

**UIC - I - \_11\_**

**MECHANICAL  
INTEGRITY TEST  
(MITs)**

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

|   |
|---|
| WELL API NO.<br>30-045-35747  |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 6. State Oil & Gas Lease No.  |
| 7. Lease Name or Unit Agreement Name  |
| 8. Well Number: WDW #2  |
| 9. OGRID Number 267595  |
| 10. Pool name or Wildcat<br>Entrada   |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)  |

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 Wastewater Disposal Well

2. Name of Operator  
Western Refining Southwest, Inc.

3. Address of Operator  
50 County Road 4990 (PO Box 159) Bloomfield, NM 87413

4. Well Location

Unit Letter H : 2028 feet from the North line and East feet from the line  
Section 27 Township 29N Range 11W NMPM San Juan County

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐  
OTHER: Bradenhead Test Report ☒

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.

Pursuant to Condition 3.D.1 of the Bloomfield Terminal Injection Well Discharge Permit (UICI-011), Western Refining Southwest, Inc. conducted a pressure test on the Bradenhead and Intermediate casings of WDW #2 on Tuesday, September 17, 2019. A representative of NMOCD was on-site to witness the test. Attached is a copy of the Test Report.

Spud Date:

Rig Release Date:

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

SIGNATURE Kelly Robinson TITLE Environmental Supervisor DATE 9/24/2019

Type or print name Kelly Robinson E-mail address: krobinson3@marathonpetroleum.com PHONE: (505) 8015616  
For State Use Only

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



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE  
1000 RIO BRAZOS ROAD  
AZTEC NM 87410  
(505) 334-6178 FAX: (505) 334-6170  
[http://emnr.state.nm.us/ocd/District III/3district.htm](http://emnr.state.nm.us/ocd/District%20III/3district.htm)

**BRADENHEAD TEST REPORT**

(submit 1 copy to above address)

Date of Test 9.17.19 Operator Western Refining SW Inc. API #30-0 45.35 747  
Property Name Waste Disposal Well Well No. 2 Location: Unit H Section 27 Township 29 Range 11  
Well Status (Shut-In or Producing) Initial PSI: Tubing 150 Intermediate 110 Casing 2 Bradenhead 24

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

| Testing | PRESSURE |     |     | INTERM |     |
|---------|----------|-----|-----|--------|-----|
|         | BH       | Int | Csg | Int    | Csg |
| TIME    |          |     |     |        |     |
| 5 min   | 0        | 0   | 2   | 0      | 2   |
| 10 min  | 0        | 0   | 2   | 0      | 2   |
| 15 min  | 0        | 0   | 2   | 0      | 2   |
| 20 min  |          |     |     |        |     |
| 25 min  |          |     |     |        |     |
| 30 min  |          |     |     |        |     |

|                 | FLOW CHARACTERISTICS |              |
|-----------------|----------------------|--------------|
|                 | BRADENHEAD           | INTERMEDIATE |
| Steady Flow     |                      |              |
| Surges          |                      |              |
| Down to Nothing | /                    | /            |
| Nothing         |                      |              |
| Gas             | /                    | /            |
| Gas & Water     |                      |              |
| Water           |                      |              |

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR \_\_\_\_\_ FRESH \_\_\_\_\_ SALTY \_\_\_\_\_ SULFUR \_\_\_\_\_ BLACK \_\_\_\_\_

5 MINUTE SHUT-IN PRESSURE

BRADENHEAD 0 INTERMEDIATE 0

REMARKS:

BH slowly opened dead at 18 seconds. Duff when  
opened after 5 min shut-in. Int light blow to dead  
at 24 seconds. Casing when opened after 5 min shut-in

By FRANK Dooling

Witness Mona K. Dooling

(Position)

E-mail address \_\_\_\_\_

## **Robinson, Kelly**

---

**From:** Dooling, Frank  
**Sent:** Wednesday, September 18, 2019 7:22 AM  
**To:** Robinson, Kelly; Roberts, Tommy D  
**Cc:** monica.kuehling@state.nm.us; Davis, Bruce D  
**Subject:** braiding head test.  
**Attachments:** 20190918071559361.pdf

Hello all,

This is the corrected copy of the braden head test report.

The correction is on the intermediate string previously marked as n/a corrected to a reading of 0 psi.

Please disregard the previous copy I sent.

