BW - 8

MECHANICAL INTEGRITY TEST (MITs)

DATE: _____

NOON
Graphic Controls LLC
CHART NO. MC MP-1000
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
PRINTED IN U.S.A.
6 AM
6 PM
Start
7:50 AM
Brine Well Test
Salty Dog Inc.
Brine Supply Well #1
30-025- 26307-00-00
J 5-19s-36E
Cal date 1-31-18
Ser.# 15698
1000#
12 Hour
Gary Robinson -OCD
Jim w/ Standard
10:21 PM
2-9-18

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS,
NM 88240

To:Rental DATE:01/31/18

This is to certify that:

I, RLLarmon ,Technician for American Valve & Meter Inc. has checked the calibration of the following instrument. These points

12 "_Pressure recorder Ser#15698

Pressure #			* Pressure #		
Test	Found	Left	Test	Found	Left
- 0	-	- 0	-	-	-
- 500	- S	- 500	-	-	-
- 700	- A	- 700	-	-	-
- 1000	- M	- 1000	-	-	-
- 200	- E	- 200	-	-	-
- 0	-	- 0	-	-	-

Remarks:_____

_____

_____

Signature: _____

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

HOBBSOCD
AUG 20 2013
RECEIVED

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

Form C-103
Revised August 1, 2011

WELL API NO. 30-025-26307	
5. Indicate Type of Lease STATE FEE ☒	
6. State Oil & Gas Lease No. 25087	
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 Brine Supply Well
1. Type of Well: Oil Well ☐ Gas Well ☒ Other (Brine Well)	8. Well Number #001
2. Name of Operator PAB Services Inc. DBA Salty Dog Inc.	9. OGRID Number 184208
3. Address of Operator P O BOX 190, LUBBOCK, TX 79408	10. Pool name or Wildcat BSW & Salado
4. Well Location Unit Letter: J , 1980 feet from the SOUTH line and 1980' feet from the EAST line Section 5 Township 19S Range 36E NMPM County LEA COUNTY	
	11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3963 GL

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	☐						
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.

MIRU Pulling Unit
Flow well down to tanks
GIH w/ 4 ¾" bit and 5 ½" casing scraper to 1820'
POOH w/ bit and scraper
GIH w/ 5 ½" AD-1 packer and set @ 1820' – Test casing to 420# for 30 minutes (See attached chart)
RDMO

Wait on Drilling rig to finish recompletion

Spud Date: August 5, 2013

Rig Release Date: August 8, 2013

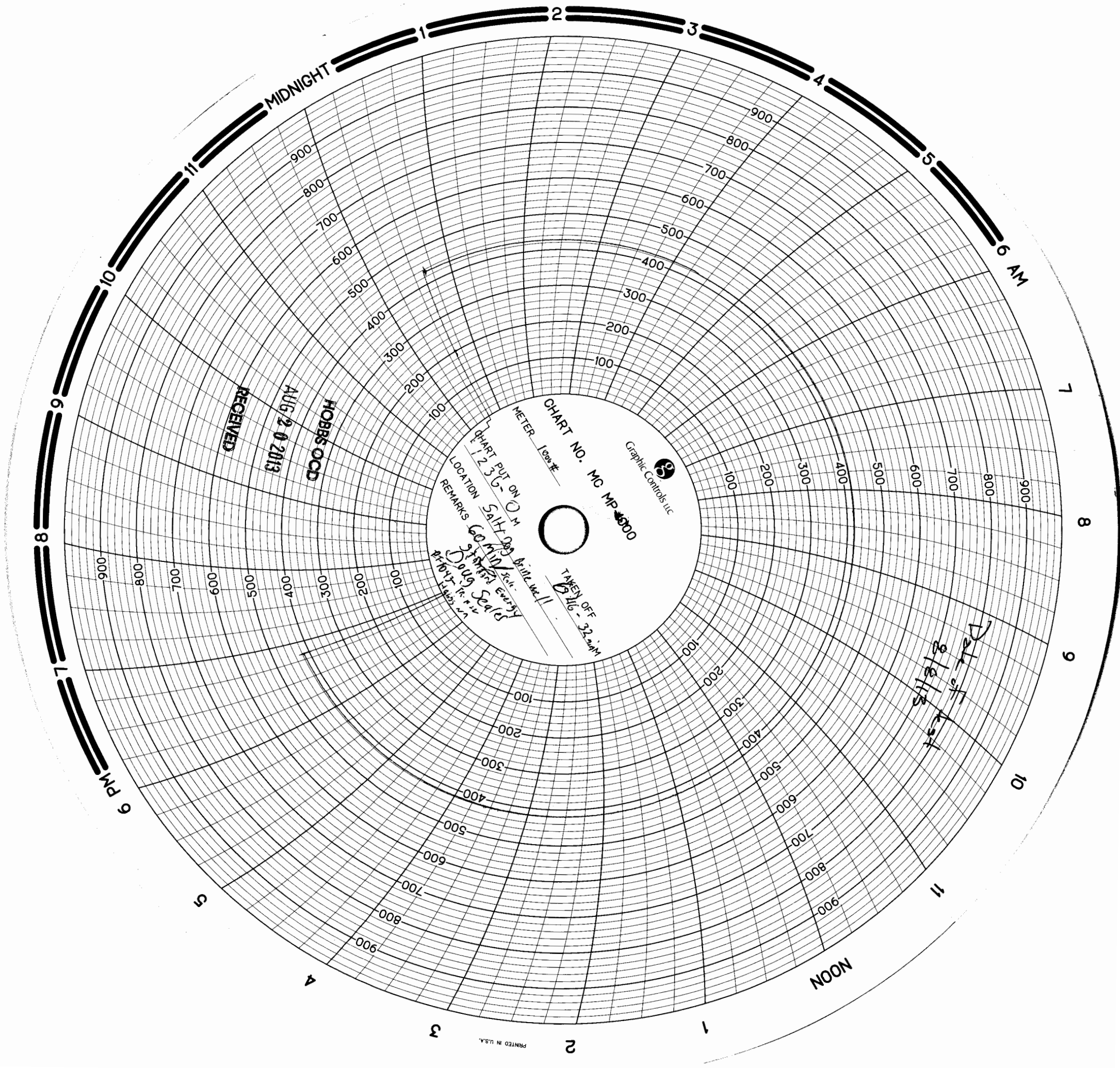
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Randy Poston TITLE Manager DATE: 10-18-2012

Type or print name RANDY POSTON E-mail address: randyp@aqueousoperating.com PHONE: (806) 787-1864

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):


MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
NOON
1
2
3
4
5
6 PM
7
8
9
10
11
100
200
300
400
500
600
700
800
900
CHART NO. MC MP-4000
Graphic Controls LLC
METER
CHART PUT ON
LOCATION
REMARKS
TAKEN OFF
RECEIVED
AUG 20 2013
HOBBS OCD
PRINTED IN U.S.A.

American Valve & Meter, Inc.

1113 W. BROADWAY

P.O. BOX 166 HOBBS, NM 88240

T0: RENTAL **DATE: 10/25/16**

This is to certify that :

I, Tony Flores, Technician for American Valve & Meter Inc.

has checked the calibration of the following instrument.

12"_Pressure recorder **Ser# 18113**

at these points:

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

Remarks: _____

_____

_____

Signature: Tony Flores

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 August 1, 2011

WELL API NO. 30-025-26307
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. 25087

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: Brine Supply Well
1. Type of Well: Oil Well ☐ Gas Well ☒ Other Brine Well
8. Well Number 001
2. Name of Operator PAB Services DBA Salty Dog Inc.
9. OGRID Number 184208
3. Address of Operator P.O. Box 190 Lubbock Tx 79408
10. Pool name or Wildcat BSW ; Salado
4. Well Location
Unit Letter J : 1980 feet from the South line and 1980 feet from the East line
Section 5 Township 19S Range 36E NMPM County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3963

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	☐						
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.

Perform 5 year MIT as directed.

Spud Date: | Rig Release Date:

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

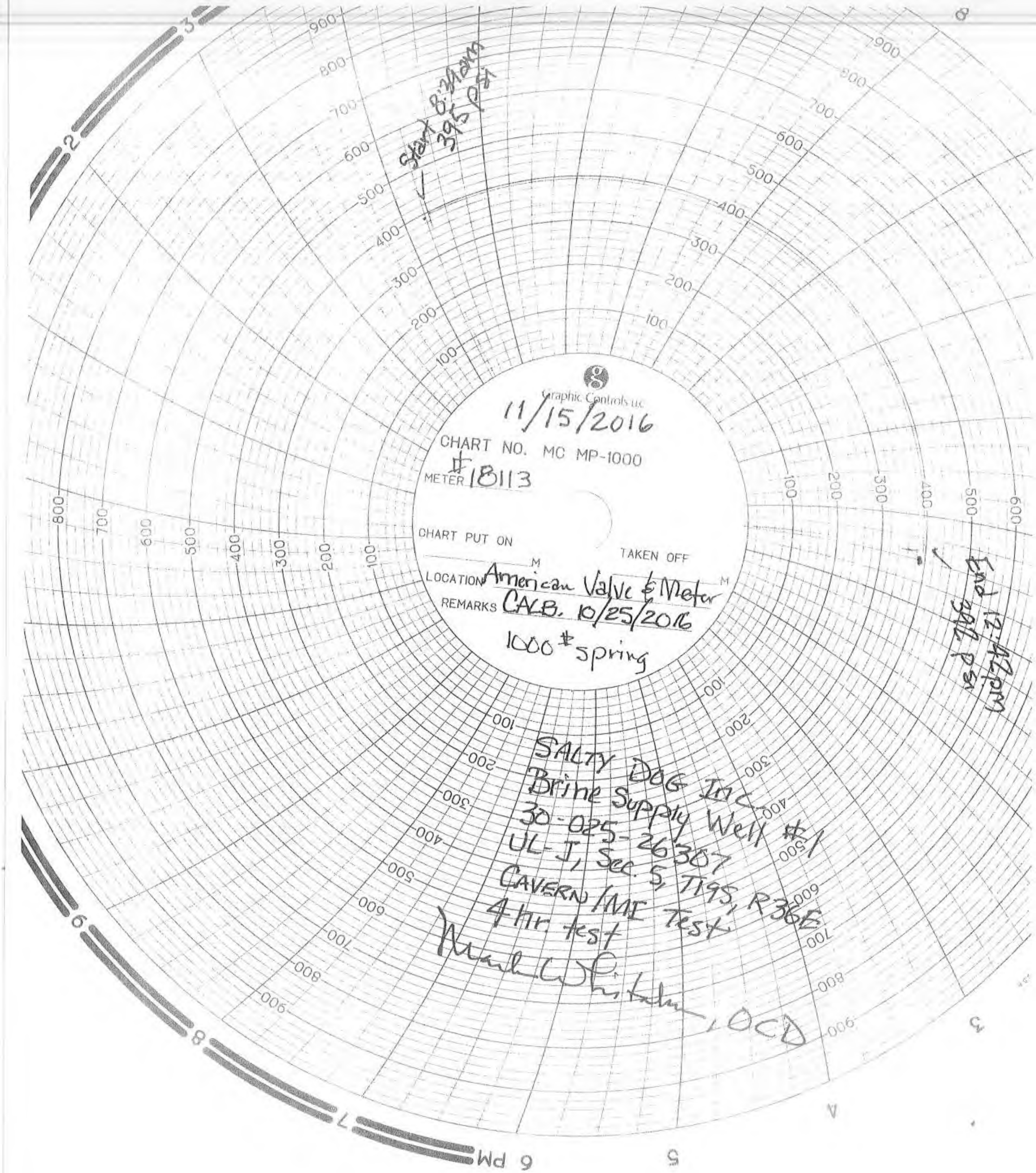
SIGNATURE JD Sayre TITLE Manager DATE 11-15-16

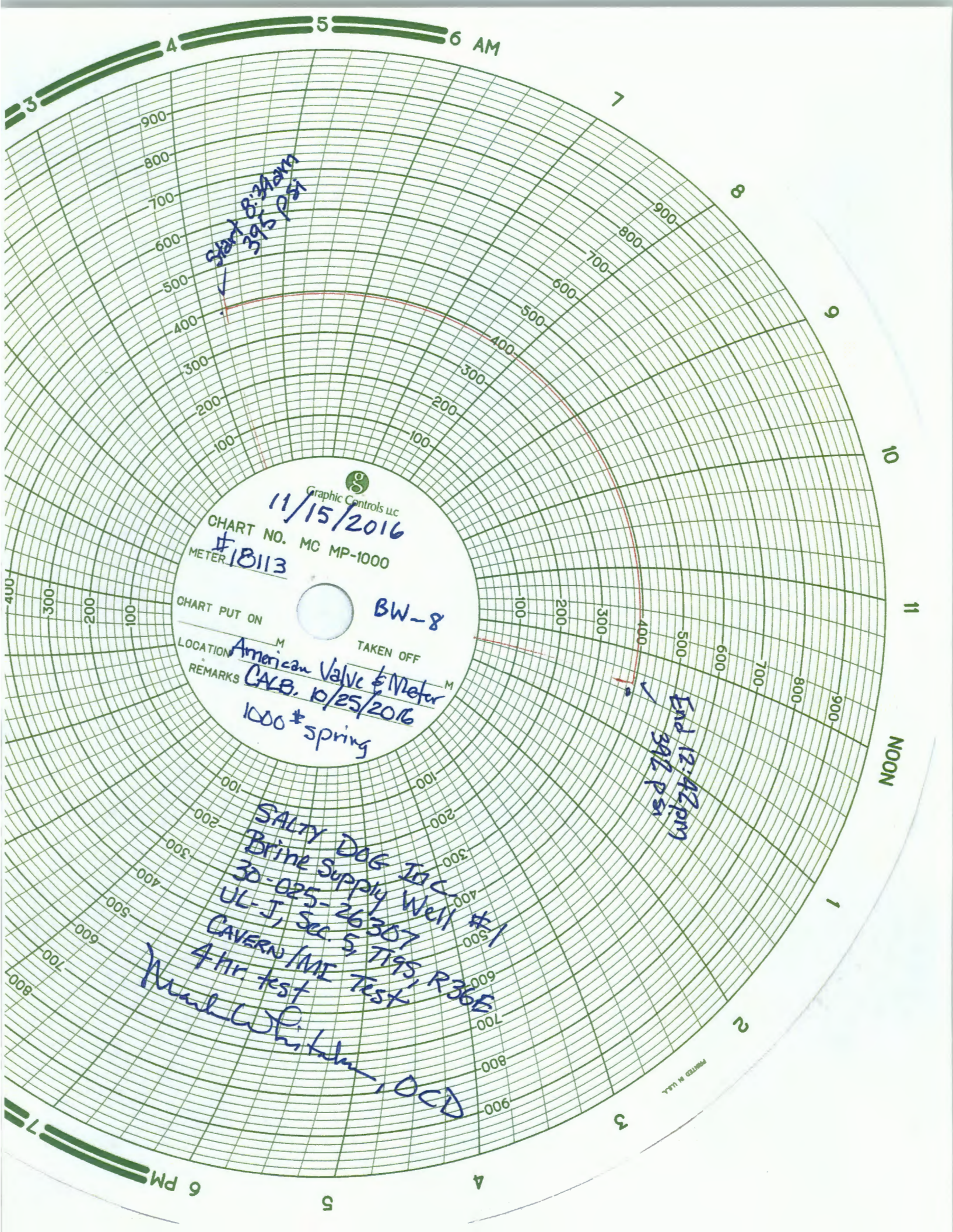
Type or print name Jim Sayre E-mail address: jim@thestandardenergy.com PHONE: 575-361-5072

