



Technical Report

MECHANICAL INTEGRITY TESTING

CLASS I NON-HAZARDOUS DEEPWELL
MEWBOURNE WDW-1
(OCD UIC Permit: UICI-008-1)
(API Number: 30-015-27592)

HF Sinclair Navajo Refining, LLC
Artesia, New Mexico

Section 31, Township 17S, Range 28E
660 FSL, 2310 FEL

July 2025

Petrotek Corporation
5935 South Zang Street, Suite 200
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2025 MECHANICAL INTEGRITY TESTING
CLASS I NON-HAZARDOUS DEEPWELL
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HF Sinclair Navajo Refining, LLC
Artesia, New Mexico

TABLE OF CONTENTS

EXECUTIVE SUMMARY..... 1

1. FACILITY INFORMATION..... 2

2. WELL INFORMATION..... 2

3. CURRENT WELLBORE SCHEMATIC 2

4. INTERNAL MECHANICAL INTEGRITY 2

Tables

Table 1 - WDW-1 Annulus Pressure Test Measurements

Figures

Figure 1 - WDW-1 Wellbore Diagram
Figure 2 - WDW-1 Wellhead Diagram

Attachments

Attachment 1 - OCD Test Notification
Attachment 2 - APT Pressure Gauge Certification
Attachment 3 - APT Chart Record



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CLASS I NON-HAZARDOUS DEEPWELL
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API Number: 30-015-27592**

**HF Sinclair Navajo Refining, LLC
Artesia, New Mexico**

Report prepared by:

Petrotek Corporation
Kenneth J. Cooper, P.E., New Mexico Reg. No. 14175
5935 South Zang Street, Suite 200
Littleton, Colorado 80127



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Mechanical Integrity Testing Report
HF Sinclair Navajo Refining, LLC - Artesia, New Mexico – July 2025

EXECUTIVE SUMMARY

This report summarizes the successful mechanical integrity testing (MIT) activities performed on the Mewbourne WDW-1 (WDW-1) at the HF Sinclair Navajo Refining, LLC (HFSNR) facility at Artesia, New Mexico. The work was performed as a condition of the applicable UIC permit issued by the New Mexico Oil Conservation Division (OCD). Under contract, Petrotek Corporation (Petrotek) developed the test procedures, provided field supervision and prepared the final report documenting the mechanical integrity testing conducted on the Class I non-hazardous injection well.

The test procedures were submitted to the OCD headquarters and OCD District II on June 19, 2025, before field activities commenced. Attachment 1 presents the test notification and procedures submitted to OCD. Ronald Heuer of OCD was present to witness MIT testing. MIT activities were supervised by Jeremiah Demuth (Petrotek) on June 24, 2025.

Mechanical Integrity Testing Report
 HF Sinclair Navajo Refining, LLC - Artesia, New Mexico – July 2025

1. FACILITY INFORMATION

- a. **Name** – HF Sinclair Navajo Refining, LLC
- b. **Location** - Highway 82 East, Artesia, New Mexico, 88211
- c. **Operator's Oil and Gas Remittance Identifier (GRD) Number** - 15694

2. WELL INFORMATION

- a. **OCD UIC Permit number** - OCD UIC Permit: UICI-008-1
- b. **Well classification** - Class I Non-hazardous
- c. **Well name and number** - Mewbourne WDW-1
- d. **API Number** - 30-015-27592
- e. **Legal Location** - Section 31, Township 17S, Range 28E, 660 FSL, 2310 FWL

3. CURRENT WELLBORE SCHEMATIC

A wellbore schematic displaying the well configuration during testing is provided as Figure 1. A wellhead schematic is provided as Figure 2.

4. INTERNAL MECHANICAL INTEGRITY

On June 24, 2025, the annulus pressurized to approximately 620 psi to begin the test, as instructed by OCD staff. The well had been shut in for approximately 24 hours prior to the annulus test, allowing time for sufficient thermal equilibrium to be reached. A calibrated mechanical pressure gauge (Palmer-Wahl, 1,000 psi, SN – 2401128.001) supplied by Petrotek was installed on the annulus at the wellhead. The well and test gauge were then isolated from the rest of the system and starting at approximately 0800, annulus pressure, injection pressure, and injection rate were then monitored for a period of thirty minutes at 5-minute intervals. During the Part I internal mechanical integrity test the pressure remained constant at 620 psi. Since a change of 10% (62 psi) of the starting test pressure is allowable, this test is within acceptable specifications.

