

TYLER PATRICK GRAY
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DUSTIN H. DAVIDSON
DEPUTY SECRETARY



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ASSISTANT SECRETARY
ENERGY

ANDREW B. YOUNG
ASSISTANT SECRETARY
MINERAL RESOURCES

STEVEN M. GIAMBRONE
INTERIM DIRECTOR
CONSERVATION

DEPARTMENT OF ENERGY AND NATURAL RESOURCES

August 8, 2025

Cody Todd, P.E.
ExxonMobil Low Carbon Solutions Onshore (E1041)
22777 Springwoods Village Parkway
Spring, TX 77389

RE: Stratigraphic Test Well – New Drill
Ursa Strat Test Well No. 001
Wildcat-SO LA Lafayette Dist. Field, St. Landry Parish
Application No. 46102
Docket No. IMD 2025-11

Dear Mr. Todd:

This Office has completed its review of the above-referenced Class V stratigraphic test well permit application and has found it to be administratively complete. Accordingly, the attached draft permit and fact sheet have been prepared. Incomplete portions of these documents will be completed when the information becomes available. Study the enclosed documents for inaccuracies and inconsistencies.

A public hearing will be held in the LaBelle Room, on the 1st floor of the LaSalle Building, 617 North 3rd Street, Baton Rouge, LA 70802 at 9:00 am on September 16, 2025. A link to the draft permit may be accessed on the Department of Energy and Natural Resources website beginning August 13, 2025. If through the public review process additional information is required, such matters must be resolved before issuance of the final permit.

A public hearing fee of \$755.00 is being assessed per the requirements of Statewide Order No. 29-R-19/20, (LAC 43:XIX.703.A) and must be submitted to this Office by September 16, 2025. Refer to the invoice for payment options. Please indicate the application number and docket number referenced above when submitting the fee.

Sincerely,

Katie M. Robinson, Assistant Director
Injection and Mining Division

FACT SHEET

Applicant: ExxonMobil Low Carbon Solutions Onshore
22777 Springwoods Village Parkway
Spring, TX 77389
346-220-7391

Project Proposal: Permit to drill one Class V Stratigraphic Test Well

Type of Facility: N/A

Well Names: Ursa Strat Test No. 1

Project Location: Section 16, Township 3 South, Range 5 East, of St. Landry Parish

Facility Local Address: N/A

Application No.: 46102

Docket No.: IMD 2025-11

Project Summary: The following information is prepared according to the requirements of Statewide Order No. 29-N-1, (LAC 43:XVII, Subpart 1) to briefly set forth the principal facts and significant policy questions considered in preparing a draft permit concerning an application by ExxonMobil Low Carbon Solutions Onshore to drill one Class V stratigraphic test well in St. Landry Parish, Louisiana.

The application is for the drilling of one proposed Class V stratigraphic test well. The total depth of the well is at a depth of approximately 7,000 feet below ground level.

The acquisition of geotechnical data is proposed to occur in the drilling of this well. No disposal of waste via injection will occur.

General Information: ExxonMobil Low Carbon Solutions Onshore proposes to collect geotechnical cores, fluid samples, static pressure measurements, and other applicable information.

The base of the lowermost underground source of drinking water (USDW) is approximately 1,414 feet below ground level. There are five registered water wells located within a one mile radius of the proposed well location. The principal regional aquifers in the area comprise of the Atchafalaya Chicot, and Evangeline Aquifers below.

The complete application consists of the application form (Form UIC-25 Stratigraphic Test); technical attachments describing the geology, hydrology, construction, completion, and financial responsibility estimate.

The draft permit conditions were based on applicable rules and regulations as set forth in Statewide Order No. 29-N-1 (LAC: 43:XVII, Subpart 1) as amended. Such rules provide for the protection and non-endangerment of USDW regarding the permitting, drilling, completing, operating and maintaining of Classes I (nonhazardous waste), III, IV, and V injection well operations in the State of Louisiana.

Application Locations: An application package is available for inspection at the Louisiana Office of Conservation, Injection and Mining Division, LaSalle Building, 617 North Third Street, Room 817, Baton Rouge, LA 70802 from 8:00 am until 4:30 pm, Monday through Friday. To view, please ask for the ExxonMobil Low Carbon Solutions Onshore Class V Permit Application identified at the beginning of this document. The application package is also available at the Louisiana Department of Energy and Natural Resources, Class VI Carbon Sequestration website.

For information regarding the public hearing or any information concerning the application, refer to the Public Notice for Docket No. IMD 2025-11 or call Scott St. Romain at (225) 342-5517, Monday through Thursday, between the hours of 7:15 a.m. to 4:45 p.m., and Friday, between 7:15 a.m. to 11:15 a.m.

Comment Period: The public comment period officially commences August 13, 2025 at 8:00 a.m. and concludes, September 17, 2025 at 4:30 p.m. Submit all comments in writing to Scott St. Romain, Louisiana Office of Conservation, Injection and Mining Division, 617 N. 3rd St, Baton Rouge, LA 70802. Comments may also be e-mailed to info@la.gov. Please reference ExxonMobil Low Carbon Solutions Onshore Class V Permit, Application Number 46102, Docket No. IMD 2025-11.

Public Hearing: The public hearing will be held on September 16, 2025 at 9:00 a.m. in the LaBelle Room, on the 1st floor of the LaSalle Building, 617 North 3rd Street, Baton Rouge, LA 70802.

TYLER PATRICK GRAY
SECRETARY

DUSTIN H. DAVIDSON
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MINERAL RESOURCES

STEVEN M. GIAMBRONE
INTERIM DIRECTOR
CONSERVATION

DEPARTMENT OF ENERGY AND NATURAL RESOURCES

August 12, 2025

Cody Todd, P.E.
ExxonMobil Low Carbon Solutions Onshore (E1041)
22777 Springwoods Village Parkway
Spring, TX 77389

***** APPROVAL TO CONSTRUCT *****

RE: Stratigraphic Test Well – New Drill
Ursa Strat Test No. 1
Wildcat-SO LA Lafayette Dist. Field
St. Landry Parish

Application No. 46102
Serial No. _____
API No. _____

Dear Mr. Todd:

The application by ExxonMobil Low Carbon Solutions Onshore (ExxonMobil) to drill a Class V stratigraphic test well has met the interim requirements for permitting such a well. The issuance of this Permit to Construct constitutes a final permit decision regarding the construction of this well. You are hereby granted approval to perform the work as described in the application. The approved work must be completed by _____, 2026.

ExxonMobil is to notify the Conservation Enforcement Specialist (CES) for St. Landry Parish, Sarah Hitchcock at (337) 298-8726, Monday through Friday, or by calling the Injection and Mining Division at (225) 342-5515 at least 72 hours prior to commencement of work. At least 48 hours before the casing test of the long string, contact the CES to schedule a witnessed casing test.

Within twenty (20) days after completion of the work, submit the documentation requested in the enclosed Reporting Requirements to the Injection and Mining Division. PLEASE READ THE ENCLOSURES CAREFULLY.

Please be reminded that for future work on the well, a work permit approval must be obtained from this office before repairing, stimulating, plugging, or otherwise working on this well.

Yours very truly,

Steven M. Giambrone
Office of Conservation

Gavin D. Broussard, Interim Director
Injection and Mining Division

Injection and Mining Division
617 North Third Street, 8th Floor, Baton Rouge Louisiana 70802
(225) 342-5515 | Injection-Mining@LA.gov | www.dnr.louisiana.gov
An Equal Opportunity Employer



OFFICE OF CONSERVATION

IMD REPORTING REQUIREMENTS >> Class V Stratigraphic Test

Drilling and construction of the well must be completed within one (1) year from the date of the permit approval letter, otherwise, the permit will expire. **Before the expiration of the permit, the operator must notify the Injection and Mining Division (IMD) if a time extension will be requested or if well will not be drilled.**

The approved application describes how the well is to be constructed. Changes in the approved construction, such as well surface location, well depth, or casing setting depths, will require prior written approval from IMD. Failure to obtain prior written approval will be cause for revoking the permit.

At least forty-eight (48) hours prior to commencement of work, the appropriate Conservation Enforcement Specialist (CES) identified below must be contacted. If you are unable to reach the CES, please call the Injection and Mining Division at (225) 342-5515 between the hours of 8:00 a.m. and 4:30 p.m., Monday through Friday.

Application No.	<u>46102</u>	Serial No.	<u></u>
CES Name	<u>Sarah Hitchcock</u>	CES Phone No.	<u>337-298-8726</u>

Within twenty (20) days after completion of the well, the completion documents listed below must be filed with IMD for review and approval in compliance with the regulations. Please place the well's Serial Number on the log headings.

- A Class V Well History and Work Résumé Report (Form UIC-42 STRAT TEST) with an original signature from an authorized representative of the operating company and two photocopies of the form (front and back). The Form UIC-42 can be saved, filled-out, and printed by going to www.dnr.louisiana.gov/consforms >> Injection & Mining Division >> Form UIC-42.
- Two (2) copies of the wellbore schematic depicting the completed well.
- Two (2) copies of the electric log used to identify the USDW.
- Two (2) copies of the cement bond log for each respective casing string.
- An original AFFIDAVIT OF TEST OF CASING IN WELL (Form CSG-T) signed by a company representative and witnessed by a third party for each casing. Provide a copy of the properly labeled pressure chart if the Form CSG-T does not have a witnessed signature. Include the well name, well serial number, casing size, test start time and stop time, date of test, and signature of company representative. The Form CSG-T can be downloaded from www.dnr.louisiana.gov/consforms >> Injection & Mining Division >> Form CSG-T.

Send the above required documentation together in **ONE PACKAGE** to:

Office of Conservation- 9th Floor
Injection & Mining Division
617 North 3rd Street
Baton Rouge, LA 70802

June 3, 2025

Holton Hinchliffe, P.E.
Louisiana Department of Energy and Natural Resources
Office of Conservation, Injection & Mining Division
617 North Third Street
Baton Rouge, LA 70802

RE: Class V Strat Test Well
Well Name: Ursa Strat Test
Well No: 1
Section 16, T-3S, R-5E
St. Landry Parish, LA

Dear Mr. Hinchliffe,

ExxonMobil Low Carbon Solutions Onshore ("EMLCS") respectfully submits the attached UIC-25 Stratigraphic Test Class V Well permit application as well as the Form IMD-1 Request for Expedited Review. In support of this request, please find the following documentation:

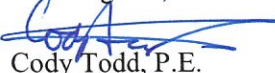
- Form UIC-25 Stratigraphic Test
- Certified location plat showing the location of the Class V well
- Annotated copies of electronic well log(s) of the offset well(s) showing the depths of the USDW and injection zone(s)
- Work prognosis for drilling, completing, and testing the well
- Wellbore and wellhead schematics
- P&A procedure, schematic, and a third-party estimate
- Responses to the "IT Questions"

The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

EMLCS is currently working on financial security in the form of a performance bond. Once the third-party verified P&A estimate is approved by IMD, the financial surety will be finalized and submitted.

Please contact me at (346) 220-7391 or by email at cody.todd@exxonmobil.com if you have any questions regarding this application.

Best Regards,



Cody Todd, P.E.

UIC Lead

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

ATTACHMENTS

- Application Fee
- Form UIC-25 STRAT TEST
- Two original Form MD-10-R-A (Not Applicable)
- Attachment 1: Certified Location Plat
- Attachment 2: Annotated USDW Log
- Attachment 3: Annotated Zone Log
- Attachment 4: Schematic
- Attachment 5: Work Prognosis
- Attachment 6: Financial Surety
- Attachment 7: IT Questions Documentation
- Attachment 8: LELAP Laboratory Analysis
- Third Party P&A Procedure, Schematic, and Cost Estimate
- ¼ mile AoR Detailed Well Report

OFFICE OF CONSERVATION

JUN 09 2025

ExxonMobil

INJECTION & MINING DIVISION

046102

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Ursa Strat Test No. 1
St. Landry Parish, LA

APPLICATION FEE

- \$252 application fee will be paid online once invoice is issued.