For State Use Only

APPROVED BY: TITLE DATE

Conditions of Approval (if any):


Graphic Controls LLC
11/15/2016
CHART NO. MC MP-1000
METER #18113
CHART PUT ON
TAKEN OFF
LOCATION American Valve & Meter
REMARKS CALB. 10/25/2016
1000 # spring
SALTY DOG Inc.
Brine Supply Well #1
30-025-26307
UL-J, Sec. 5, T19S, R36E
CAVERN/MI Test
4 Hr. test
OCD
6 PM


Graphic Controls LLC
11/15/2016
CHART NO. MC MP-1000
METER # 18113
CHART PUT ON
BW-8
LOCATION American Valve & Meter
TAKEN OFF
REMARKS CALB. 10/25/2016
1000 # spring
Start 8:34am 395 PSI
End 12:42pm 390 PSI
SALTY DOG Inc.
Brine Supply Well #1
30-025-26307
UL-J, Sec. 5, T19S, R36E
CAVERN/MIT TEST
4 hr. test
OCD
AM
NOON
PM

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 19, 2016 4:56 PM
To: 'pieter@bergsteinenterprises.com'
Cc: Griswold, Jim, EMNRD; Brown, Maxey G, EMNRD; Whitaker, Mark A, EMNRD; Sanchez, Daniel J., EMNRD
Subject: BW-8 DP-325 A Standard Energy Brine Supply #1 30-025-26307 J-5-19S-36E Brine Well MIT Status (BW-8) Last MIT Date: 11/16/2010
Attachments: EPA 5-Yr Casing MIT 10-12-2016 CJC.pdf; UIC Class III Cavern MIT Guidence 10-12-16CJC..pdf

Mr. Bergstein:

Re: BW-8 DP-325 A Standard Energy Brine Supply #1 30-025-26307 J-5-19S-36E 1980 1980 32.688427 -103.374346 Lea Hobbs 11 Private Private 1 New Active 5/7/79 5/7/79 -- 372 60 Rustler Salado 2000 1871 5.5 2552 2.5 2958 552 Y 6,814,640 1,022,196 5,465,558 194 0.0972 2/5/09 41 1 1871-1903 720 4/22/2008 8/14/2009 under review pieter@bergsteinenterprises.com 806-741-1080

Pieter:

Good afternoon. The New Mexico Oil Conservation Division (OCD) has reviewed its administrative record for the above subject brine well, and notice that your brine well must be tested on or before November 30, 2016.

Please contact Mr. Mark A. Whitaker (see contact information below) to schedule either your Casing MIT or Cavern MIT (see attached procedures). The choice is yours.

District 1
1625 N. French Drive
Hobbs, New Mexico 88240
OFFICE: (575) 393-6161 FAX: (575) 393-0720
EMERGENCY NUMBER - MOBILE: (575) 370-3186
Business Hours:
7:00 AM-12:00 PM and 1:00 - 4:00 PM
Monday through Friday

Mark A. Whitaker - Petroleum Engineering Specialist
Phone extension: 120
Mobile: (575) 399-3202

- Field Inspections, Plug and Abandonment, Orphan Well Plugging, P&A Site Release

Please contact me if you have questions. Thank you.

Mr. Carl J. Chavez
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")

UIC Program
Brine Well EPA 5-Yr. MIT Guidance

(30-minute hydrostatic well casing MIT closed to formation)

1) A work over rig must remove all tubing from the hole.

2) A packer or plug must be set within 20 feet of the casing shoe depth and piping must be filled, and pressured up from 300 to 500 psi. The casing/tubing annulus must be loaded with inert fluid at least 24 hours prior to testing.

2) Have manpower and equipment available for pressure test. Wellhead shall be prepared for test and all valves and gauges should be in good working order.

3) Pumps, tanks, external lines etc. must be isolated from the wellhead during test.

4) A continuous recording pressure device with a 1 **or 4-hour clock** shall be installed on the casing annulus. The pressure range shall not be greater than 500 psig. The operator must provide proof that the pressure-recording device has been calibrated within the past 6 months.

5) A minimum of one pressure gauge shall be installed on the casing/tubing annulus.

6) OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test operator may be required to bleed-off well pressure to demonstrate recorder and gauge response into an adequately sized containment vessel(s) for this purpose and to verify that there were no obstructions in the well during the test. Effluent from this vessel must be discharged back into the well at the completion of the test.

7) The Operator shall supply the following information on the pressure chart:

   A. Company Name, Well Name, API #, Legal Location.

B. Test Procedure (1) Casing + Formation (2) Casing Test Only (3) Both (4) Other
C. Testing Media: Water, Gas, Oil, Etc.
D. Date, time started and ending.
E. Name (printed) and signature of company representative and OCD Inspector

8) **TEST ACCEPTANCE:** The OCD will use the following criteria in determining if a well has passed the Mechanical Integrity Test:

A. **Passes** if Zero Bleed-Off during the test.
B. **Passes** if Final Test Pressure is within ± 10% of Starting Pressure, if approved by the OCD inspector.
C. **Fails** if any Final Test Pressure is greater than ± 10% of Starting Pressure. Operators must investigate for leaks and demonstrate that mechanical integrity of the well(s) by ensuring there are no leaks in the casing, or packer, and injected/produced fluids are confined within the piping and injection zones. Wells shall not resume operations until approved by OCD.

Note: OCD recognizes that different operations, well designs, formation characteristics and field conditions may cause variations in the above procedures. If operator wishes to make or anticipate changes, please notify the OCD for approval. All operators are responsible to notify OCD of any procedure that may cause harm to the well system or formation. Please be advised that OCD approval does not relieve any operator of liability should operations result in pollution of surface water, groundwater, or the environment.

Also note: This document is intended to provide technical guidance to operators on technical means to achieve compliance with the rules and regulations of the Oil Conservation Division and the Oil and Gas Act. The test procedures set forth are not regulations or policies and therefore other methods may exist to achieve compliance with the rules and regulations and the Oil and Gas Act.

NMOCD recommends that a licensed professional engineer or licensed geologist, or a licensed professional engineer or licensed geologist designee supervise all test procedures and associated field activity.

OCD UIC Program
Draft Brine Well Cavern MIT Guidance (4-hour hydrostatic well test open to the salt formation)

1) The cavern and all piping must be filled, pressured up and stabilized for a period of at least 24 hours prior to testing. If this test requires a packer then casing/tubing annulus must be loaded with inert fluid 24 hours prior to testing.

2) Have manpower and equipment available for pressure test. Wellhead shall be prepared for test and all valves and gauges should be in good working order.

3) Pumps, tanks, external lines etc. must be isolated from the wellhead during test.

4) A continuous recording pressure device with an **8 or 12-hour clock** shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 500 psig. The operator must provide proof that the pressure-recording device has been calibrated within the past 6 months. **Note: Wells with packer installed: If this test requires both the casing/tubing annulus and cavern to be tested then two recording devices must be supplied or one recording device with two pins.**

5) A minimum of one pressure gauge shall be installed on the casing/tubing annulus.

6) OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). Ensure that fluids from the well are not spilled onto the ground.

7) The Operator shall supply the following information on the pressure chart:

   A. Company Name, Well Name, API #, Legal Location.
   B. Test Procedure (1) Casing + Formation (2) Casing Test Only (3) Both (4) Other
   C. Testing Media: Water, Gas, Oil, Etc.
   D. Date, time started and ending.
   E. Name (printed) and signature of company representative and OCD

Inspector

8) **TEST ACCEPTANCE:** The OCD will use the following criteria in determining if a well has passed the Mechanical Integrity Test:

A. **Passes** if Zero Bleed-Off during the test.

B. **Passes** if Final Test Pressure is within ± 1% of Starting Pressure, if approved by the OCD inspector.

C. **Fails** if any Final Test Pressure is greater than ± 1% of Starting Pressure. Operators must investigate for leaks and demonstrate that mechanical integrity of the well(s) by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and injection zones. Wells shall not resume operations until approved by OCD. Caution is urged to reduce pressure appropriately as a function of depth to the salt cavern to prevent fracturing during testing.

Note: OCD recognizes that different operations, well designs, formation characteristics and field conditions may cause variations in the above procedures. If operator wishes to make or anticipate changes please notify the OCD for approval. All operators are responsible to notify OCD of any procedure that may cause harm to the well system or formation. Please be advised that OCD approval does not relieve any operator of liability should operations result in pollution of surface water, groundwater, or the environment.

Also note: This document is intended to provide technical guidance to operators on technical means to achieve compliance with the rules and regulations of the Oil Conservation Division and the Oil and Gas Act. The test procedures set forth are not regulations or policies and therefore other methods may exist to achieve compliance with the rules and regulations and the Oil and Gas Act.

OCD recommends that a licensed professional engineer or licensed geologist, or a licensed professional engineer or licensed geologist designee supervise all test procedures and associated field activity.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, April 23, 2010 6:56 AM
To: 'Alvarado, David'; 'lyn.sockwell@basicenergyservices.com'; 'James Millett'; Clay Wilson; 'Patterson, Bob'; 'gandy2@leaco.net'; 'Gary Schubert'; 'Dan Gibson'
Cc: VonGonten, Glenn, EMNRD; Griswold, Jim, EMNRD
Subject: New Mexico UIC Class III Brine Well MIT Scheduling with Completion by September 30, 2010

Gentlemen:

Re:

Basic Energy Services: BW-002 & BW-025
Gandy Corporation: BW-004 & BW-022
Key Energy Services, LLC: BW-028
Mesquite: BW-027 (MITs on 2-Well System Completed this Season) & BW-030
Salty Dog: BW-008
HRC: BW-031

Good morning. It is that time of year again to remind operators that their MITs for this season must be completed by 9/30/2010. The list of operator names w/ associated brine wells are provided above and as in the past, the OCD attempts to schedule MITs logistically on the same day and it in a route with start times that is most efficient in the field.

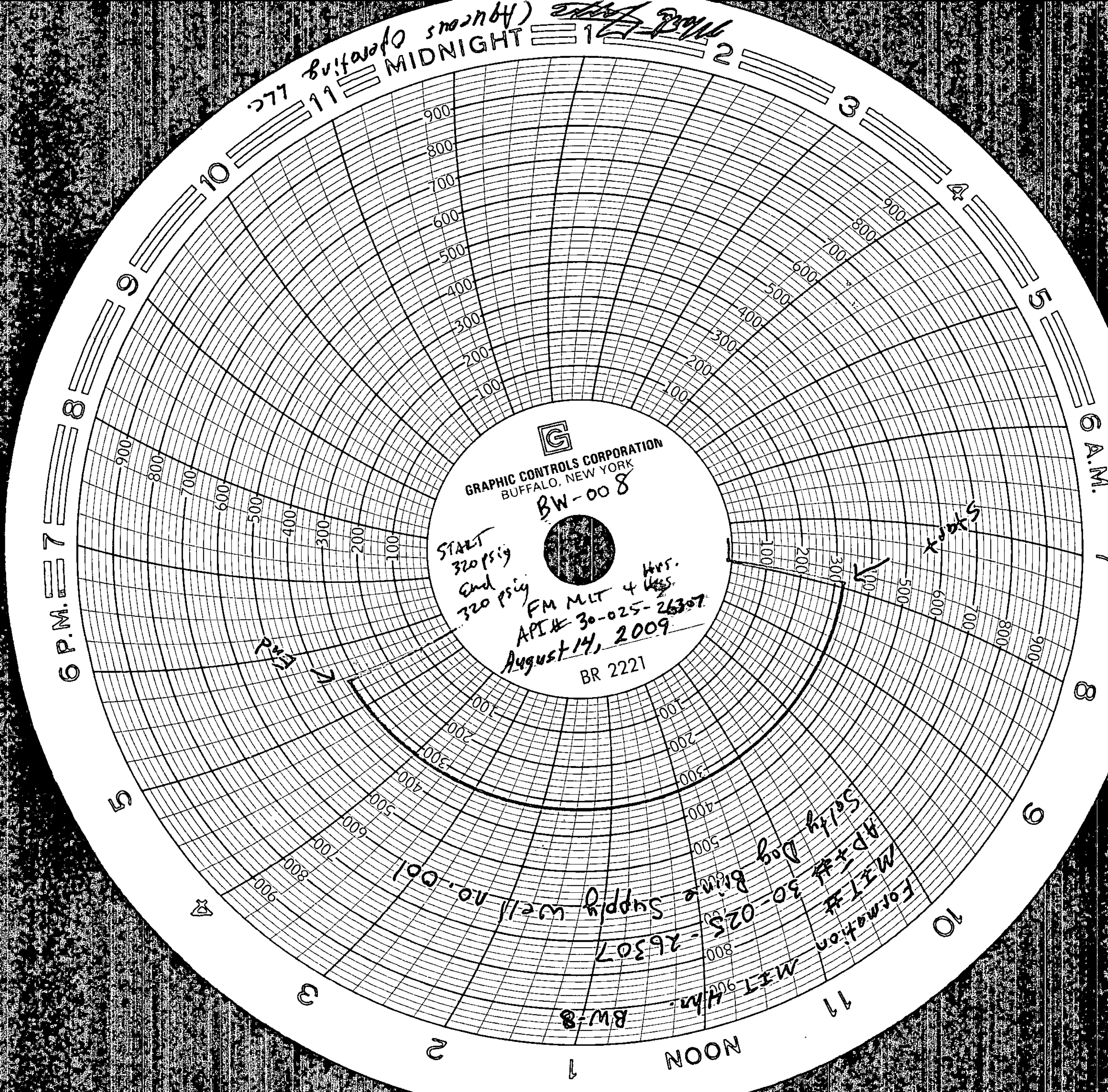
Operators are aware of the annual formation MIT (4-hr @ 300 psig or less depending on historical pressure and TD of well) and every 5-yrs. or after well workover. EPA MIT (30 min. @ 500 psig). Operators need to review well MIT records to inform OCD-EB of the type of MIT it will run this year and inform OCD-EB of any issues or concerns associated with this season's MIT.

You may access your well information on OCD Online either by API# and/or Permit Number at http://ocdimage.emnrd.state.nm.us/imaging/AEOrderCriteria.aspx and http://www.emnrd.state.nm.us/OCD/OCDPermitting/Data/Wells.aspx. For information on New Mexico's UIC Program and training information, please go to: http://www.emnrd.state.nm.us/ocd/Publications.htm.