Attachment 2 presents a copy of the test gauge certification. Pressures observed during the test are shown in Table 1 and the pressure gauge chart record of the APT is presented as Attachment 3.

TABLE 1
WDW-1 ANNULUS PRESSURE TEST MEASUREMENTS

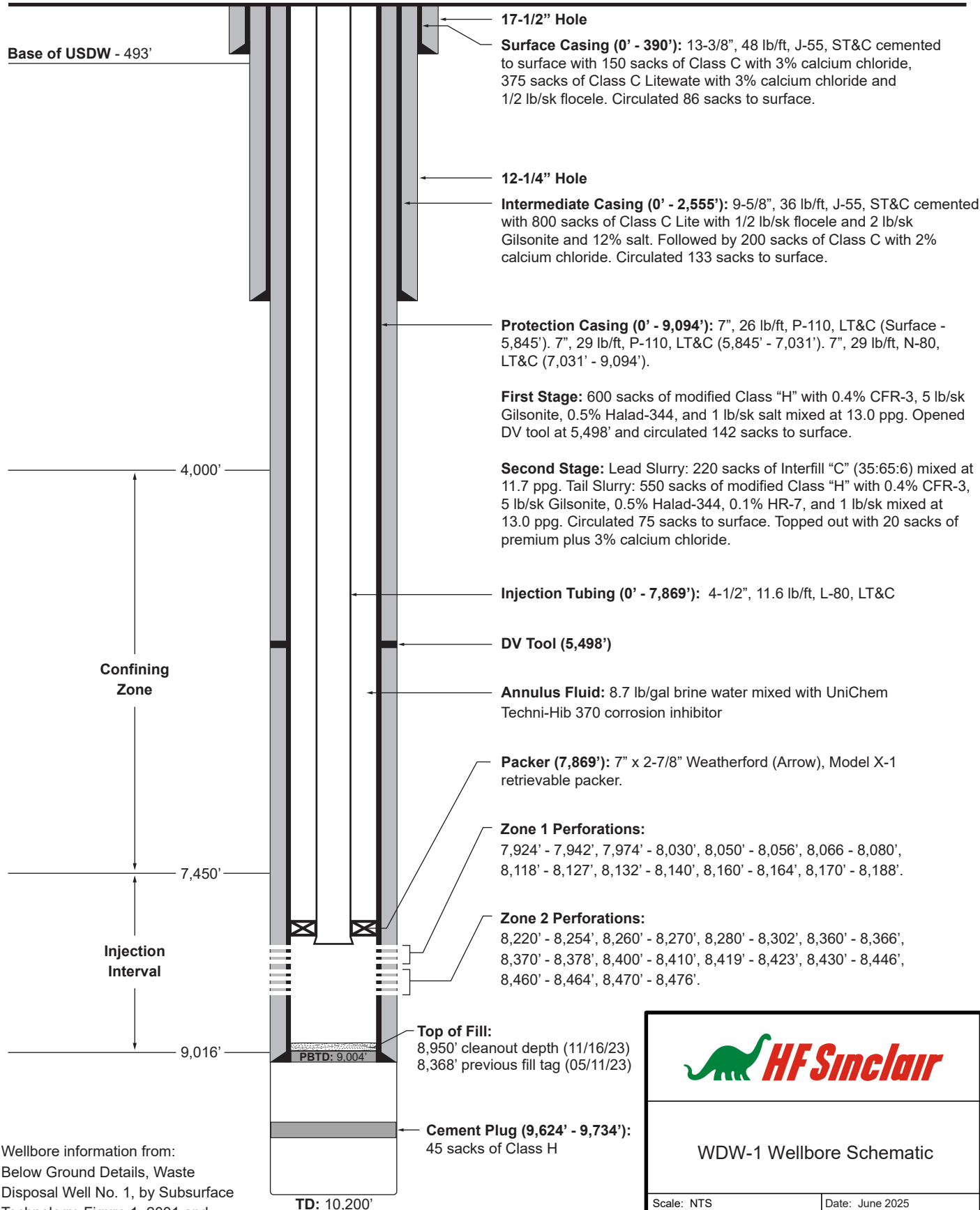
Time, minutes	0	5	10	15	20	25	30
Annulus Pressure, psi	620	620	620	620	620	620	620

FIGURES

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OCD UIC Permit: UICI-008-1
 Well API Number: 30-015-27592
 Eddy County, New Mexico
 Sec. 31, T17S-R28E
 Lat. 32.785222° / Long. -104.21395° (NAD 83)