OFFICE OF CONSERVATION

JUN 09 2025

ExxonMobil

INJECTION & MINING DIVISION

040102

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Ursa Strat Test No. 1
St. Landry Parish, LA

ONE FORM UIC-25 STRAT TEST WITH ORIGINAL SIGNATURE

OFFICE OF CONSERVATION

JUN 09 2025

ExxonMobil

INJECTION & MINING DIVISION



CLASS V STRAT TEST WELL PERMIT APPLICATION

OFFICE OF CONSERVATION
INJECTION & MINING DIVISION
617 N. Third St., 9th FLOOR
BATON ROUGE, LA 70802

Injection-Mining@la.gov
(225) 342-5515

UIC-25 STRAT TEST

PLEASE READ APPLICATION INSTRUCTIONS

TYPE ONLY

1. APPLICATION TYPE: (Check One)			
<input checked="" type="checkbox"/> DRILL AND COMPLETE NEW CLASS V WELL		<input type="checkbox"/> CONVERT AN EXISTING WELL TO CLASS V	
<input type="checkbox"/> OTHER (SPECIFY):			
2. IDENTIFY WELL USE Stratigraphic Test Well			
3. IDENTIFY FUTURE WELL USE (i.e. Conversion to Class VI, monitor well, P&A, etc.) Monitor Well			
4. OWNER/OPERATOR NAME ExxonMobil Low Carbon Solutions Onshore			5. OC OPERATOR CODE E1041
6. OWNER/OPERATOR MAILING ADDRESS 22777 Springwoods Village Parkway		7. CITY, STATE, ZIP CODE Spring, TX, 77389	
8. TELEPHONE NO 346-220-7391		9. E-MAIL ADDRESS cody.todd@exxonmobil.com	
10. WELL NAME Ursa Strat Test	11. WELL NO 1	12. WELL SERIAL NO (Well Conversions Only)	
13. FIELD NAME Wildcat - So LA Lafayette District			14. FIELD CODE 9727
15. PARISH NAME St. Landry		16. SECTION 16	17. TOWNSHIP 3S
		18. RANGE 5E	
19. LOCATION COORDINATES (GCS, NAD 27)		20. STATE PLANE COORDINATES (LAMBERT, NAD 27)	
LATITUDE: 30 ° 47 MIN 32.48 SEC		<input type="checkbox"/> NORTH ZONE <input checked="" type="checkbox"/> SOUTH ZONE	
LONGITUDE: 91 ° 57 MIN 29.07 SEC		X: 1,803,817.53 Y: 773,558.90	
21. LEGAL LOCATION DESCRIPTION (FROM LOCATION PLAT): SURFACE LOCATION being 1,388 from the East Line and 1,780' from the South Line of Section 16, located in Section 16, located in Section 16, T3S-R5E, St. Landry Parish, Louisiana.			
OFFICE OF CONSERVATION			

JUN 09 2025

22. LIST PERMITS, LICENSES, OR APPROVALS THE APPLICANT HAS RECEIVED OR APPLIED FOR WHICH SPECIFICALLY AFFECT THE APPLICANT'S LEGAL OR TECHNICAL ABILITY TO CARRY OUT THE PROPOSED ACTIVITY. INCLUDE IDENTIFICATION NUMBER OF APPLICATIONS OR, IF ISSUED, THE IDENTIFICATION NUMBER OF THE PERMIT, LICENSE, OR OTHER APPROVALS.

Regulatory Program or Agency	Permits, Licenses, Construction, Project Approval Identification

23. WELL CASING / CEMENT DATA

CASING SIZE (OD-INCHES)	HOLE DIAMETER (INCHES)	CASING WEIGHT (LB/FT)	CASING GRADE	CASING SETTING DEPTHS		TOTAL SACKS	SACKS CEMENT (Lead/Tail)	TYPE (Lead/Tail)	YIELD (CU FT/SACK) (Lead/Tail)	CEMENT TOP
				TOP	BOTTOM					
20	20	79	X42	0	100	225		A	1.55	surface
9 5/8	12 1/4	47	L80	0	1,675	621	351/270	A/A	2.35/1.28	surface
5 1/2	8 1/2	20	P110	0	7,000	1,222	649/573	A/H	1.66/1.42	surface

ALL WELL DEPTHS SHOULD BE GIVEN IN MD

24. BASE OF USDW (FT):

1,444

25. REFERENCE E-LOG FOR USDW (SERIAL NUMBER):

243774

26. WELL TOTAL DEPTH (FT):

7,000

27. PLUGBACK DEPTH (FT):

4,305

28. TUBING SIZE & DEPTH:

NA

29. PACKER SIZE & DEPTH:

NA

INJECTIVITY TEST INFORMATION (IF APPLICABLE)

30. INJECTION ZONE DEPTHS

Top: 4,090

Bottom: 6,839

31. COMPLETION/PERFORATION DEPTHS

Top: 4,355

Bottom: 6,780

32. REFERENCE E-LOG FOR INJECTION ZONE INFO (SERIAL NUMBER): 182783

33. WELL COMPLETION

☐ OPEN HOLE

☒ PERFORATIONS

☐ SCREEN

34. TEST MATERIAL (e.g. nitrogen, brine, etc):

Brine

35. MAXIMUM TEST PRESSURE (psi):

5,425

36. TOTAL INJECTION VOLUME (bbls):

35,000

CO₂ is prohibited as a Class V test material

37. Is the Well Located on Indian Lands or Other Lands Owned by or under the Jurisdiction or Protection of the Federal Government?

☐ YES ☒ NO

38. Is the Well Located on State Water Bottoms or Other Lands Owned by or under the Jurisdiction or Protection of the State of Louisiana?

☐ YES ☒ NO

39. If the proposed well is associated with a potential Class VI geologic sequestration project, does the applicant own the mineral rights at the proposed well locations?

☐ YES ☒ NO

40. If no, has written notification been provided to the mineral owner(s)?

☒ YES ☐ NO

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

41. AGENT OR CONTACT AUTHORIZED TO ACT ON BEHALF OF THE APPLICANT DURING THE PROCESSING OF THIS APPLICATION**NAME:** Cody Todd, P.E.**COMPANY:** ExxonMobil Low Carbon Solutions Onshore Storage LLC**MAILING ADDRESS:** 22777 Springwoods Village Parkway, Spring, TX 77389**TELEPHONE NUMBER:** 346-220-7391**E-MAIL ADDRESS:** cody.todd@exxonmobil.com**42. CERTIFICATION BY WELL OWNER/OPERATOR**

I certify that as the owner/operator of the injection well, the person identified in Item No. 37 above is authorized to act on my behalf during the processing of this application, to submit additional information as requested, and to give oral statements in support of this application. I will grant an authorized agent of the Office of Conservation entry onto the property to inspect the injection well and related appurtenances as per LSA-R.S. 30:4. I agree to operate the well in accordance with Office of Conservation guidelines. I further certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment or both (LSA-R.S. 30:17).

Print Name of Well Owner/Operator

Bruce Chalton

Print Title of Company Official (as applicable)

Vice President

Signature of Well Owner/Operator

Date

6-3-25

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

**TWO ORIGINAL FORM MD-10-R-A FOR EACH EXISTING WELL TO
BE CONVERTED (IF CONVERSION IS PROPOSED)**

- Not applicable – New Drill



OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

Attachment 1

**ONE ORIGINAL CERTIFIED LOCATION PLAT SHOWING THE
LOCATION OF THE CLASS V WELL LOCATION**

OFFICE OF CONSERVATION

JUN 09 2025

ExxonMobil

INJECTION & MINING DIVISION

**ExxonMobil Low Carbon Solutions Onshore-
Ursa Strat Test No. 1 Well**

Surveyed June 2, 2025 as follows:

SURFACE LOCATION being 1,388 from the East Line and 1,780' from the South Line of Section 16, located in Section 16, located in Section 16, T3S-R5E, St. Landry Parish, Louisiana.

NOTE: This plat is not a property boundary survey and as such does not comply with the "Standards of Practice for Property Boundary Surveys" as adopted by the Louisiana Professional Engineering and Land Surveying Board; it is however in compliance with Statewide Order 29-B and 29-E. (Title 43 of the Louisiana Administrative Code)

There are no residential or commercial structures, not owned by the applicant, his lessor, or other predecessor in interest, within a 500' radius of the proposed location as of June 2, 2025.

All bearings, distance, areas and coordinates refer to the North American Datum of 1927, Louisiana South Zone, US survey feet. Elevations refer to the North American Vertical Datum of 1988 and are derived from static and kinematic GPS observations unless otherwise note.

Ursa Strat Test No. 1 Well

X = 1,803,817.53' (NAD27 La S)

Y = 773,558.90'

LAT. 30° 47' 32.48" N (NAD27)

LONG. 91° 57' 29.07" W

X = 3,084,618.36' (NAD83/2011 La S)

Y = 834,271.04'

LAT. 30° 47' 33.15" N (NAD83/2011)

LONG. 91° 57' 29.49" W

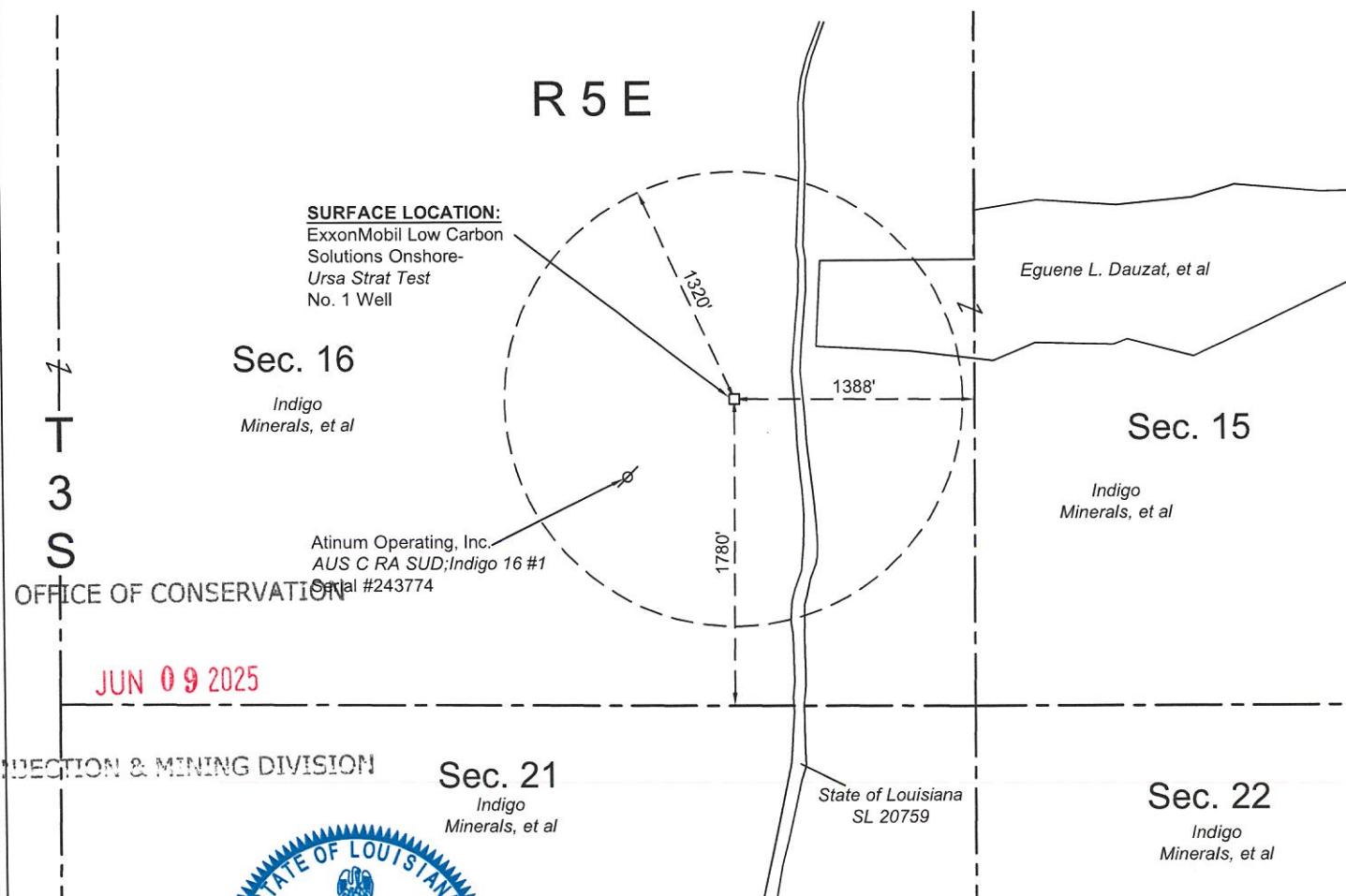
ELEV. +35.4' (NAVD88)

LEGEND

- Proposed Well
- ⊗ Plug & Abandoned Well



SCALE: 1"= 1000'
0' 500' 1000'



SURFACE LOCATION:
ExxonMobil Low Carbon
Solutions Onshore-
Ursa Strat Test
No. 1 Well

Sec. 16

Indigo
Minerals, et al

Sec. 15

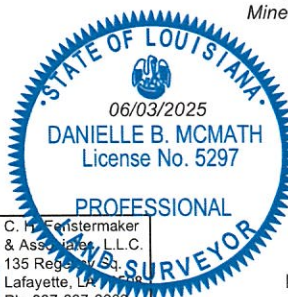
Indigo
Minerals, et al

Sec. 21

Indigo
Minerals, et al

Sec. 22

Indigo
Minerals, et al



FOR THE EXCLUSIVE USE OF
EXXONMOBIL LOW CARBON
SOLUTIONS ONSHORE

I, Danielle B. McMath, Professional Land Surveyor, certify that the well location depicted and described in this plat was staked and surveyed in the field by me or under my direction with accuracy and precision to the nearest foot. I have properly examined this plat and have determined that it complies with existing local Louisiana codes, and has been properly site adapted to use in this area.