Please contact Jim Griswold at (505) 476-343465 on or before May 7, 2010 to schedule your preferred MIT date and time. Jim will work to finalize the witness schedule with each of you. Thank you in advance for your cooperation.

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

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



MIDNIGHT
6 A.M.
NOON
6 P.M.
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
BW-008
START 320 psig
End 320 psig
FM MIT 4 Hrs.
API# 30-025-26307
August 14, 2009
BR 2221
Start
Formation MIT 4 hr. BW-8
API# 30-025-26307
Salty Dog Brine Supply well no. 001

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

RECEIVED
2009 AUG 28 AM 10 55

TO: Amvan Rental **DATE:** 7-30-09

This is to certify that:

I, Bud Collins, **Technician for American Valve & Meter, Inc., has checked the calibration of the following instrument.**

"Pressure recorder **Serial No:** 3399

at these points.

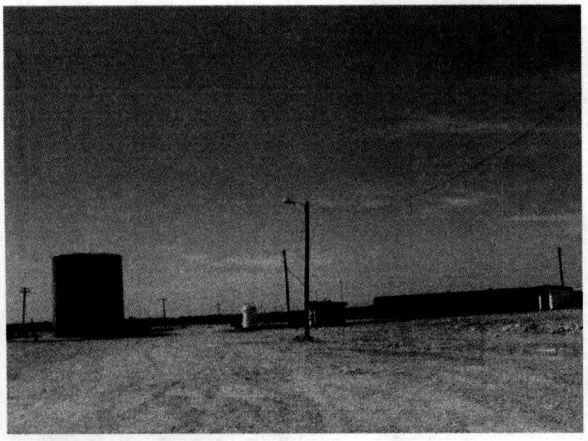
Pressure 0 - 1000 **Temperature** _____

Test	Found	Left	Test	Found	Left
0	—	0	—	—	—
500	—	500	—	—	—
1000	—	1000	—	—	—
700	—	700	—	—	—
200	—	200	—	—	—
0	—	0	—	—	—

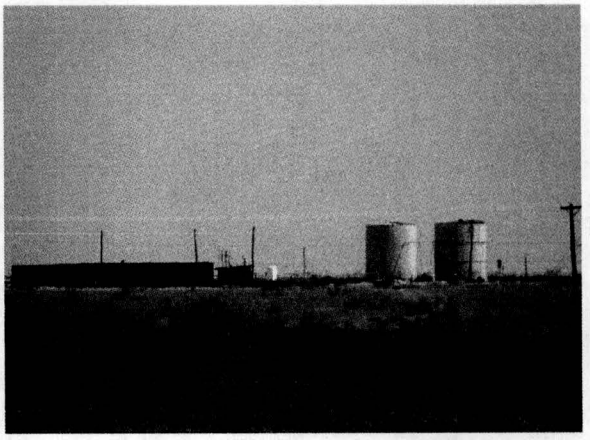
Remarks: _____

Signature Bud Collins

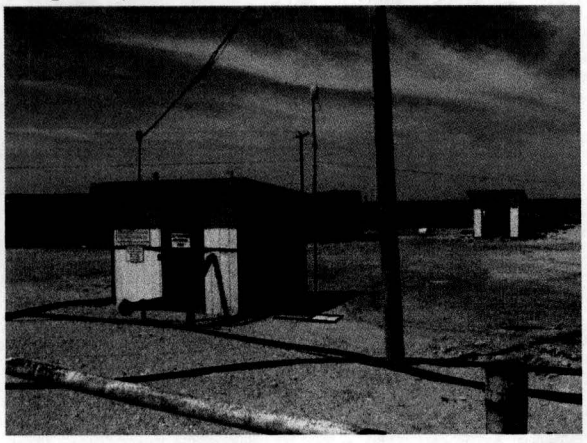
BW-8 Inspection & MIT (8/13/09)



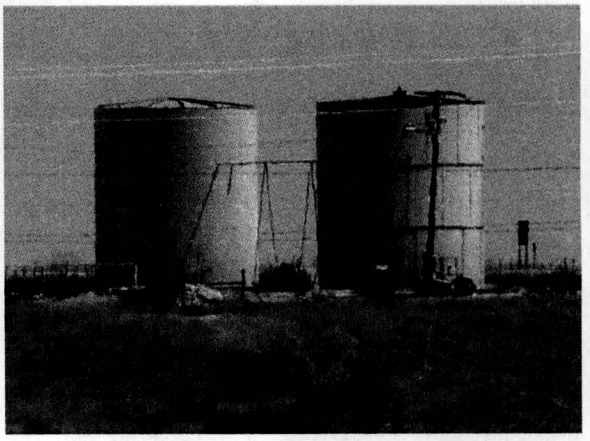
Looking N at brine loading rack w/ temporary black frac brine holding tanks



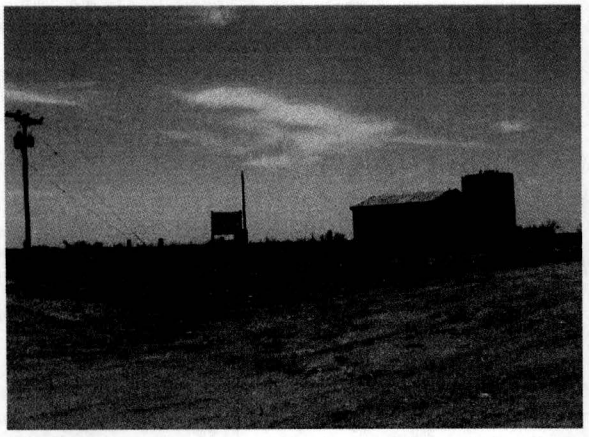
Looking S-SE at out-of-service brine storage tanks near roadway w/ black frac tanks in background



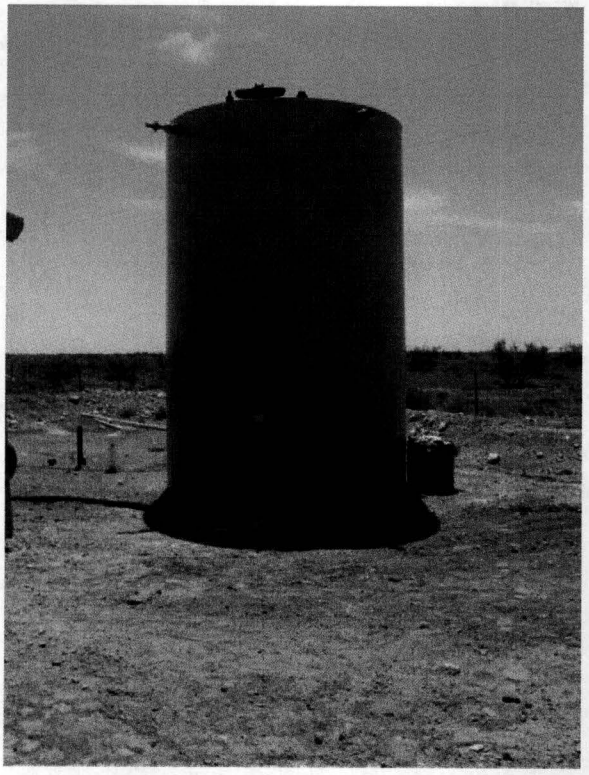
Fresh water well inside shed providing fresh water to brine well for MIT



Looking S-SE Close-up of brine holding tanks near roadway currently out-of-service

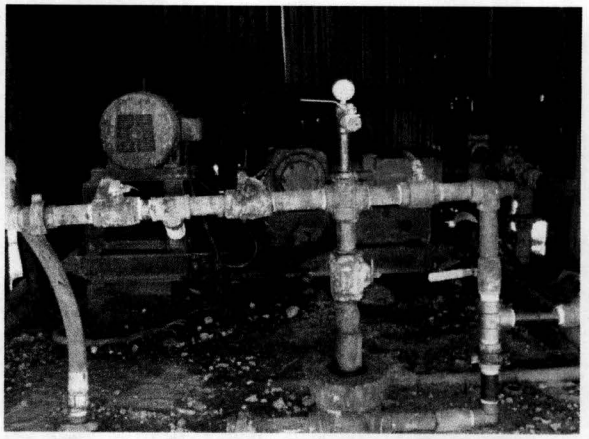


Looking N at shed w/ brine well and fresh water tank that is currently out-of-service

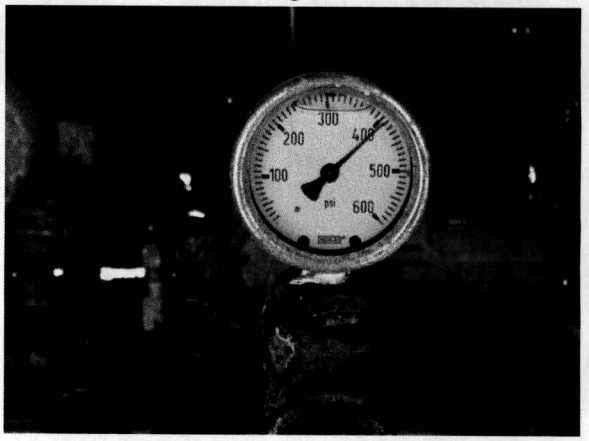


Looking NW at fresh water tank near shed temporarily out-of-service along w/ pump & treat well

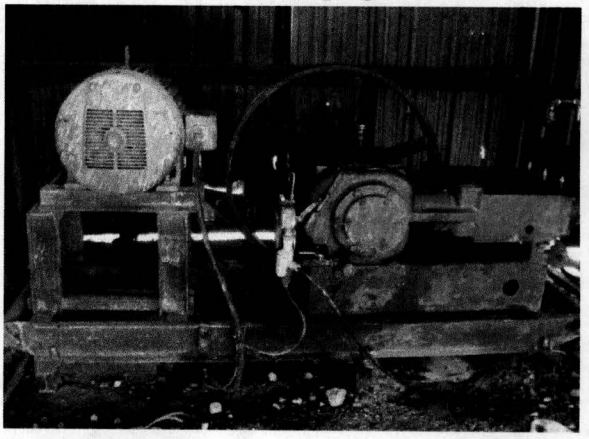
Wellhead inside shed with pump, etc



Well head valve configuration for MIT

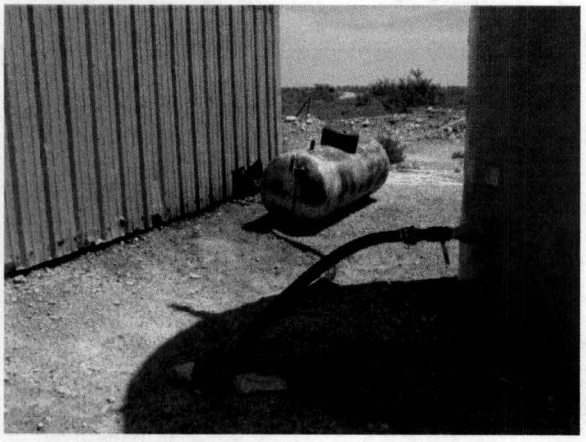


Faulty gauge reads 400 psig while calibrated chart recorder reads 200 psig



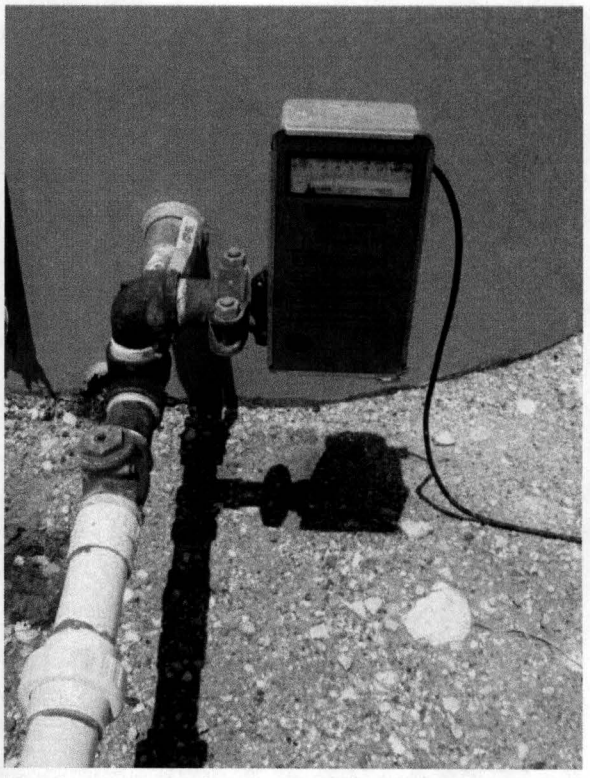
Pump in shed

Charged up wellhead valve configuration

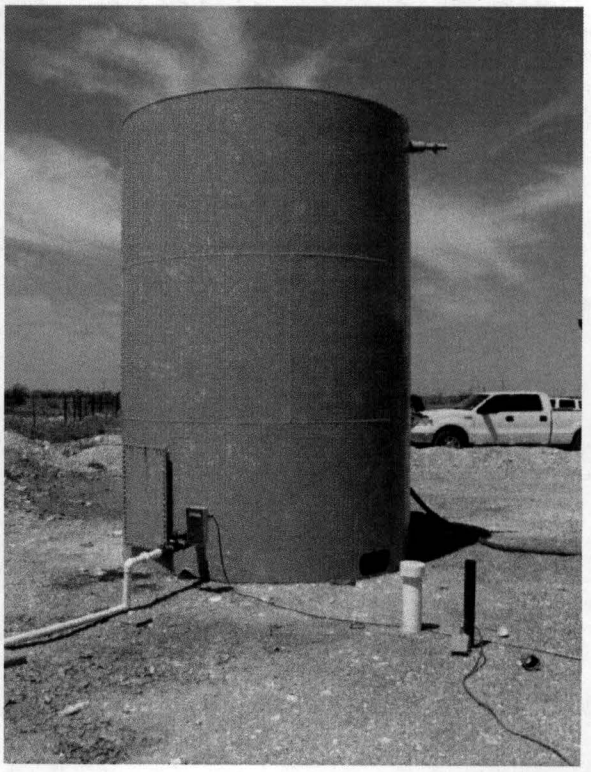


Propane tank between shed and fresh water tank is empty and out-of-service.

