

BW - 22

**MECHANICAL
INTEGRITY TEST
(MITs)**

DATE: _____

WASSERHUND, INC.
P.O. Box 2140
Lovington, NM 88260-2140

February 10, 2017

NM Oil Conservation Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505

Fresh Water injected at the Tatum Brine Station (BW-022)

January 2017 525

Brine Water Sold at the Tatum Brine Station (BW-02)

January 2017 510

Pressure on Tatum Brine Station Averaged 260 psi

Sincerely Yours;


Donny Collins

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

Form C-103
 Revised July 18, 2013

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

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.)		WELL API NO. 30-025-28162
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other Brine Well <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Wasserhund, Inc.		6. State Oil & Gas Lease No. 25-28162
3. Address of Operator P.O. Box 2140, Lovington, NM 88260		7. Lease Name or Unit Agreement Name Quality Brine
4. Well Location Unit Letter M : 593 feet from the South line and 639 feet from the West line Section 20 Township 12S Range 36E NMPM County Lea		8. Well Number 1
11. Elevation (Show whether DR, RKB, RT, GR, etc.)		9. OGRID Number 130851
10. Pool name or Wildcat		

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

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input checked="" 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"/> CLOSED-LOOP SYSTEM <input type="checkbox"/> OTHER: Intergity Test <input type="checkbox"/>		SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> OTHER: <input type="checkbox"/>	
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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.

Please see attached Chart

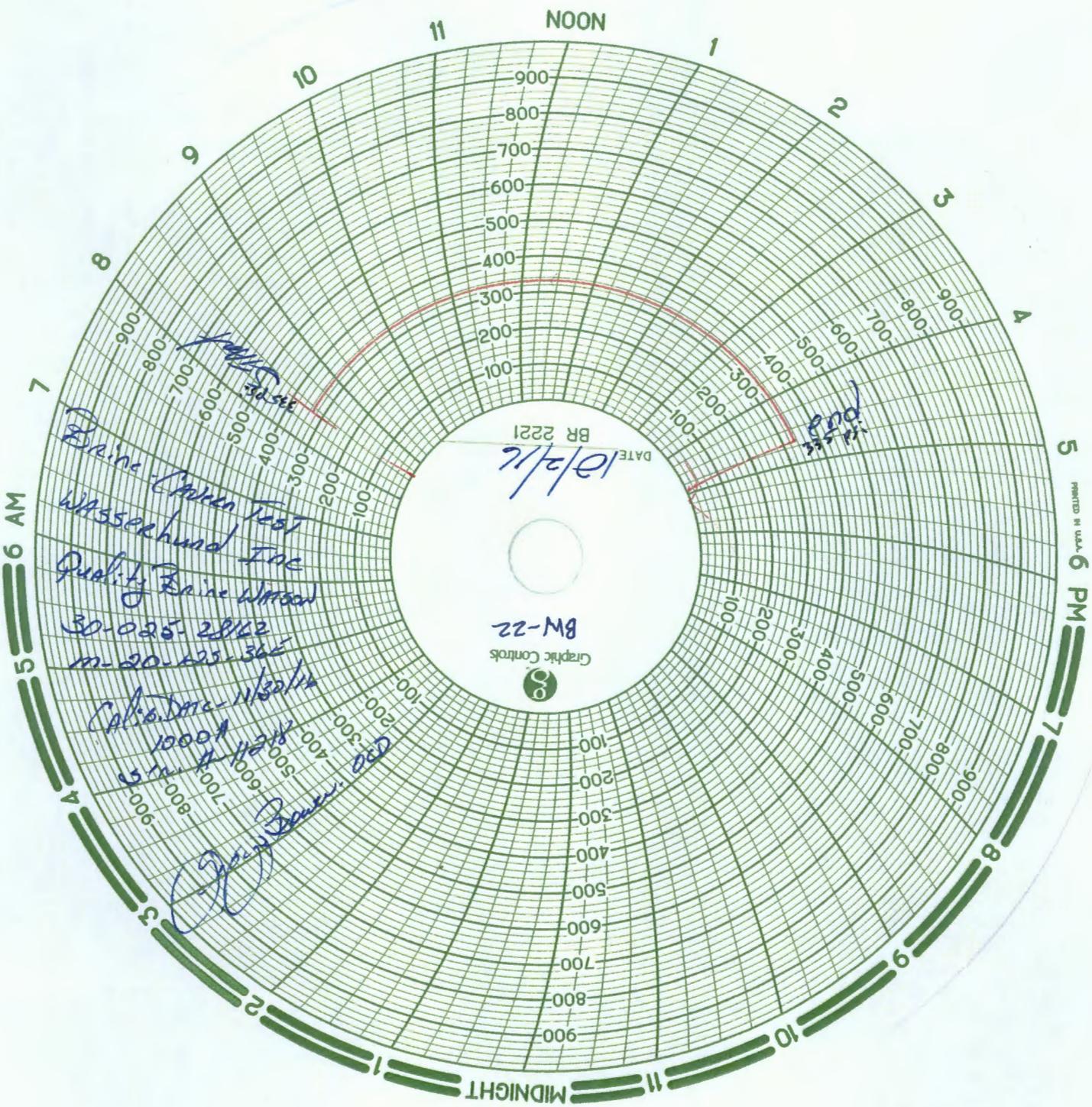
Spud Date: Rig Release Date:

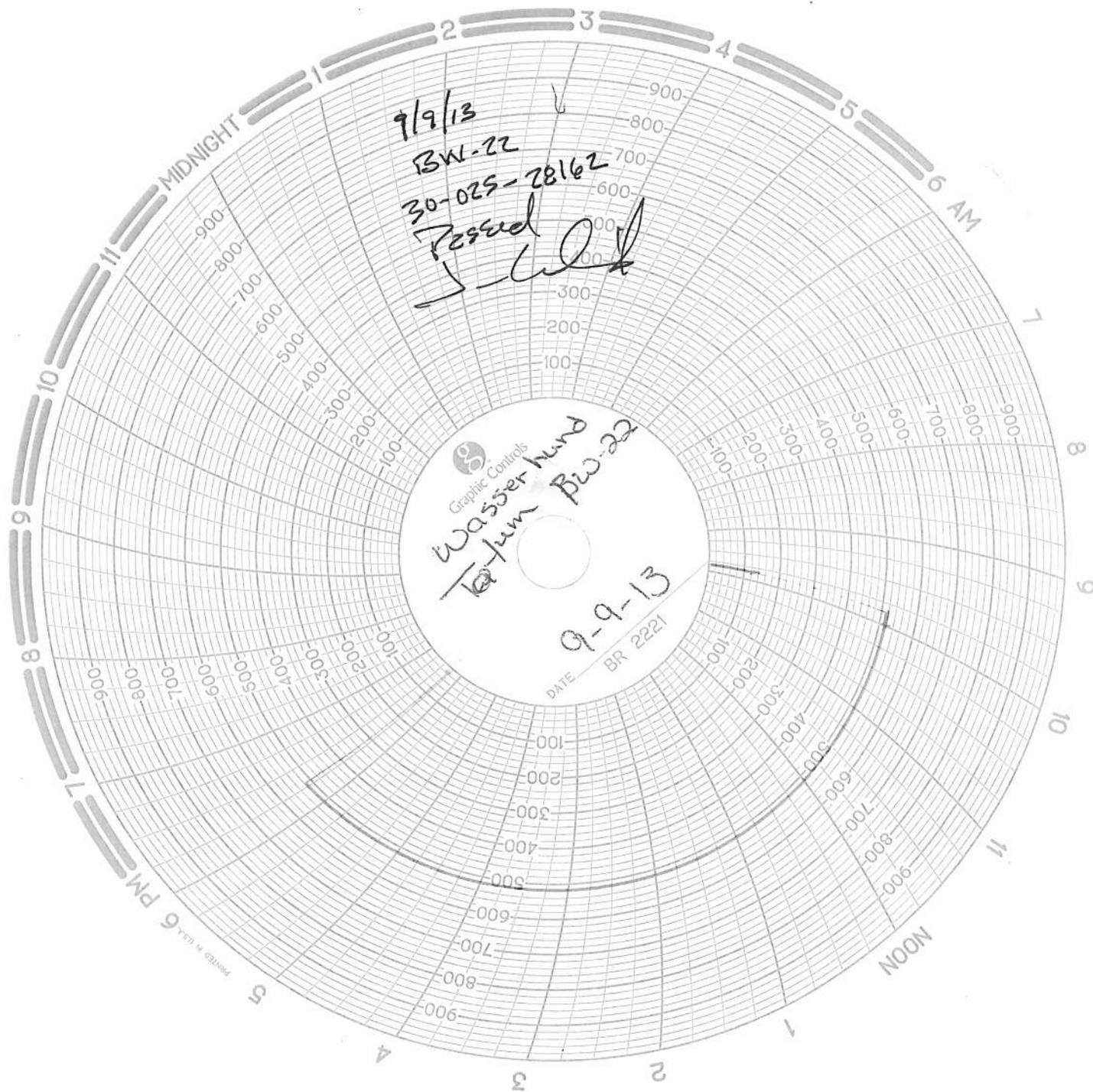
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Larry Gandy TITLE President DATE 12/05/16

Type or print name Larry Gandy E-mail address: lgandy@gandycorporation.com PHONE: 575-396-0522
For State Use Only

APPROVED BY: Carl A. Whiting TITLE Senior Engineer DATE 12/8/16
 Conditions of Approval (if any):





9/9/13
BW-22
30-025-28162
Fessad
[Signature]

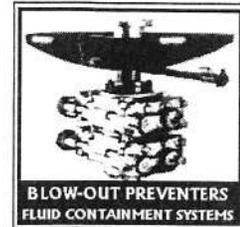
Graphic Controls
Wasser kund
Tajun BW-22

9-9-13
DATE BR 2221

PRINTED IN U.S.A.

D & L Meters & Instrument Service, Inc.

Lovington, NM 88260
P.O. Box 1621
Office: (575) 396-3715
Fax: (575) 396-5812

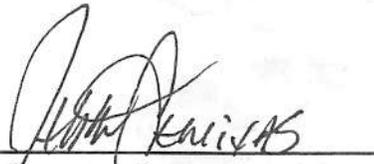


Friday, June 28, 2013

Certification of Pressure Recorder Test:

Company: Celero Energy
Unit: N/A
Model: 8" Bristols
Pressure Rating: 1,000#
Serial #: 3914

*This Pressure Recorder was tested at midrange for accuracy and verified within
+5% and -5% for a 1,000# pressure element.*



Jesse Arenivas, Technician

BLOW-OUT PREVENTERS
FLUID CONTAINMENT SYSTEMS

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

Form C-103
 Revised August 1, 2011

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

WELL API NO. 30-025-28162
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. 2528162
7. Lease Name or Unit Agreement Name Quality Watson
8. Well Number 1
9. OGRID Number 130851
10. Pool name or Wildcat

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 Well

2. Name of Operator
Wasserhund, Inc.

3. Address of Operator
P.O. Box 2140, Lovington, NM 88260

4. Well Location
 Unit Letter M : 593 feet from the South line and 639 feet from the West line
 Section 20 Township 12s Range 36e 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 checked="" 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: <u>integrity test</u> <input type="checkbox"/>		OTHER: <input 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.

Please see attached:

- Chart
- Well Bore Diagram

Last time pulled packer test - 10/21/08

Spud Date:

Rig Release Date:

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

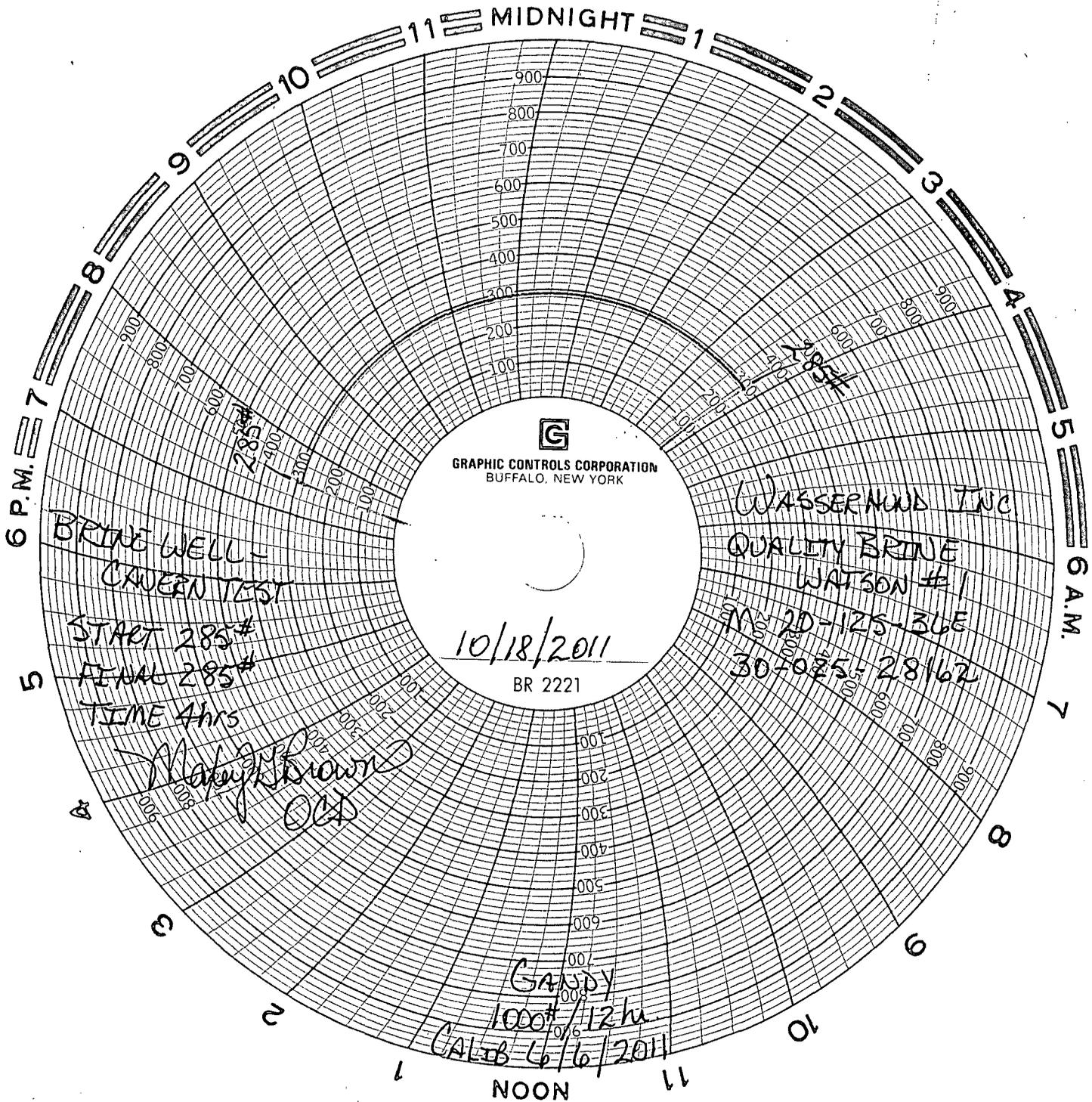
SIGNATURE Larry Gandy TITLE Secretary/Treasurer DATE 11/04/11

Type or print name Larry Gandy E-mail address: lgandy@gandycorporation.com PHONE: 575-396-0522

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

10/18/2011

BR 2221

BRINE WELL -
CAVERN TEST

START 285#

FINAL 285#

TIME 4hrs

Marty Brown
OCS

WASSERHOOD INC

QUALITY BRINE

WATSON #1

MS 20-125-36

30-025-28162

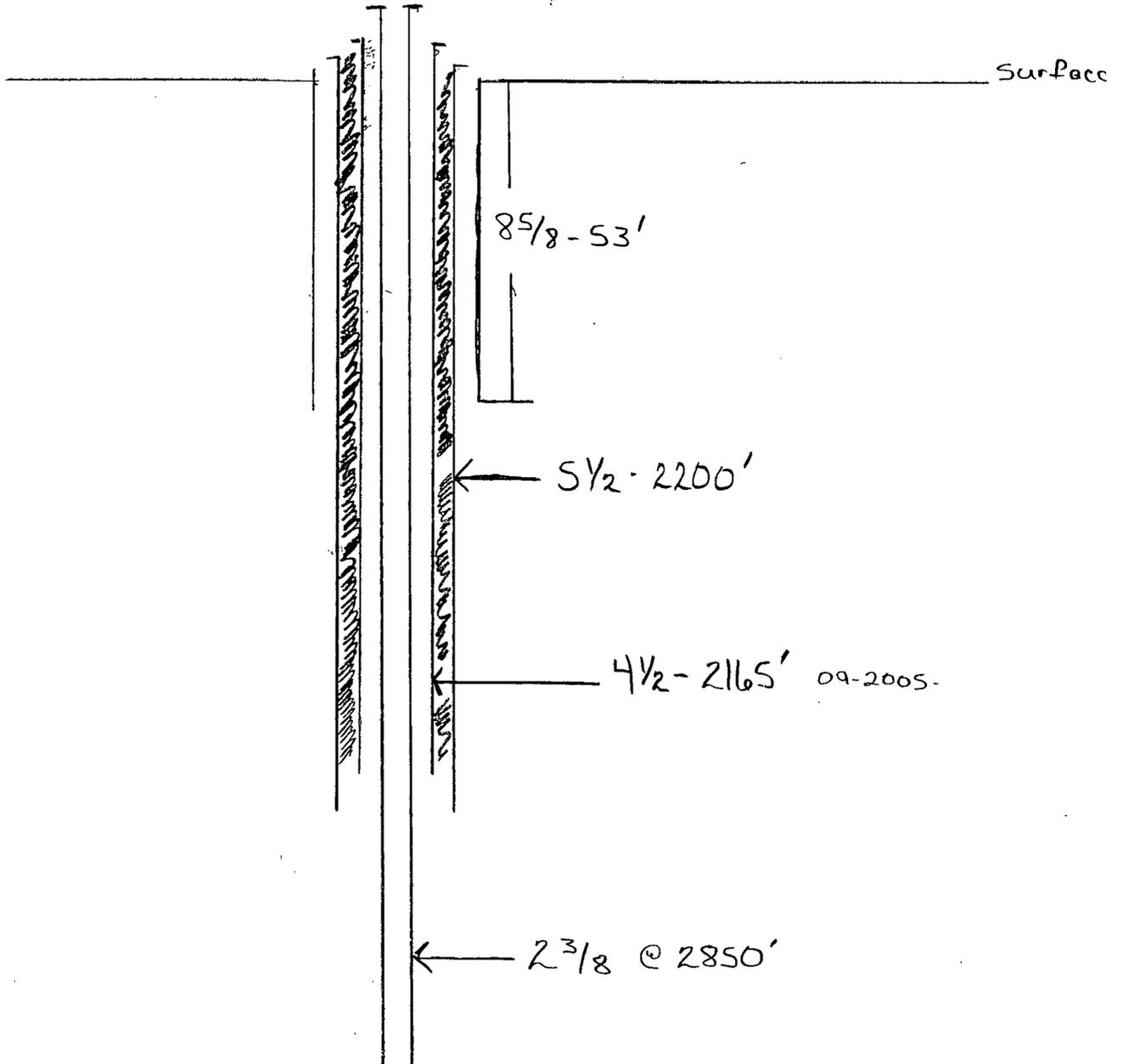
GANDY

1000#/12hr

CALIB 6/6/2011

NOON

Wasserhund Inc.
Quality Brine
Watson #1
M 20-12s-36e
30-025-28162



Griswold, Jim, EMNRD

From: Donny Collins [dcollins@gandycorporation.com]
Sent: Thursday, December 23, 2010 11:53 AM
To: Griswold, Jim, EMNRD
Subject: Brine Well test Results
Attachments: EidsonBrine bw004.pdf; QualityBrine bw002.pdf