All depths referenced to Kelly Bushing (KB)
 elevation 12.5' above ground level.
 Ground Level Elevation: +3,603.3' MSL

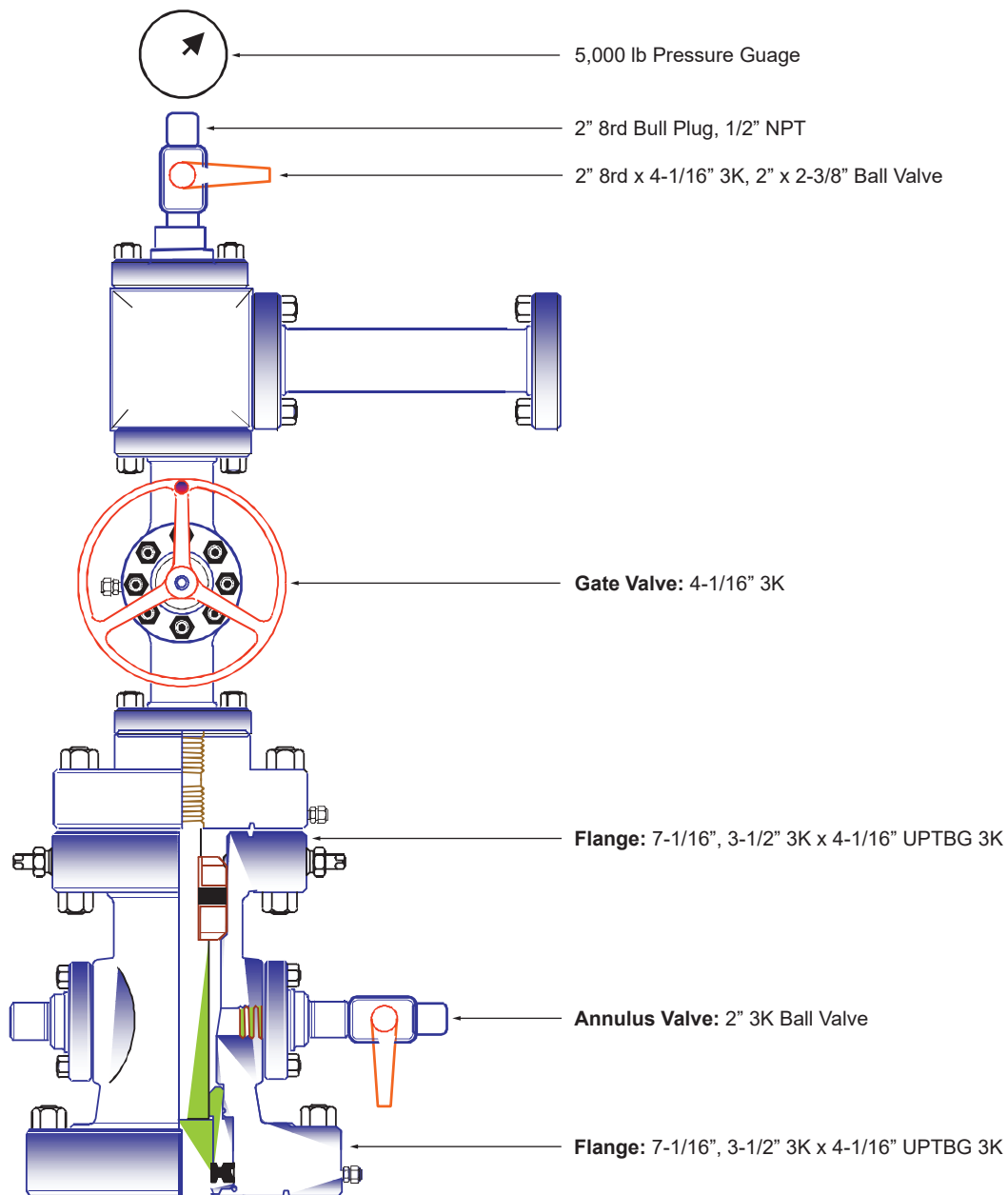


Wellbore information from:
 Below Ground Details, Waste
 Disposal Well No. 1, by Subsurface
 Technology, Figure 1, 2001 and
 2018 Workover.