### **Frank Dooling**

**Bloomfield Product Terminal**

[FFDooling@Marathonpetroleum.com](mailto:FFDooling@Marathonpetroleum.com)

### **Marathon petroleum**

50 Rd 4990

Bloomfield, NM 87413

505-632-4142 Office

505-634-6138 Cell

505-632-3911 Fax

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
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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

|   |
|---|
| WELL API NO.<br>30-045-35747  |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 6. State Oil & Gas Lease No.  |
| 7. Lease Name or Unit Agreement Name  |
| 8. Well Number: WDW #2  |
| 9. OGRID Number 267595  |
| 10. Pool name or Wildcat<br>Entrada   |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)  |

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 Wastewater Disposal Well

2. Name of Operator  
Western Refining Southwest, Inc.

3. Address of Operator  
50 County Road 4990 (PO Box 159) Bloomfield, NM 87413

4. Well Location  
Unit Letter H : 2028 feet from the North line and East feet from the East line  
Section 27 Township 29N Range 11W NMPM San Juan County

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: Bradenhead Test Report ☒

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.

Pursuant to Condition 3.D.1 of the Bloomfield Terminal Injection Well Discharge Permit (UICI-011), Western Refining Southwest, Inc. conducted a pressure test on the Bradenhead and Intermediate casings of WDW #2 on Monday, April 15<sup>th</sup>, 2019. A representative of NMOCD was on-site to witness the test. Attached is a copy of the Bradenhead Test Report.

Spud Date:

Rig Release Date:

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

SIGNATURE Kelly Robinson TITLE Environmental Supervisor DATE 4-15-2019

Type or print name \_\_\_\_\_ E-mail address: \_\_\_\_\_ PHONE: \_\_\_\_\_

For State Use Only

APPROVED BY: Gregory Robinson TITLE Environmental Engineer DATE 4/18/19

Conditions of Approval (if any):



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE  
1000 RIO BRAZOS ROAD  
AZTEC NM 87410  
(505) 334-6178 FAX: (505) 334-6170  
[http://emnr.state.nm.us/ocd/District III/district.htm](http://emnr.state.nm.us/ocd/District%20III/district.htm)

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 4-15-19 Operator Western Refining API #30-0 45-35747  
Property Name Waste Dis. Well Well No. 2 Location: Unit 4 Section 27 Township 29 Range 11  
Well Status (Shut-In or Producing) Initial PSI: Tubing 707 Intermediate 0 Casing 77 Bradenhead 11

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

| Testing | PRESSURE   |     |     |        |     |
|---------|------------|-----|-----|--------|-----|
|         | Bradenhead |     |     | INTERM |     |
|         | BH         | Int | Csg | Int    | Csg |
| TIME    |            |     |     |        |     |
| 5 min   | 0          | 0   | 77  | 0      | 77  |
| 10 min  | 0          | 0   | 77  | 0      | 77  |
| 15 min  | 0          | 0   | 77  | 0      | 77  |
| 20 min  |            |     |     |        |     |
| 25 min  |            |     |     |        |     |
| 30 min  |            |     |     |        |     |

| FLOW CHARACTERISTICS |              |
|----------------------|--------------|
| BRADENHEAD           | INTERMEDIATE |
| Steady Flow          |              |
| Surges               |              |
| Down to Nothing      | ✓            |
| Nothing              | ✓            |
| Gas                  | ✓            |
| Gas & Water          |              |
| Water                |              |

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR \_\_\_\_\_ FRESH \_\_\_\_\_ SALTY \_\_\_\_\_ SULFUR \_\_\_\_\_ BLACK \_\_\_\_\_

5 MINUTE SHUT-IN PRESSURE

BRADENHEAD 0

INTERMEDIATE 0

REMARKS:

B.H. 1/2 open to dead at 1/2 seconds. Puff  
when opened after 5 min shut-in. Nothing when  
opened. Nothing when opened after 5 min shut-in

By Kelly Green

Witness Monica Cukling

(Position)

E-mail address \_\_\_\_\_

## Chavez, Carl J, EMNRD

---

**From:** Robinson, Kelly <Kelly.Robinson@wnr.com>  
**Sent:** Friday, June 9, 2017 12:42 PM  
**To:** Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD  
**Cc:** Roberts, Dale; Schmaltz, Randy; Krakow, Matt; Kuehling, Monica, EMNRD  
**Subject:** Sundry Notice: Class #1 WDW #2 Test Reports  
**Attachments:** MIT\_HP\_BH Sundry Notice\_WNR.pdf