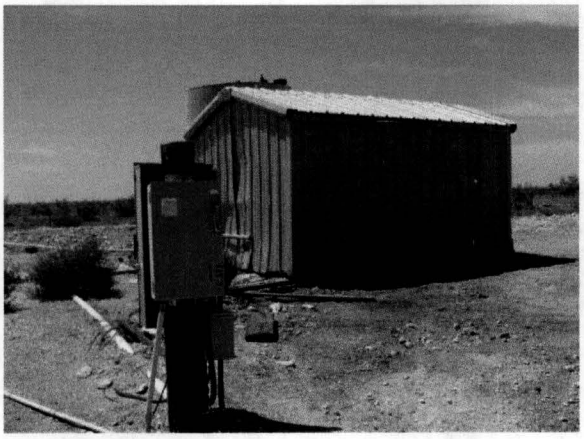
Berm area lacks liner system- awaiting construction w/ liner system



Fresh water tank meter volume empty



Looking E-NE at Fresh water tank out-of-service

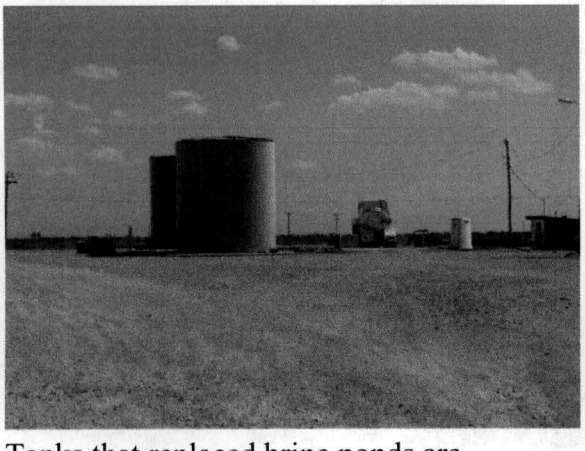


Looking S-SW at Shed with brine well in background

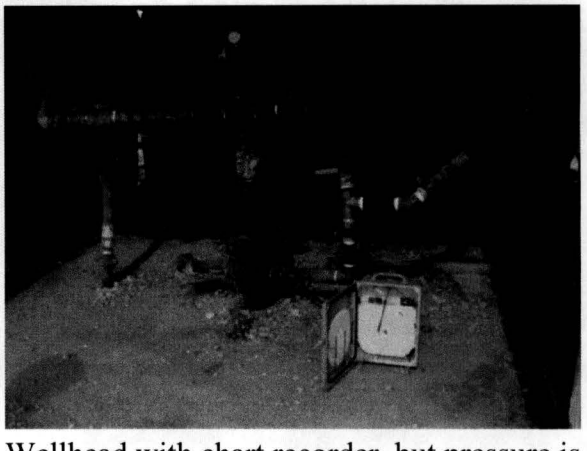
Looking S-SW at blk. temporary frac tanks in background used to store and sell brine

New mobile home within 300 ft. W of wellhead

Blk. temp. frac tanks close-up not within bermed area or on top of secondary liner system



Tanks that replaced brine ponds are currently out-of- service



Wellhead with chart recorder, but pressure is only at 200 psig. Well needs recharging for MIT tomorrow.

Notes:

1) Well pressured up to top gauge pressure of 400 psig was found to be faulty when calibrated chart recorder was connected, pressure was at only 200 psig. Operator agreed to pressure up cavern overnight to run Formation MIT at greater than 300 psig the next morning. C-103 with Formation MIT (4 hrs) will be mailed to OCD the week of 8/17/2009.

2) Black frac tanks temporarily used to store and sell brine are not within bermed and lined containment area(s) until tanks can be installed and operational as per item 3 below. The operator shall step up inspections around the tanks for any leakage and reporting under release reporting in the permit.

3) Tanks installed to replace brine ponds are not in service yet. What is the date on installation and operation? OCD requires a liner system of sufficient mil thickness with adequate dimensions for containing 1 + 1/3 the volume of a single enclosed tank and interconnected tanks enclosed within the berm area. For guidelines see recent OCD Pit and/or Surface Waste Management Regulations.

4) A new mobile home was recently placed within 300 ft. W of the brine wellhead.

5) Operator claims it can't make 10 lb. brine under conventional flow regime.

6) OCD received chart from MIT (run on 8/14/2009) with calibration sheet via mail on 8/28/09 indicating the unwitnessed Formation MIT passed without any pressure loss at 320 psig.

7) OCD notes that his facility is under an NOV with remedial or corrective action issues ongoing.

7/2/2009

Active Brine Well Facilities

• **BW-2** Basic Energy/P&S Eunice #1 (API 30-025-26884)
Began production in July 1980.
Depth to top-of-salt 1320 ft bgs. Casing shoe @ 1440 ft bgs. Tubing depth 1718 ft bgs.
Last sonar log completed February 2009. Interval imaged 1440 to 1666 ft bgs. Log indicates only 21,000 bbls of cavern volume despite historic production of 6.8 Mbbls. Cavern should be ~1Mbbls.
Permit renewal date: 1/6/2014

• **BW-4** Gandy Corporation/Eidson State #1 (API 30-025-26883)
Began production in August 1980.
Depth to top-of-salt 1865 ft bgs. Casing shoe @ 1895 ft bgs. Tubing depth 2461 ft bgs.
Last sonar log completed October 2008. Interval imaged 1909 to 1944 ft bgs. Log indicates only 11 bbls of cavern volume despite historic production of 5.28 Mbbls. Cavern should be ~800,000 bbls.
Permit renewal date: 6/11/2011

• **BW-8** PAB Services/Brine Supply #1 (API 30-025-26307)
Began production in May 1979.
Depth to top-of-salt 2000 ft bgs. Casing shoe @ 1871 ft bgs. Tubing depth 2552 ft bgs.
Last sonar log completed February 2009. Interval imaged 1871 to 1903 ft bgs. Log indicates only 720 bbls of cavern volume despite historic production of perhaps 12 Mbbls. Cavern should be 1.8 Mbbls.
Permit renewal application currently under review.

• **BW-22** Gandy Corporation/Watson #1 (API 30-025-28162)
Began production in April 1983.
Depth to top-of-salt 2290 ft bgs. Casing shoe @ 2249 ft bgs. Tubing depth 2870 ft bgs.
Last sonar log completed August 2008. Interval imaged 2200 to 2220 ft bgs. Log indicates only 11,289 bbls of cavern volume despite historic production of perhaps 18 Mbbls. Cavern should be 2.7 Mbbls.
Permit renewal date: 3/11/2012

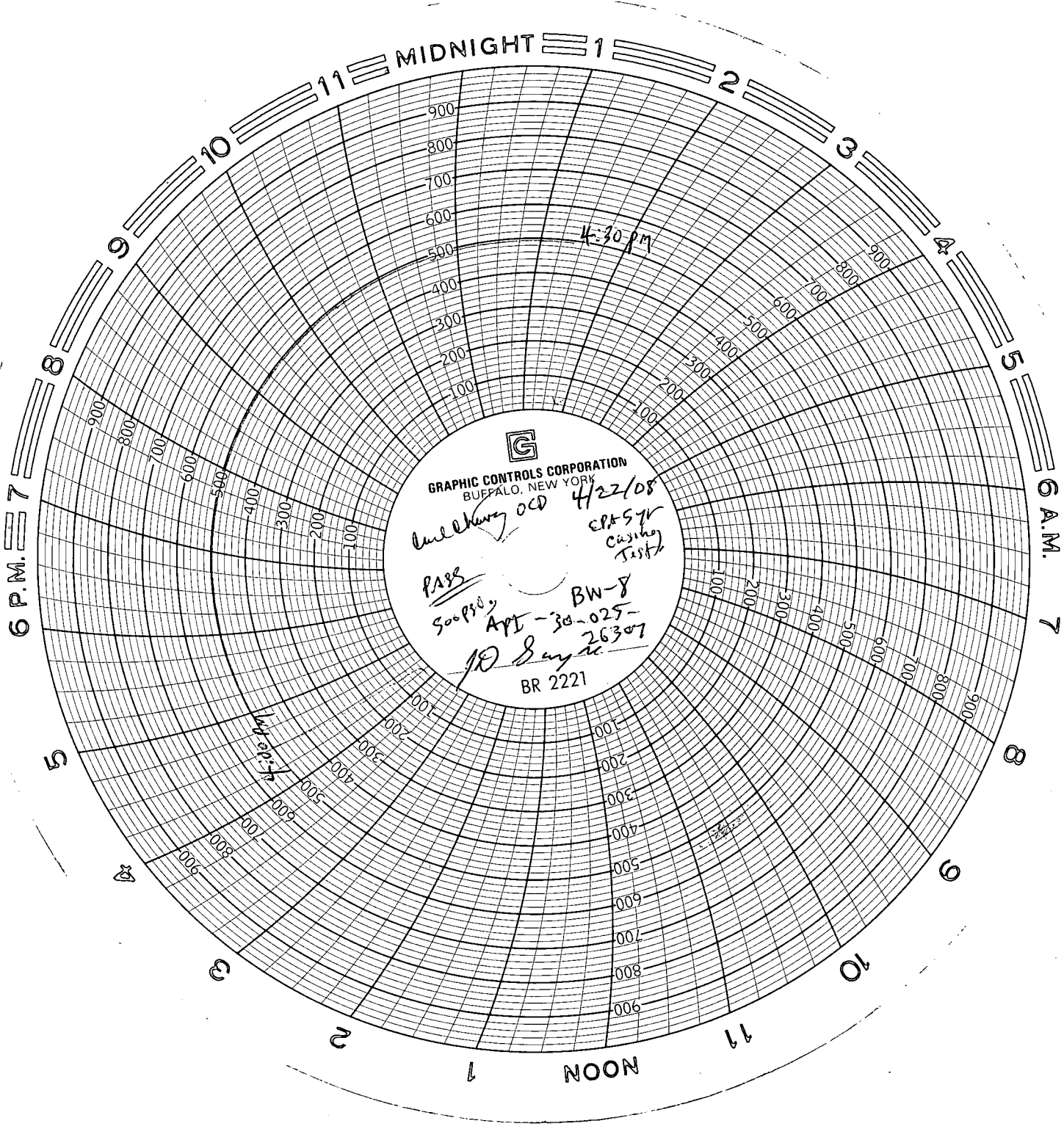
• **BW-25** Basic Energy/Salado #2 (API 30-025-32394)
Began production in September 1993.
Depth to top-of-salt 1220 ft bgs. Casing shoe @ 1220 ft bgs. Tubing depth 1385 ft bgs.
No sonar log run. Historic production of perhaps 1.7 Mbbls, indicating cavern volume of 25,500 bbls.
Permit renewal application currently under review.

• **BW-27** Mesquite SWD/Dunaway #1 and #2 (APIs 30-015-28083 and 28084)
Began production in January 1995.
Depth to top-of-salt 1060 ft bgs. Casing shoe @ 1064 ft bgs. Tubing depth 1024 ft bgs.
Last sonar log attempted December 2008 but failed to get any data due to configuration of casing and tubing.
Permit renewal date: 9/21/2009

• **BW-28** Key Energy/State Brine Well #1 (API 30-025-33547)
Began production in October 1996.
Depth to top-of-salt 1390 ft bgs. Casing shoe @ 1390 ft bgs. Tubing depth 2074 ft bgs.
Sonar log completed 5/20/09. Report not yet provided. Estimated production of perhaps 4 Mbbls. indicating cavern volume of 600,000 bbls.
Permit renewal date: 7/18/2011

• **BW-30** Liquid Resource/Hobbs State #10 (API 30-025-35915)
Began production in July 2002.
Depth to top-of-salt 1645 ft bgs. Casing shoe @ 1633 ft bgs. Tubing depth 1930 ft bgs.
OCD did not require them to run sonar due to shortness of operational life. Estimated brine production of 1.4 Mbbls, indicateing cavern may be 207,000 bbls.
Permit renewal date: 5/29/2012

• **BW-31** HRC/HRC Schubert 7 #1 (API 30-025-36781)
Began production in October 2006.
Depth to top-of-salt 1800 ft bgs. Casing shoe @ 1865 ft bgs. Tubing depth 2300 ft bgs.
No sonar log run. Estimated production of only 560,000 bbls and thus cavern only 84,000 bbls.
Permit renewal date: 6/22/2011


MIDNIGHT
1
2
3
4
5
6 A.M.
7
8
9
10
11
NOON
6 P.M.
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
4:30 PM
BW-8
BR 2221

5:00 → 495 / 30 min

BW-8 4/22/08
4:00 PM

American Valve & Meter, Inc.

1113 W. BROADWAY
P.O. BOX 166
HOBBS, NM 88240

TO: ZIA DATE: 9-20-07

This is to certify that:

I, Bud Collins, Technician for American Valve & Meter,

Inc., has checked the calibration of the following instrument.

8" pressure recorder Serial No: 5011

at these points.

Pressure 0-1010 # Temperature ____

Test	Found	Left	Test	Found	Left
0	—	0	—	—	—
500	—	500	—	—	—
1000	—	1000	—	—	—
700	—	700	—	—	—
290	—	290	—	—	—
0	—	0	—	—	—

Remarks: ____

Signature Bud Collins

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, March 18, 2008 3:04 PM
To: 'Ammons17@yahoo.com'
Cc: Price, Wayne, EMNRD
Subject: FW: TENTATIVE MIT BW-8 Salty Dog Zia Transports
Attachments: TENTATIVE MIT BW-8 Salty Dog Zia Transports

Mr. Ammon:

The OCD is available to witness the MIT on Tuesday, April 22, 2008 on or after 4 p.m. (if it is the EPA 5 Yr. 30 min. pressure up on casing MIT) or Wednesday morning at 8 a.m. April 23, 2008 (either the annual or EPA MIT).

Please confirm the type of MIT that will need to be performed. When was the last time the tubing was pulled and a packer set with pressure up on the casing for 30 minutes (EPA 5-Yr. MIT)? This is supposed to be performed every 5 years.

If you will be running the annual formation test (4 hr.), OCD records indicate that the casing shoe of the well is set at 1800 feet. This would result in a maximum allowable surface pressure during the test of 540 psig.