Danielle B. McMath

Danielle B. McMath
Registration No. 5297

**WELL LOCATION PLAT
URSA STRAT TEST
NO. 1 WELL
EXXONMOBIL LOW CARBON
SOLUTIONS ONSHORE
SITUATED IN
SECTION 16, T3S-R5E
ST. LANDRY PARISH, LOUISIANA**



REVISIONS

DRAWN BY: DBM	PROJ. MGR.: DBM
DATE: 06/03/2025	
JOB#: 2258789.00C	SHEET 1 OF 1

Attachment 2

AN ANNOTATED COPY OF AN ELECTRIC WELL LOG OF THE NEAREST OFFSET WELL THAT SHOWS THE UNDERGROUND SOURCE OF DRINKING WATER (USDW)

- See attached marked well log of the AUS C RA SUD; INDIGO 16 No. 01 (Serial No. 243774)

OFFICE OF CONSERVATION

JUN 09 2025

ExxonMobil

INJECTION & MINING DIVISION

046102

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

Marked USDW Zone Log
AUS C RA SUD; INDIGO 16 No No. 01 (Serial No. 243774)

RECEIVED

MAR 07 2012

243774

OFFICE OF CONSERVATION
LAKEVIEW

**BAKER
HUGHES**

HIGH DEFINITION INDUCTION LOGSM
COMPENSATED Z-DENSLOGSM
CAMPA RAY LOG
TRM SUBSM

Baker Atlas

FILE NO: 0404-3606		COMPANY: ATMIUM EXPLORATION & PRODUCTION	
API NO: 17-097-21075-0000		WELL: INDIGO 16 #1	
Ver. 3.87		FIELD: MONCRIE	
FINAL		COUNTY: ST. LANDRY	
LOCATION: 1325' FSL & 2005' FEL		STATE: LOUISIANA	
LA DMR SH: 243774		OTHER SERVICES: NONE	
SEC 18 TWP 35 N2E SE			
PERMANENT DATUM		ELEVATIONS:	
LOG MEASURED FROM	CL 30 FT ABOVE P.D.	KB 66 FT	CF 85 FT
DRILL MEAS. FROM	KB	CL 36 FT	
DATE: 02-OCT-2011	RUN: 1	TRIP: 1	
SERVICE ORDER: 800841	DEPTH DRILLER: 3535 FT		
DEPTH LOGGER: 3534 FT			
BOTTOM LOGGED INTERVAL: 3534 FT			
TOP LOGGED INTERVAL: 178 FT			
CASING DRILLER: 178 FT			
CASING LOGGER: 178 FT			
BIT SIZE: 14.75 IN			
TYPE OF FLUID IN HOLE: N/A			
DENSITY: 8.8 LB/G			
PH: 8.0			
SOURCE OF SAMPLE: FLOWLINE			
RM AT MEAS. TEMP: 2.44 OHM			
RMF AT MEAS. TEMP: 1.83 OHM			
RMG AT MEAS. TEMP: 3.05 OHM			
SOURCE OF RMF: MEASURED			
RM AT BHT: 1.72 OHM			
TIME SINCE CIRCULATION: 6 HRS			
MAX. RECORDED TEMP: 115 DEGF			
EQUIP. NO. H16756	LOCATION: TYLER, TX		
RECORDED BY: J. KOSKI			
WITNESSED BY: G. PARKINEN			

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION

REMARKS

RUN 1 TRIP 1: BVOL = TOTAL BOREHOLE VOLUME (CU FT)
 CVOL = CEMENT VOLUME FOR 10.25" CASING (CU FT)
 PORZC & CNC LOGGED ON A SANDSTONE MATRIX (2.65 G/CC)
 RIG: NABORS 4
 CREW: J. CLEMENTS/V. TUCKER
 BAKER ATLAS AND THE CREW OF HL-6756 THANK YOU FOR YOUR BUSINESS

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	ITEM	3801XA	10241179	FREE
1	1	COMM	3514XB	10208507	FREE
1	1	CAMMA	1328XA	2179384	D.CENT
1	1	CN	2445XA	10223580	D.CENT
1	1	ZUL	2234XA	10314190	PAD DEVICE
1	1	DEL KILUCK	3802XA	10361332	FREE
1	1	HDL	15152A/15151A	10179440/10138847	CEMT

MAIN LOG 1" LINEAR PRESENTATION

ECLIPS 6.11 Aug 06, 2010

Sun Oct 2 08:54:55 2011

Perplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.50

PARAMETER AND FILTER SUMMARY REPORT

FILE: /della/800841/HSLAM03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 105.250 ft BOTTOM DEPTH: 3539.250 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
Y AXIS CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
OR	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.l)	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	14.750	In	TOP	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	75.0	degF	"	"
	MUD SAMPLE RES	2.430	ohm.in	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	85.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.500	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	7.875	In	"	"
BH MUD RESISTIVITY SOURCE	MUD SOURCE (HDL)	BH TEMP DERIVED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SP CONTROL	Tool/Bridge	TOOL		TOP	BOTTOM

HDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	1.50	In	"	"
	TOOL POSITION	ECCENTERED		"	"
	Mud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT

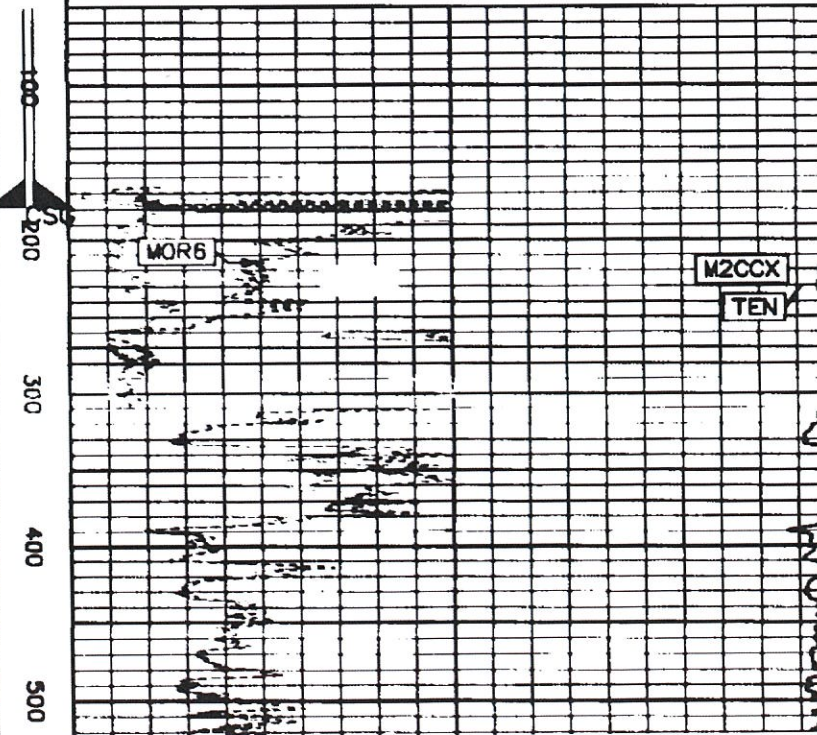
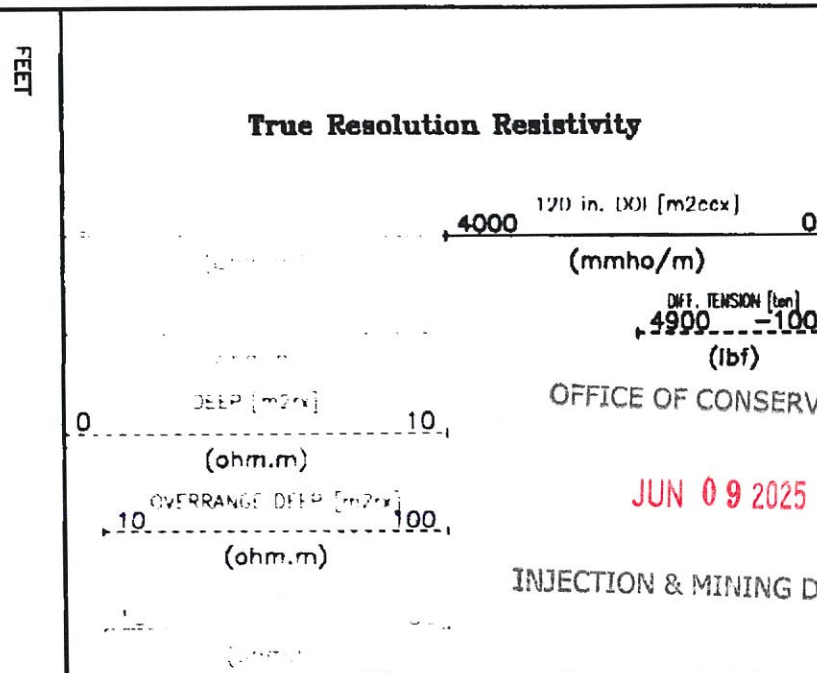
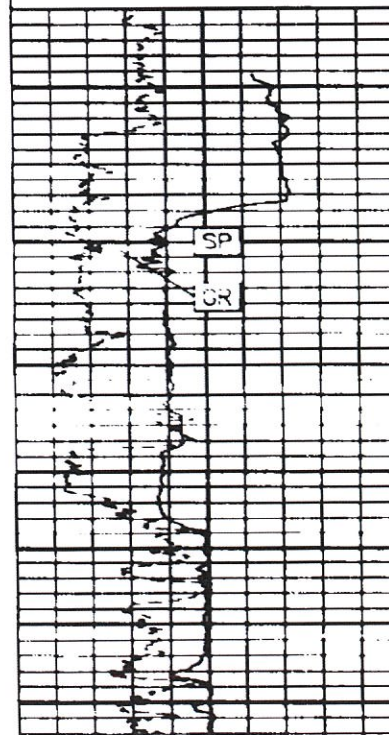
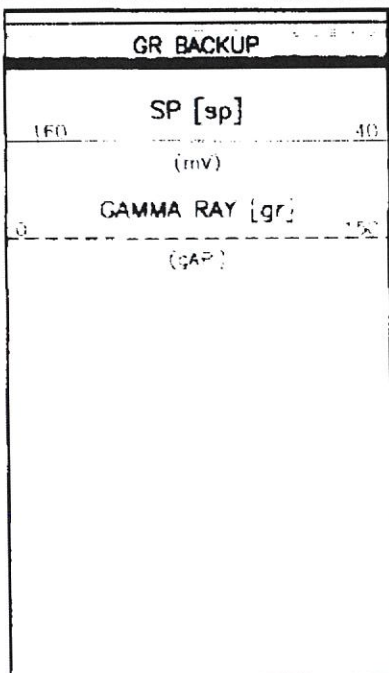
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Oct 2 07:03:44 2011	GAMMA RAY
F1:M2CCX	Oct 2 07:03:44 2011	HDIL 2-FOOT RESOLUTION COMPRESSED CONDUCTIVITY, 120-INCH DOI
F1:M2RX	Oct 2 07:03:44 2011	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 20-INCH DOI
F1:M2RX	Oct 2 07:03:44 2011	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 120-INCH DOI
F1:SP	Oct 2 07:03:44 2011	SPONTANEOUS POTENTIAL
F1:TEN	Oct 2 07:03:44 2011	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	52.25	M2CCX	8.00	SP	14.00	TEN	0.00

Presentation : h:\6756\data\600841\1in_linear.pdf [1"/100' Scale]
Plot Interval : 54.25 - 3539.25 Feet