Good Afternoon Gentlemen,

On June 8<sup>th</sup>, 2017 Western Refining Southwest, Inc. (“Western”) conducted the following tests on WDW #2:

- Mechanical Integrity Test
- Bradenhead Test
- High-Pressure Shutdown Test

All tests were witnessed by a representative of the NMOCD Aztec District Office. An electronic copy of the Sundry Notice for these activities and the associated Test Reports are attached for your reference. A hard copy is being provided to you via certified mail.

If you have any questions regarding these test, please don’t hesitate to contact me at your convenience. Thank you for your time, and have a great weekend!

Sincerely,

**Kelly R. Robinson** | Environmental Supervisor  
Western Refining | 111 County Road 4990 | Bloomfield, NM 87413  
(o) 505-632-4166 | (c) 505-801-5616 | (e) [Kelly.robinson@wnr.com](mailto:Kelly.robinson@wnr.com)

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

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

Form C-103  
Revised July 18, 2013

|   |
|---|
| WELL API NO.<br>30-045-35747  |
| 5. Indicate Type of Lease<br>STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> |
| 6. State Oil & Gas Lease No.  |
| 7. Lease Name or Unit Agreement Name  |
| 8. Well Number WDW #2   |
| 9. OGRID Number 267595  |
| 10. Pool name or Wildcat<br>SWD; Entrada  |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.)<br>5535' GL                                      |

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: Wastewater Disposal Well

2. Name of Operator  
Western Refining Southwest, Inc.

3. Address of Operator  
#50 County Road 4990 (PO Box 159), Bloomfield, NM 87413

4. Well Location  
Unit Letter H : 2028 feet from the North line and 111' feet from the East line  
Section 27 Township 29N Range 11W NMPM San Juan County

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

NOTICE OF INTENTION TO:

- PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐  
CLOSED-LOOP SYSTEM ☐  
OTHER:

SUBSEQUENT REPORT OF:

- REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☒ : MIT, Bradenhead, and High Pressure Shutdown Tests

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.

On June 8<sup>th</sup>, 2017, Western Refining Southwest, Inc. ("Western") conducted the following tests were performed on WDW #2:

- Braden Head Test:** The Bradenhead Test was performed on the bradenhead and intermediate casing strings.
- Mechanical Integrity Test (MIT):** The MIT was performed on the 7"x4-1/2" annulus and packer to 500 psi. The pressure was held for 30 minutes.
- High-Pressure Shutdown:** The high-pressure shutdown setting was tested on the injection pump.

All were witness by Monica Kueling with the NMOCAD Aztec office. All tests passed. A copy of the test reports are attached for reference. At the end of testing, Ms. Kueling witnessed the start-up of the injection well pump and provided approval for return to full operation. Normal full-time operation of the WDW#2 resumed by approximately 2:20pm on June 8<sup>th</sup>, 2017.

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 Kelly Robinson TITLE Environmental Supervisor DATE 6/9/2017

Type or print name Kelly Robinson E-mail address: Kelly.Robinson@wnr.com PHONE: 505-632-4166

For State Use Only

APPROVED BY: Carl J. Chavez TITLE Environmental Engineer DATE 6/9/2017  
Conditions of Approval (if any)



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

## MECHANICAL INTEGRITY TEST REPORT

(TA OR UIC)

Date of Test 6-8-17 Operator Western Ref. SW Inc. API # 30-0 45-35747

Property Name Waste Dis. Well Well # 2 Location: Unit H Sec 27 Twn 29 Rge 11

Land Type:

State \_\_\_\_\_  
Federal \_\_\_\_\_  
Private ☒ \_\_\_\_\_  
Indian \_\_\_\_\_

Well Type:

Water Injection \_\_\_\_\_  
Salt Water Disposal ☒ \_\_\_\_\_  
Gas Injection \_\_\_\_\_  
Producing Oil/Gas \_\_\_\_\_  
Pressure observation \_\_\_\_\_

Temporarily Abandoned Well (Y/N): 0

TA Expires: \_\_\_\_\_

Casing Pres. 0  
Bradenhead Pres. 0  
Tubing Pres. 610  
Int. Casing Pres. 0

Tbg. SI Pres. \_\_\_\_\_  
Tbg. Inj. Pres. \_\_\_\_\_

Max. Inj. Pres. \_\_\_\_\_

Pressured annulus up to 510 psi. for 30 mins. Test passed/failed

REMARKS:

packer set 7230  
top of tub 1312-7470  
dropped to 505 hld last 15 min.