Depending on the type of MIT run, let me know what day you would prefer? I spoke with Mr. Sayre earlier today and indicated that OCD records reflect an annual MIT was performed on 12/29/05 for 30 minutes at 340 psig and passed. However, I could not tell whether the tubing was pulled and a packer was set above the casing shoe for the MIT, which would satisfy the EPA 5-Yr. MIT? Please contact me to communicate on the above. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

NO. OF COPIES RECEIVED		
DISTRIBUTION		
SANTA FE		
FILE		
U.S.G.S.		
LAND OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-101
Revised 1-1-65

5A. Indicate Type of Lease STATE ☐ FEE ☒

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

b. Type of Well
DRILL ☒ DEEPEN ☐ PLUG BACK ☐
OIL WELL ☐ GAS WELL ☐ OTHER brine supply SINGLE ZONE ☐ MULTIPLE ZONE ☐

7. Unit Agreement Name

8. Farm or Lease Name
Brine Supply Well

2. Name of Operator
BRUNSON & McKNIGHT, INC.

9. Well No.
1

3. Address of Operator
P. O. Box 297, Hobbs, NM 88240

10. Field and Pool, or Wildcat
Undesignated

4. Location of Well UNIT LETTER J LOCATED 1980 FEET FROM THE South LINE
AND 1980 FEET FROM THE East LINE OF SEC. 5 TWP. 18 S RGE. 36 E NMPM

12. County
Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
3000'	Salt	Rotary

21. Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
3806.0 GR	current	Marc Drilling Co.	4/27/79

23.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11 1/4	8 5/8	24#	1800	750 circ.	
6 1/4	2 3/8"		0--3000	none	

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

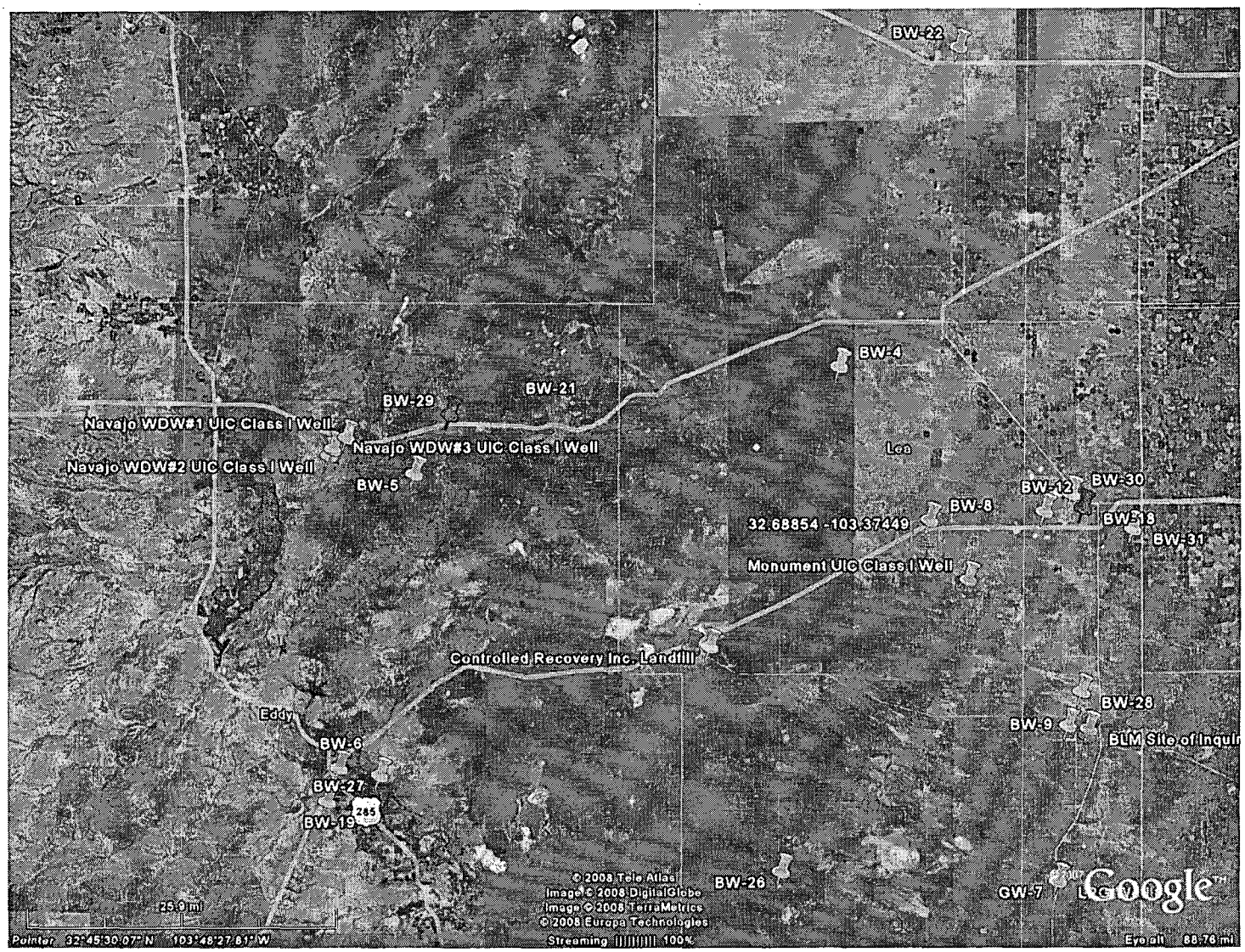
Signed Nolan Brunson, Jr. Title President Date 4/27/79

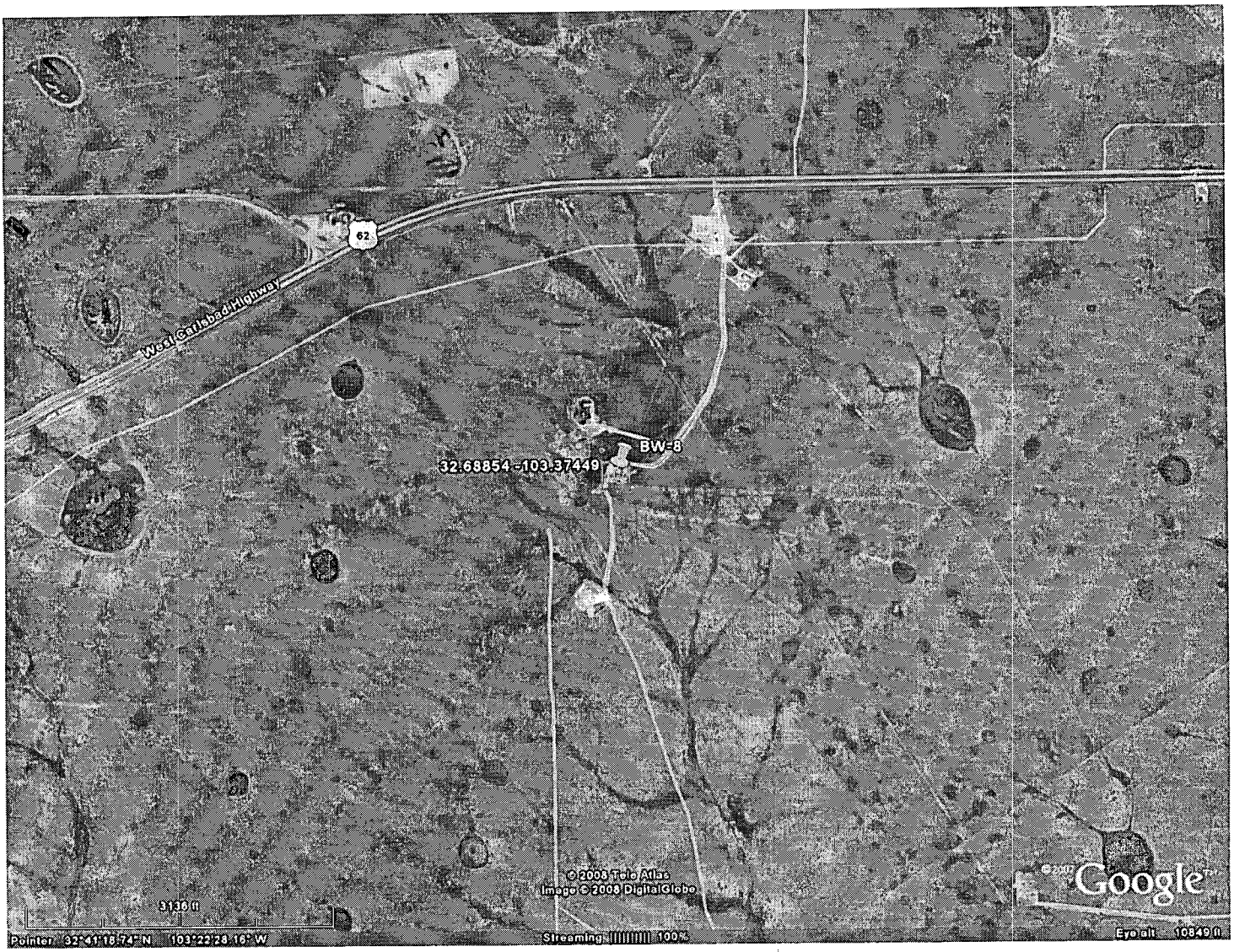
(This space for State Use)

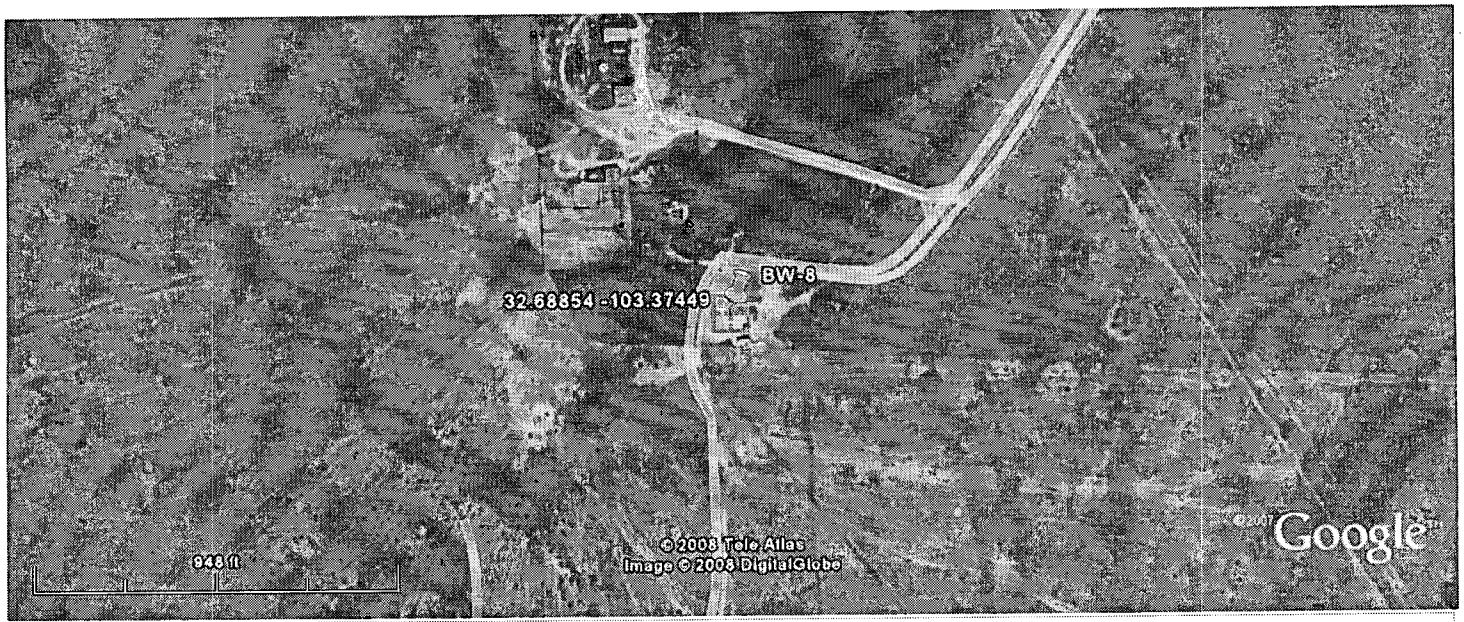
APPROVED BY [signature] TITLE SUPERVISOR DISTRICT I DATE MAY 1 1979

CONDITIONS OF APPROVAL, IF ANY:

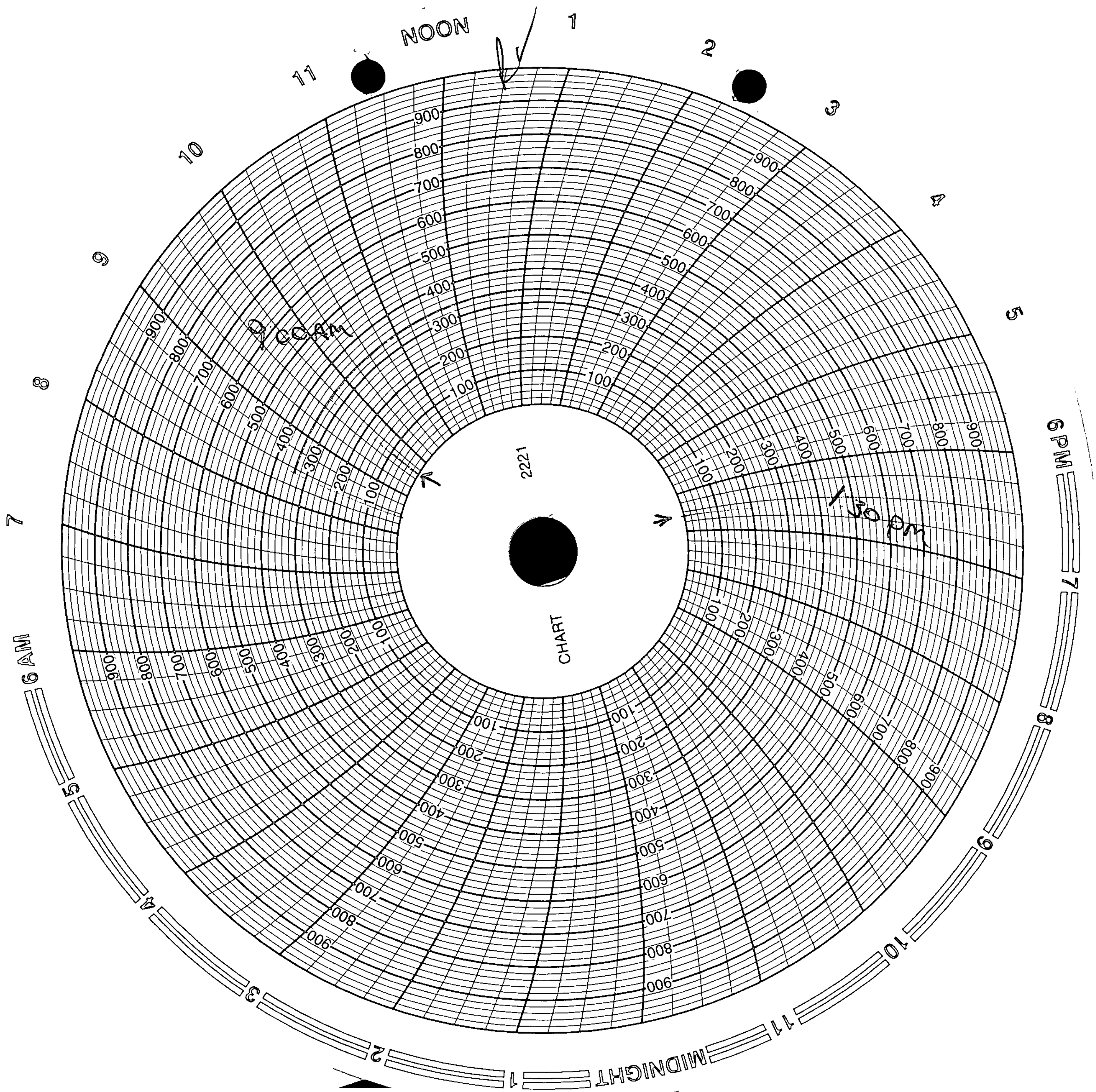
BW-8


BW-22
BW-4
BW-21
BW-29
Navajo WDW#1 UIC Class I Well
Navajo WDW#3 UIC Class I Well
Navajo WDW#2 UIC Class I Well
BW-5
Lea
BW-12
BW-30
BW-8
32.68854 -103.37449
BW-18
BW-31
Monument UIC Class I Well
Controlled Recovery Inc. Landfill
BW-28
Eddy
BW-9
BLM Site of Inqui
BW-6
BW-27
285
BW-19
BW-26
GW-7
Google
© 2008 Tele Atlas
Image © 2008 DigitalGlobe
Image © 2008 TerraMetrics
© 2008 Europa Technologies
Streaming 100%
Pointer 32°45'30.07" N 103°48'27.81" W
Eye alt 88.76 mi


62
West Carlsbad Highway
BW-8
32.68854 -103.57449
© 2008 Tele Atlas
Image © 2008 DigitalGlobe
Google
3136 ft
Pointer 32°41'18.74" N 103°22'28.16" W
Streaming 100%
Eye alt 10849 ft



32.68854 -103.37449


NOON
1
2
3
4
5
6 PM
7
8
9
10
11
MIDNIGHT
1
2
3
4
5
6 AM
7
8
9
10
11
2221
CHART
100
200
300
400
500
600
700
800
900
9:00AM
1:30PM

Salty Dog
12-29-05
Steve Edwards
505-393-8352
Cell 441-5548

Z-A Transport
P.O. 513
Nobbs NM 88241

Paul Sheeley 12-2905

2/05

Wayne.
Here is the original
for your files.
I have a copy.
Thanks. Julie A Dickey
OCD.