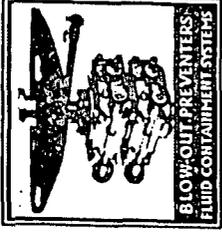
Here are the results witnessed by Maxey Brown from Hobbs OCD Office

Gandy Corporation

Quality Brine(tatum Brine) BW-⁰²²~~002~~, API # 30-25-28162
Eidson Brine(Wasserhund Brine) BW-004, API # 30-025-26883

Donny Collins
dcollins@gandycorporation.com

D & L Meters & Instrument Service, Inc.
P.O. Box 1621
Lovington, NM 88260
(505) 396-3715 FAX (505) 396-5812



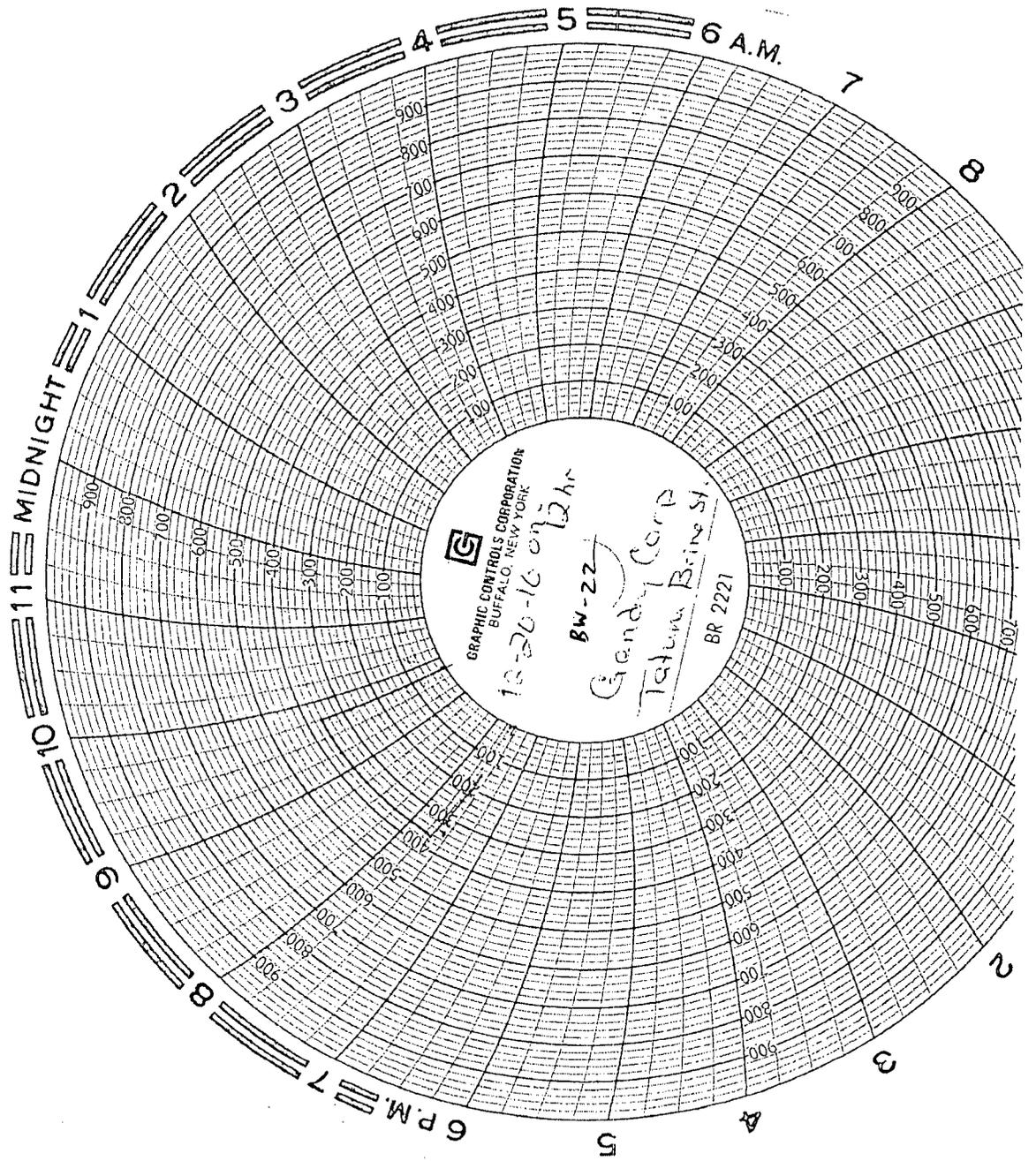
Friday, December 03, 2010

Certification of Pressure Recorder Test:

MODEL: Barton 8" 1,000# SER # Gandy # 5

This Pressure Recorder was tested at midrange for accuracy and verified within +5% and -5% for a dual pen recorder with 1,000# pressure elements.


Jesse Arenivas, Technician



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")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, July 02, 2009 11:53 AM
To: 'seay04@leaco.net'; 'David Pyeatt'; 'garymschubert@aol.com'
Cc: Griswold, Jim, EMNRD; VonGonten, Glenn, EMNRD
Subject: 2009 MIT Scheduling Request

Gentlemen:

OCD records show that your brine wells have not been MIT'd this season. The OCD needs the owner/operator to contact the OCD to schedule an MIT before the end of the EPA Federal Fiscal Year or by COB on 9/30/2009.

Brine Wells Needing an MIT this season are as follows:

BW-4 EPA 30 min. MIT w/ tubing pulled out of casing w/ packer or plug set near casing shoe (from 300 – 500 psig)

BW-22 EPA 30 min. MIT w/ tubing pulled out of casing w/ packer or plug set near casing shoe (from 300 – 500 psig)

BW-30 Fm. MIT 4-Hr. (similar pressure as last formation MIT)

BW-31 EPA 30 Min. MIT w/ tubing pulled out of casing w/ packer or plug set near casing shoe (from 300 – 500 psig)

If you have completed an MIT this season, but did not send in the chart and calibration information, please let me know ASAP.