By T. A. P. (Operator Representative)

Witness Monica Kuebeling (NMOCD)

(Position)

Revised 02-11-02

WESTERN REFINING  
30-045-55747  
Sta 27 Turn 2 in Right

55

10

15

20

25

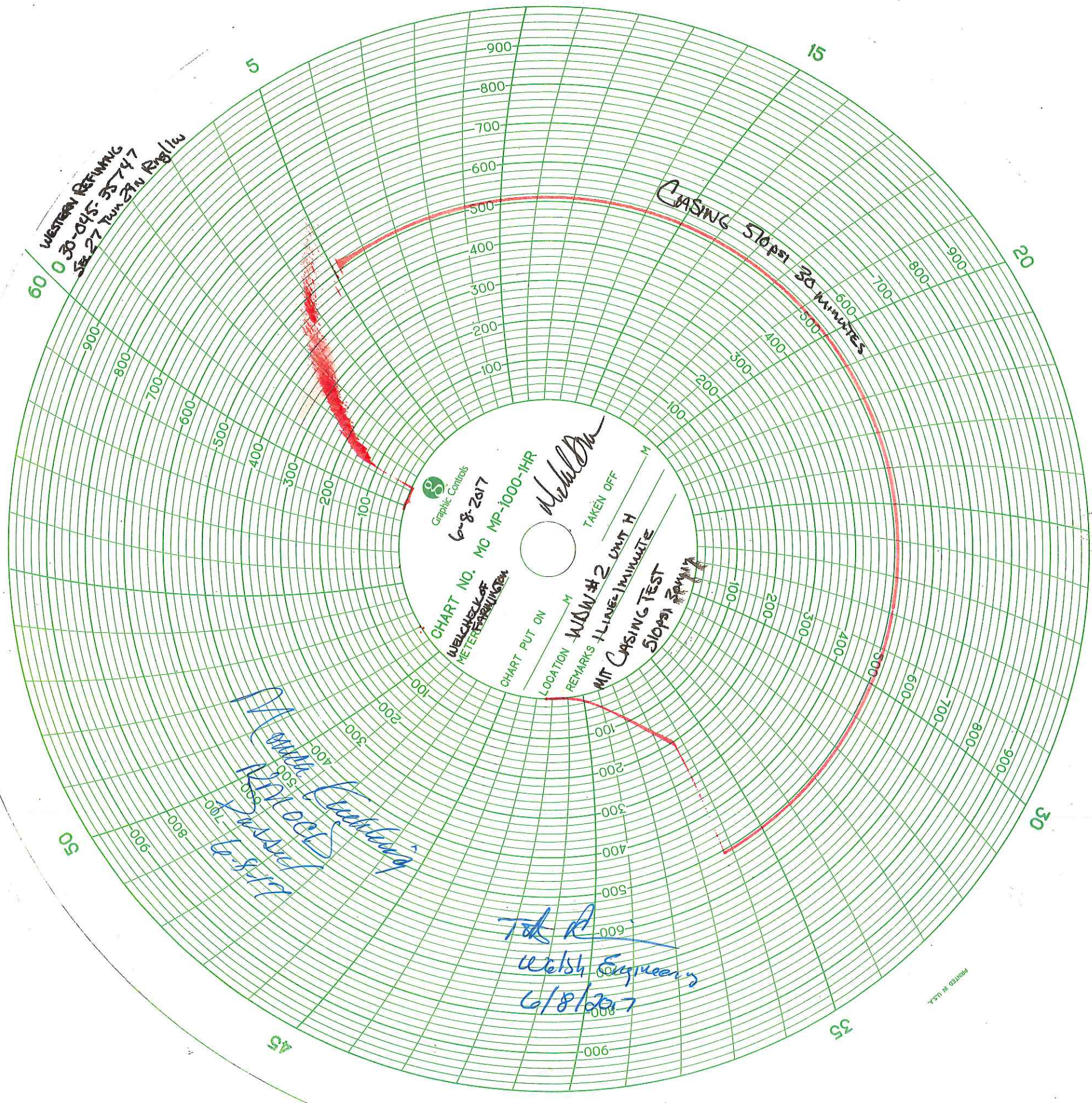
30

35

40

45

50



Graphic Controls  
6-8-2017  
CHART NO. MC MP-1000-IHR  
WELSH ENGINEERING  
METER NUMBER