PRINTED IN U.S.A.
DAY
NIGHT
CALIBRATED
CHARTS
BATAVIA, ILL.
BR-2221
F-24600-8
10-14-04

Operator
= Salty Dog INC.

Well Name = Brine Supply
Well.

#1

30-025-26307

~~Zia~~

Salty Dog ~~Supply~~ #1

J. ~~S.~~ 19.36

Gary Wink Started test @ 10:45AM

E.G - Pulled Chart @ 3:05PM

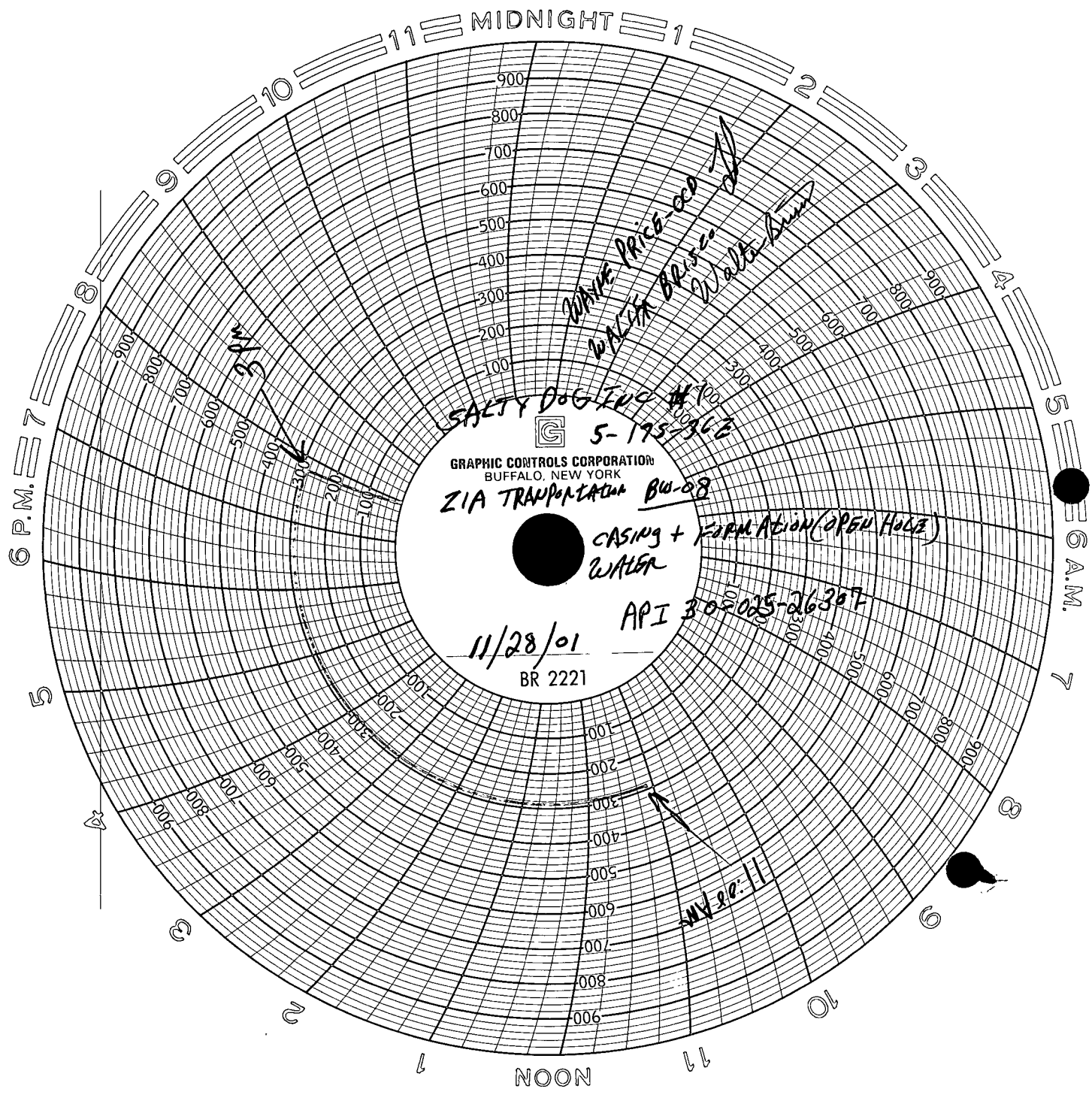
Start PSI 300#

Fin PSI 300#

Time 4 HRS. 20 min.

E Gonzales
OCD 10-14-04

(Jim 390-3164)


MIDNIGHT
NOON
6 P.M.
6 A.M.
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
ZIA TRANSPORTATION BW-08
CASING + FORMATION (OPEN HOLE)
WATER
API 30-025-26307
11/28/01
BR 2221
SALTY DOG INC #1
5-175-36E
WAYNE PRICE-OCD
WALTER BRISCOE
Walter Briscoe

American Valve & Meter, Inc.

113 W. Broadway
P.O. Box 166
Hobbs, NM 88240

BW-08

ZIA

To: _____ Date: 11/27/01

This is to Certify that:

I, JERRY MARTIN, Technician for American Valve & Meter, Inc.,

has checked the calibration of the following instrument

8" PRESSURE RECORDER Serial Number —

at these points.

Pressure 0-1000 # **Temperature** _____

Test	Found	Left	Test	Found	Left
0	0	0			
500	590	505			
1000	1000+	1000			
700	790	700			
200	290	200			
0	0	0			

Remarks: _____

Signature Jerry Martin

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 20, 2001

ZIA - SALTY DOG
BW - 8

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7520

Attention: Brine Well Operators

Re: Mechanical Integrity Testing of Brine Supply Wells

The Underground Injection Control Program of the Federal Safe Drinking Water Act requires that operators demonstrate mechanical integrity of all injection wells by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and injection zones.

The Oil Conservation Division (OCD) requires operators of brine supply wells to perform the following mechanical integrity test:

1. At least once every five years isolate the cavern formation from the casing/tubing annuals and hydrostatic fluid pressure test the casing at 300 psig for 30 minutes. New brine wells and wells being worked over will have to be tested in this manner before operations begin.

2. Annually perform an open hole cavern formation pressure test by pressuring up the formation with fluids to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. However, no operator may exceed surface injection or test pressures that may cause formation fracturing or system failures. Systems requiring test pressures less than 300 psig or methods that use testing media other than fluids, i.e. gas, must be approved by OCD prior to testing. Brine supply wells operating with isolation packers will have to pressure test both the cavern formation and casing/tubing annuals.

Please find enclosed an "OCD Brine Well Test Schedule November 2001" and "Brine Well Test Procedure Guidance Document" for this November 26 through November 30, 2001. Please have your well ready for testing on the date and time you are scheduled. Please refer to the Well Test Schedule attached for the **Type of Test** you are scheduled to perform. You must receive prior OCD approval to alter the scheduled time or type of test.

What's New!! Please note that operators are required to have their pressure recording devices calibrated to 500 psig and 8-hour clock. See Guidance Document attached.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 20, 2001

ZIA - SALTY DOG
BW-018

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7520

Attention: Brine Well Operators

Re: Mechanical Integrity Testing of Brine Supply Wells

The Underground Injection Control Program of the Federal Safe Drinking Water Act requires that operators demonstrate mechanical integrity of all injection wells by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and injection zones.

The Oil Conservation Division (OCD) requires operators of brine supply wells to perform the following mechanical integrity test:

1. At least once every five years isolate the cavern formation from the casing/tubing annuals and hydrostatic fluid pressure test the casing at 300 psig for 30 minutes. New brine wells and wells being worked over will have to be tested in this manner before operations begin.

2. Annually perform an open hole cavern formation pressure test by pressuring up the formation with fluids to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. However, no operator may exceed surface injection or test pressures that may cause formation fracturing or system failures. Systems requiring test pressures less than 300 psig or methods that use testing media other than fluids, i.e. gas, must be approved by OCD prior to testing. Brine supply wells operating with isolation packers will have to pressure test both the cavern formation and casing/tubing annuals.

Please find enclosed an "OCD Brine Well Test Schedule November 2001" and "Brine Well Test Procedure Guidance Document" for this November 26 through November 30, 2001. Please have your well ready for testing on the date and time you are scheduled. Please refer to the Well Test Schedule attached for the **Type of Test** you are scheduled to perform. You must receive prior OCD approval to alter the scheduled time or type of test.

What's New!! Please note that operators are required to have their pressure recording devices calibrated to 500 psig and 8-hour clock. See Guidance Document attached.

What's New!! All operators will provide to the OCD the maximum test pressure that will not cause formation fracturing or system failures.

Operators will be responsible for providing equipment and shall bear all costs incurred. All tests must be witnessed by the New Mexico Oil Conservation Division. Operators failing to abide by the procedures, type of test, and time schedules listed herein may be required to shut-in their systems until OCD has an opportunity to approve and witness testing.

If you require any further information or assistance please do not hesitate to write or call me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely Yours,

Wayne Price- Senior Envr. Engr..
Environnemental Bureau

cc: OCD District Offices

Attachments-
1. OCD Brine Well Test Schedule November 2001
2. Brine Well Testing Procedure Guidance Document

Brine Well Testing Procedure Guidance Document

1) The cavern and all piping must be filled, pressured up and stabilized for a period of at least 24 hours prior to testing. If this test requires a packer then casing/tubing annulus must be loaded with inert fluid 24 hours prior to testing.

2) Have manpower and equipment available for pressure test. Wellhead shall be prepared for test and all valves and gauges should be in good working order.

3) Pumps, tanks, external lines etc. must be isolated from the wellhead during test.

4) A continuous recording pressure device with an 8-hour clock (min) shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 500 psig. The operator must provide proof that the pressure-recording device has been calibrated within the past 6 months. **Note: Wells with packer installed: If this test requires both the casing/tubing annulus and cavern to be tested then two recording devices must be supplied or one recording device with two pins.**

5) A minimum of one pressure gauge shall be installed on the casing/tubing annulus.

6) OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test operator may be required to bleed-off well pressure to demonstrate recorder and gauge response.

7) The Operator will supply the following information on the pressure chart:

   A. Company Name, Well Name, API #, Legal Location.
   B. Test Procedure (1) Casing + Formation (2) Casing Test Only (3) Both (4) Other
   C. Testing Media: Water, Gas, Oil, Etc.
   D. Date, time started and ending.
   E. Name (printed) and signature of company representative and OCD Inspector

8) TEST ACCEPTANCE: The OCD will use the following criteria in determining if a well has passed the Mechanical Integrity Test:

   A. Passes if Zero Bleed-Off during the test.
   B. Passes if Final Test Pressure is within ± 1% of Starting Pressure, if approved by the OCD inspector.
   C. Fails if any Final Test Pressure is greater than ± 1% of Starting Pressure. Operators must investigate for leaks and demonstrate that mechanical integrity of the well(s) by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and injection zones. Wells shall not resume operations until approved by OCD.

Note: **OCD recognizes that different operations, well designs, formation characteristics and field conditions may cause variations in the above procedures. If operator wishes to make or anticipate changes please notify the OCD for approval. All operators are responsible to notify OCD of any procedure that may cause harm to the well system or formation. Please be advised that OCD approval does not relieve any operator of liability should operations result in pollution of surface water, groundwater, or the environment.**

OCD BRINE WELL TESTING SCHEDULE 2001 — OCD Contact Wayne Price cell 505-660-1067

Company	DP#	Facility Name		Date of Test	Start	Stop		Type of Test(s) Required	Contact Person	Telephone	FAX #/cell
		Crossroads Area									
Stearns Inc.	BW-013	Crossroads	Mon	26-Nov-01	12 noon	4:00 PM	2	Pressure test cavern	L.A. Stearns	1-505-675-2356	1-505-675-2339
		Loco Hills Area									
Marbob Brine Well	BW-029	M. Dodd "A" BW#1	Tue	27-Nov	9:00 AM	1:00 PM	2	Pressure test cavern	Doyle Davis	748-5975 cell	1-505-748-2523
Jims Water Ser.	BW-005	SE of Artesia	Tue	27-Nov	10:00 AM	2:00 PM	*	Pressure test cavern or casing	Sammy Stoneman	1-505-748-1352	1-505-746-3227
								* 1,2 or 3			
		Hobbs Area									
Key Energy	BW-018	Truckers #2 (Hobbs)	Wen	28-Nov-01	8:00 AM	12 noon	2	Pressure test cavern	Royce Crowell	(505) 393-9171	505-910-4185
Scurlock-Permian	BW-012	Hobbs Station	Wen	28-Nov-01	9:00 AM	1:00 PM	2	Pressure test cavern	Richard Lentz	505-392-8212	392-6988
Zia Transportation	BW-018	Salty Dog-Ark Jct	Wen	28-Nov-01	10:00 AM	2:00 PM	2	Pressure test cavern	Piter Bergstein	806-741-1080	
Marathon Brine St	BW-015	Marathon Road	Wen	28-Nov-01	11:30 AM	3:30 PM	1	Pressure Test Casing	CW Trainer		
		Eunice Area									
P&S Brine	BW-002	Eunice Brine Station	Thur	29-Nov-01	8:00 AM	12 noon	2	Pressure test cavern	Dink Prather	505-394-2545	394-2426
Key Simms-McCasland	BW-009A	Eunice Brine Station	Thur	29-Nov-01	9:00 AM	1:00 PM	2	Pressure test cavern	Royce Crowell	(505) 393-9171	505-910-4185
Yale E. Key (Old Goldstar)	BW-028	Eunice Brine Station	Thur	29-Nov-01	10:00 AM	2:00 PM	2	Pressure test cavern	Royce Crowell	1-505-394-2504	1-505-394-2560
		Carlsbad Area									
I & W	BW-06	Carlsbad -Euginie	Fri	30-Nov-01	8:00 AM	12 noon	2	Pressure test cavern	George Parchman	505-885-8663	885-8477
Key Energy-Carlsbad	BW-019	Rowland Truckers	Fri	30-Nov-01	9:00 AM	1:00 PM	2	Pressure test cavern	John Hutcheson	1-505-885-2053	cell 390-1833
Scurlock/Permian	BW-027 &27A	Carlsbad Brine St.	Fri	30-Nov-01	10:00 AM	2:00 PM	2	Pressure test cavern	Richard Lentz	505-392-8212	392-6988
		Wells Already Tested in 2001									
Gandy	BW-04	Wasserhund-Edison									
Gandy	BW-22	Tatum Brine St.									
Ray Westall	BW-21	Loco Hills Brine St.									
		Wells Being Repaired-									
Chaparral SWD	BW-25	Salado Brine #2- Jal									

Notes:

Type of Pressure Test:

1. Casing Test — Isolate cavern formation from the casing/tubing annuals and hydrostatic fluid pressure test the casing at 300 psig for 30 minutes.
2. Open Hole Cavern Pressure Test — Open hole cavern formation pressure test by pressuring up the formation with fluid to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. Operators shall not exceed surface pressures that may cause formation fracturing or system failures. OCD prior to test shall approve test pressures below 300 psig and methods that use media other than fluids. Brine supply wells operating with packers will have to pressure both the cavern formation and casing/tubing annuals.
3. Others — Nitrogen-Brine Interface Test, Nitrogen Test, Etc.