Please contact me within 5 working days to tentatively schedule a date and time for the test in order for the OCD to identify a couple of days where we can witness all of the MITs. The month of August would probably allow enough time for scheduling, etc. and to beat the 9/30/09 deadline.

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/ocd/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 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, 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

Price, Wayne

From: Larry D. Gandy [gandy2@leaco.net]
Sent: Saturday, August 21, 2004 7:34 AM
To: Price, Wayne
Subject: Tatum Brine

Blk-022

Wayne,

Yes, Billy Pritchard Witnessed the MIT on tues. aug. 17, he also signed the chart.

Also on the landfarm, could we have documentation that our facility is able to accept drilling muds and chloride impacted soils, there are numerous new drilling pits and swd leaks in the area that the producers would like to clean up.

thanks, larry

----- Original Message -----

From: Price, Wayne
To: Price, Wayne ; 'Larry D. Gandy'
Cc: Gonzales, Elidio ; Johnson, Larry
Sent: Friday, August 20, 2004 11:14 AM
Subject: RE: Tatum brine station

Larry did you run your MIT yet?

-----Original Message-----

From: Price, Wayne
Sent: Tuesday, August 10, 2004 1:05 PM
To: 'Larry D. Gandy'
Cc: Gonzales, Elidio; Johnson, Larry
Subject: RE: Tatum brine station

Larry after you pull the tubing you will be required to set a Packard and run an MIT. 30 min's at 300 psig. Get OCD to witness the test.

-----Original Message-----

From: Larry D. Gandy [mailto:gandy2@leaco.net]
Sent: Tuesday, August 10, 2004 11:52 AM
To: WPRICE@state.nm.us
Subject: Tatum brine station

Wayne,

On 8-9-04 the Tatum Brine Station parted the tubing and released a couple hundred bbls. of fresh water from the casing. a c-103 will be following soon.

larry gandy

This email has been scanned by the MessageLabs Email Security System.
 For more information please visit <http://www.messagelabs.com/email>

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For more information please visit <http://www.messagelabs.com/email>

API # 30-025-28162
12 HR-CLOCK

GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

SWP-SWP# CAVEN TEST
20-125-36E (NAEPF)

GANDY-TATUM BW-002

11/12/02

BR 2221

COMPANY RST: 788/14200
WITNESS: [Signature]

← off 5:20 PM

↑
ON
≈ 1:20 PM





NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCE DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 20, 2001

MARB0B -BW-029

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7560

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

MARB0B -BW-029

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7560

Attention: Brine Well Operators

Re: Mechanical Integrity Testing of Brine Supply Wells

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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.

OCD BRINE WELL TESTING SCHEDULE 2001

Company	DP#	Facility Name	Date of Test	Start	Stop	Type of Test(s) Required	Contact Person	Telephone	FAX #/cell
Steamers Inc.	BW-013	Crossroads Area Crossroads	28-Nov-01	12 noon	4:00 PM	2 Pressure test cavern	L.A. Stearns	1-505-675-2356	1-505-875-2339
Marbob Brine Well Jims Water Ser.	BW-029 BW-005	Loco Hills Area M. Dodd "A" BW#1 SE of Artesia	27-Nov 27-Nov	9:00 AM 10:00 AM	1:00 PM 2:00 PM	2 Pressure test cavern * Pressure test cavern or casing * 1,2 or 3	Doyle Davis Sammy Stoneman	748-5975 cell 1-505-748-1352	1-505-748-2523 1-505-746-3227
Key Energy Scoutlock-Permian Zia Transportation Marathon Brine St	BW-018 BW-012 BW-018 BW-015	Hobbs Area Truckers #2 (Hobbs) Hobbs Station Sally Dog-Ark Jct Marathon Road	28-Nov-01 28-Nov-01 28-Nov-01 28-Nov-01	8:00 AM 9:00 AM 10:00 AM 11:30 AM	12 noon 1:00 PM 2:00 PM 3:30 PM	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern 1 Pressure Test Casing	Royce Crowell Richard Lentz Pier Bergstein CW Trainer	(505) 393-9171 505-392-8212 806-741-1080	505-910-4185 392-6988
P&S Brine Key Simms-McCasland Yale E. Key (Old Goldstar)	BW-002 BW-009A BW-028	Eunice Area Eunice Brine Station Eunice Brine Station Eunice Brine Station	29-Nov-01 29-Nov-01 29-Nov-01	8:00 AM 8:00 AM 10:00 AM	12 noon 1:00 PM 2:00 PM	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern	Dink Prather Royce Crowell Royce Crowell	505-394-2545 (505) 393-9171 1-505-394-2504	394-2428 505-910-4185 1-505-394-2560
I & W Key Energy-Carlsbad Scoutlock/Permian	BW-06 BW-019 BW-027 & 27A	Carlsbad Area Carlsbad -Eugenie Rowland Truckers Carlsbad Brine St.	30-Nov-01 30-Nov-01 30-Nov-01	8:00 AM 9:00 AM 10:00 AM	12 noon 1:00 PM 2:00 PM	2 Pressure test cavern 2 Pressure test cavern 2 Pressure test cavern	George Parchman John Hutcheson Richard Lentz	505-885-8663 1-505-885-2053 505-392-8212	885-8477 cell 390-1833 392-6988
Gandy Gandy Ray Westall	BW-04 BW-22 BW-21	Wells Already Tested In 2001 Wasserhund-Edison Tatum Brine St. Loco Hills Brine St.							
Chaparral SWD	BW-25	Wells Being Repaired- Salado Brine #2- Jal							
Notes:									
Type of Pressure Test:	1 Casing Test					isolate cavern formation from the casing/tubing annulus 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 annulus.			
	3 Others					Nitrogen-Brine Interface Test, Nitrogen Test, Etc.			



