francis Drive in Santa Fe, New Mexico 87505.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit becomes effective immediately from the date that the Permittee receives this discharge permit or until the permit is terminated or expires. This Discharge Permit will expire on **September 30, 2021**. The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (See Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and OCD's Environmental Bureau of any Facility expansion or process modification (See 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class III well that was approved pursuant to the requirements of 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

    a. Noncompliance by Permittee with any condition of this Discharge Permit; or,
    b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,
    c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (See Section 75-6-6 NMSA 1978; 20.6.2.5101I NMAC; and, 20.6.2.3109E NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;
b. Violation of any applicable state or federal effluent regulations or limitations; or
c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (See Section 75-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS III WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class III well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class III well discharge permit if:

   a. The OCD Director receives written notice 30 days prior to the transfer date; and
   b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

   a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgement that the succeeding Permittee shall be responsible for compliance with the Class III well discharge permit upon taking possession of the facility; and
   b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and
   c. Include information relating to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (See Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief, including injunctive relief (See Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (See Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS III WELLS: The Permittee may use either or both fresh water or water from otherwise non-potable sources. Pursuant to 20.6.2.5207C, the Permittee shall provide analysis of the injected fluids and brine at least quarterly to yield data representative of their characteristics. The Permittee shall analyze both the injected fluids and brine for the following characteristics: pH; density, concentration of total dissolved solids (TDS); chloride concentration; and sodium concentration (for brine only).

1. **Monitor Well:** In **advance of start-up** of brine well operations, the Permittee shall install a downgradient monitor well within 50 feet of the brine well into the water table aquifer and collect a background groundwater sample for general chemistry and WQCC 20.6.2.3103 NMAC groundwater constituents. Groundwater quality data shall comply with EPA Quality Assurance/Quality Control (QA/QC) and Data Quality Objectives (DQOs) and be **submitted to OCD for approval before start-up** of brine production. The monitor well construction shall comply with EPA Standards and be required to be sampled and monitored **semi-annually** thereafter for the following characteristics:

   - pH (Method 9040);

- Eh;
- Specific conductance;
- Specific gravity;
- Temperature; and
- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified in 40 CFR 136.3).

The environmental data results shall be reported in the Annual Report (Section 2.J).

2.B. SOLUTION CAVERN MONITORING PROGRAM:

1. **Surface Subsidence Monitoring Plan:** The Permittee shall submit a Surface Subsidence Monitoring Plan to OCD within 180 days of the effective date of this permit. The Surface Subsidence Monitoring Plan shall specify that the Permittee will install at least three survey monuments and shall include a proposal to monitor the elevation of the monuments and top of well casing at least semi-annually.

   The Permittee shall survey each survey monument and top of well casing at least semiannually to monitor for possible surface subsidence and shall tie each survey to the nearest USGS geodetic benchmark. The Permittee shall employ a licensed professional surveyor to conduct the subsidence monitoring program with proper instrument accuracy assessment at the conclusion of each survey. The Permittee shall submit the results of all subsidence surveys with summary of results and any recommendations to OCD within 15 days of survey completion. If the monitored surface subsidence survey at any measuring point deviates 0.10 ft. or more compared to its baseline elevation, then the Permittee shall notify OCD within 30 days of survey completion for further instructions. If survey results continue to demonstrate subsidence over time, and the Permittee cannot demonstrate the integrity of the cavern and well to the satisfaction of OCD, then it shall cease all brine production and submit a corrective action plan to mitigate the subsidence.

   The Permittee shall include the above information in the Annual Report (Section 2.J).

2. **Solution Cavern Characterization Program:** The Permittee shall submit a Solution Cavern Characterization Plan to characterize the size and shape of the solution cavern using geophysical methods within 180 days of the effective date of this permit. The Permittee shall characterize the size and shape of the solution cavern using a geophysical methods approved by OCD at least once before the expiration date of the permit. The Permittee shall demonstrate that at least 90% of the calculated volume of salt removed based upon injection and production volumes has been accounted for by the approved geophysical method(s) for such testing to be considered truly representative.

   a. The Permittee shall provide an estimate of the size and shape of the solution cavern at least annually in the Annual Report (Section 2.J), based on fluid injection and brine production data.
   b. The Permit shall compare the ratio of the volume of injected fluids to the volume of produced brine monthly. If the average ratio of injected fluid to produced brine varies is less than 90% or greater than 110%, the Permittee shall report this to OCD and cease injection and production operations of its Class III well within 24 hours. The Permittee shall begin an investigation to determine the cause of this abnormal ratio within 72 hours. The Permittee shall submit to OCD a report of its investigation within 15 days of cessation of injection and production operations of its Class III well for further instructions.