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 20, 2000

CERTIFIED MAIL
RETURN RECEIPT NO. 5051 4478 BW-008 SALTY DOG

Attention: Brine Well Operators

Re: Mechanical Integrity Testing of Brine Supply Wells

The Underground Injection Control Program of the Federal Safe Drinking Water Act requires that operators demonstrate mechanical integrity of all injection wells by ensuring there are no leaks in the tubing, casing, or packer, and injected/produced fluids are confined within the piping and injection zones.

The Oil Conservation Division (OCD) requires operators of brine supply wells to perform the following mechanical integrity tests:

1. At least once every five years isolate the cavern formation from the casing/tubing annuals and hydrostatic fluid pressure test the casing at 300 psig for 30 minutes. New brine wells and wells being worked over will have to be tested in this manner before operations begin.

2. Annually perform an open hole cavern formation pressure test by pressuring up the formation with fluid to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. Operators shall not exceed surface pressures that may cause formation fracturing or system failures. OCD prior to test shall approve test pressures below 300 psig and methods that use media other than fluids. Brine supply wells operating with packers will have to pressure both the cavern formation and casing/tubing annuals.

Please find enclosed an "OCD Brine Well Test Schedule December 2000" and "Brine Well Test Procedure Guidance Document" for this December 8th through 18th 2000. Please have your well ready for testing on the date and time you are scheduled. Please refer to the Well Test Schedule attached for the **type of test** you are scheduled to perform. You must receive prior OCD approval to alter the scheduled time or type of test.

Operators will be responsible for providing equipment and shall bear all costs incurred. All tests must be witnessed by the New Mexico Oil Conservation Division. Operators failing to abide by the procedures, type of test, and time schedules listed herein may be required to shut-in their systems until OCD has an opportunity to approve and witness testing.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155).

Sincerely Yours,

Wayne Price

Wayne Price-Pet. Engr. Spec.
Environmental Bureau

cc: OCD District Offices

Attachments- 1. OCD Brine Well Test Schedule December 2000.
2. Brine Well Testing Procedure Guidance Document.

Brine Well Testing Procedure Guidance Document

1) The cavern and all piping must be filled, pressured up and stabilized for a period of at least 24 hours prior to testing. If this test requires or utilizes a packer then the casing/tubing annulus must be loaded with inert fluid 24 hours prior to testing.

2) Have manpower and equipment available for pressure test. Well head shall be prepared for test and all valves and gauges should be in good working order.

3) Pressure devices i.e pumps, truck pumps, etc. must be isolated from the well head during test.

4) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus, as directed by the OCD, with a pressure range of not greater than 500 psig. The operator must provide proof that pressure recording device has a range of 0-500 psig and has been calibrated within the past 6 months. Wells, with isolation packers installed, which requires both the casing/tubing annulus and cavern to be tested will require two recording devices or one recording device with two pins. Operators may utilize other types of pressure recording devices, such as electronic data loggers, etc., if approved by OCD.

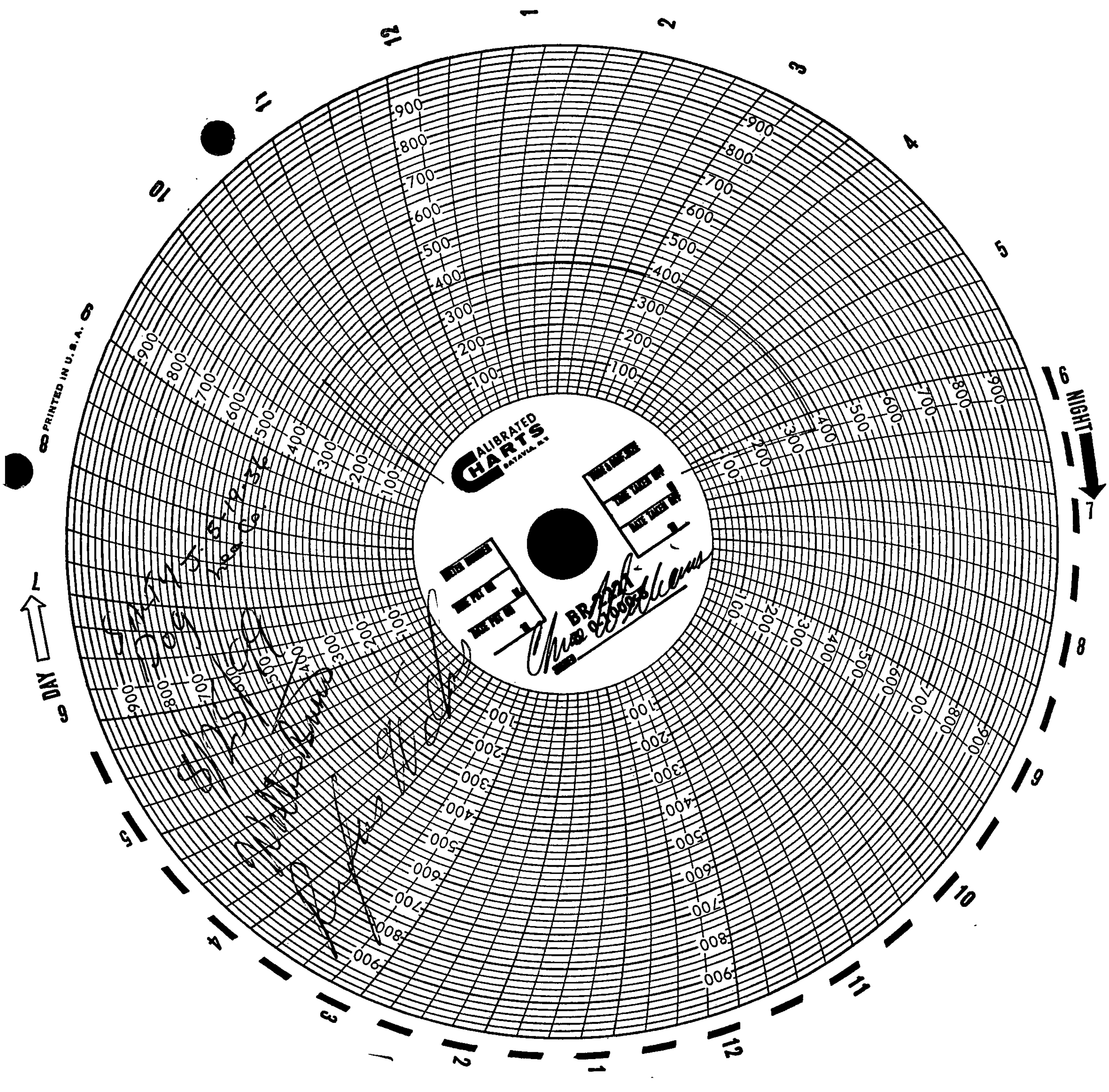
5) A minimum of one pressure gage shall be installed in the system as directed by OCD.

6) OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test operator may be required to bleed-off pressure to demonstrate recorder response.

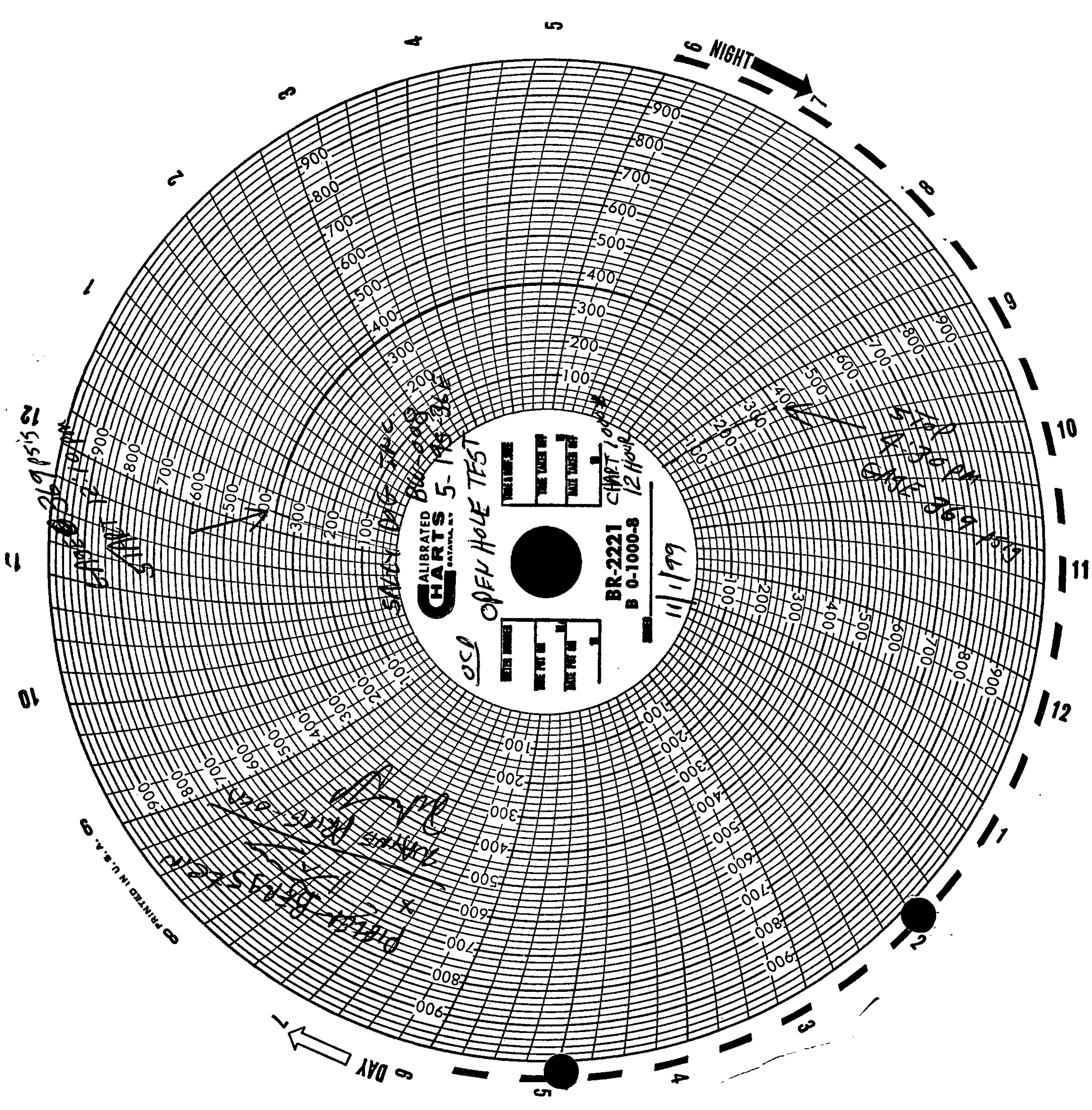
7) **The Operator will supply the following information on the pressure chart before starting test:**

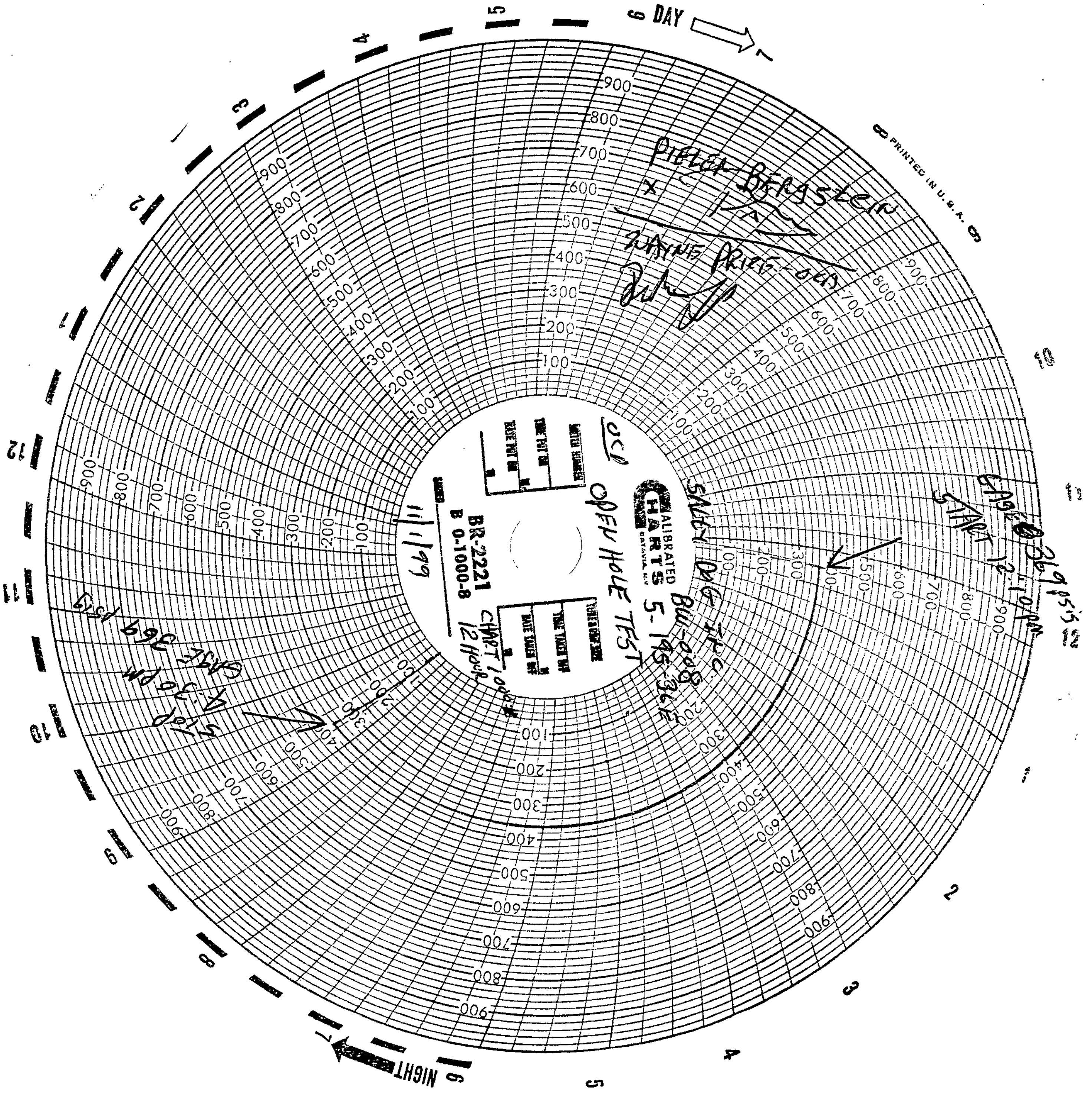
   1. Company name, discharge plan #, well name and number, legal location UL, section, township, range and county.
   2. Type of Test: Open Hole, Casing Test, or Both.
   3. Date, time test started, time stop.
   4. Chart and Recorder information. (can be attached)
   5. Normal operating surface and formation fracture pressure. (can be attached)
   6. **After Test Completed:**
      Name (printed) and signature of company representative and OCD inspector.