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

2-5-01
11 AM

Gandy Corp
Tatum Drive

BR 2221



STOP
1:23 PM

1:33 PM
Flow Break
to 2:15 BBL's
10 Min

DRURY WILLSON
~~DANNY WILSON~~

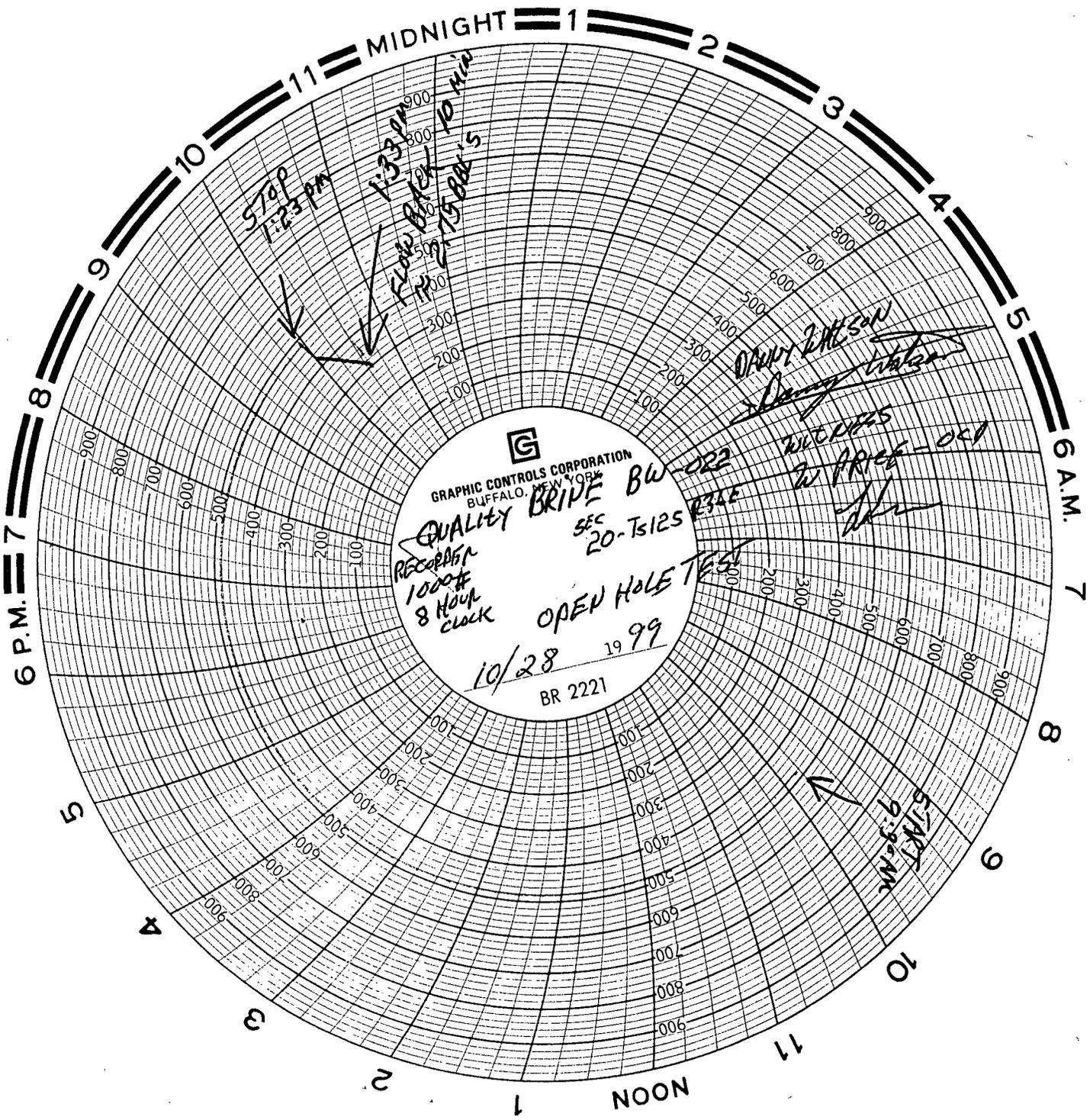
WILKINS
2 PREE-OCD

GRAPHIC CONTROLS CORPORATION
BUFFALO, N.Y.
QUALITY BRINE BW-022
RECORDER 1000#
8 HOUR CLOCK
SEC 20-TS125 R34E
OPEN HOLE TEST

10/28 1999

BR 2221

START
9:30 AM



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

QUALITY BRINE BW-022
SEC 20-TS125

RECORDED
1000#
8 HOUR
CLOCK

OPEN HOLE TEST

10/28 1999

BR 2221

DANN WILSON
WET PMS
2 PRICE - OK
W

STOP
1:23 PM

1:33 PM
FLUID BAKED
TO 1500'S

START
9:36 AM

**Southwest
Valve & Pump Service**

P.O. Box 971
Tatum, New Mexico 88267

Phone
(505) 398-8877

28 October 1999

TO WHOM IT MAY CONCERN:

This chart recorder was calibrated 9 February 1999 by Lee Alves.

It has only been used approximately 4 times since the certified technician calibrated it.



Danny Stevens
Owner, Southwest Valve & Pump Service

FOR QUALITY BRINES



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

Fax: 1-505-398-3494

October 19, 1999

Mr. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, New Mexico 88267

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



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 357 870 153

Mr. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, New Mexico 88267

Re: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. Danny Watson:

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



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. 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 before and during test.
- 4) 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. The operator must provide proof that the 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 gage shall be installed in the system.
- 6) OCD must witness the beginning of test (putting chart on) and ending of test (removing chart). At the end of test operator shall bleed-off pressure by 10% to demonstrate recorder response.
- 7) The following information shall be place on the chart:
 1. Date, time test started, time stop.
 2. Company name, Discharge Plan #, well name and number, legal location UL, section, township, range and county.
 3. Type of Test; Open hole, Casing Test, or Both.
 4. Printed name and signature of company representative and OCD representative.

Note: NMOCD recognizes that different operations, well constructions and field conditions may cause variations in the above procedures. If operator wishes to make or anticipate changes please notify the OCD for approval.



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. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, New Mexico 88267

RE: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. Danny Watson:

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

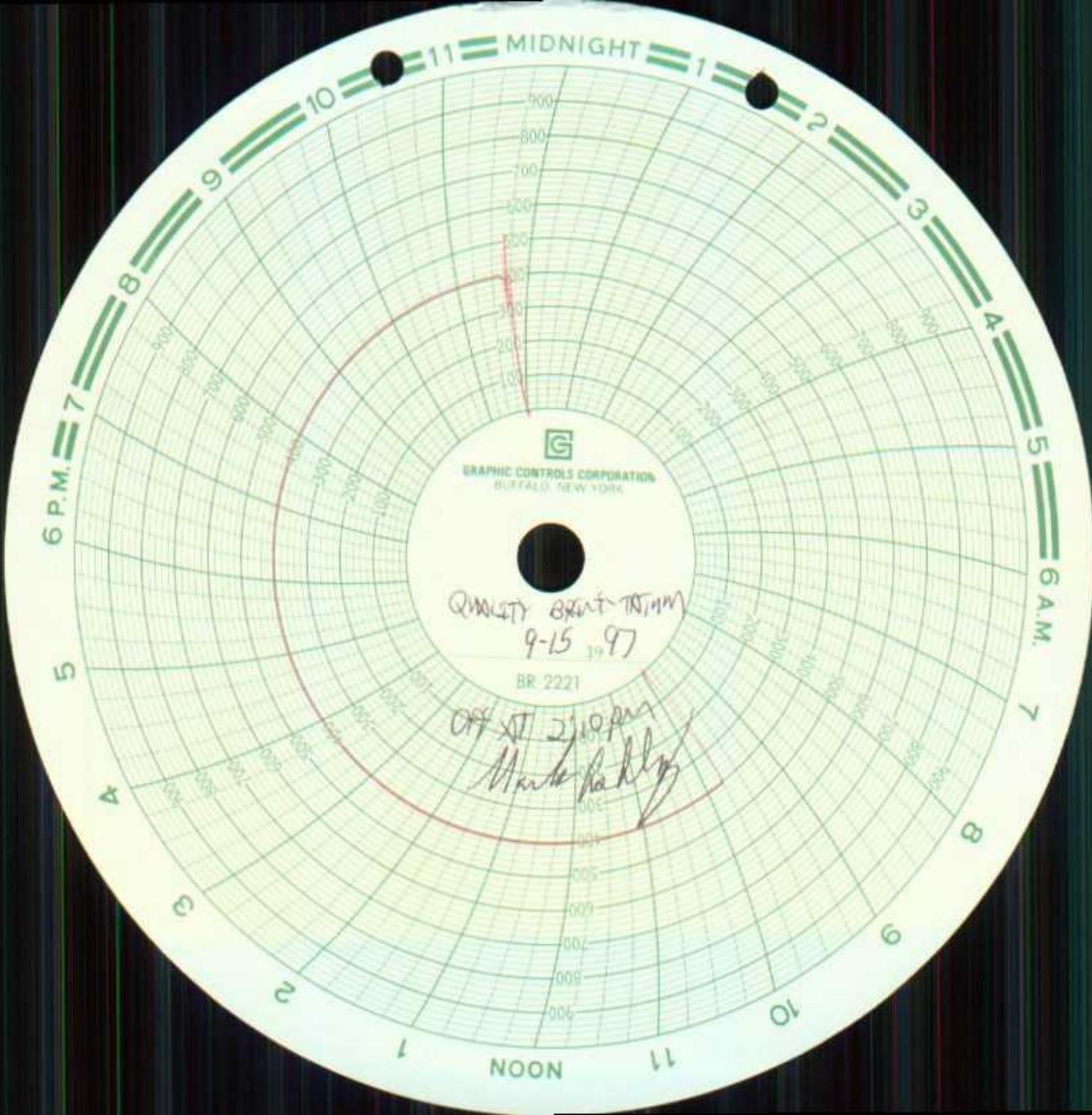
As a condition of discharge plan approval, all brine facilities are required to submit a quarterly report listing, by month, the volumes of fluids injected and produced. The reports received by the New Mexico Oil Conservation Division (OCD) have not been by month. Please corrected the next quarterly report to reflect monthly figures.

On behalf of the OCD, 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,

Mark Ashley
Geologist

Attachment




GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

QUALITY BREW-TIMM
9-15 1997

BR 2221

OFF AT 2:10 pm
Mark Radley

P 288 258 944

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-288-258-944

Mr. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, NM 88267

**RE: Mechanical Integrity Testing of Brine Supply Wells
Discharge Plan Renewal Test
Quality Brine Station BW-022
Lea County, New Mexico**

Dear Mr. Watson:

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 15, 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. Danny Watson

August 12, 1997

Page 2

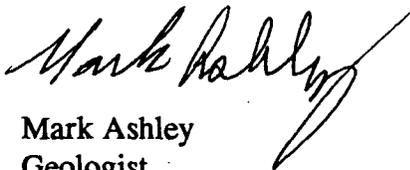
- 2) The system shall be tested to 1.5 times the normal operating pressure or 300 psi, whichever is greater, for a period of four hours. A maximum of 10 percent bleed-off will be allowed for annual tests. Testing conducted every five years or at the time of discharge plan renewal will have zero bleed-off.
- 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:

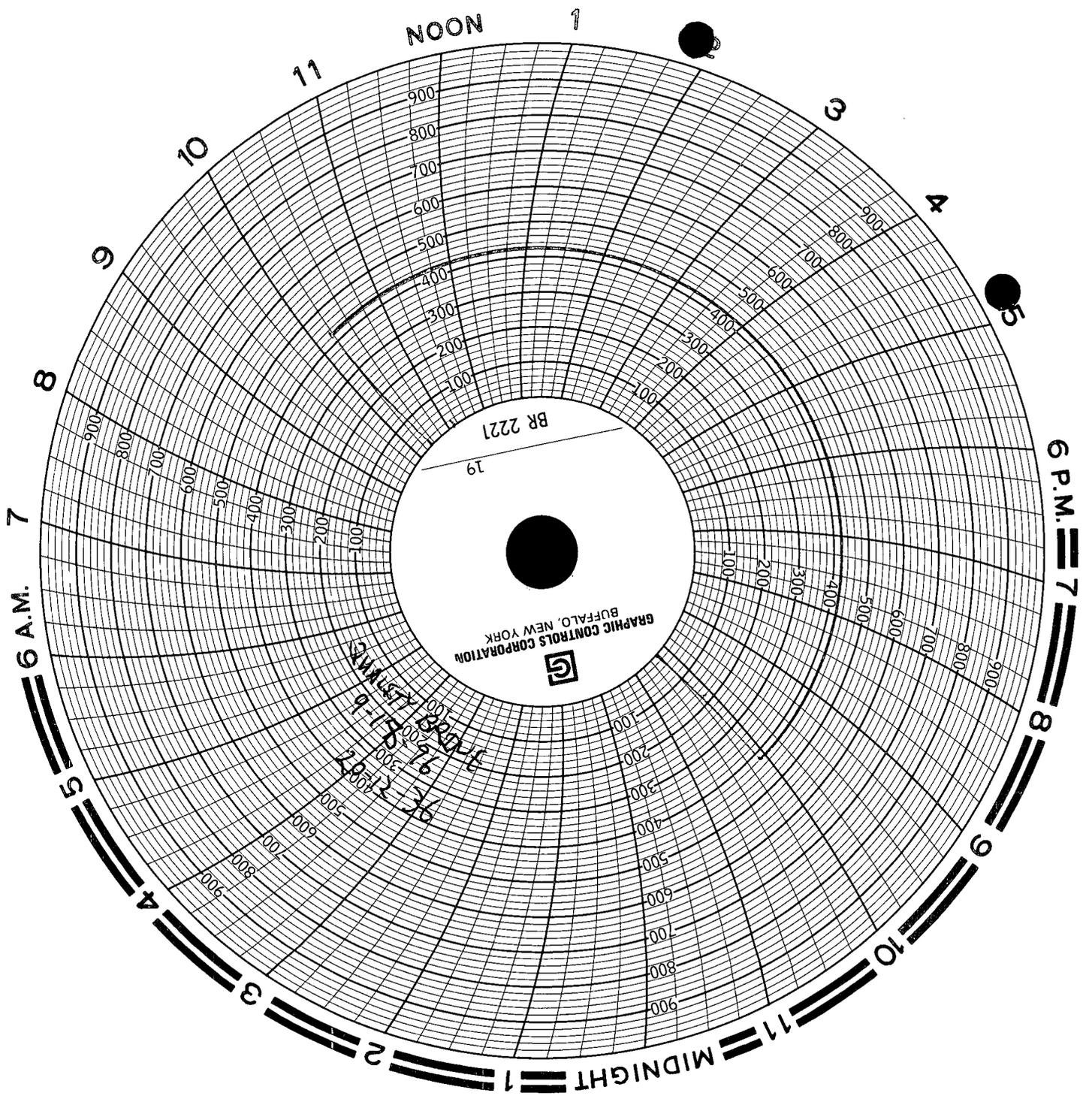
- 1) Have the casing/tubing annulus and tubing loaded with inert fluid prior to testing.
- 2) The casing/tubing annulus shall be tested to 300 psi for 30 minutes.
- 3) A continuous recording pressure chart with an 8 hour clock shall be installed on the casing/tubing annulus. The pressure range shall 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,

