

BW - 25

**MECHANICAL
INTEGRITY TEST
(MITs)**

DATE: _____

Submit 1 Copy To Appropriate District Office
 District I
 1625 N. French Dr., Hobbs, NM 88240
 District II
 1301 W. Grand Ave., Artesia, NM 88210
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 October 13, 2009

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

WELL API NO. 3002532394
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Salado Brine
8. Well Number 002
9. OGRID Number 246368
10. Pool name or Wildcat BSW: SALADO

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

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

2. Name of Operator
BASiC Energy Services

3. Address of Operator
P.O. Box 2920 Midland Tx. 79702

4. Well Location
 Unit Letter A : 1305 feet from the North line and 60 feet from the East line
 Section 20 Township 25 S Range 37 E NMPM County Lea

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

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: MIT Casing <input checked="" type="checkbox"/>	

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.

8/18/14 MIT was conducted on August 18th 2014 and witnessed by OCD Representative Mark Whitaker. Start 540 psi End 510 PSI. Please accept Chart and Calibration Certificate with this C-103. PKR set at 1075' when tested.

Released Psi TOH with Packer lay down Tubing NU well head with 2 7/8 sub and control valve on top. RDU and released.

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 David Alvarado TITLE SENM FLUID SALES MGR. DATE 8/19/14

Type or print name DAVID ALVARADO E-mail address: david.alvarado@basicenergyservices.com PHONE: 575.746-2072
For State Use Only

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

RECEIVED
 OCT 25 PM 3:02
 RCD

Wildcat Measurement Service, Inc.

416 East Main Street
P.O. Box 1836
Artesia, New Mexico 88211
Office: (575)746-3481
Toll Free: 1-888-421-9453

Calibration Certificate

Company Name: Basic
Recorder Type: Barton
Recorder Serial: #265-2121108

Recorder Pressure Range: 0-1000# Accuracy +/-: 0.2% PSIG
Temperature Range: _____ Deg F.

Increasing Pressure			Decreasing Pressure		
Applied Pressure	Indicated Pressure	Error%	Applied Pressure	Indicated Pressure	Error%
0.0#	0.0#	0	800#	800#	0
100#	100#	0	600#	600#	0
300#	300#	0	400#	400#	0
500#	500#	0	200#	200#	0
700#	700#	0	0.0#	0.0#	0
1000#	1000#	0			

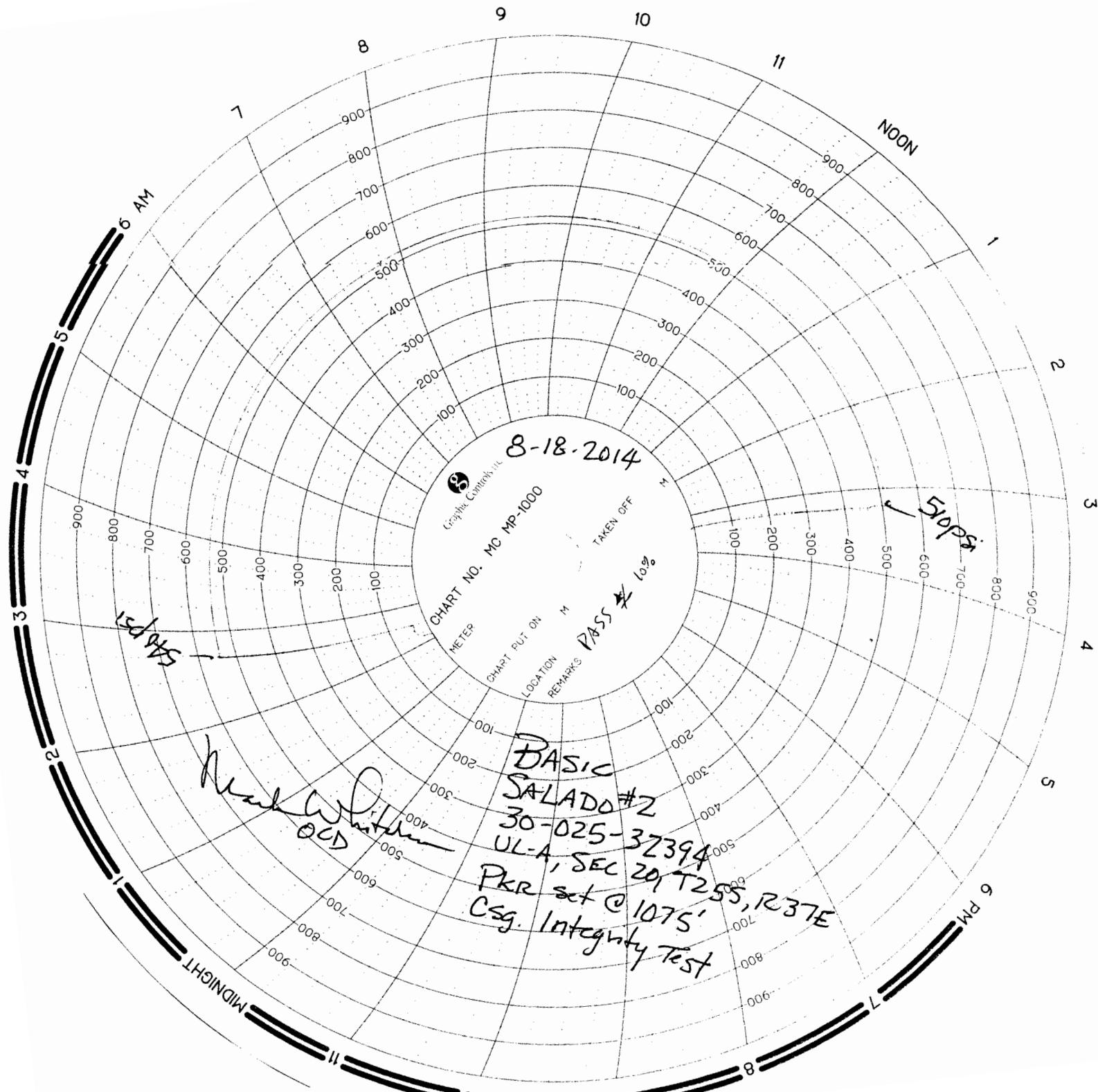
Temperature Test		
Applied Temperature	Indicated Temperature	Error%

Certified Calibration Instrument Used
Gauge: Crystal
Deadweight: _____

Remarks: _____

Calibration Date: 04/29/2014

Technician:  Justin Gillette



8-18-2014



CHART NO. MC MP-1000
METER

TAKEN OFF

CHART PUT ON M
LOCATION

REMARKS
PASS * 10%
BASIC
SALADO #2
30-025-32394
UL-A, SEC 201 T255, R237E
PKR set @ 1075'
Csg. Integrity Test

Slops

SAPS

Mark W. [Signature]
OCD

MIDNIGHT

NOON

6 PM

6 AM

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 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")

Submit 3 Copies To Appropriate District Office
 District I
 1625 N. French Dr., Hobbs, NM 88240
 District II
 1301 W. Grand Ave., Artesia, NM 88210
 District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 June 19, 2008

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

WELL API NO 30-025-32394
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Galado Brine Well
8. Well Number 2
9. OGRID Number
10. Pool name or Wildcat Galado

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.)