3. **Annual Certification:** The Permittee shall certify annually in the Annual Report (Section 2.J) 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.

   If the solution cavern is determined by either OCD or the Permittee to be potentially unstable by either direct or indirect means, then the Permittee shall cease all fluid injection and brine production within 24 hours. If the Permittee ceases operations because it or OCD has determined that the solution cavern is unstable, then it shall submit a plan to stabilize the solution cavern within 30 days. OCD may require the Permittee to implement additional subsidence monitoring and to conduct additional corrective action.

2.C. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its Permit Application to cope with failure of a system(s) in the Discharge Permit.

2.D. CLOSURE: The Permittee shall submit as a condition of C-103 Sundry approval, and for OCD approval, a facility closure plan with third-party cost estimate for its well pursuant to 20.6.2.5209 NMAC and as specified in Permit Conditions 2.I and 5.B to address: well plug and abandonment, land surface restoration; environmental groundwater monitoring (if applicable); pipeline abandonment; and five years of surface subsidence monitoring.

1. **Pre-Closure Notification:** Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of its Class III well. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before Permittee may implement its proposed closure plan.

2. **Required Information:** The Permittee shall provide OCD's Environmental Bureau with the following information:

- Name of facility;
- Address of facility;
- Name of Permittee (and owner or operator, if appropriate);
- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (e.g., sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, other);
- Proposed date of well closure;
- Proposed method and date of surface restoration;
- Proposed method and date of pipeline abandonment;
- Name of preparer; and
- Date.

2.E. PLUGGING AND ABANDONMENT PLAN: Pursuant to 20.6.2.5209A NMAC, when the Permittee proposes to plug and abandon its Class III well, it shall submit to OCD a plugging and abandonment plan that meets the requirements of 20.6.2.3109C NMAC, 20.6.2.5101C NMAC, and 20.6.2.5005 NMAC for protection of ground water. If requested by OCD, Permittee shall submit for approval prior to closure, a revised or updated plugging and abandonment plan. The obligation to implement the plugging and abandonment plan as well as the requirements of the plan survives the termination or expiration of this Discharge Permit. The Permittee shall comply with 20.6.2.5209 NMAC.

2.F RECORD KEEPING: The Permittee shall maintain records of all inspections, surveys, investigations, etc., required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection at the request of an OCD Representative.

2.G. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified at 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. **Oral Notification:** As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

   - The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
   - The name and location of the facility;
   - The date, time, location, and duration of the discharge;
   - The source and cause of discharge;
   - A description of the discharge, including its chemical composition;
   - The estimated volume of the discharge; and,
   - Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. **Written Notification:** Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use form C-141 with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

   The Permittee shall provide subsequent corrective actions and written reports as required by OCD's Environmental Bureau.

2.H. OTHER REQUIREMENTS:

1. **Inspection and Entry:** Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director, to:

   - Upon the presentation of proper credentials, enter the premises at reasonable times;
   - Inspect and copy records required by this Discharge Permit;
   - Inspect any treatment works, monitoring, and analytical equipment;
   - Sample any injection fluid or produced brine;
   - Conduct various types environmental media sampling, and
   - Use the Permittee's monitoring systems and wells in order to collect groundwater samples.

2. **Advance Notice:** The Permittee shall provide OCD's Environmental Bureau and Hobbs District Office with at least five (5) working days advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well plugging, abandonment or decommissioning of any equipment associated with its Class III well.

3. **Environmental Monitoring:** The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC or EPA QA/QC Standards. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit environmental sampling data summary tables, all raw analytical data, and laboratory QA/QC.

   a. A monitor well shall be installed hydrogeologically downgradient from the Brine Well and sampled in accordance with Section 2.A.1.

2.I. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee shall maintain at a minimum, a single well plugging bond in the amount that it shall determine, in accordance with Permit Conditions 2.D and 5.B, to cover potential costs associated with plugging and abandonment of the Class III well, surface restoration, environmental ground water monitoring (if applicable), pipeline abandonment, along with five years of surface subsidence monitoring thereafter. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required environmental related corrective actions.

Methods by which the Permittee shall demonstrate the ability to undertake these measures shall include submission of a surety bond or other adequate assurances, such as financial statements or other materials acceptable to the OCD Director, such as: (1) a surety bond; (2) a trust fund with a New Mexico bank in the name of the State of New Mexico, with the State as Beneficiary; (3) a non-renewable letter of credit made out to the State of New Mexico; (4) liability insurance specifically covering the contingencies listed in this paragraph; or (5) a performance bond, generally in conjunction with another type of financial assurance. If an adequate bond is posted by the Permittee to a federal or another state agency, and this bond covers all of the measures specified above, the OCD Director shall consider this bond as satisfying the bonding requirements of Sections 20.6.2.5000 through 20.6.2.5299 NMAC wholly or in part, depending upon the extent to which such bond is adequate to ensure that the Permittee will fully perform the measures required hereinabove.