NOT TO SCALE

	
WDW-1 Wellbore Schematic	
Scale: NTS	Date: June 2025
WDW-01 WB.pdf	By: WEK Checked: WJ
	
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OCD UIC Permit: UICI-008-1
 Well API Number: 30-015-27592
 Eddy County, New Mexico
 Sec. 31, T17S-R28E
 Lat. 32.785222° / Long. -104.21395° (NAD 83)



Well Head information partially
 from: Figure 5, Mewbourne Well
 No. 1 Wellhead Schematic by
 Superior Wellhead.

NOT TO SCALE



WDW-1 Wellhead Schematic

Scale: NTS	Date: June 2025
WDW-01 WH.pdf	By: WEK Checked: NB

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5935 South Zang Street, Suite 200
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 303-290-9414
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ATTACHMENTS

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Attachment 1

OCD Test Notification

Petrotek

From: Jeremiah Demuth

Sent: Thursday, June 19, 2025 11:13 AM

To: Ron Heuer - New Mexico Ocd Artesia New Contact (Ronald.Heuer@emnrd.nm.gov)
<Ronald.Heuer@emnrd.nm.gov>

Cc: Wes Janes <wjanes@petrotek.com>; Cameron Kerr <ckerr@petrotek.com>; Tilton, Kord <Timothy.Tilton@HFSinclair.com>; Alba, Teresa <Teresa.Alba@HFSinclair.com>; Duncan, Timothy <Timothy.Duncan@HFSinclair.com>; Holder, Mike <Michael.Holder@HFSinclair.com>; Paudel, Shreejaya <Shreejaya.Paudel@HFSinclair.com>; Ken Schlieper <kschlieper@petrotek.com>; Lewis Wandke <lwandke@petrotek.com>

Subject: HFSNR Well Test schedule

Ron,

Per our phone discussion yesterday, we are planning to run MITs on the HFSNR wells as follows:

- 6/24
 - o 0700 JHA and work permit at WDW 1 (30-015-27592), rig up test equipment for MIT
 - o 0800 Conduct witnessed MIT on WDW 1
 - Bradenhead cemented in
 - o 0900 Rig down and return WDW 1 to injection
- 6/25
 - o 0800 JHA and work permit at WDW 2 (30-015-20894), rig up test equipment for MIT
 - o 0900 Conduct witnessed MIT on WDW 2
 - Bradenhead cemented in
 - o 1000 Rig down and return WDW 2 to injection
- 6/26
 - o 0800 JHA and work permit at WDW 3 (30-015-26575), rig up test equipment for MIT
 - o 0900 Conduct unwitnessed Bradenhead test
 - o 1000 Conduct unwitnessed MIT on WDW 3
 - o 1100 Rig down and return WDW 3 to injection

Please let me know if you have any questions,

Jeremiah Demuth, STS
HSE Manager / Permitting Specialist / Wellsite Supervisor
Petrotek Corporation
5935 South Zang Street, Suite 200
Littleton, Colorado 80127 USA
jdemuth@petrotek.com
P: 303-290-9414 x 425
C: 720-940-1742
www.petrotek.com

Attachment 2

APT Pressure Gauge Certification

Petrotek

PSS-COMPANIES



18460 CR 394 LA SALLE CO 80645 - Phone (303)-857-7986

CALIBRATION CERTIFICATE

CERTIFICATE NUMBER: CO

Details +/-: 1.0% ACCURACY

DATE CALIBRATED: 04/25/2025

DUE DATE: 04/25/2026

INDICATED PRESSURE RANGE: #0 – 1000 PSI

SERIAL NO: 2401128.001

MANUFACTURER: PALMER INSTRUMENTS/ 12" RECORDER

TYPE OF INSTRUMENT CALIBRATED: PRESSURE RECORDER

INSTRUMENT FINDINGS/STATUS: UNIT IS IN TOLERANCE/ INSTRUMENT MEETS OR EXCEEDS SPECIFICATIONS.

BASED ON INTERNATIONAL STANDARDS OF GRAVITY: (980.665 cm./sq.).

TYPE OF STANDARD USED TO CALIBRATE: REFINERY DEADWEIGHT TEST UNIT SPT.
(35225-3) SERIAL No. 5268: KESSLER CALIBRATION

ALL STANDARD DIRECTLY TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS & TECHNOLOGIES TEST NO: (N.I.S.T.) 2.6/172490 & 6.6/139577.

CALCULATED USING MASS VALUES, AREA, AO, AND STATED GRAVITY.

ROOM TEMPERATURE/HUMIDITY (AT TIME OF TEST): 66°F / 25%.