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

2. Name of Operator **Basic Energy Services**

3. Address of Operator
P.O. Box 10460 Midland, Tx 79702

4. Well Location
 Unit Letter **A** : **1305** feet from the **North** line and **60** feet from the **East** line
 Section **20** Township **25 S** Range **37 E** NMPM County **Lea**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3073

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

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> DOWNHOLE COMMINGLE <input type="checkbox"/>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Good Survey <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

RECEIVED
 OGD
 A 9:2

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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Rig up P/U. POH with tubing. Ran bit & scraper to bottom of casing. POH, Ran Gray wireline Density & Collars Survey Log. Found end of casing at 1100'. Ran packer and workover string to 1080' tested casing & ran chart witnessed by OCD. POH. Ran 6" bit on 4 1/2" workover pipe to 1050' TD. Cut off bit and started surveying out of hole. Ran 1020' 2 3/8" production string Rigged Down

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 **Steve Prather** TITLE **District Manager** DATE **7/16/09**

Type or print name **Steve Prather** E-mail address: PHONE: **394-3235**

APPROVED BY: TITLE DATE

Conditions of Approval (if any):

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 02, 2009 11:09 AM
To: 'Prather, Steve'
Subject: FW: Chart Request from 6/9/09 MIT Request (BW-25)
Attachments: image001.gif

Steve:

Hi. The OCD also needs the chart and calibration sheet from the EPA 5-Yr. 30 min. MIT conducted on 6/9/2009.

Thank you.

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

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 02, 2009 9:47 AM
To: 'Prather, Steve'
Subject: Chart Request from 5/21/09 MIT Request (BW-28)

Steve:

Good morning. Could you please send me the chart from the recent 5/21/09 MIT for our records?

Hope you have a Happy 4th! Thank you.

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

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 Mbbbls. Cavern should be ~1Mbbbls.

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 Mbbbls. 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 Mbbbls. Cavern should be 1.8 Mbbbls.

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 Mbbbls. Cavern should be 2.7 Mbbbls.

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 Mbbbls, 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 Mbbbls. 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 Mbbbls, indicating 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

BW-25 4/22/08
9:07

American Valve & Meter, Inc.

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

TO: B751C

DATE: 4-16-08

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: 11824

at these points.

Pressure 0 - 1000 ~~#~~

Temperature _____

<u>Test</u>	<u>Found</u>	<u>Left</u>	<u>Test</u>	<u>Found</u>	<u>Left</u>
<u>0</u>	—	<u>0</u>	—	—	—
<u>500</u>	—	<u>500</u>	—	—	—
<u>1000</u>	—	<u>1000</u>	—	—	—
<u>700</u>	—	<u>700</u>	—	—	—
<u>200</u>	—	<u>200</u>	—	—	—
<u>0</u>	—	<u>0</u>	—	—	—

Remarks: _____

Signature Bud Collins



30-075-32394

Chapparel Service
GRAPHIC CONTROLS CORPORATION
SALADO Bore Well #2

Unit A Sec 20-255-37E

8-3-06

BR 2221 Britzell

Chapparel
1000 #
24 hrs
Last Cal 3-7-06
AMER. MTR.



6 P.M. 7 8 9 10 11 MIDNIGHT 1 2 3 4 5 6 A.M.

ON
2:10 PM

OFF
2:40 PM

BW-025
G
GRAPHIC CONTROLS CORPORATION
CHAPARRAL SPR. INC
SALADO #2
20-255-39E
CASING TEST (WATER)
API # 30-025-32394
SR 222

WAYNE PRICE - OCP
OK PASSED TEST

PAUL PRATER
Paul Prater

WELDED TWO
LEAKS ON CASING
AT SURFACE



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

November 13, 2001

Lori Wrotenbery
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7393

Mr. Paul Prather
Chaparral Service, Inc. dba Salado Brine Well #2
P.O. Box 7169
Eunice, NM 88231

Re: Discharge Plan BW-025 Mechanical Integrity
Salado Brine Sales Well #2
NE/4 NE/4 Section 20-Ts25S-R37E
Lea County, New Mexico

Dear Mr. Prather:

Pursuant to our telephone conversation on November 02, 2001 OCD understands that you are going to submit pressure charts from recent test that you have performed on the above captioned brine well. In addition, you are in the process of collecting water samples from nearby wells to demonstrate that the brine well has not contaminated fresh water.

OCD has witnessed testing of this well on at least three occasions and in all three cases the test reflect that the brine well will not hold pressure. We understand that you have pressure tested the well yourself and agree that the well is leaking, but you feel it is at such a small rate that the leak could not be found and repaired.

OCD understands that you wish to demonstrate mechanical integrity using some alternate method acceptable to OCD. Please submit your alternate method demonstrating that the well has not or will not pose a threat to fresh water and will not cause or allow movement of fluids out of the injection zone into groundwater. If you choose not to demonstrate mechanical integrity and wish to plug the well please submit a plugging plan and groundwater investigation plan for OCD approval.

In order to assist you in this matter please find enclosed a copy of the Water Quality Control Commission Regulations part 20.6.2.5204 pertaining to Mechanical Integrity of in-situ brine wells. If you have any questions please do not hesitate to contact me at 505-476-3487 or E-mail WPRICE@state.nm.us.

Sincerely,

Wayne Price- Engineer
cc: OCD Hobbs Office
Attachments-1

- (4) The above equation is based on the following assumptions:
- (a) The injection zone is homogenous and isotropic;
 - (b) The injection zone has infinite areal extent;
 - (c) The effluent disposal well or in situ extraction well penetrates the entire thickness of the injection zone;
 - (d) The well diameter is infinitesimal compared to "r" when injection time is longer than a few minutes; and
 - (e) The emplacement of fluid into the injection zone creates an instantaneous increase in pressure.

C. The secretary shall require submittal by the discharger of information regarding the area of review including the information to be considered by the secretary in Subsection B of Section 20.6.2.5210 NMAC.

[9-20-82, 12-1-95; 20.6.2.5202 NMAC – Rn, 20 NMAC 6.2.V.5202, 1-15-01]

20.6.2.5203 CORRECTIVE ACTION:

A. Persons applying for approval of an effluent disposal well, or an in situ extraction well or well field shall identify the location of all known wells, drill holes, shafts, stopes and other conduits within the area of review which may penetrate the injection zone, in so far as is known or is reasonably available from the public records. For such wells or other conduits which are improperly sealed, completed, or abandoned, or otherwise provide a pathway for the migration of contaminants, the discharger shall address in the discharge plan such steps or modifications (corrective action) as are necessary to prevent movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.

B. Prior to operation, or continued operation of a well for which corrective action is required pursuant to Subsections A or D of Section 20.6.2.5203 NMAC, the discharger must demonstrate that:

- (1) All required corrective action has been taken; or
- (2) Injection pressure is to be limited so that pressure in the injection zone does not cause fluid movement through any well or other conduit within the area of review into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC. This pressure limitation may be removed after all required corrective action has been taken.

C. In determining the adequacy of corrective action proposed in the discharge plan, the following factors will be considered by the secretary:

- (1) Chemical nature and volume of the injected fluid;
- (2) Chemical nature of native fluids and by-products of injection;
- (3) Geology and hydrology;
- (4) History of the injection and production operation;
- (5) Completion and plugging records;
- (6) Abandonment procedures in effect at the time a well, drill hole, or shaft was abandoned;

and

- (7) Hydraulic connections with waters having 10,000 mg/l or less TDS.