Weld On

CHART PUT ON  
LOCATION  
REMARKS  
WSDW #2 UNIT H  
LINE 1 MINUTE  
MIT CASING TEST  
SLOPS 30 MINUTES

Weld On  
6-8-2017  
WELSH ENGINEERING

WELSH ENGINEERING  
6/8/2017

MADE IN U.S.A.



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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[http://emnr.state.nm.us/ocd/District III/3distric.htm](http://emnr.state.nm.us/ocd/District%20III/3distric.htm)

**BRADENHEAD TEST REPORT**

(submit 1 copy to above address)

Date of Test 6-8-17 Operator Western Energy API #30-0 45-35747  
Property Name Waste Disposal Well Well No. 2 Location: Unit H Section 27 Township 29 Range 11  
Well Status (Shut-In or Producing) Initial PSI: Tubing 600 Intermediate 0 Casing 100 Bradenhead 0

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

| Testing | PRESSURE |          |            | INTERM   |            |
|---------|----------|----------|------------|----------|------------|
|         | BH       | Int      | Csg        | Int      | Csg        |
| TIME    |          |          |            |          |            |
| 5 min   | <u>0</u> | <u>0</u> | <u>100</u> | <u>0</u> | <u>100</u> |
| 10 min  | <u>0</u> | <u>0</u> | <u>100</u> | <u>0</u> | <u>100</u> |
| 15 min  | <u>0</u> | <u>0</u> | <u>100</u> | <u>0</u> | <u>100</u> |
| 20 min  |          |          |            |          |            |
| 25 min  |          |          |            |          |            |
| 30 min  |          |          |            |          |            |

| FLOW CHARACTERISTICS |              |
|----------------------|--------------|
| BRADENHEAD           | INTERMEDIATE |
| Steady Flow          |              |
| Surges               |              |
| Down to Nothing      | <u>/</u>     |
| Nothing              |              |
| Gas                  | <u>/</u>     |
| Gas & Water          |              |
| Water                |              |

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR \_\_\_\_\_ FRESH \_\_\_\_\_ SALTY \_\_\_\_\_ SULFUR \_\_\_\_\_ BLACK \_\_\_\_\_

5 MINUTE SHUT-IN PRESSURE

BRADENHEAD 0

INTERMEDIATE 0

REMARKS:

BH - Puff when opened. Nothing when  
opened after 5 min shut-in. 2nd. light blow  
to head at 5 sec. Nothing when opened after  
5 min shut-in

By John R. [Signature]

Witness Monica [Signature]

Site Supervisor  
(Position)

E-mail address \_\_\_\_\_

## Chavez, Carl J, EMNRD

---

**From:** Perrin, Charlie, EMNRD  
**Sent:** Thursday, February 16, 2017 10:27 AM  
**To:** Hains, Allen; Powell, Brandon, EMNRD; John Thompson; Kuehling, Monica, EMNRD  
**Cc:** Dooling, Frank; Robinson, Kelly; Krakow, Matt; Goetze, Phillip, EMNRD; Griswold, Jim, EMNRD; Chavez, Carl J, EMNRD; Davis, Bruce; Roberts, Dale; Marks, Allison, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** RE: Mechanical Integrity Test of Waste Disposal Well #2 - 30-045-35747

Mr. Hains

Greetings,

In reviewing your email request dated 2-13-2017 "Respectfully, Western requests that NMOCD reconsider the language written on the MIT report."

Our review finds:

Tubing pressure was not checked or monitored before or during MIT.  
Surface casing pressure was not checked or monitored before or during MIT.  
Intermediate casing pressure was not checked or monitored before or during MIT.

Western was notified of these issues onsite and opted to continue testing after being informed of the testing inadequacies.

Considering these inadequacies the MIT report and Chart should NOT have been marked as passed officially or unofficially.

Western was notified of these issues onsite and on:

The statement on the MIT Test Report "Retest when injection pump and plug out + BHT" was included with "This is not official test."