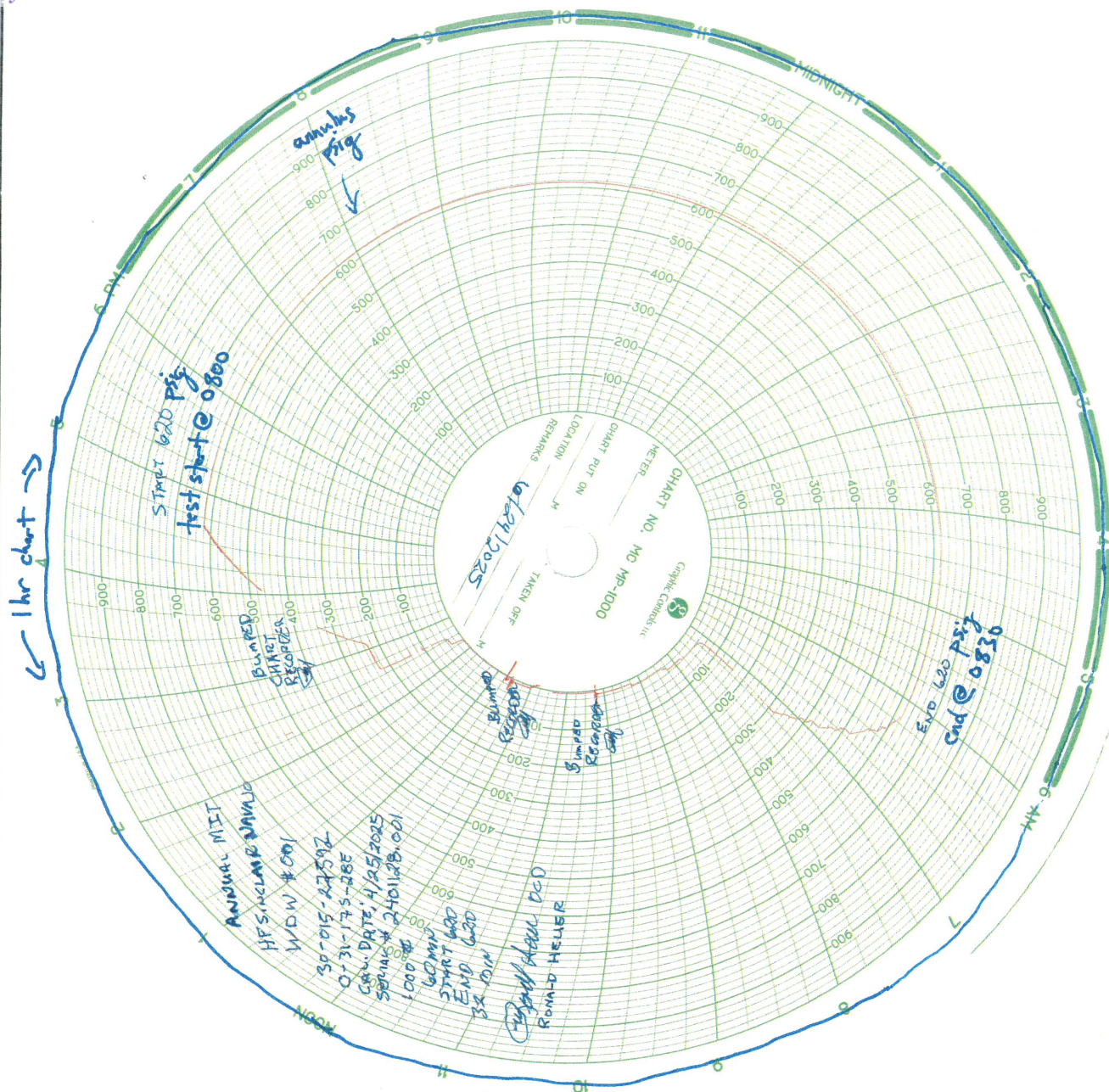
CALIBRATED BY: NICK BEDFORD

nick bedford

Attachment 3 APT Chart Record

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1
1
3
4
3



Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

COMMENTS

Action 488283

COMMENTS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 488283
	Action Type: [C-103] Sub. General Sundry (C-103Z)

COMMENTS

Created By	Comment	Comment Date
cchavez	WDW-1 MIT (30 min) on 6/24/2025 @ 8 am.	7/25/2025

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Phone: (505) 476-3441

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Phone: (505) 629-6116

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Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 488283
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CONDITIONS

Created By	Condition	Condition Date
cchavez	None	7/25/2025