D. In the event that, after approval for an effluent disposal well or in situ extraction well has been granted, additional information is submitted or it is discovered that a well or other conduit within the applicable area of review might allow movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC, the secretary may require action in accordance with Subsection I of Section 20.6.2.5101 and Subsection B Section 20.6.2.5203 NMAC.

[9-20-82, 12-1-95; 20.6.2.5203 NMAC – Rn, 20 NMAC 6.2.V.5203, 1-15-01]

20.6.2.5204 MECHANICAL INTEGRITY:

A. An effluent disposal well or in situ extraction well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which the secretary 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 secretary considers to be significant.

B. Prior to well injection and at least once every five years or more frequently as the secretary may require for good cause during the life of the well, the discharger must demonstrate that an effluent disposal well or in situ extraction well has mechanical integrity. The demonstration shall be made through use of the following tests:

- (1) For evaluation of leaks,
 - (a) Monitoring of annulus pressure (after an initial pressure test with liquid or gas before operation commences), or
 - (b) Pressure test with liquid or gas;
- (2) For determination of conduits for fluid movement,
 - (a) The results of a temperature or noise log, or
 - (b) Where the nature of the casing used for in situ extraction wells precludes use of these logs, cementing records and an appropriate monitoring program as the secretary may require which will demonstrate the presence of adequate cement to prevent such movement;
- (3) Other appropriate tests as the secretary may require.

C. The secretary may consider the use by the discharger of equivalent alternative test methods to determine mechanical integrity. The discharger shall submit information on the proposed test and all technical data supporting its use. The secretary may approve the request if it will reliably demonstrate the mechanical integrity of wells for which its use is proposed. For in situ extraction wells this demonstration may be made by submission of adequate monitoring data after the initial mechanical integrity tests.

D. In conducting and evaluating the tests enumerated in this Section or others to be allowed by the secretary, the discharger and the secretary shall apply methods and standards generally accepted in the affected industry. When the discharger reports the results of mechanical integrity tests to the secretary, he shall include a description of the test(s), the method(s) used, and the test results. In making an evaluation, the secretary's review shall include monitoring and other test data submitted since the previous evaluation.

[9-20-82, 12-1-95; 20.6.2.5204 NMAC - Rn, 20 NMAC 6.2.V.5204, 1-15-01]

20.6.2.5205 CONSTRUCTION REQUIREMENTS:

A. General Construction Requirements Applicable to Effluent Disposal Wells and In Situ Extraction Wells.

- (1) Construction of all effluent disposal wells and all new in situ extraction wells shall include casing and cementing. Prior to well injection, the discharger shall demonstrate that the construction and operation of:
 - (a) Effluent disposal wells will not cause or allow movement of fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC;
 - (b) In situ extraction wells will not cause or allow movement of fluids out of the injection zone into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to Section 20.6.2.5103 NMAC.
- (2) The construction of each newly drilled well shall be designed for the proposed life expectancy of the well.
- (3) In determining if the discharger has met the construction requirements of this Section and has demonstrated adequate construction, the secretary shall consider the following factors:
 - (a) Depth to the injection zone;
 - (b) Injection pressure, external pressure, annular pressure, axial loading, and other stresses that may cause well failure;
 - (c) Hole size;
 - (d) Size and grade of all casing strings, including wall thickness, diameter, nominal weight, length, joint specification, and construction material;
 - (e) Type and grade of cement;
 - (f) Rate, temperature, and volume of injected fluid;
 - (g) Chemical and physical characteristics of the injected fluid, including corrosiveness, density, and temperature;
 - (h) Chemical and physical characteristics of the formation fluids including pressure and temperature;



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenberg
Director
Oil Conservation Division

FAX

RECEIVED
NOV 05 2001
Environmental Bureau
Oil Conservation Division

TO:

Wayne Price

FROM:

Julia A. Dickey

Energy, Minerals and Natural Resources Department,
Oil Conservation Division

RE:

Latest Test Charts F/ Salado #2

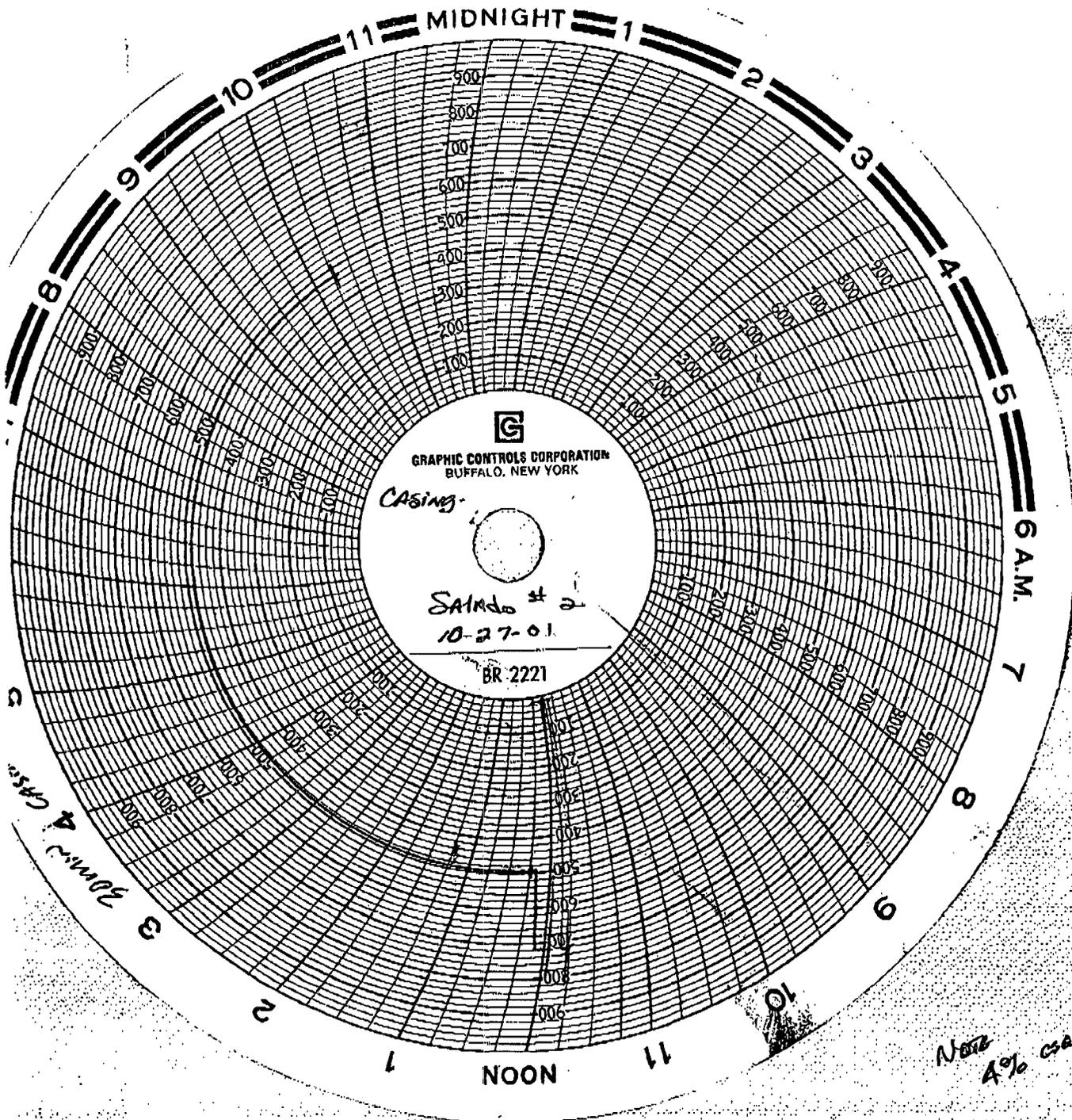
DATE:

11/4/01

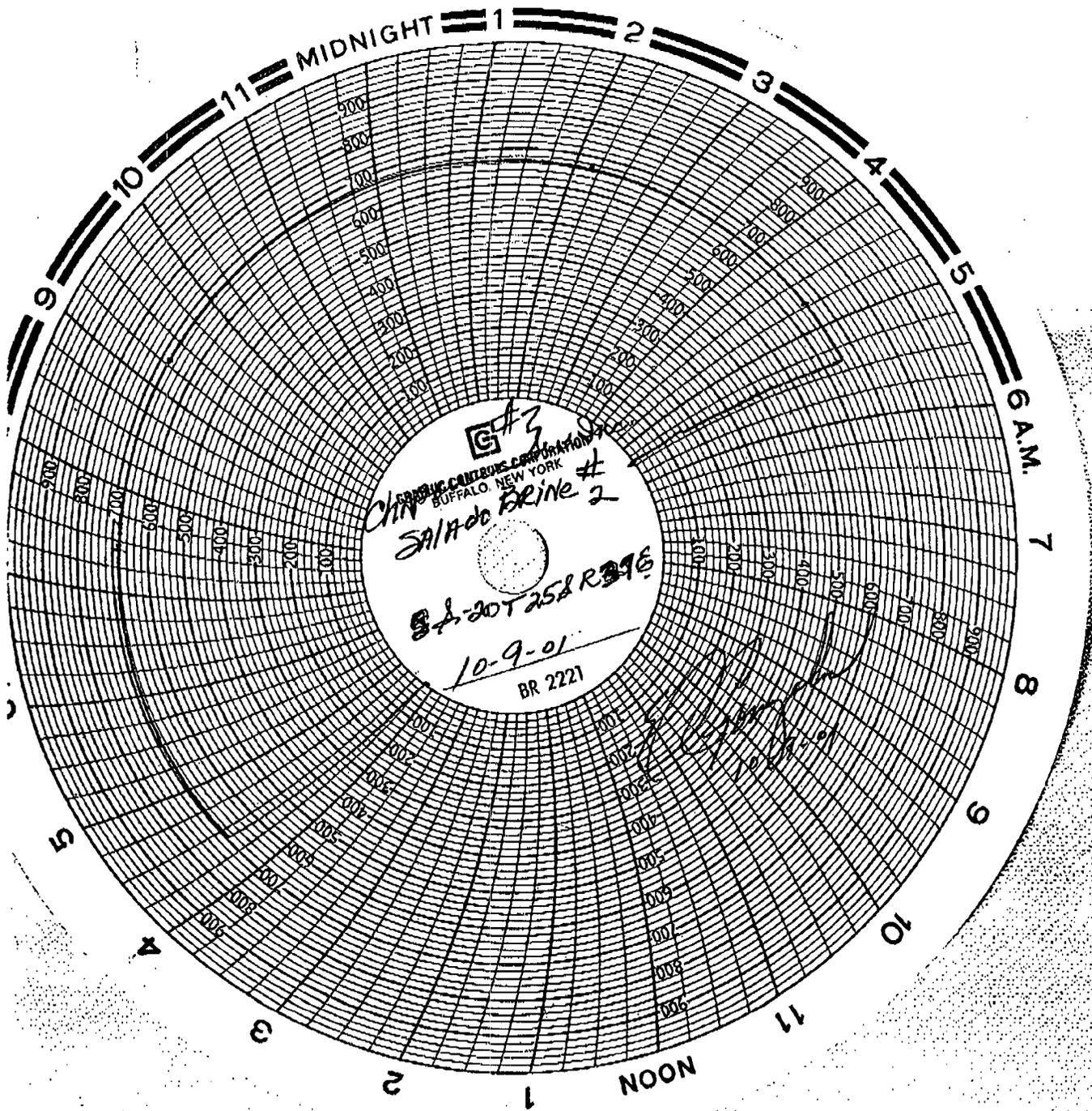
Multiple horizontal lines for additional information or notes.

5

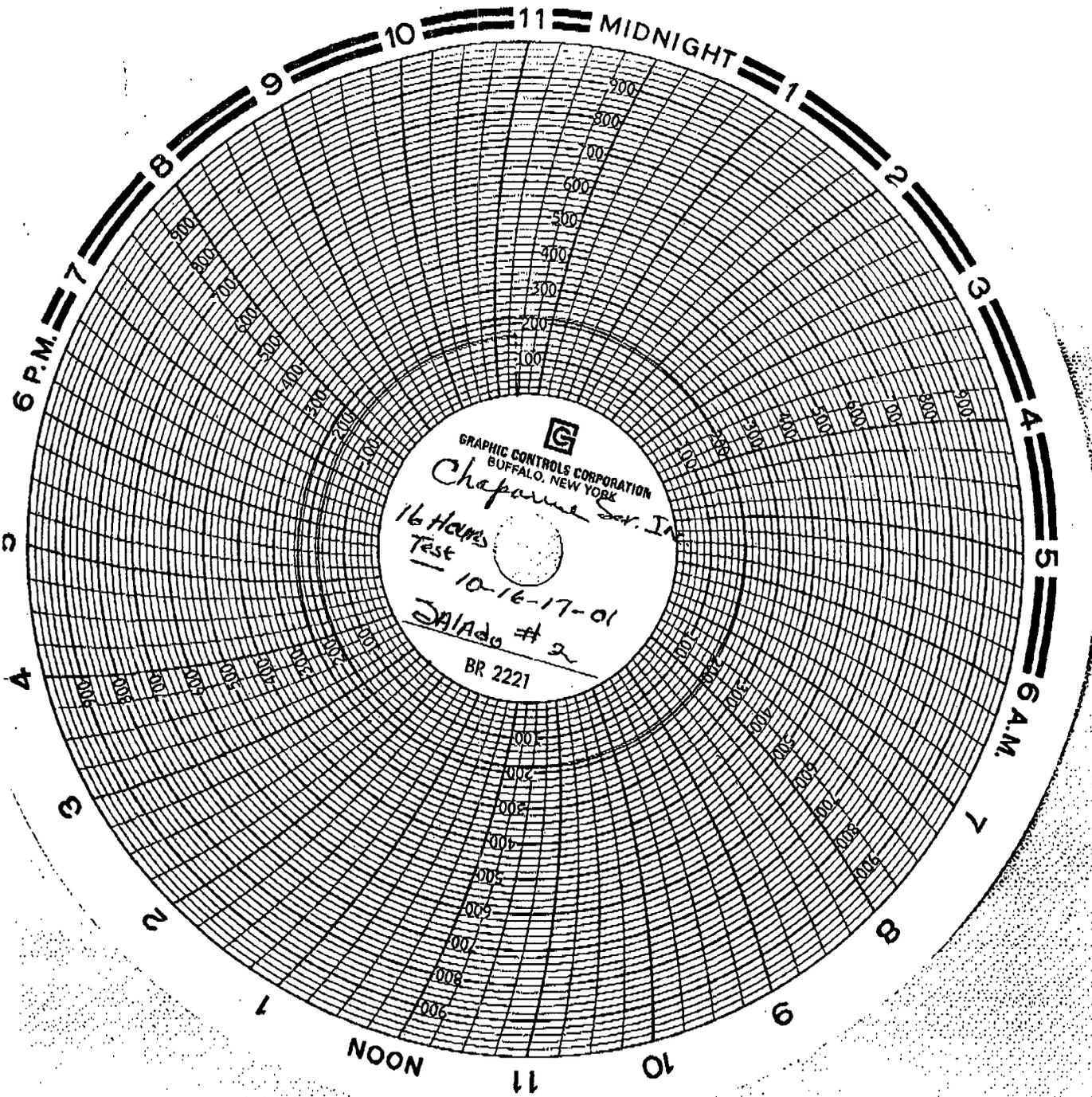
Pages (Including Transmittal)