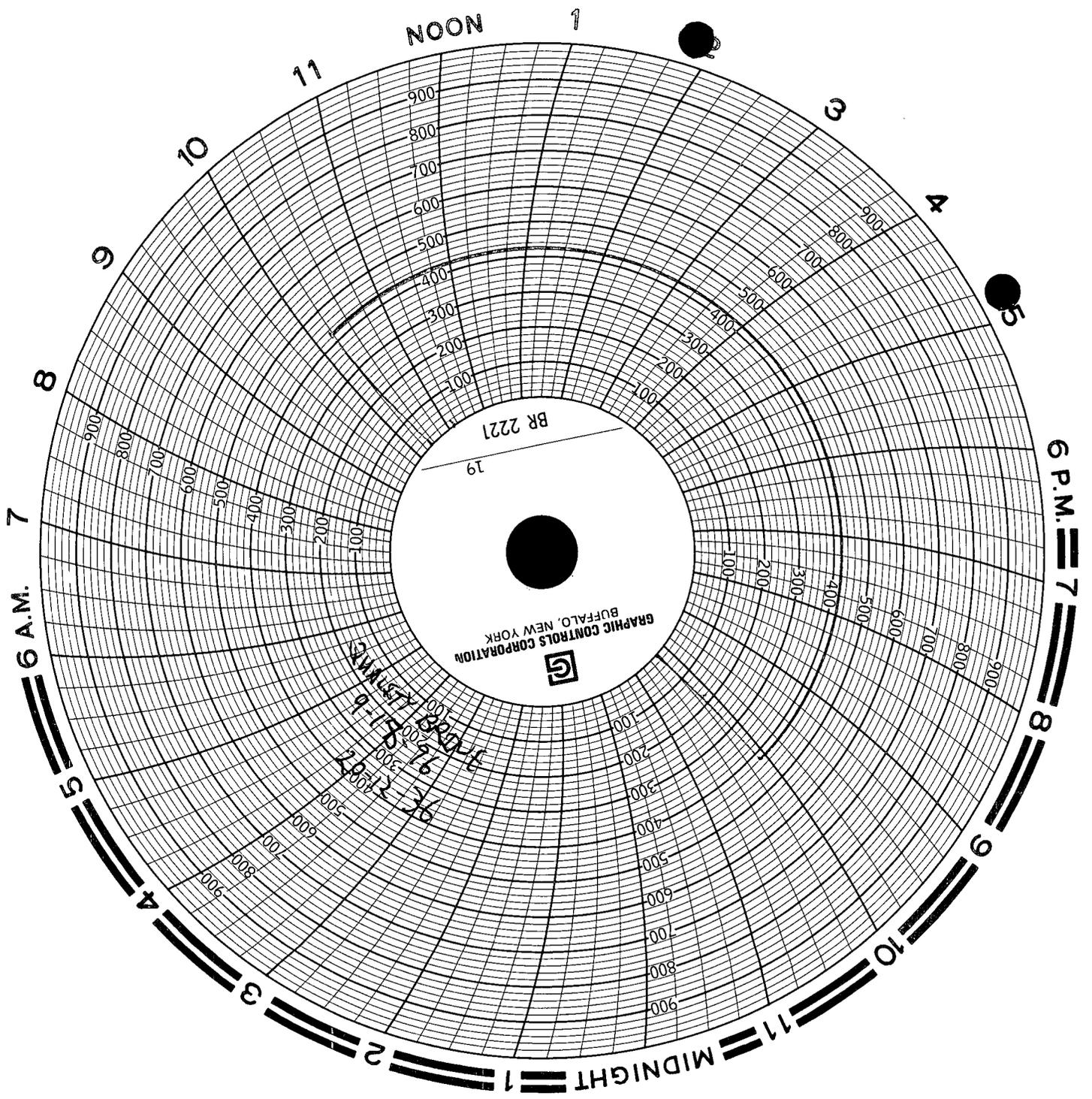


Mark Ashley
Geologist



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

BR 2221
19



GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK

BR 2221
19



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. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, New Mexico 88267

RE: Mechanical Integrity Testing of Brine Supply Wells

Dear Mr. Danny Watson:

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-288-258-826

Mr. Danny Watson
Quality Brine, Inc.
P.O. Box 682
Tatum, NM 88267

**RE: Mechanical Integrity Testing of Brine Supply Wells
Annual Test
Quality Brine Station BW-022
Lea County, New Mexico**

Dear Mr. Watson:

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 18, 1996 at 10:30 AM as outlined below.

Mr. Danny Watson
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.

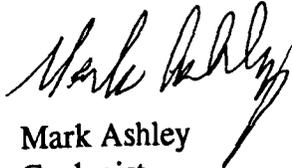
For brine wells operating with a packer:

- 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. Danny Watson
August 16, 1996
Page 3

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

Sincerely,



Mark Ashley
Geologist

P 288 258 826

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