The statement on the chart " Retest when injection set up."

The Subsequent sundry report received 1-3-2017 includes OCD statement "MIT is not official test as all strings were not monitored during test"

The testing of WDW #2 was not performed correctly and as such is not an acceptable test.

Administrative Order SWD 1629 A Proper Mechanical Integrity Test is required prior to injection.

"After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11(A) NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well."

**Rule 19.15.26.11 TESTING, MONITORING, STEP-RATE TESTS, NOTICE TO THE DIVISION, REQUESTS FOR PRESSURE INCREASES:**

**A. Testing.**

(1) Prior to commencement of injection and any time the operator pulls the tubing or reseats the packer, the operator shall test the well to assure the integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus to a minimum of

300 psi for 30 minutes or such other pressure or time as the appropriate district supervisor may approve. The operator shall use a pressure recorder

and submit copies of the chart to the appropriate division district office within 30 days following the test date.

(2) At least once every five years thereafter, the operator shall test an injection well to assure its continued mechanical integrity.

Tests demonstrating continued mechanical integrity shall include the following:

(a) measurement of annular pressures in a well injecting at positive pressure under a packer or a balanced fluid seal;

(b) pressure testing of the casing-tubing annulus for a well injecting under vacuum conditions; or

(c) other tests that are demonstrably effective and that the division may approve for use.

(3) Notwithstanding the test procedures outlined in Paragraphs (1) and (2) of Subsection A of 19.15.26.11 NMAC, the division may require the operator to conduct more comprehensive testing of the injection well when deemed advisable, including the use of tracer surveys, noise

logs, temperature logs or other test procedures or devices.

(4) In addition, the division may order that the operator conduct special tests prior to the expiration of five years if the division believes conditions so warrant. The division shall consider a special test that demonstrates a well's continued mechanical integrity the equivalent of

an initial test for test scheduling purposes, and the regular five-year testing schedule shall be applicable thereafter.

(5) The operator shall advise the division of the date and time any initial, five-year or special tests are to be commenced so the division may witness the tests.

Western experienced extreme loss of circulation issues during drilling.

Western reported "...Continue pressuring up to 3200 psi to open DV tool. Establish good circulation out DV tool. Note: partial to no returns while pumping 1st stage.

The well is located approximately 1310 feet from the San Juan river.

After reviewing the well and testing information, OCD District III hereby denies Westerns request and as such a properly conducted MIT and Bradehead test is required prior to beginning disposal operations. Please provide the district a minimum 24 hours' notice prior to testing.

Thank you

Charlie

Charlie Perrin

Energy Minerals and Natural Resources Department

Oil Conservation Division

District III Supervisor

1000 Rio Brazos Road

Aztec NM, 87410

505-334-6178 ext. 111

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**From:** Hains, Allen [mailto:Allen.Hains@wnr.com]

**Sent:** Monday, February 13, 2017 6:56 PM

**To:** Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>; John Thompson <john@walsheng.net>; Kuehling, Monica, EMNRD <monica.kuehling@state.nm.us>

**Cc:** Dooling, Frank <Frank.Dooling@wnr.com>; Robinson, Kelly <Kelly.Robinson@wnr.com>; Krakow, Matt <Matt.Krakow@wnr.com>; Perrin, Charlie, EMNRD <charlie.perrin@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; Griswold, Jim, EMNRD <Jim.Griswold@state.nm.us>; Chavez, Carl J, EMNRD

<CarlJ.Chavez@state.nm.us>; Davis, Bruce <Bruce.Davis@wnr.com>; Roberts, Dale <Dale.Roberts@wnr.com>

**Subject:** RE: Mechanical Integrity Test of Waste Disposal Well #2 - 30-045-35747

Brandon,

In the present economic climate, I must justify (to our management) the expense of re-testing this well when the chart shows that the previous MIT has passed. Respectfully, Western requests that NMOCD reconsider the language written on the MIT report.

Please review the following excerpts from the attached UIC Manual and NMAC.