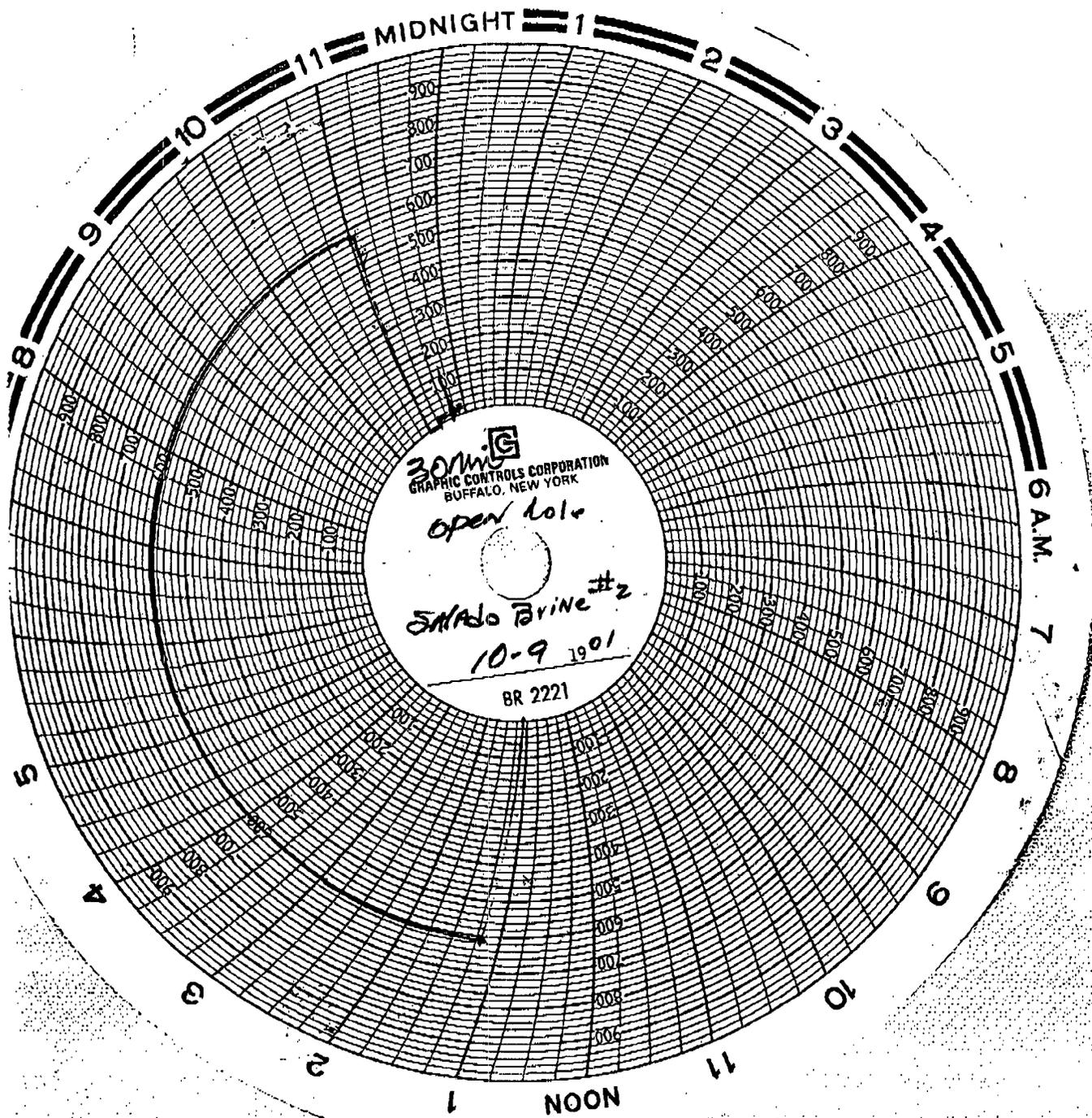
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 NOV 05 2001
 Environmental Bureau
 Oil Conservation Division



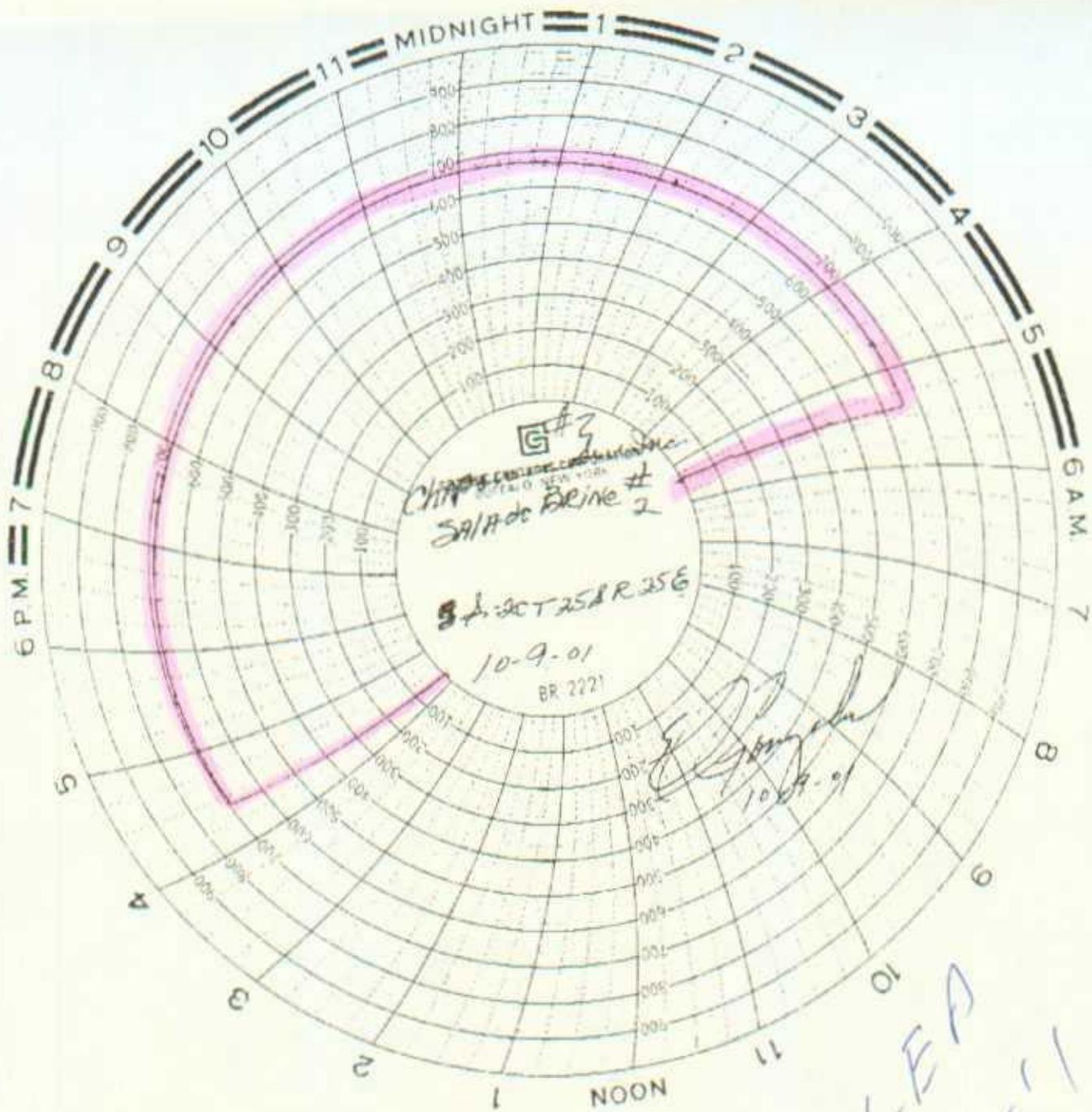
RECEIVED
 NOV 05 2001
 Environmental Bureau
 Oil Conservation Division