Date File 1 : F1 : h:\6756\data\600841\MAINLOT
Created On : Oct 2 07:03:44 2011
Company : ATMUM EXPLORATION & PRODUCTION
Well : INDIGO 16 81
Field : MONCRIET
File Interval : 40.75 - 3539.25 Feet
Oct : HSLAM



OFFICE OF CONSERVATION

JUN 09 2025

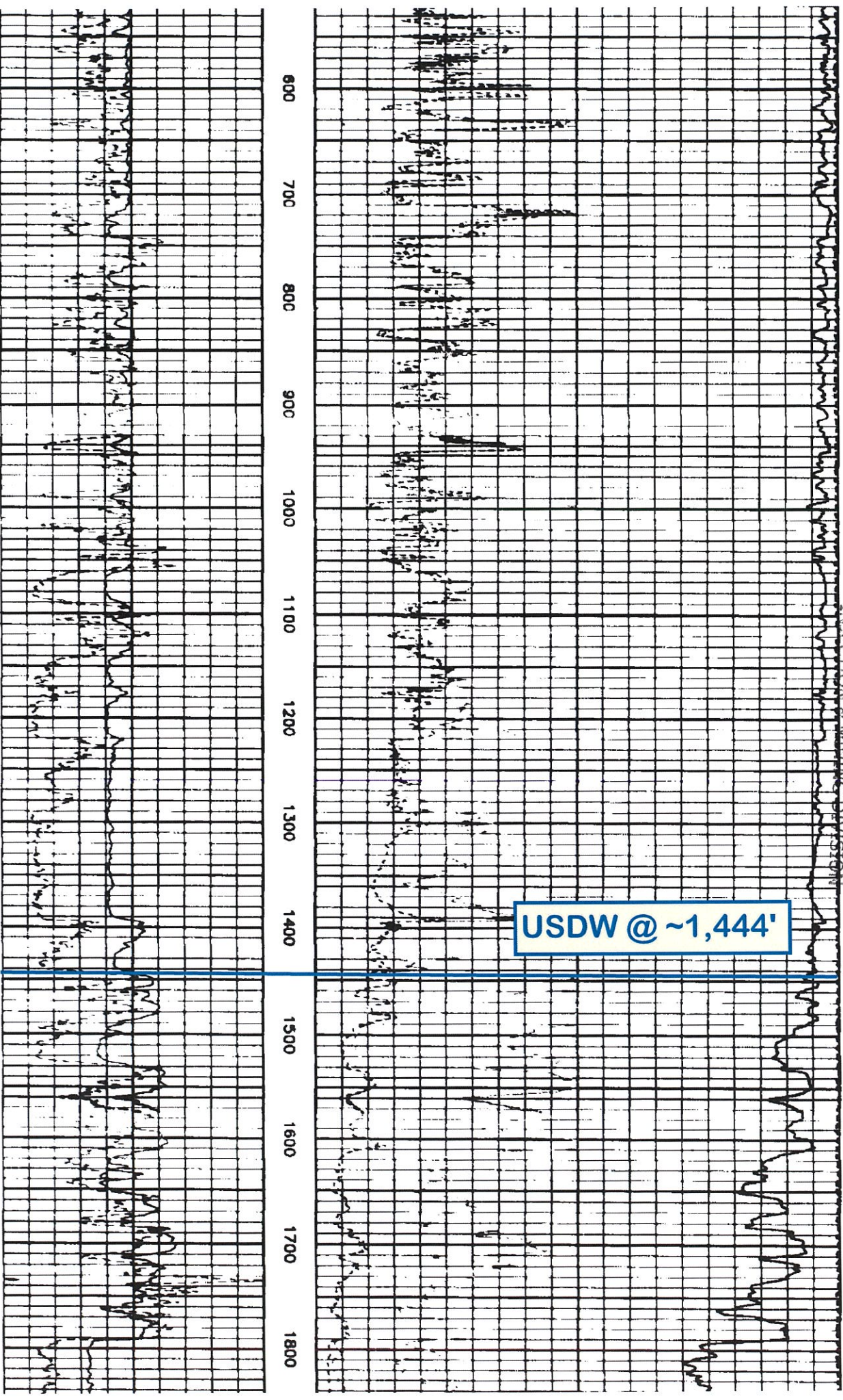
INJECTION & MINING DIVISION

046102

OFFICE OF CONSERVATION

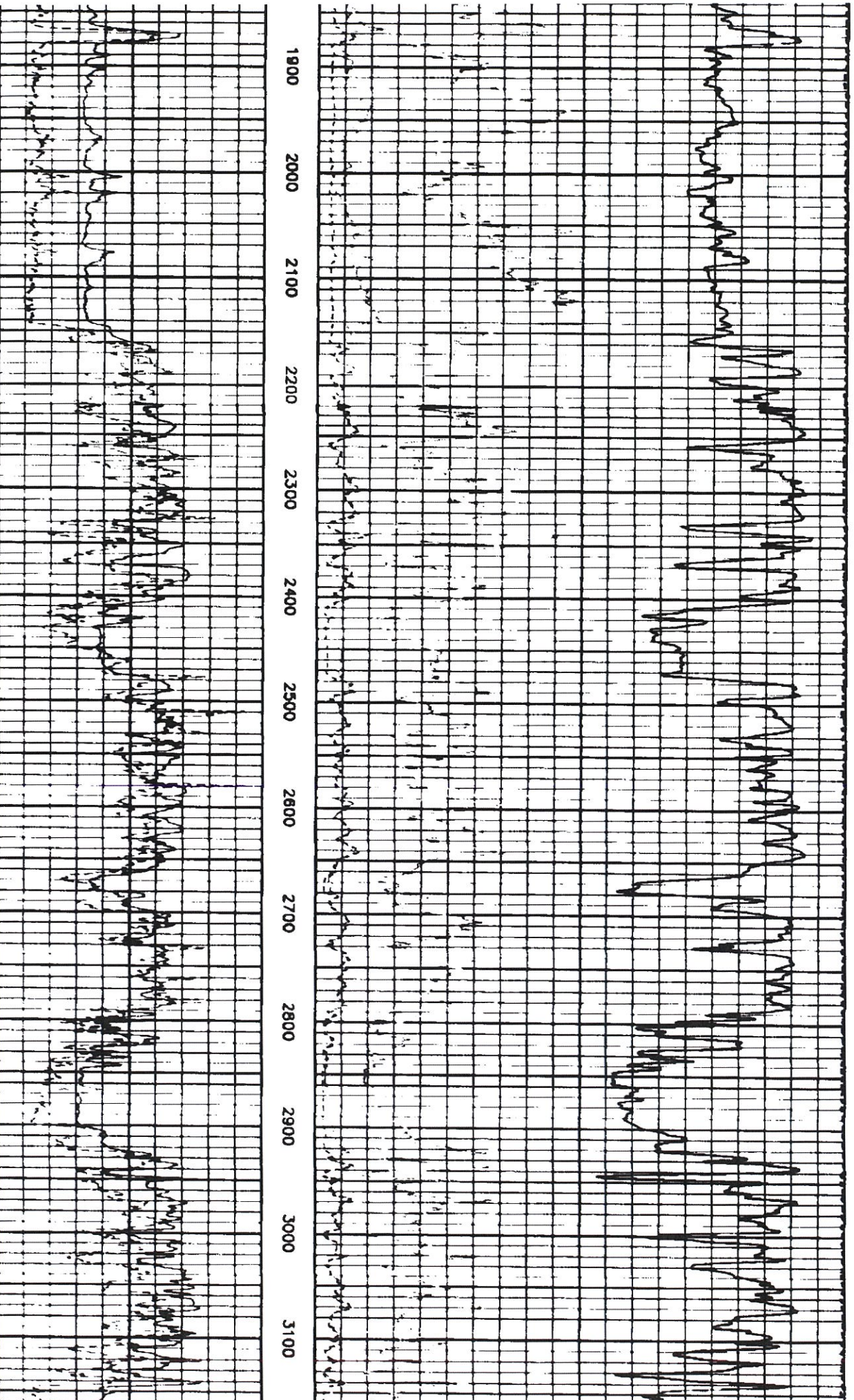
JUN 09 2025

INJECTION & MINING DIVISION



JUN 09 2025

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Attachment 3

AN ANNOTATED COPY OF AN ELECTRIC WELL LOG OF THE OFFSET WELL THAT SHOWS THE INJECTION ZONE

- See attached marked well log of the THISTLETHWAITE ET AL No. 01 (Serial No. 182783)

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JUN 09 2025

INJECTION & MINING DIVISION

Marked Injection Zone Log

THISTLETHWAITE ET AL No. 01 (Serial No. 182783)

COUNTY <u>ST. LANDRY</u> FIELD <u>WC-NORTH BAYOU JACK</u> LOCATION <u>THISTLETHWAITE NO. 1</u> WELL <u>THISTLETHWAITE NO. 1</u> COMPANY <u>W. A. MONCRIEF</u>		COMPANY <u>W. A. MONCRIEF</u>			
		LOCATION <u>ENW/C SEC. 10, GO S 1649' S E</u> <u>2978' TO LOCATION.</u> SERIAL NO <u>10</u> SEC <u>35</u> TWP <u>5E</u> RANGE <u>5E</u> Other Services: <u>LDT/CNL</u>			
Permanent Datum: <u>BHF</u> Elev.: <u>-</u> Log Measured From <u>RKB</u> , <u>26</u> Ft. Above Perm. Datum Drilling Measured From <u>SAME</u> Elev.: <u>K.B.</u> D.F. <u>-</u> G.I. <u>-</u>		Date <u>10-9-82</u> Run No. <u>1 (DIL/SFL/LSS/GR)</u> Depth-Driller <u>14211</u> Depth-Logger <u>14154 *</u> Btm. Log Interval <u>14148</u> Top Log Interval <u>3136</u> Casing-Driller <u>10 3/4 @ 3128</u> Casing-Logger <u>3136</u> Bit Size <u>9 7/8</u> Type Fluid in Hole <u>LIGNOSULF.</u> Dens. <u>10.139</u> Visc. <u>10.0</u> pH <u>8.1</u> Fluid Loss <u>10.0</u> ml Source of Sample <u>PIT</u> Rm @ Meas. Temp. <u>1.03 @ 85 °F</u> Rmf @ Meas. Temp. <u>0.84 @ 81 °F</u> Rmc @ Meas. Temp. <u>1.56 @ 85 °F</u> Source: Rmf <u>M</u> Rmc <u>C</u> Rm @ BHT <u>.403 @ 228 °F</u> Circulation Stopped <u>2000/10-8</u> Logger on Bottom <u>0430/10-9</u> Max. Rec. Temp. <u>228 °F</u> Equip. Location <u>8049 OPEL.</u> Recorded By <u>GRAEFAGNA</u> Witnessed By <u>MESSRS: GENTRY-DICKERSON-MCDONALD-MCCAULEY</u>		COUNTY <u>ST. LANDRY</u> STATE <u>LOUISIANA</u> WELL <u>THISTLETHWAITE NO. 1</u> FIELD <u>WILDCAT-NORTH BAYOU JACK</u>	

SH 184783v
 Schlumberger
 DUAL INDUCTION-SFL-SONIC
 WITH LINEAR CORRELATION LOG

OFFICE OF CONSERVATION
 RECEIVED
 JUN 02 1982
 GEOLOGICAL SECTION

FOLD HERE KM/GF

The well name, location and borehole reference data were furnished by the customer.

RUN NO. <u>ONE</u> Service Order No. <u>200417</u> Fluid Level <u>FULL</u> Salinity, PPM CL. <u>2000</u>		SCALE CHANGES Type Log <u> </u> Depth <u> </u> Scale Up Hole <u> </u> Scale Down Hole <u> </u>	
EQUIPMENT DATA Ind. Panel No. <u>BC-129</u> Mem. Panel No. <u> </u> Ind. Cart. No. <u>DA-1148</u> Ind. Sonde No. <u>EC-1079</u> Sonic Panel No. <u>DA-526</u> Oscil Panel No. <u> </u> Sonic Cart. No. <u>FA-1413</u> Sonic Sonde No. <u>WA-688</u> G. R. Cart. No. <u>JC-2676</u> G. R. Panel No. <u>BC-210</u> Caliper No. <u> </u> TTR No. <u> </u> DRE No. <u> </u> CPW No. <u> </u> Centralizer Device <u>CMEZS</u>		REMARKS: LSS WAS RUN 8'-10' SPACING. * TRUE TD NOT REACHED TO HOLE CONDITIONS. OFFICE OF CONSERVATION JUN 09 2025 INJECTION & MINING DIVISION	
CALIBRATION DATA Surf. ILD S.E. <u>2.2</u> Surf. ILM S.E. <u>5.7</u> ILM SE Corrected <u> </u>		*LSN16390100000182783*	

ILM S.E. Corrected						046102
Depth ILD & ILM Zero Set						
G. R. BKGD CPS.						
G. R. Source CPS.						
G. R. Cal. Sens.						
G. R. T. C. CAL.						
LOGGING DATA						
G. R. Sens.-Log						
G. R. T. C.-Log						
Speed-F.P.M.	38					

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our General Terms and Conditions as set out in our current Price Schedule.