Note: NMOCD recognizes that different operations, well constructions, well designs and field conditions may cause variations in the above procedures. Operator is responsible to notify OCD of any procedure that may cause harm to the well or formation. If operator wishes to make or anticipate changes you must notify the OCD for approval.



CALIBRATED CHARTS
BATAVIA, N.Y.
PRINTED IN U.S.A.
DAY
NIGHT


CALIBRATED CHARTS BATAVIA, N.Y.
BR-2221
B 0-1000-8
NIGHT
DAY
PRINTED IN U.S.A.
OPEN HOLE TEST
11/1/99
12 hour
OCD


DAY
NIGHT
PRINTED IN U.S.A.
CALIBRATED CHARTS
BR-2221
B 0-1000-8
OPEN HOLE TEST
11/1/99
12 Hour
START 12:10 PM
Stop 4:30 pm

American Valve & Meter Service

BW-008
SALTY DOG

1113 W. BROADWAY, HOBBS,N.M. 88240
P.O. BOX 1667, PHONE 505-393-578

TO Z-a Transportation DATE: 10-28-99

THIS IS TO CERTIFY THAT:

I, Jesse Young METER TECHICAN FOR AMERICAN VALVE, INC., HAS CHECKED THE CALIBRATION ON THE FOLLOWING INSTRUMENT. Cliff Mock 0-1000# pressure Recorder SEIAL NUMBER ———

AT THESE POINTS.

TEMPERTURE _____ P.S.I. 0-1000#

TEST	AS FOUND	AS LEFT

TEST	AS FOUND	AS LEFT
0	0	0
500	510	500
1000	1000+	1000
700	715	700
300	300	300
0	0	0

REMARKS: _____

SIGNED: Jesse Young

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Fax: 1-806-741-1301

October 19, 1999

Mr. Piter Bergstein
Salty Dog Inc.
P.O. Box 2724
Lubbock, Texas 79408

806-741-1080

Re: Mechanical Integrity Testing of Brine Supply Wells.

This is a reminder that New Mexico Oil Conservation Division (NMOCD) will be witnessing mechanical integrity test for all brine supply wells during the time period between October 25 through November 2, 1999. A schedule was sent to each operator on September 11, 1999.

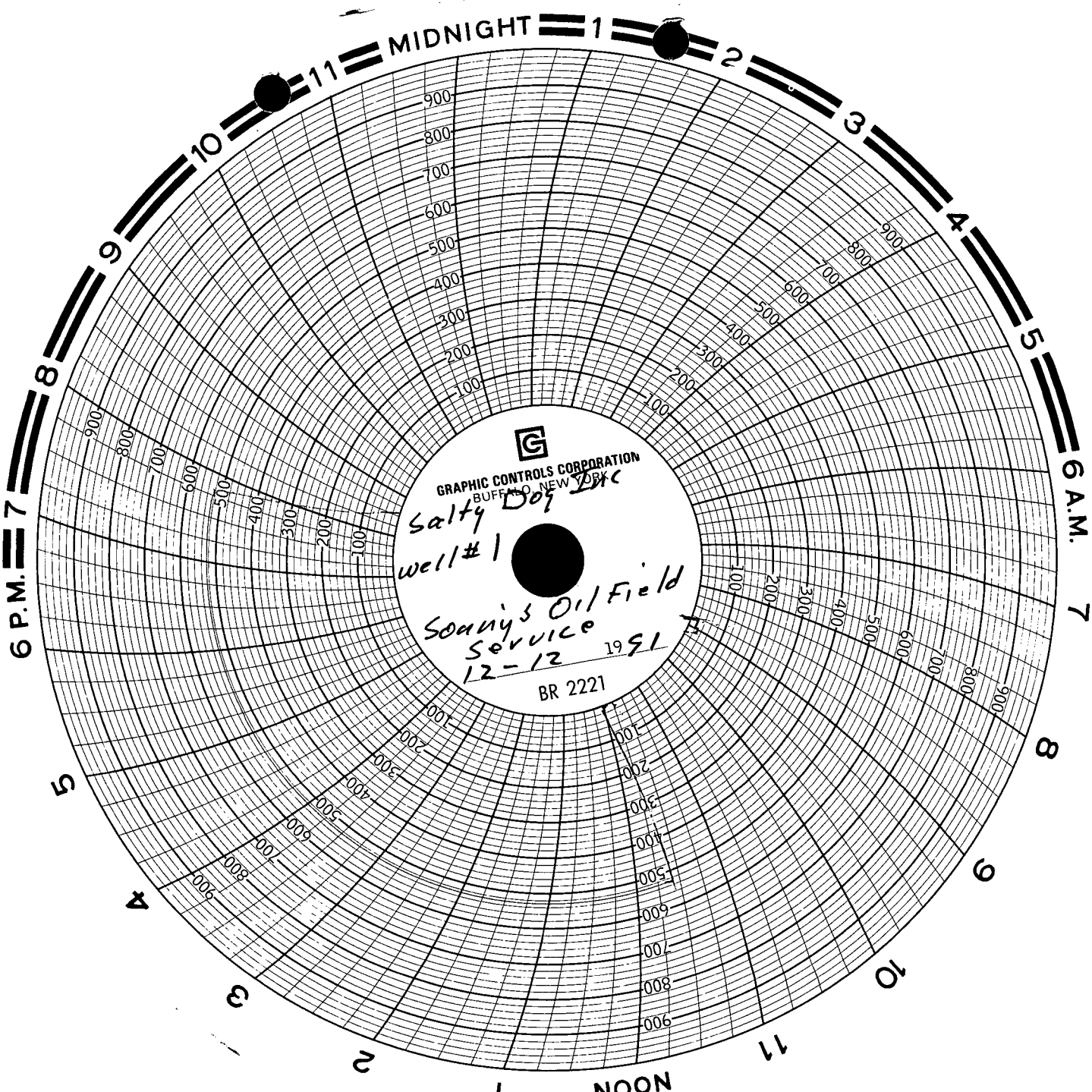
Please have your well ready for testing on the date and time you are scheduled. If there is some emergency which interferes with the scheduled date and time please call and notify NMOCD.

Failure to notify NMOCD may result in your operations being suspended until testing is complete.

If you require any further information or assistance please do not hesitate to write or call me at (505-827-7155) or notify Mr. Roger Anderson at (505-827-7152).

Sincerely Yours,

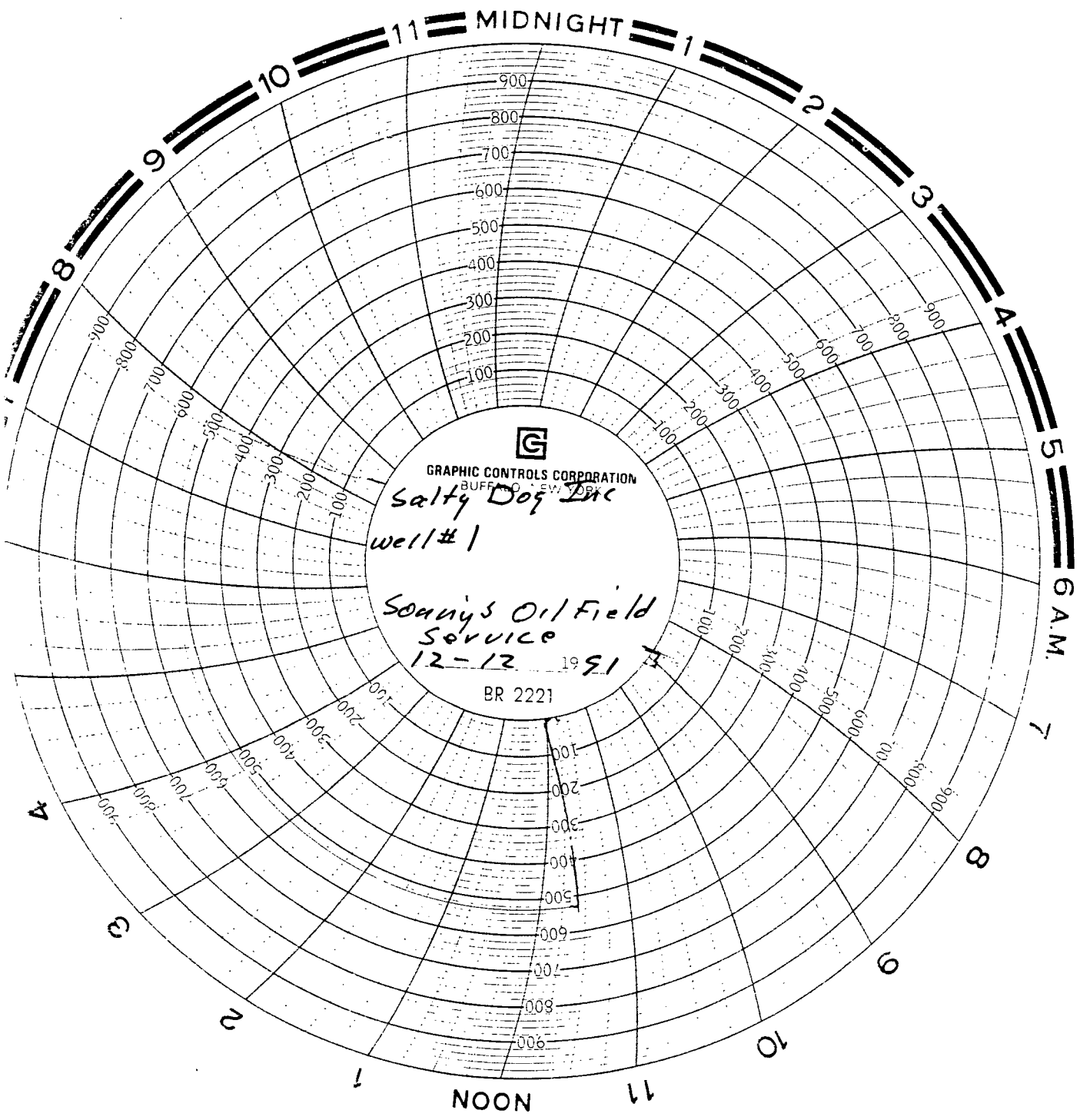
Wayne Price-Pet. Engr. Spec.
Environmental Bureau


MIDNIGHT
1
2
3
4
5
6 A.M.
7
8
9
10
11
NOON
1
2
3
4
5
6 P.M.
7
8
9
10
11
100
200
300
400
500
600
700
800
900
GRAPHIC CONTROLS CORPORATION
BUFFALO NEW YORK
Salty Dog Inc
well # 1
Sonny's Oil Field
Service
12-12
1991
BR 2221

12-12-91
SALty Dog Inc
Well #1

OIL CONSERVATION DIVISION
RECEIVED
'91 DEC 26 AM 9 33

#7-J-5-19-26



CALIBRATED
CHARTS
BATAVIA, N.Y.
BR-2221
B 0-1000-8
PRINTED IN U.S.A.
DAY
NIGHT

OIL CONSERVATION DIVISION

October 13, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-778

Mr. Jack Clark
Salty Dog, Inc.
P.O. Box 1438
Hobbs, NM 88240

Re: Discharge Plan BW-008
Salty Dog, Inc. Water Station
Mechanical Integrity Test
Lea County, New Mexico

Z 765 962 778

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993

Dear Mr. Clark:

The New Mexico Oil Conservation Division would like to thank you for your cooperation during the October 11, 1995 Mechanical Integrity Test of the Salty Dog, Inc. brine well. Enclosed is a copy of the chart for your records.

Should you have any further questions regarding your facility, please call me at (505) 827-7155.

Sincerely,

Mark Ashley
Geologist

Attachments

xc: OCD Hobbs Office

OIL CONSERVATION DIVISION

August 25, 1995

Certified Mail
Return Receipt No. Z-765-962-762

Mr. Jack Clark
Salty Dog, Inc.
P.O. Box 1438
Hobbs, NM 88240

RE: Mechanical Integrity Testing of Brine Supply Well
Salty Dog, Inc. Water Station
Lea County, New Mexico

Dear Mr. Clark:

The Underground Injection Control Program of the Federal Safe Drinking Water Act requires that operators demonstrate mechanical integrity of all injection wells by ensuring that there is no leak in the tubing, casing, or packer, and that the injected fluid is confined within the injection zone through proper cementing.

As part of the Federal Safe Drinking Water Act, all injection wells will be required to have an annual open hole pressure test equal to one and one-half of the normal operating pressure for four hours, or 500 psi for four hours, which ever is greater. In addition to that, all injection wells will be required to isolate the casing from the formation and test to 300 psi for 30 minutes prior to commencement of operations, at least once every five years or at the time of discharge plan approval, and during well work overs.

Operators will be responsible for providing equipment and shall bears costs incurred. The date and time of all tests will be scheduled and witnessed by the New Mexico Oil Conservation Division.

As of this date Salty Dog, Inc. has not performed the required mechanical integrity test which was to be completed by May 30, 1995.

Please have your well ready for testing on September 12, 1995 at 8:00 AM as outlined below.

1) Have tubing pulled and casing isolated from the formation.

2) Pressure test casing to 300 psi for 30 minutes.

3) Have continuous recording pressure chart with maximum two hour clock.

4) Have well head prepared for test. Valves should be in working order.

5) Have manpower and equipment available for pressure test.

If you have any questions regarding this matter, please feel free to contact me at (505) 827-7155.

Sincerely,

Mark Ashley
Geologist

xc: Jerry Sexton, OCD Hobbs Office
Wayne Price, OCD Hobbs Office

Z 765 962 762

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993