2.J. ANNUAL REPORT: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by June 1st of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class III Well Report, Name of Permittee, Discharge Permit Number, API number of well(s), date of report, and person submitting report;
- Summary of Class III well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103;
- Monthly fluid injection and brine production volume, including the cumulative total carried over each year;
- Semi-annual monitor well analytical data results;
- Injection pressure data;
- Pipeline hydrostatic test results;
- Pipeline visual leak inspection monitoring results at joints;
- A copy of the quarterly chemical analyses shall be included with data summary and all QA/QC information;
- Copy of any mechanical integrity test chart, including the type of test, i.e., duration, gauge pressure, etc.;
- Brief explanation describing deviations from the normal operations;
- Results of any leaks and spill corrective action reports;
- An Area of Review (AOR) update summary;
- A summary with interpretation of MITs, surface subsidence surveys, estimated cavern size and shape, cavern volume and geometry measurements with conclusion(s) and recommendation(s);
- A summary of the ratio of the monthly volume of injected fluids to the volume of produced brine;
- A summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- Annual Surface Subsidence Monitoring Plan data results in accordance with Permit Condition 2.B.1;
- Annual Solution Cavern Characterization data results in accordance with Permit Condition 2.B.2; and
- The Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS III WELL OPERATIONS:

3. **Owner/Operator Commitments.** Once a permit is issued, the owner/operator must ensure all operations are consistent with the terms and conditions of the permit and in conformance with all pertinent rules and regulations under both the Water Quality Act. The owner/operator shall abide by all commitments submitted in its discharge permit application including any attachments and/or amendments along with these approval conditions. Applications which reference previously approved plans on file with the OCD shall be incorporated into this permit and the owner/operator shall abide by all commitments of such plans.

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206A NMAC to ensure that:

1. **Brine Production Method:** During the cavern development process and daily brine production, a normal flow configuration consisting of fresh water injection shall occur through the innermost tubing string with brine production through the casing string backed by cement to surface to promote proper cavern development with depth; and to prevent cavern ceiling collapse. Injection and production flow may temporarily be reversed as required periodically to clean the tubing and annulus. However, a normal flow

regime is required during daily injection and production must only occur in the intended solution mining interval.

2. **Injection Out of Zone:** Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that its Class III well is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1., then the Permittee shall within 24 hours notify OCD's Environmental Bureau and Hobbs District Office of the circumstances and action(s) taken. The Permittee shall cease operations until proper repairs are made and it has received approval from OCD to re-start injection operations.

3. **Pipeline:** Initial hydrostatic testing of pipeline is required for any pressure loss, leakage, etc. at joints. The hydrostatic test report with "as-built" pipeline transect and associated construction information shall be submitted to OCD for approval before pipeline activation. Mandatory Hydrostatic Testing of the pipeline is required after leakage and/or before the expiration date of the Permit. The pipeline shall be constructed with an Emergency Shut-Down Device with block off locations for pipeline isolation, access, cleaning, testing, etc. Daily pipeline inspection and monitoring is required at a minimum for the first week and each time the pipeline is brought back into service after shut-down, service work, etc. The pipeline shall be inspected within 8-hours of pipeline pressure loss, upset, etc. Weekly inspection and monitoring at a minimum is required thereafter. Inspection record keeping is required and shall include the date and time of each inspection, inspectors name and contact information, weather conditions with inspection summary, any conclusion on pipeline condition with any recommendations. Spills or release locations shall include GPS Coordinates and be handled in accordance with Condition 2.G Release Reporting herein.

3.B. INJECTION OPERATIONS:

1. **Well Injection Pressure Limit:** The Permittee shall ensure that the maximum wellhead or surface injection pressure on its Class III well shall not exceed the fracture pressure of the injection salt formation and will not cause new fractures or propagate any existing fractures of cause damage to the system and underground source of drinking water.

2. **Pressure Limiting Device:** The Permittee shall equip and operate its Class III well or system with a pressure limiting device which shall, at all times, limit surface injection pressure to the maximum allowable pressure for its Class III well. The Permittee shall monitor the pressure-limiting device daily and shall report all pressure exceedances within 24 hours of detecting an exceedance to OCD's Environmental Bureau.