SENSOR MEASURE POINT TO TENSION REFERENCE POINT

CBL	34.6	FEET	AMPL	34.6	FEET
TT1	38.6	FEET	SRAT	42.6	FEET
TT3	37.6	FEET	TT2	37.6	FEET
GR	58.2	FEET	TT4	36.6	FEET
SFL	3.9	FEET	ILD	6.9	FEET
SP	.0	FEET	ILM	3.3	FEET
TENS	.0	FEET	SPAR	.0	FEET
NOIS	26.3	FEET			

PARAMETERS

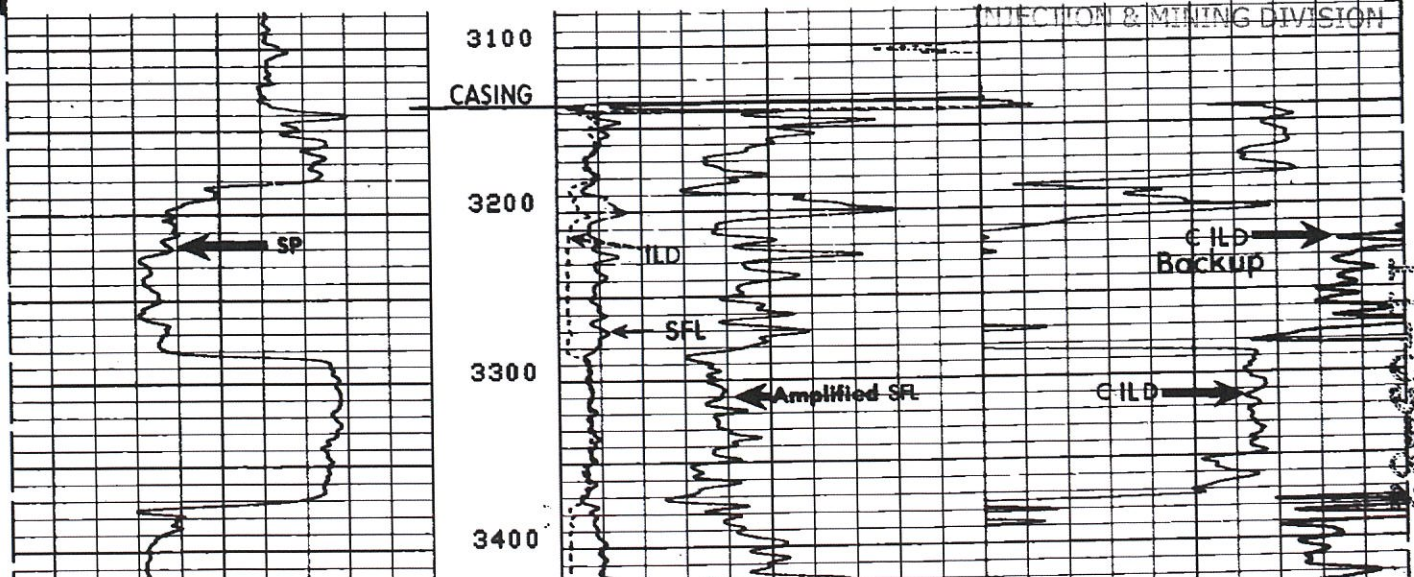
NAME	VALUE	UNIT	NAME	VALUE	UNIT
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DTM	55.60	US/F	CDTS	100.0	
DSEC	2.200	MMHO	DTF	189.0	US/F
MSEC	5.700	MMHO	SBR	0.5000	OHMM
FEXP	2.150		FPHI	SPHI	
BHS	OPEN		FNUM	0.6200	
DO	0.0				

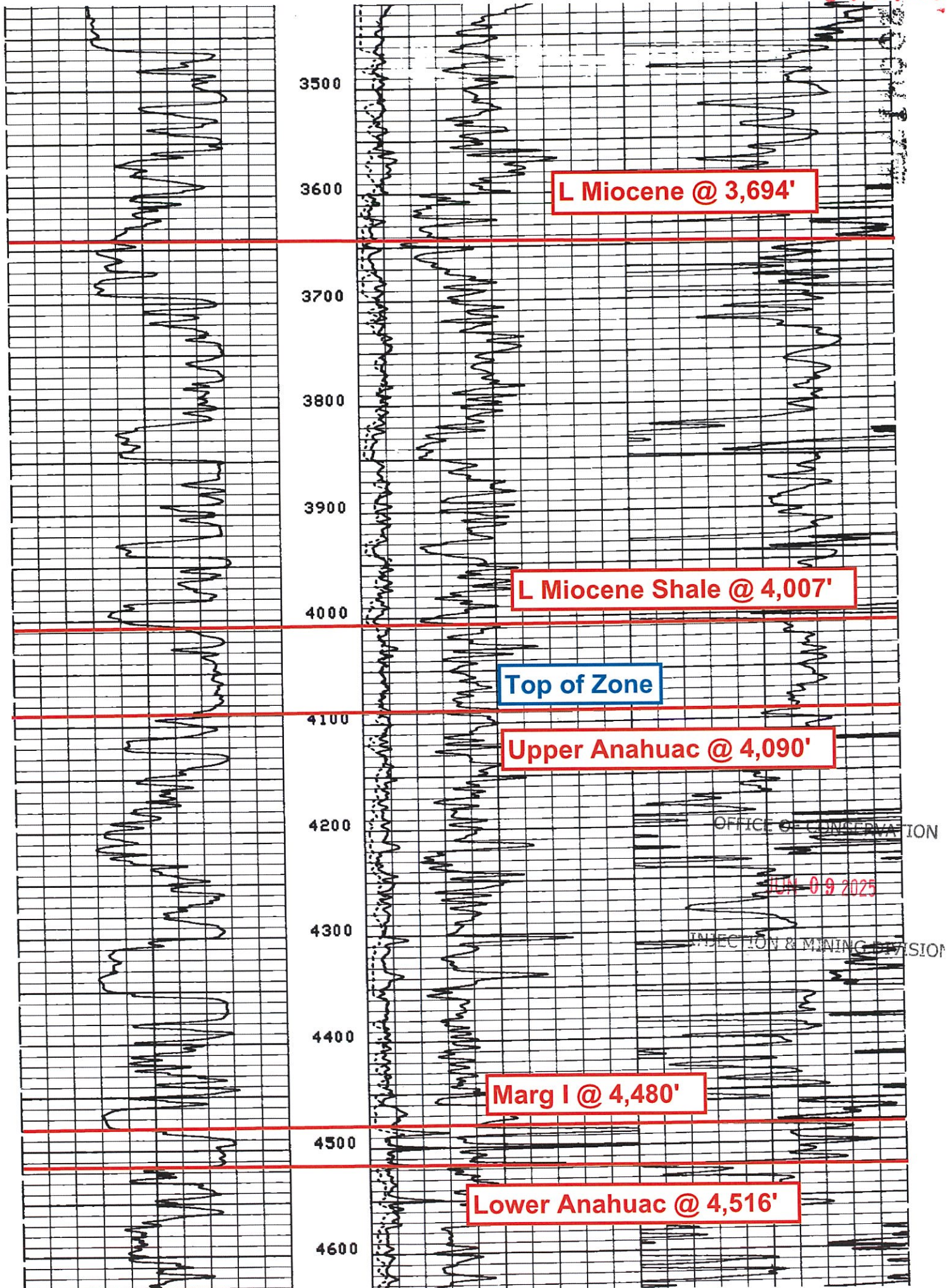
SP (MV)	-160.0	40.00	ILD (OHMM)	0.0	10.00	CILD (MMHO)	0.0
			SFLA (OHMM)	0.0	2.000		
			SFLA (OHMM)	0.0	10.00		