- 20.6.2.5204 NMAC - Mechanical Integrity for Class I Wells and Class II Wells: describes requirements for an internal MIT. There is no mention of testing outside the injection (production) casing (external MIT). The regulation is below.
- The concept of "internal" and "external" MITs are discussed in Sections IV.A.3 and 4, respectively, of the attached UIC Manual
- In Section IV.A.4., *"A well is considered to have external mechanical integrity if the well is constructed and cemented so as to preclude the migration of injected fluid, behind the casing, to any USDW or other formations"*.
- The previously submitted well design information shows that all casing strings were cemented to surface.
- In Section IV.A.5., *"In addition to the pressure testing of all wells every five years, an annual bradenhead test of each injection well, except for those cemented to the surface, will be scheduled and witnessed by the district compliance officers to assure the integrity of the casing/tubing and casing/casing annuli"*.

Please Note: a Bradenhead test is not required for Class II wells cemented to surface according to the UIC Manual. We would expect the same for Class I wells and will formally request an exception to the Permit.

Western Refining looks forward to resolving this issue.

Thank you,

Allen S. Hains  
Manager  
Remediation Projects

Western Refining  
212 N. Clark Street  
El Paso, Texas 79905  
915 534-1483  
915 490-1594 (cell)

Please Note: new physical address

**20.6.2.5204 MECHANICAL INTEGRITY FOR CLASS I WELLS AND CLASS III WELLS:**

**A.** A Class I well or Class III 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. 20.6.2 NMAC 48

**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 a Class I well or Class III 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 Class III 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 Class III 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; A, 12-1-01; A, 8-31-15]

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**From:** Powell, Brandon, EMNRD [<mailto:Brandon.Powell@state.nm.us>]

**Sent:** Monday, February 13, 2017 3:36 PM

**To:** John Thompson <[john@walsheng.net](mailto:john@walsheng.net)>; Kuehling, Monica, EMNRD <[monica.kuehling@state.nm.us](mailto:monica.kuehling@state.nm.us)>; Hains, Allen <[Allen.Hains@wnr.com](mailto:Allen.Hains@wnr.com)>

**Cc:** Dooling, Frank <[Frank.Dooling@wnr.com](mailto:Frank.Dooling@wnr.com)>; Robinson, Kelly <[Kelly.Robinson@wnr.com](mailto:Kelly.Robinson@wnr.com)>; Krakow, Matt <[Matt.Krakow@wnr.com](mailto:Matt.Krakow@wnr.com)>; Perrin, Charlie, EMNRD <[charlie.perrin@state.nm.us](mailto:charlie.perrin@state.nm.us)>

**Subject:** RE: Mechanical Integrity Test of Waste Disposal Well #2 - 30-045-35747

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Good afternoon John,

We at the Oil Conservation Division certainly understand cost concerns. As such when we determined we could not perform a proper Mechanical Integrity Test (MIT) we informed Western and their contractor an official MIT could not be performed as all the casing valves could not be monitored. Please note, the MIT requirements for an injection well are different from a production well and contained in a separate rule specifically for injection wells. The special MIT requirements on injection wells are to ensure segregation to help prevent underground waste or contamination of fresh waters due to fluid being disposed down the wellbore. This includes the monitoring of each casing annulus. We normally conduct the BHT prior to commencing the MIT. Below are the pertinent rules and the reasons the test did not conform to the rules.

**Rule 19.15.26.11.A**

(1) Prior to commencement of injection and any time the operator pulls the tubing or reseats the packer, the operator shall test the well to assure the integrity of the casing and the tubing and packer, if used, including pressure testing of the casing-tubing annulus to a minimum of 300 psi for 30 minutes or such other pressure or time as the appropriate district supervisor may approve. The operator shall use a pressure recorder and submit copies of the chart to the appropriate division district office within 30 days following the test date.

(2) At least once every five years thereafter, the operator shall test an injection well to assure its continued mechanical integrity.

Tests demonstrating continued mechanical integrity shall include the following:

- (a) measurement of annular pressures in a well injecting at positive pressure under a packer or a balanced fluid seal;
- (b) pressure testing of the casing-tubing annulus for a well injecting under vacuum conditions; or
- (c) other tests that are demonstrably effective and that the division may approve for use.

(3) Notwithstanding the test procedures outlined in Paragraphs (1) and (2) of Subsection A of 19.15.26.11 NMAC, the division may

require the operator to conduct more comprehensive testing of the injection well when deemed advisable, including the use of tracer surveys, noise logs, temperature logs or other test procedures or devices.