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 NOV 05 2001
 Environmental Bureau
 Oil Conservation Division



RECEIVED
 NOV 05 2001
 Environmental Bureau
 Oil Conservation Division



Wayne Price

FAILED TEST #1

PER EL GONZALEZ THIS TEST
 WAS 2 31 MINUTES LONG
 LOST 40-50 PSC
 200 psc 11/02/01
 [Signature]



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

PJS BW-02
CHAPARREL BW-25

October 20, 2001

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7508

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.

Brine Well Operators
Oct 20, 2001
Page 2

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 $\pm 1\%$ of Starting Pressure, if approved by the OCD inspector.
 - C. **Fails** if any Final Test Pressure is greater than $\pm 1\%$ 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.



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

SBC 20-7255-R37E

OPEN HOLE TEST
RECORDER ON CASING

SALADO BRINE #2 BW-025

12-14-2000

BR 2221

SECOND TEST
FAILED!!
JD

6 PM



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

12-14-2000

OPEN HOLE
TUBING PRESSURE

Salado Brine #12

BW-025

Sec 20 T 25 R 37C

BR 2221

START
10 AM



STOP
2 PM



FIRST TEST
FAILED!!

JP

Pave Practice

12-14-2020
SALADO BRIVE #2
D.P. - BW-025

Time _____ to _____
Open hole integrity Test

O.C.D. Wanda Pina

Time 2pm



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 4454 CSI BW-025

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.

OCD BRINE WELL TEST SCHEDULE December of 2000

Company	DP#	Facility Name	Date of Test	Start	Stop	Type of Test(s) Required	Contact Person	Telephone	FAX #
Marbob Brine Well	BW-029	M. Dodd "A" BW#1	December 08, 2000	1:00 PM	5:00 PM	2 Pressure test cavern	Doyle Davis Raye Miller	748-5975 cell 748-3303	1-505-746-2523
P&S Brine Simms-McCasland Salty Dog, Inc.	BW-002 BW-009A BW-008	Eunice Eunice Water ST. Eunice Brine Station Arkansas-Jct	December 11, 2000 December 11, 2000 December 11, 2000	8 am 9:30 am 11 am	12 noon 1:30 pm 3 pm	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern	Paul Prather Bob Patterson Mr. Pflar Bergstein Walter Brisco	1-505-394-2545 1-505-394-2581 1-806-741-1080	1-505-394-2426 1-505-394-2584
Stearns Inc. Gandy Corp. Key Energy	BW-013 BW-022 BW-018	Crossroads Tatum Water St. Truckers #2 (Hobbs)	December 12, 2000 December 12, 2000 December 12, 2000	8:00 AM 9:00 AM 10:30 AM	12 noon 1:00 PM 2:30 PM	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern	L.A. Stearns Larry Gandy Pete Turner	1-505-675-2356 1-505-398-4960 1-505-397-4994	1-505-675-2339 cell 369-5721 1-505-393-9023
I&W Trucking Loco Hills Brine	BW-006 &6A BW-021	Carlsbad Yard Loco Hills	December 13, 2000 December 13, 2000	8:00 AM 1:30 PM	12 noon 5:30 PM	2 Pressure test cavern 2 Pressure test cavern	George Parchman D. Maloney or R. Harris	1-505-885-6663 1-505-677-2370	1-505-885-8477 1-505-677-2361
Goldstar Quality Oil (Salado Brine Sales)	BW-028 BW-025	Eunice Brine Station Salado Brine St. #2	December 14, 2000 December 14, 2000	9:30 am 11am	1:30 pm 3 pm	2 Pressure test cavern 2 Pressure test cavern	Royce Crowell see P&S	1-505-394-2504	1-505-394-2560
Key Energy-Carlsbad Scurlock/Permian Jims Water Ser.	BW-019 BW-027 &27A BW-005	Rowland Truckers Carlsbad Brine St. SE of Artesia	December 15, 2000 December 15, 2000 December 15, 2000	8:00 AM 9:00 AM 10:30 AM	12 noon 1:00 PM 2:30 PM	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern	John Hutcheson Jim Ephraim Sammy Stoneman	1-505-887-3011 1-713-672-8092 1-505-748-1352	1-505-887-3011 1-713-672-7609
Scurlock-Permian Gandy- WasserHaun	BW-012 BW-004	Hobbs Station Buckeye St.	December 18, 2000 December 18, 2000	8:00 AM 9:00 AM	12 noon 1:00 PM	2 Pressure test cavern 2 Pressure test cavern	Richard Lentz Larry Gandy	1-505-392-8212 1-505-398-4960	1-505-392-6988 cell 369-5721

Notes:

Type of Pressure Test: 1 Casing Test

2 Open Hole Cavern Pressure Test

3 Others

Isolate cavern formation from the casing/tubing annulars and hydrostatic fluid pressure test the casing at 300 psig for 30 minutes.