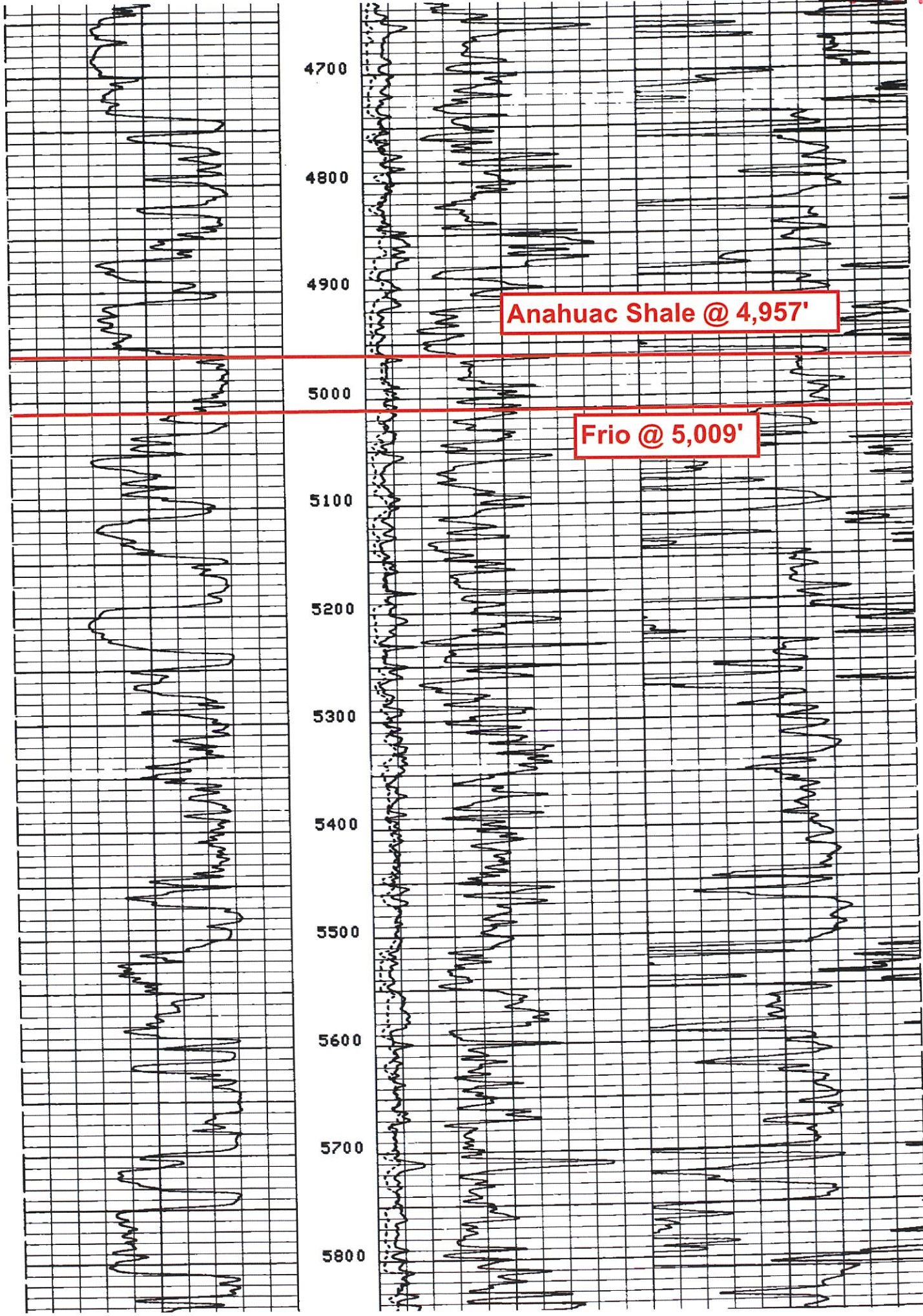
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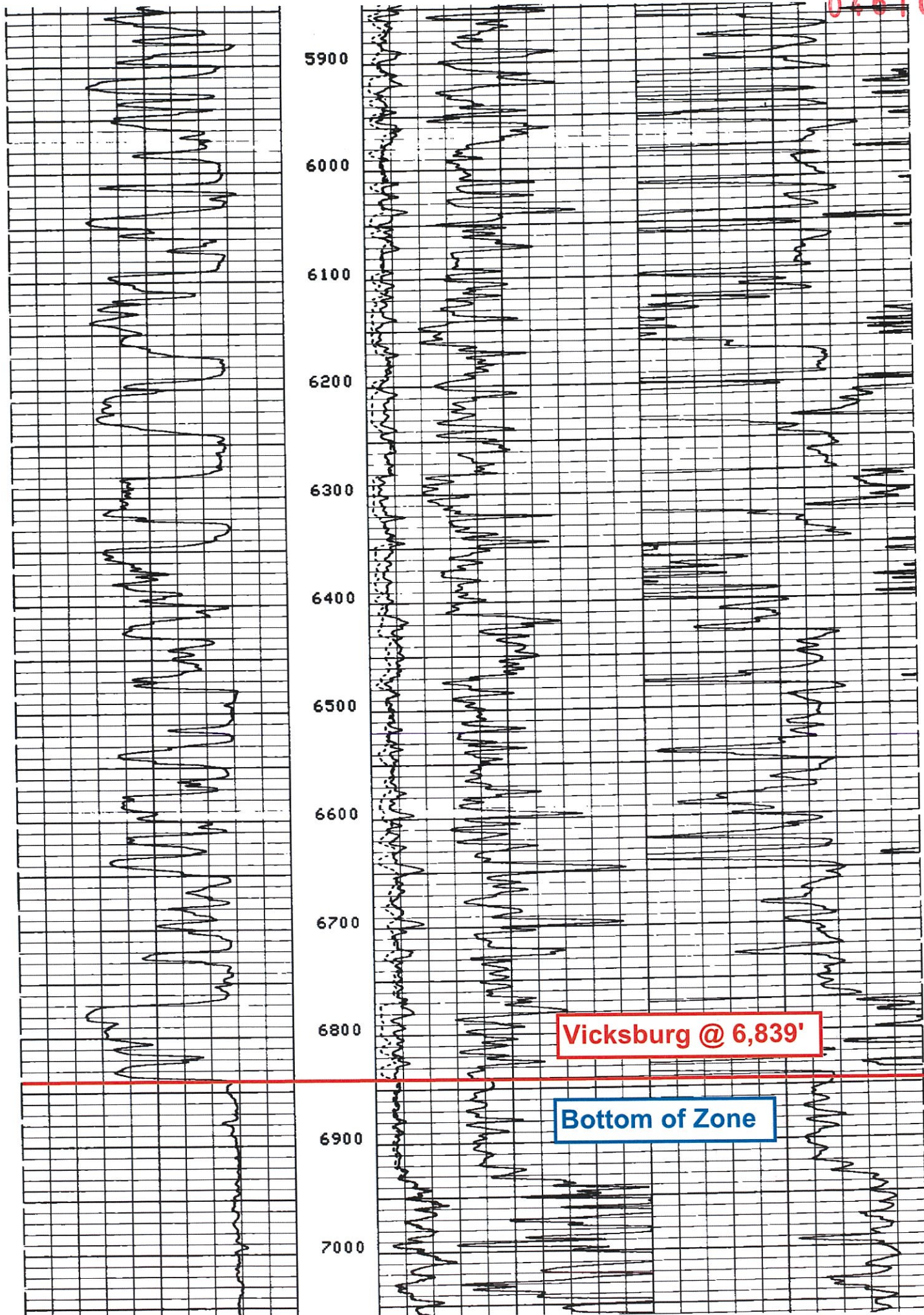
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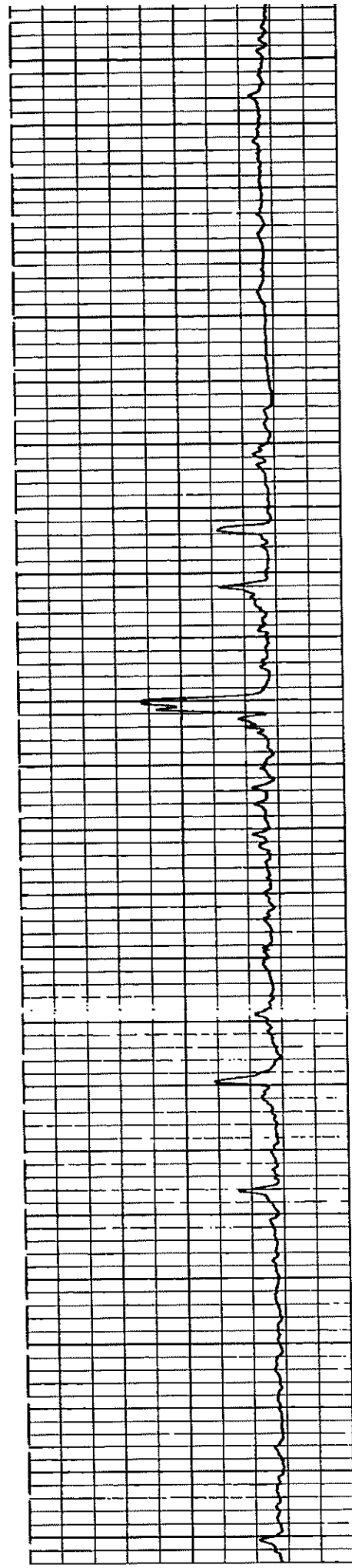
JUN 09 2025



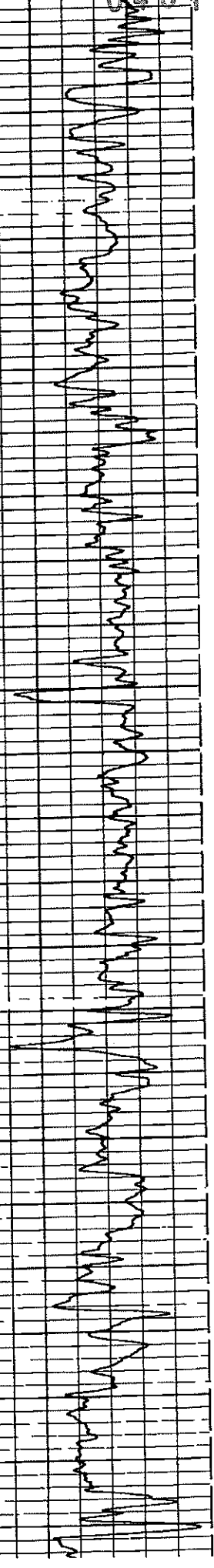
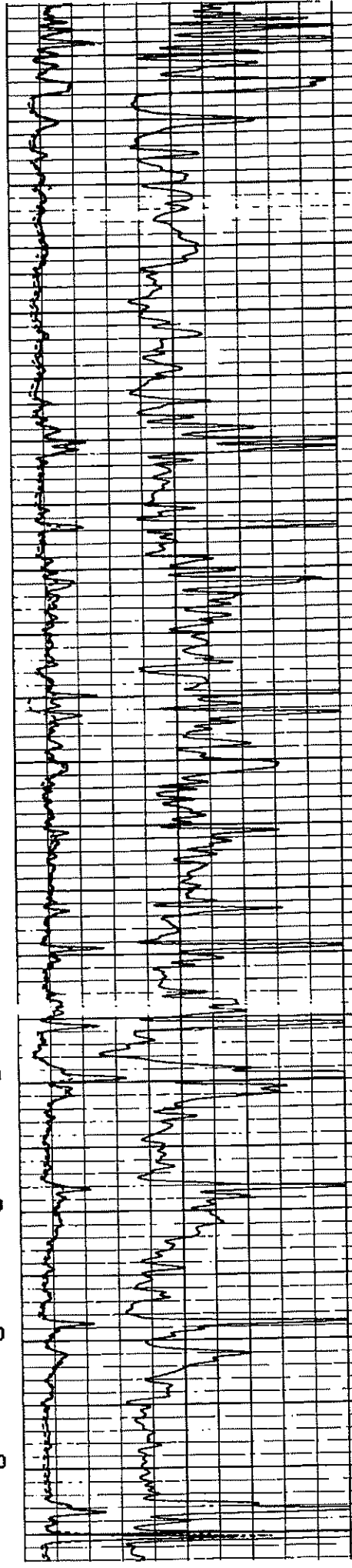