   The Permittee shall take all steps necessary to ensure that the injected fluids enter only the proposed injection interval and is not permitted to escape to other formations, fresh water zones, or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated, or that damage to the well, the injection zone, or formation has occurred.

3.C. CONTINUOUS MONITORING DEVICES: The Permittee shall use continuous monitoring devices to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.

3.D. MECHANICAL INTEGRITY FOR CLASS III WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall demonstrate mechanical integrity for its Class III well at least once every two years or more frequently as the OCD Director may require for good cause during the life of the well. The Permittee shall demonstrate mechanical integrity for its Class III well every time it performs a well workover, including when it pulls the tubing. A Class III well has mechanical integrity if there is no detectable leak in the casing or tubing which OCD considers to be significant at maximum operating temperature and pressure; and no detectable conduit for fluid movement out of the injection zone through the well bore or vertical channels adjacent to the well bore which the OCD Director considers to be significant. The Permittee shall conduct a casing Mechanical Integrity Test (MIT) from the surface to the approved injection depth to assess casing integrity. The MIT shall consist of a 30-minute test at a minimum

pressure of 500 psig measured at the surface when tubing is removed and a plug is installed within 20 ft. of the casing shoe depth. Alternatively, the MIT may consist of a casing/cavern 4-hr. test at a minimum pressure of 300 psig measured at the surface when the cavern and casing are full and tubing remains in the well. More work is required in the "casing/cavern" test in the event of failure to determine the actual cause.

The Permittee shall notify OCD's Environmental Bureau and Hobbs District Office at least 5 days prior to conducting any MIT to allow OCD Hobbs the opportunity to witness the MIT.

2. The following criteria will determine if the Class III well has passed the MIT:

   a. Passes MIT if zero bleed-off during the test;
   b. Passes casing MIT if final test pressure is within +/- 10% of starting pressure, if approved by OCD (Note: Passes +/- 1% of starting pressure for casing/cavern test due to the massive volume of fluid required in the cavern and casing during this test);
   c. When the MIT is not witnessed by OCD and fails, the Permittee shall notify OCD within 24 hours of the failure of the MIT.
   d. All chart recorder information, charts containing appropriate information, calibration sheets, etc. shall be provided to OCD within 5 working days of completing an MIT.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use by the Permittee of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry. When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

3.E. WELL WORKOVER OPERATIONS: Pursuant to 20.6.2.5205A(5) NMAC, the Permittee shall provide notice to and shall obtain approval from OCD's District Office in Hobbs and the Environmental Bureau in Santa Fe prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Hobbs District Office. Properly completed Forms C-103 and/or C-105 must be filed with OCD upon completion of workover activities and copies included in that year's Annual Report.

3.F. FLUIDS INJECTION AND BRINE PRODUCTION VOLUMES AND PRESSURES: The Permittee shall continuously monitor the volumes of water injected and brine production. The Permittee shall submit monthly reports of its injection and production volumes on or before the 10th day of the following month. The Permittee shall suspend injection if the monthly injection volume is less than 110% or greater than 120% of associated brine production. If such an event occurs, the Permittee shall notify OCD within 24 hours.

3.G. AREA OF REVIEW (AOR): The Permittee shall report within 72 hours of discovery any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class III well. OCD shall be notified within 24 hours of having knowledge of any wells lacking cement within the cavern interval within a ½-mile radius from the Class III well.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (e.g., septic systems, leach fields, dry wells, etc.) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes

and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. ANNUAL REPORT: The Permittee shall submit its annual report to OCD by June 1st of each year.

5.B. BONDING OR FINANCIAL ASSURANCE: The Permittee shall submit an estimate of the minimum cost to properly close, plug and abandon its UIC Class III well, conduct ground water restoration if applicable, and any post-operational monitoring as may be needed (see 20.6.2.5210B(17) NMAC) within 90 days of permit issuance (See 20.6.2.5210B(17) NMAC), and/or the Closure Plan addresses this requirement and is approved by OCD. The Permittee's cost estimate shall be based on third person estimates and included in the Closure Plan with the application. OCD will require the Permittee to submit a single well plugging bond based on the approved third person cost estimate for OCD approval before OCD may issue approval to drill and construct the well (also see Permit Conditions 2.D and 2.I).

5.C. SURFACE SUBSIDENCE MONITORING PLAN: The Permittee shall submit the Surface Subsidence Monitoring Plan required in accordance with Permit Condition 2.B.1 within 180 days of permit issuance for OCD approval.

5.D. SOLUTION CAVERN CHARACTERIZATION PLAN: The Permittee shall submit the Solution Cavern Characterization Plan required in accordance with Permit Condition 2.B.2 within 180 days of permit issuance for OCD approval.