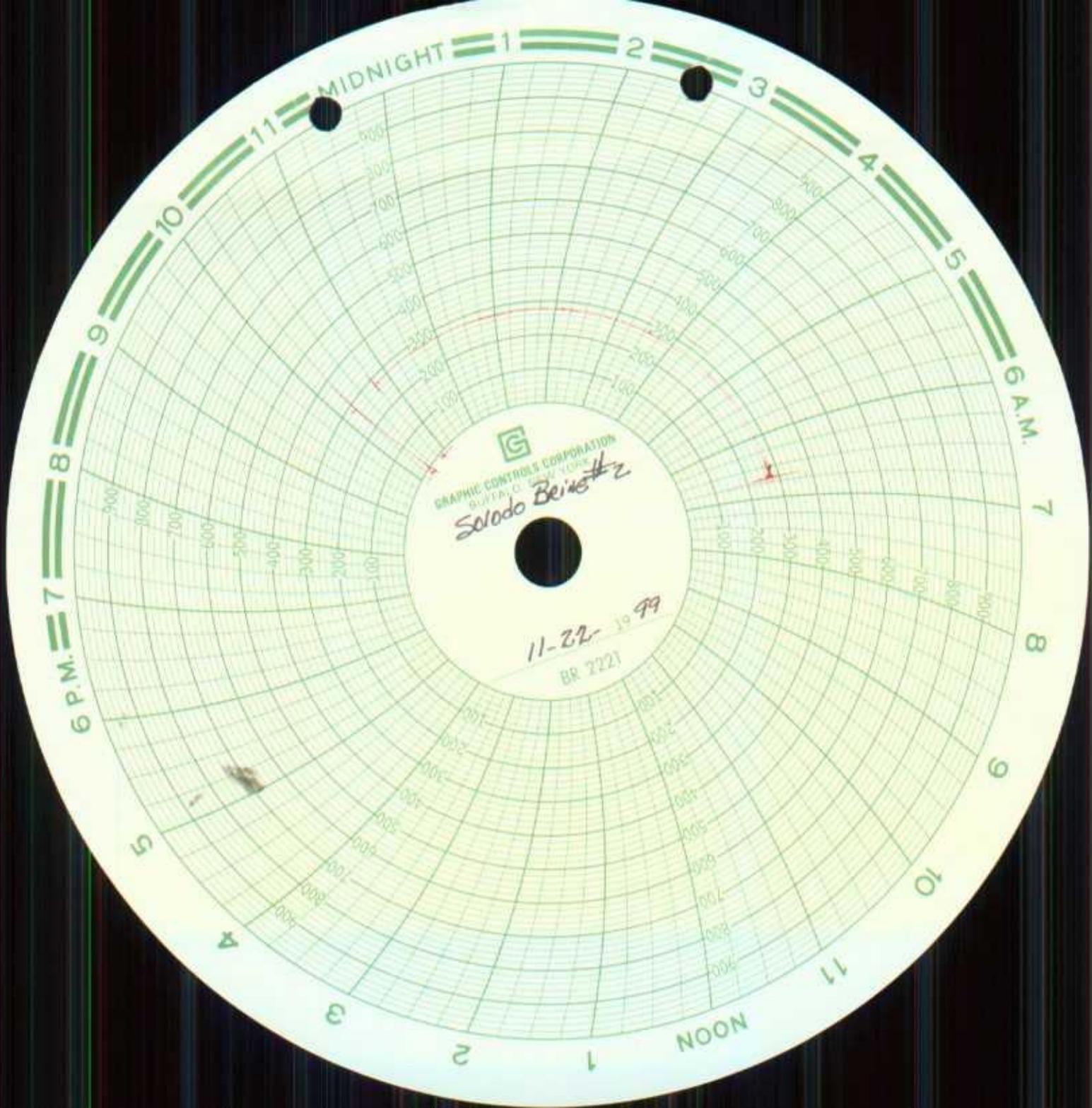
Open hole cavern formation pressure test by pressuring up the formation with fluid to one and one-half times the normal operating pressure or 300 psig whichever is greater for four hours. Operators shall not exceed surface pressures that may cause formation fracturing or system failures. OCD prior to 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 annulars.

Nitrogen-Brine Interface Test, Nitrogen Test, Etc.

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.



G
GRAPHIC CONTROLS CORPORATION
BUFFALO, N.Y. 14240
Solado Beisetz

11-22-99
BR 7221

MIDNIGHT 1 2 3 4 5 6 A.M.
7 8 9
NOON 1 2 3 4 5 6 P.M.



#4 Recorder

SAME Chart Recorder we used
ON PYS Brine #1

11-22-99
Chaparral Service Inc. Salado Brine Well #2
Discharge Plan # BW-025
Sec. 20 T 25 & R 37 E
Open hole & casing Test
Paul Trautner
Paul Trautner

P.C.D. Rep. Donna Williams
DONNA WILLIAMS

11-22-99 Du

Link Shafter
w/ P & S

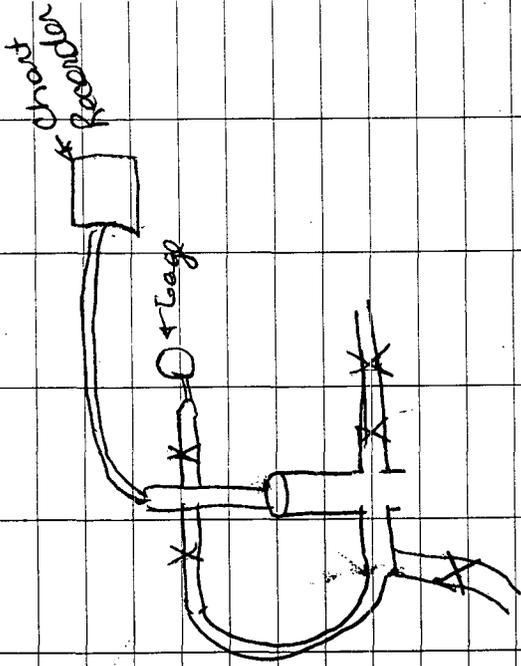
Recording → 12 hr Setting
Chart → 12 hr. Chart

Chart started @ 10:40
gauge reading: 305 lbs.
Chart " : 280 lbs.

Same Chart Recorder used
that was used in Service.
at the P & S Bine Station

Chart Stopped @ 2:43

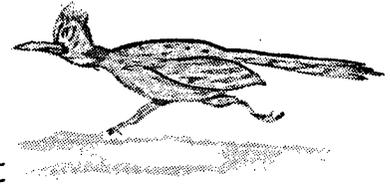
Bleed off by 10%



* all valves closed
except for tubing.

Chaparral Service, Inc.

SCC NM 841-1



☆ Phone (505) 394-2545 ☆ West Texas Ave. ☆ P.O. Drawer 1769 ☆ Eunice, New Mexico 88231 ☆

(505) 394-2811

(505) 397-3044

FAX # (505) 394-2426

RECEIVED
NOV 22 1999
OIL CONSERVATION DIVISION

November 17, 1999

State of New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

MR. PRATHER IS ALSO
SENDING IN OP RENEWAL
APPLICATION!
JWD 11/29/99

Re: Ownership on Salado Brine Well #2

Mr Wayne Price,

Chaparral Service, Inc. recently purchased Salado Brine Well #2, located in Lea County, NM from Quality Oil Service, Inc. Please change the operators name on this well from Quality to Chaparral Service, Inc.

Chaparral is also in the process of changing the Bond to reflect this purchase.

We remain,

Chaparral Service, Inc.

Paul Prather, President

Chaparral

SERVICE, INC.