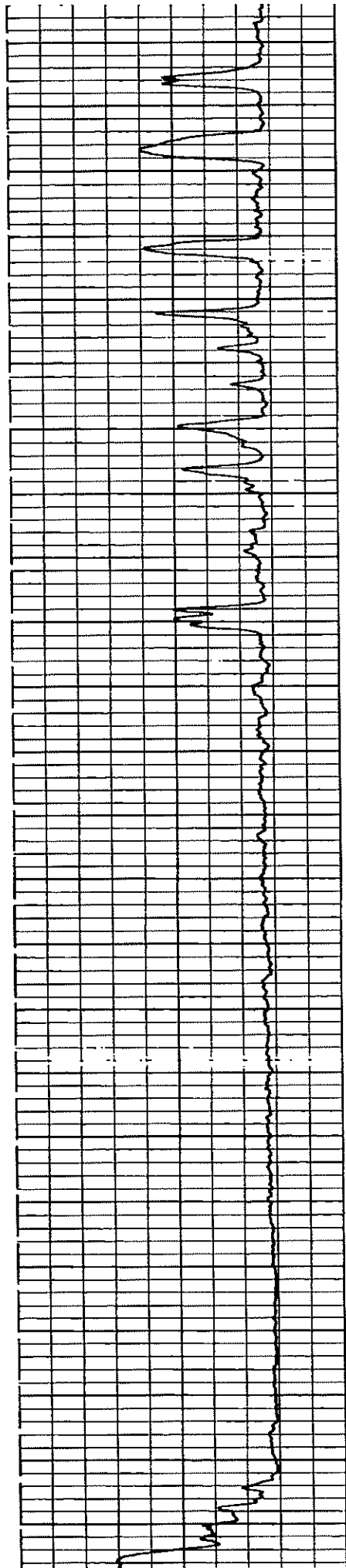




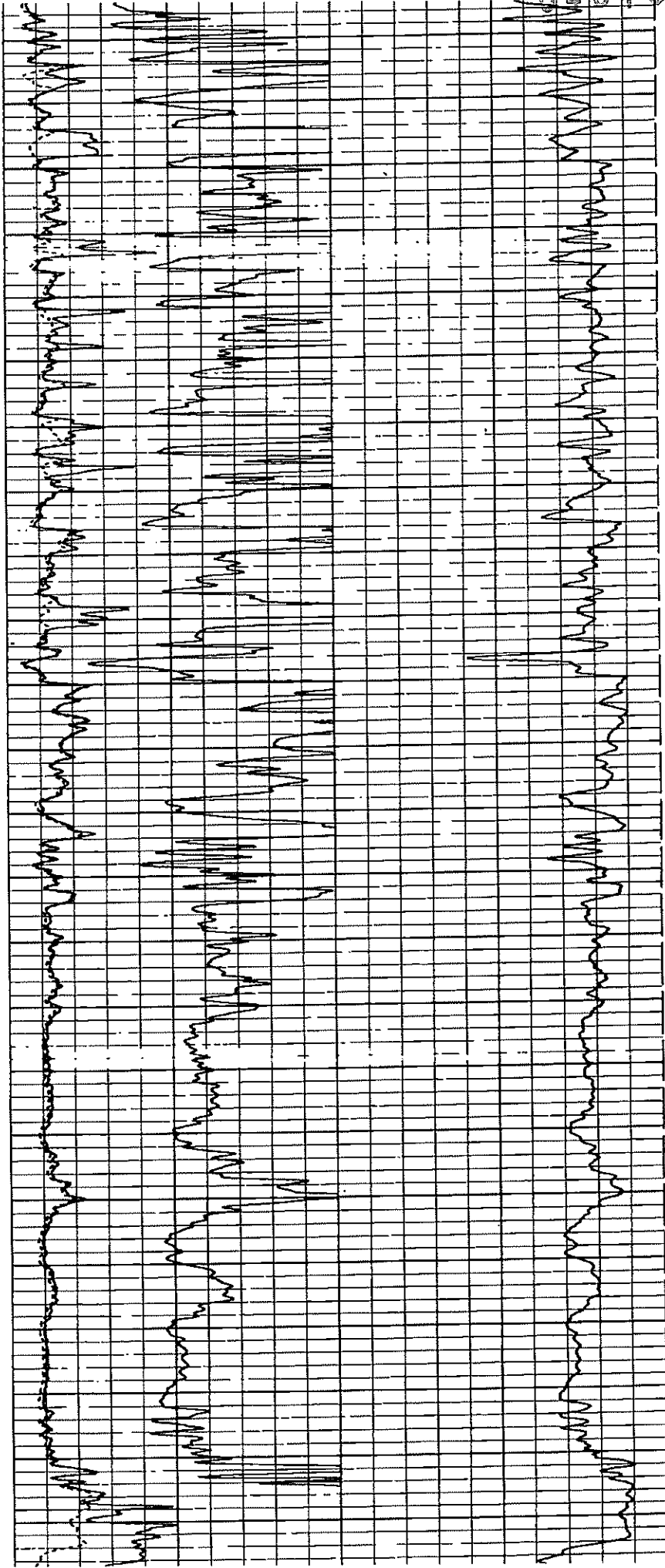


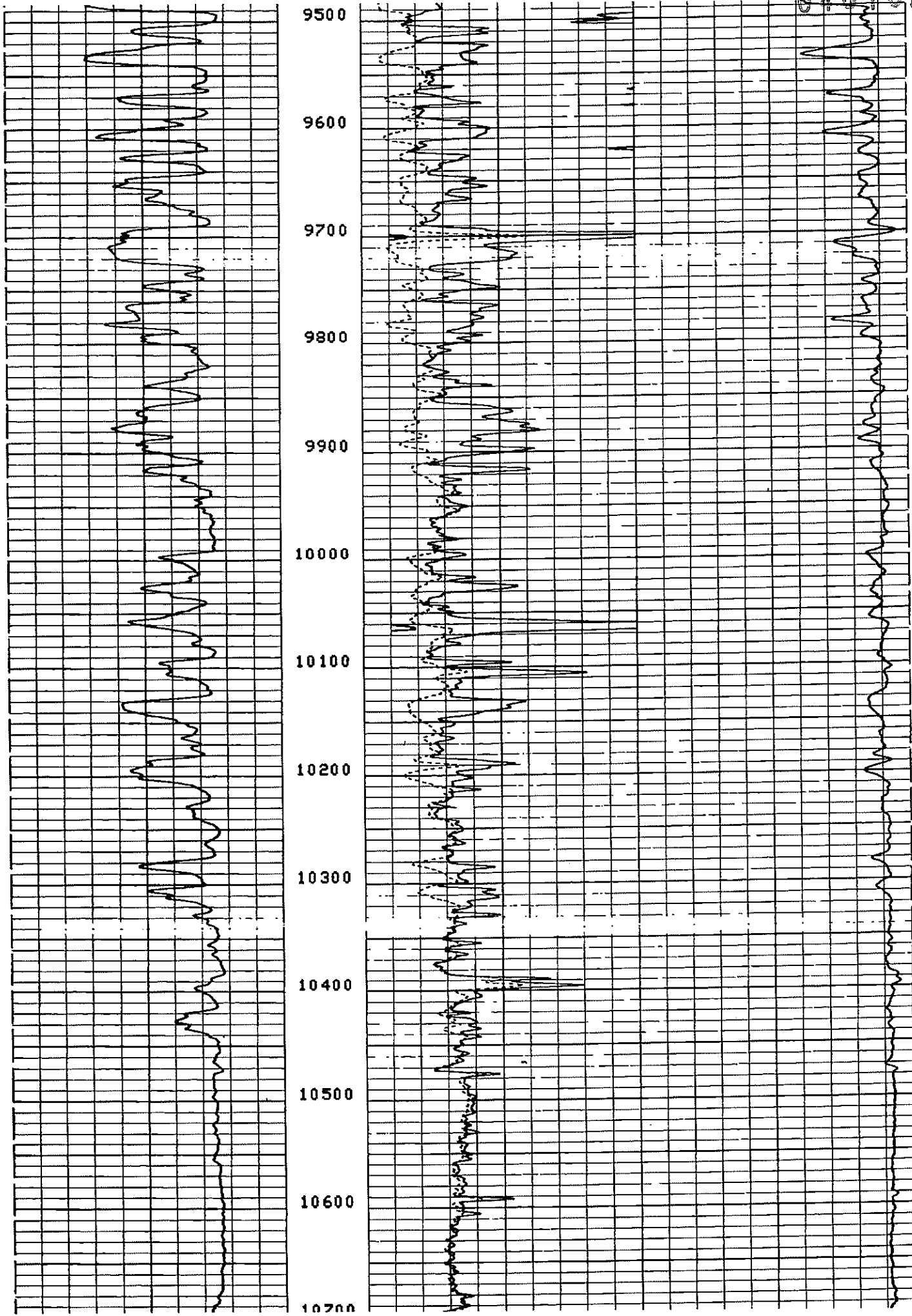
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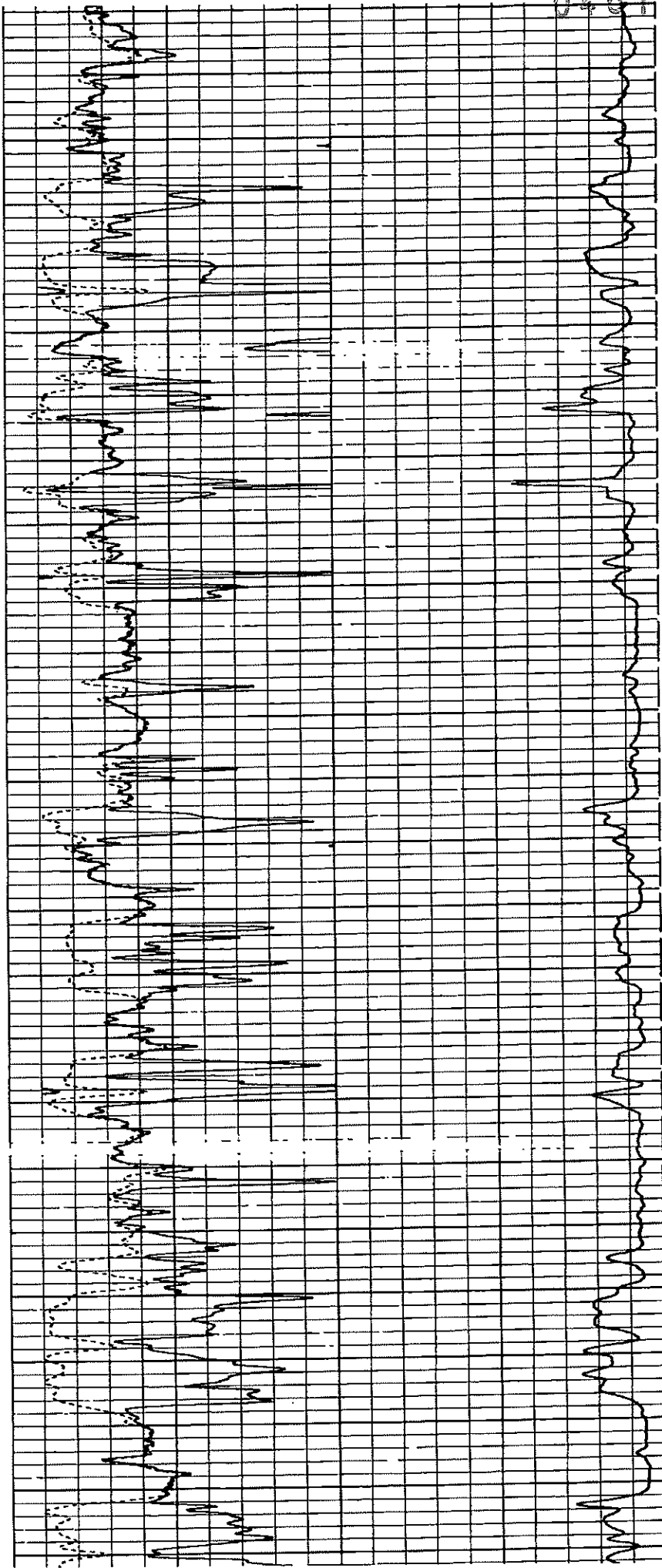
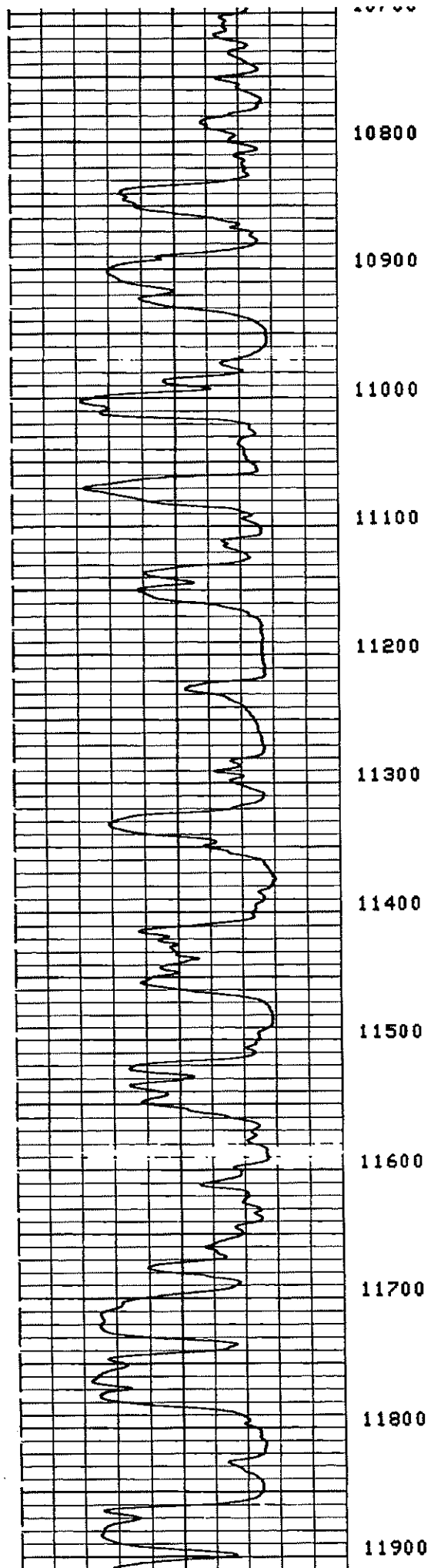




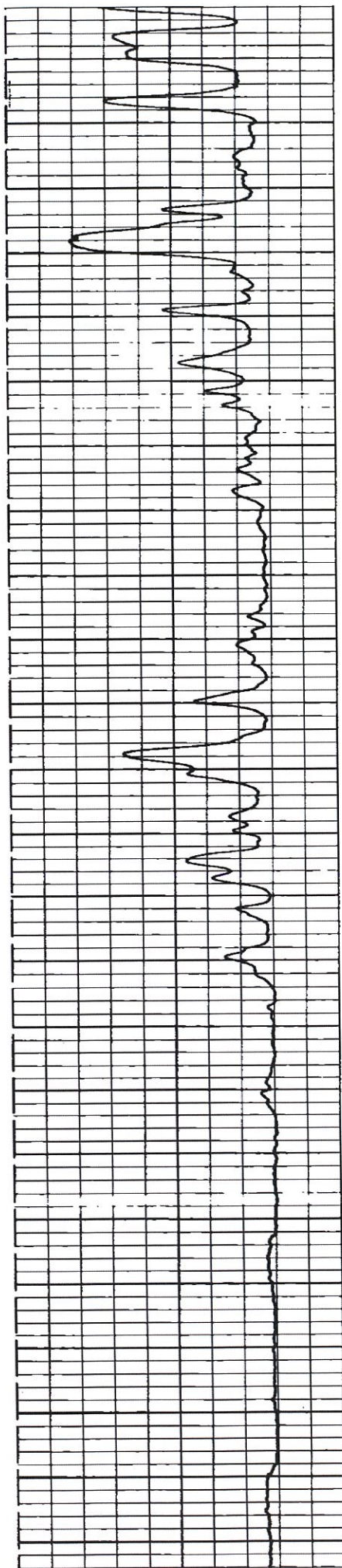
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8400
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8600
8700
8800
8900
9000
9100
9200
9300
9400