Please note this rule specifically mentions casing and tubing, and does not single out only the production casing. The rule goes on and separately and specifically mentions the testing of the casing-tubing annulus. To comply with this rule we require the operator not only to monitor the production casing, but all casing strings and tubing. The day of the test Western was informed the test was not going to be official due to the inability to monitor all the annuluses and tubing. When informed of the test nature and reasoning Western nor their representative made any effort to properly set up the well for an official test.

Furthermore,

**Rule 19.15.5.11 ENFORCEABILITY OF PERMITS AND ADMINISTRATIVE ORDERS:** A person who conducts an activity pursuant to a permit, administrative order or other written authorization or approval from the division shall comply with every term, condition and provision of the permit, administrative order, authorization or approval.

The conditions written on the MIT form indicate the test was unofficial and the condition written on the chart states "Retest when injection is set up". These are conditions added to the forms, which Western was explicitly made aware of on the day the test was performed.

I hope this helps you understand why the test was classified and documented as an unofficial test. A proper MIT must be performed prior to injection operations beginning.

Thank You

Brandon Powell

Office: (505) 334-6178 ext. 116

*"He who wishes to gain knowledge is wiser than he who thinks he has knowledge (unknown)"*

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**From:** John Thompson [<mailto:john@walsheng.net>]

**Sent:** Sunday, February 12, 2017 2:37 PM

**To:** Kuehling, Monica, EMNRD <[monica.kuehling@state.nm.us](mailto:monica.kuehling@state.nm.us)>; Hains, Allen <[Allen.Hains@wnr.com](mailto:Allen.Hains@wnr.com)>

**Cc:** [Frank.Dooling@wnr.com](mailto:Frank.Dooling@wnr.com); [Kelly.Robinson@wnr.com](mailto:Kelly.Robinson@wnr.com); 'Krakow, Matt' <[Matt.Krakow@wnr.com](mailto:Matt.Krakow@wnr.com)>; Powell, Brandon, EMNRD <[Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)>; Perrin, Charlie, EMNRD <[charlie.perrin@state.nm.us](mailto:charlie.perrin@state.nm.us)>

**Subject:** RE: Mechanical Integrity Test of Waste Disposal Well #2 - 30-045-35747

Hi Monica,

Appreciate the email but what I'm looking for is what is actually required for an MIT. This was not a practice MIT, it was a real, paid for MIT, which passed. I'm not familiar nor can I find anything about monitoring any other strings than the one being tested on the NMOCD website. I'm not questioning anything other than the rational or reasoning to pay for another one? Of course the BH test and kill switch test need to be performed as well and I'm sure as soon as Western has their facility ready they will be scheduling those to be witnessed.

Thanks!

John C. Thompson

**Walsh Engineering & Production Corp.**

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**From:** Kuehling, Monica, EMNRD [<mailto:monica.kuehling@state.nm.us>]

**Sent:** Wednesday, February 08, 2017 1:38 PM

**To:** John Thompson

**Cc:** [Frank.Dooling@wnr.com](mailto:Frank.Dooling@wnr.com); [Kelly.Robinson@wnr.com](mailto:Kelly.Robinson@wnr.com); Krakow, Matt ([Matt.Krakow@wnr.com](mailto:Matt.Krakow@wnr.com)); Powell, Brandon, EMNRD; Perrin, Charlie, EMNRD

**Subject:** FW: Mechanical Integrity Test of Waste Disposal Well #2 - 30-045-35747

Hello John,

In answer to your question on Friday, February 3, 2017 regarding official testing:

During the casing test of the Waste Disposal Well #2 on December 16, 2016 the bradenhead intermediate and tubing were unable to be monitored. Part of the Mechanical Integrity test is the ability to monitor all strings during the pressuring of the production casing. At the time of the above test monitoring of the bradenhead was not available due to water in the cellar making the bradenhead inaccessible and a gauge was not available for the tubing. Thus the inability to monitor all strings made this an unofficial test.

During the test Kelly Robinson, Matt Krakow, and Frank Dooling were present. At that time I explained to them the need to do an official Mechanical Integrity Test when the well was ready to inject. A bradenhead test would also have to be performed and a kill check on their limiting device. All of these tests need to be performed prior to injecting.

If you have any questions, please let me know.

Monica Kuehling  
Deputy Oil and Gas Inspector  
New Mexico Oil Conservation Division  
District III  
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