P.O. DRAWER 1769, EUNICE, NEW MEXICO 88231

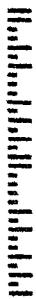


UNITED STATES POSTAL SERVICE
PB8678611
NOV 17 99
88231
MAILED FROM EUNICE NM
3216

State of NM Oil Conservation Division
2040 S Pacheco
Santa Fe NM 87505

Atten: Wayne Price

87805-5472 57





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

September 11, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z 357 870 159

Mr. Client Widner
Quality Oil Service, Inc.
P.O. Box 1060
Jal. New Mexico 88252

Re: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. Client Widner:

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 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 one and one-half times the normal operating pressure (not to exceed formation fracture pressure) or 300 psig whichever is greater for four hours. 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 and Test Procedure for this Fall October 25, 1999 through November 2, 1999. Please have your well ready for testing on the date and time you are schedule. Operators will be responsible for providing equipment and shall bear all costs incurred. All test must be witnessed by the New Mexico Oil Conservation Division.

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-Pet. Engr. Spec.
Environmental Bureau

cc: OCD District Offices
attachments- OCD Brine Well Test Schedule & Brine Well Testing Procedure Guidance Document



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

November 24, 1997

Mr. W. H. Brininstool
Salado Brine Sales
P.O. Drawer A
Jal, New Mexico 88252

RE: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. W. H. Brininstool:

Enclosed is a copy of the mechanical integrity test conducted on your brine well. Please retain this copy for your records.

As a condition of discharge plan approval, all brine facilities are required to submit a quarterly report listing, by month, the volumes of fluids injected and produced. The New Mexico Oil Conservation Division (OCD) has not received any quarterly reports for the Eunice brine station. Please update all delinquent quarterly reports by January 26, 1997.

On behalf of the New Mexico Oil Conservation Division, I would like to thank you for your time and cooperation during the testing. If you have any questions, please contact me at (505) 827-7155.

Sincerely,

A handwritten signature in cursive script that reads "Mark Ashley".

Mark Ashley
Geologist

Attachment

P 288 258 951

US Postal Service
Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

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

August 12, 1997

Certified Mail

Return Receipt No. P-288-258-951

Mr. W.H. Brininstool
Salado Brine Sales
P.O. Drawer A
Jal, New Mexico 88252

**RE: Mechanical Integrity Testing of Brine Supply Wells
Annual Test
Salado Brine #2 BW-025
Lea County, New Mexico**

Dear Mr. Brininstool:

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 are no leaks in the tubing, casing, or packer, and that the injected fluid is confined within the injection zone through proper cementing.

All brine wells that operate without a packer will be required to have an annual open hole pressure test equal to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for four hours with a maximum of 10 percent bleed-off allowed. Every five years or at the time of discharge plan renewals they will be required to have an open hole pressure test equal to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for four hours with zero bleed-off.

All brine wells that operate with a packer will be required to have an annual casing/tubing annulus pressure test equal to 300 psi for 30 minutes.

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

Please have your well ready for testing on September 17, 1997 at 9:00 AM as outlined below.

For brine wells operating without a packer:

- 1) The cavern must be pressured up and stabilized for a period of at least 24 hours prior to testing.

Mr. W.H. Brininstool

August 12, 1997

Page 2

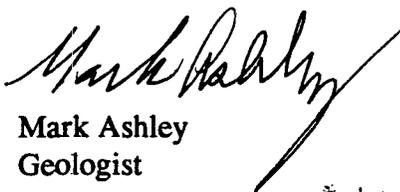
- 2) The system shall be tested to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for a period of four hours. A maximum of 10 percent bleed-off will be allowed for annual tests. Testing conducted every five years or at the time of discharge plan renewal will have zero bleed-off.
- 3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 1,000 psi.
- 4) Have well head prepared for test. All valves should be in good working order.
- 5) All gauges shall be in good working order.
- 6) Have manpower and equipment available for pressure test.

For brine wells operating with a packer:

- 1) Have the casing/tubing annulus and tubing loaded with inert fluid prior to testing.
- 2) The casing/tubing annulus shall be tested to 300 psi for 30 minutes.
- 3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 1,000 psi.
- 4) Have well head prepared for test. All valves should be in good working order.
- 5) All gauges shall be in good working order.
- 6) 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



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

October 3, 1996

Mr. W. H. Brininstool
Salado Brine Sales
P.O. Drawer A
Jal, New Mexico 88252

RE: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. W. H. Brininstool:

Enclosed is a copy of the mechanical integrity test conducted on your brine well. Please retain this copy for your records.

On behalf of the New Mexico Oil Conservation Division, I would like to thank you for your time and cooperation during the testing. If you have any questions, please contact me at (505) 827-7155.

Sincerely,

A handwritten signature in cursive script that reads "Mark Ashley".

Mark Ashley
Geologist

Attachment



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

August 16, 1996

Certified Mail

Return Receipt No. P-288-258-828

Mr. W.H. Brininstool
Salado Brine Sales
P.O. Drawer A
Jal, New Mexico 88252

**RE: Mechanical Integrity Testing of Brine Supply Wells
Annual Test
Salado Brine #2 BW-025
Lea County, New Mexico**

Dear Mr. Brininstool:

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 are no leaks in the tubing, casing, or packer, and that the injected fluid is confined within the injection zone through proper cementing.

All brine wells that operate without a packer will be required to have an annual open hole pressure test equal to 1.5 times the normal operating pressure or 300 psig, whichever is greater, for four hours with a maximum of 10 percent bleed-off allowed. Every five years or at the time of discharge plan renewals they will be required to have an open hole pressure test equal to 1.5 times the normal operating pressure or 300 psig, whichever is greater, for four hours with zero bleed-off.

All brine wells that operate with a packer will be required to have an annual casing/tubing annulus pressure test equal to 1.5 times the normal operating pressure or 300 psig, whichever is greater, for four hours.

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

Please have your well ready for testing on September 19, 1996 at 10:00 AM as outlined below.

Mr. W.H. Brininstool

August 16, 1996

Page 2

For brine wells operating without a packer:

- 1) The cavern must be pressured up and stabilized for a period of at least 24 hours prior to testing.
- 2) The system shall be tested to 1.5 times the normal operating pressure or 300 psig, whichever is greater, for a period of four hours. A maximum of 10 percent bleed-off will be allowed for annual tests. Testing conducted every five years or at the time of discharge plan renewal will have zero bleed-off.
- 3) A continuous recording pressure chart with an 8 hour clock shall be installed on both the casing/tubing annulus and tubing. The pressure range shall not be greater than 1,000 psig.
- 4) Have well head prepared for test. All valves should be in good working order. All casing/tubing annulus and tubing valves shall be open.
- 5) All gauges shall be in good working order.
- 6) Have manpower and equipment available for pressure test.

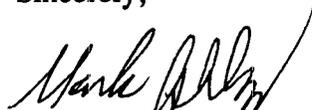
For brine wells operating with a packer:

- 1) Have the casing/tubing annulus and tubing loaded with inert fluid prior to testing.
- 2) The casing/tubing annulus shall be tested to 1.5 times the normal operating pressure or 300 psig, whichever is greater, for four hours.
- 3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall not be greater than 1,000 psig.
- 4) Have well head prepared for test. All valves should be in good working order.
- 5) All gauges shall be in good working order.
- 6) Have manpower and equipment available for pressure test.

Mr. W.H. Brininstool
August 16, 1996
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If you have any questions regarding this matter, please feel free to contact me at (505) 827-7155.

Sincerely,



Mark Ashley
Geologist

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