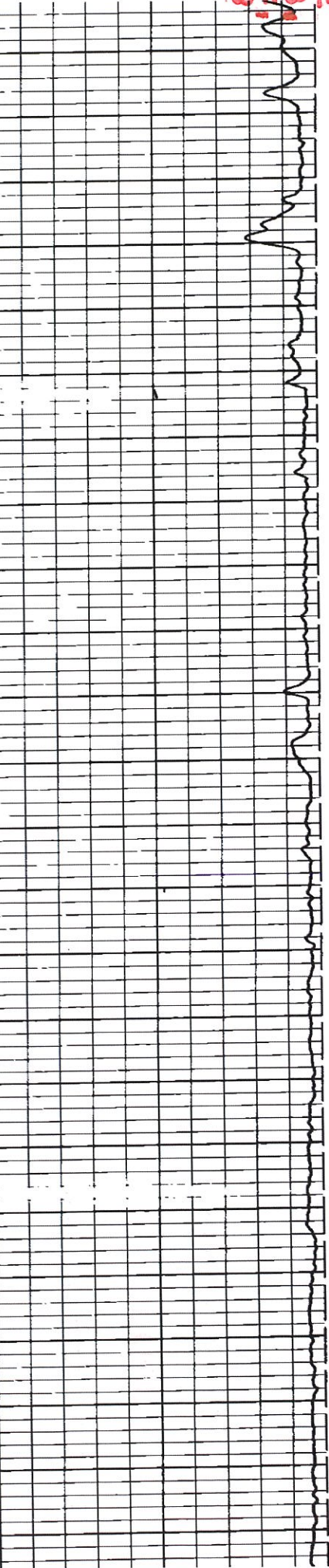
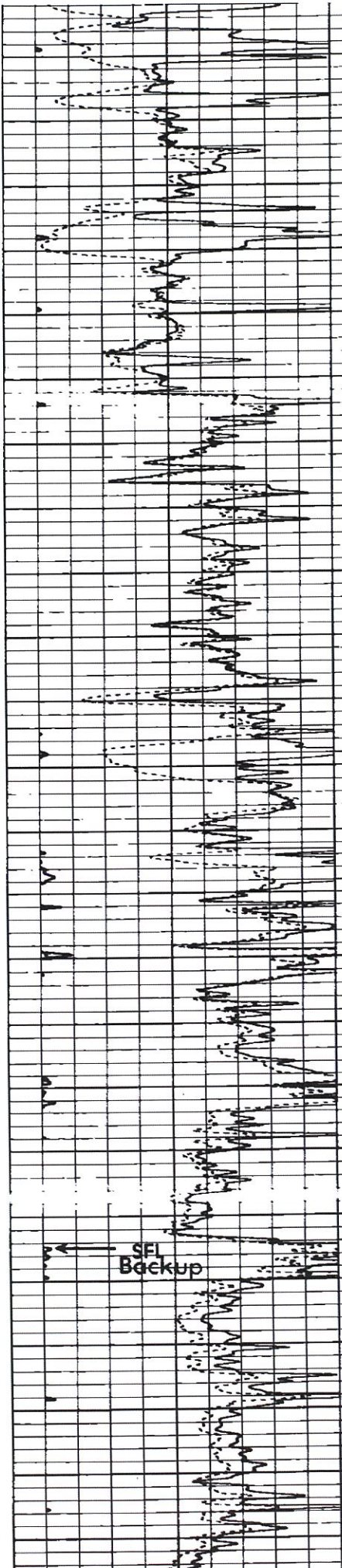


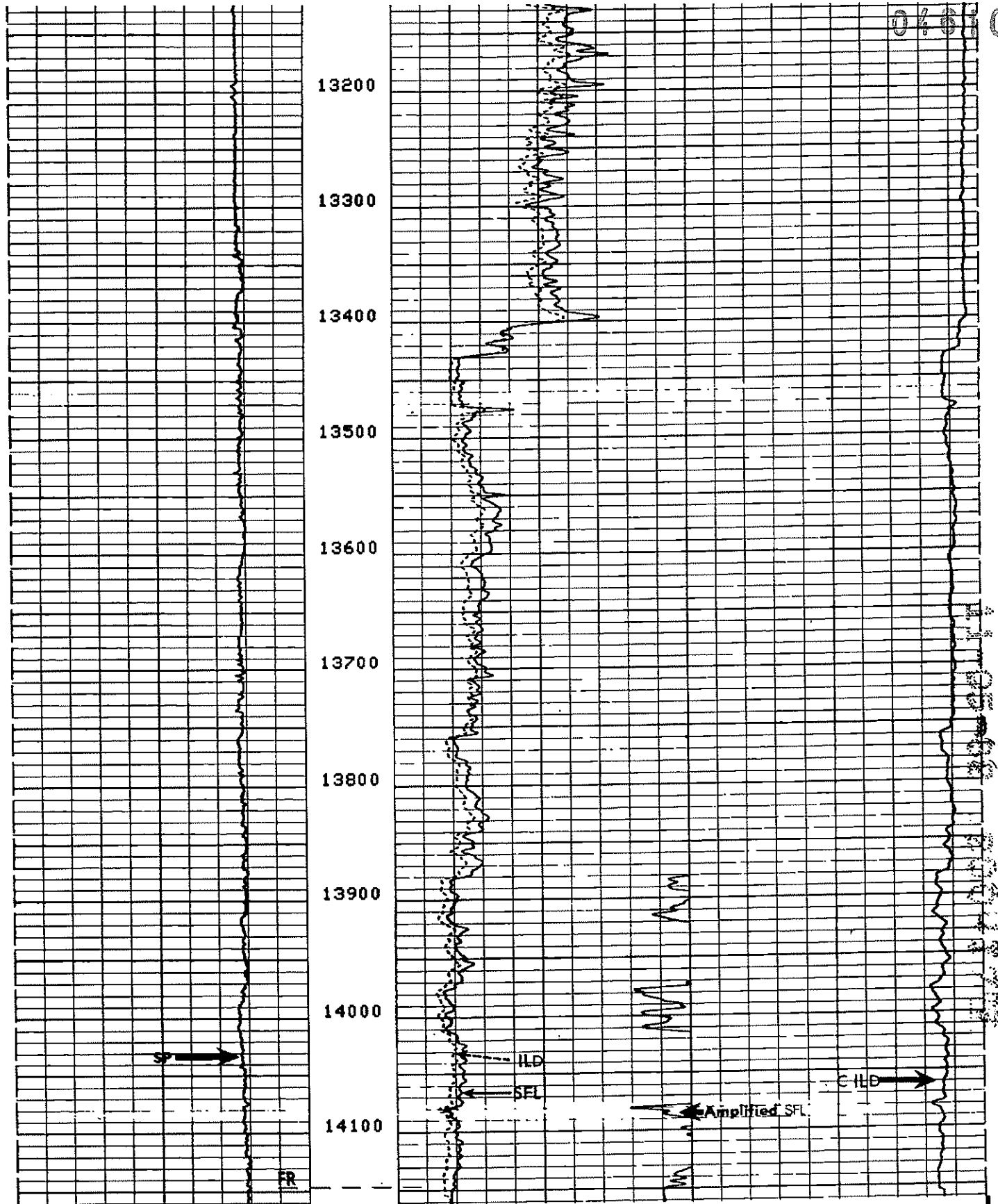


045.10



12000
12100
12200
12300
12400
12500
12600
12700
12800
12900
13000
13100





FILE

6

<p>SP (MV)</p> <p>-160 0 40 00</p>	<p>ILD (DHMM)</p> <p>0.0 10.00</p>	<p>CILD (MMHQ)</p> <p>0.0 4000.</p>
	<p>SFLA (DHMM)</p> <p>0.0 2.000</p>	
	<p>SFLA (DHMM)</p> <p>0 0 10.00</p>	
	<p></p>	

COMPANY <u>W. A. MONCRIEF</u>		SCHL. FR <u>14148</u>
WELL <u>THISTLETHWAITE NO. 1</u>		SCHL. TD <u>14154</u>
FIELD <u>WILDCAT-NORTH BAYOU JACK</u>		DRLR. TD <u>14211</u>
COUNTY <u>ST. LANDRY</u>	STATE <u>LOUISIANA</u>	Elev: KB <u>-</u>
		DF <u>-</u>
		GL <u>-</u>

				TENS(LB)	
				12000.	2000.
				DTL (US/F)	
				150.0	50.00
				DT (US/F)	
				150.0	50.00
				ILD (DHMM)	
				0.2000	2000.
				ILM (DHMM)	
				0.2000	2000.

				RHA (DHMM)	
				0.0	0.5000
				GR (GAPI)	
				0.0	125.0

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JUN 09 2025

INJECTION & MINING DIVISION

Attachment 4

SCHEMATIC OF THE CLASS V-WELL SHOWING:

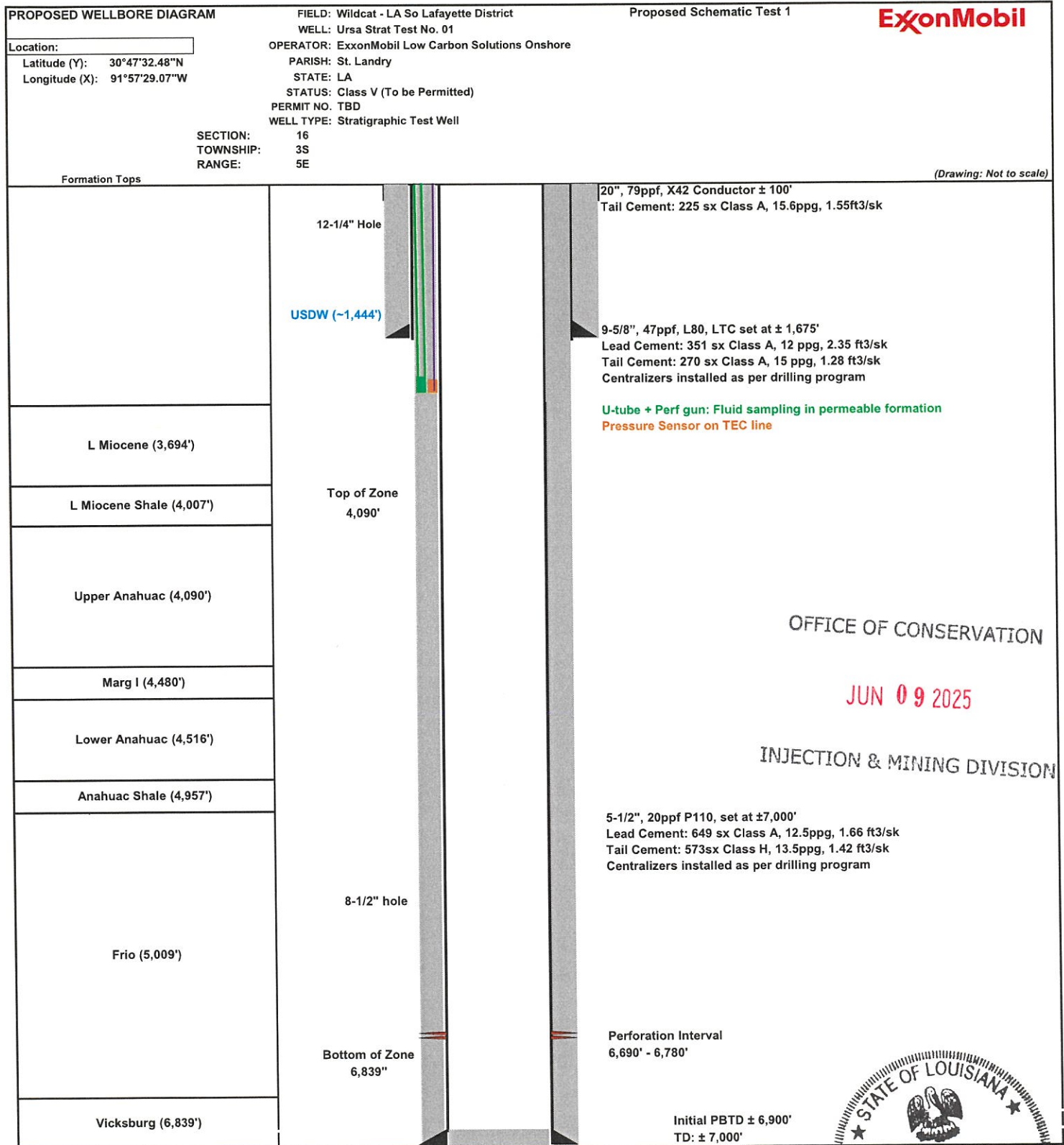
1. Casing diameter, specifications, material (PVC, steel, etc.) and depth,
2. Screen type, length, material, slot or opening size,
3. Injection tubing size inside casing (if any)
4. Hole diameter (bit size),
5. Amount and type of cement used and depths to top and bottom of cement,
6. Wellhead showing all fittings,
7. Discharge line diameter and connection to wellhead,
8. Well house (if any).

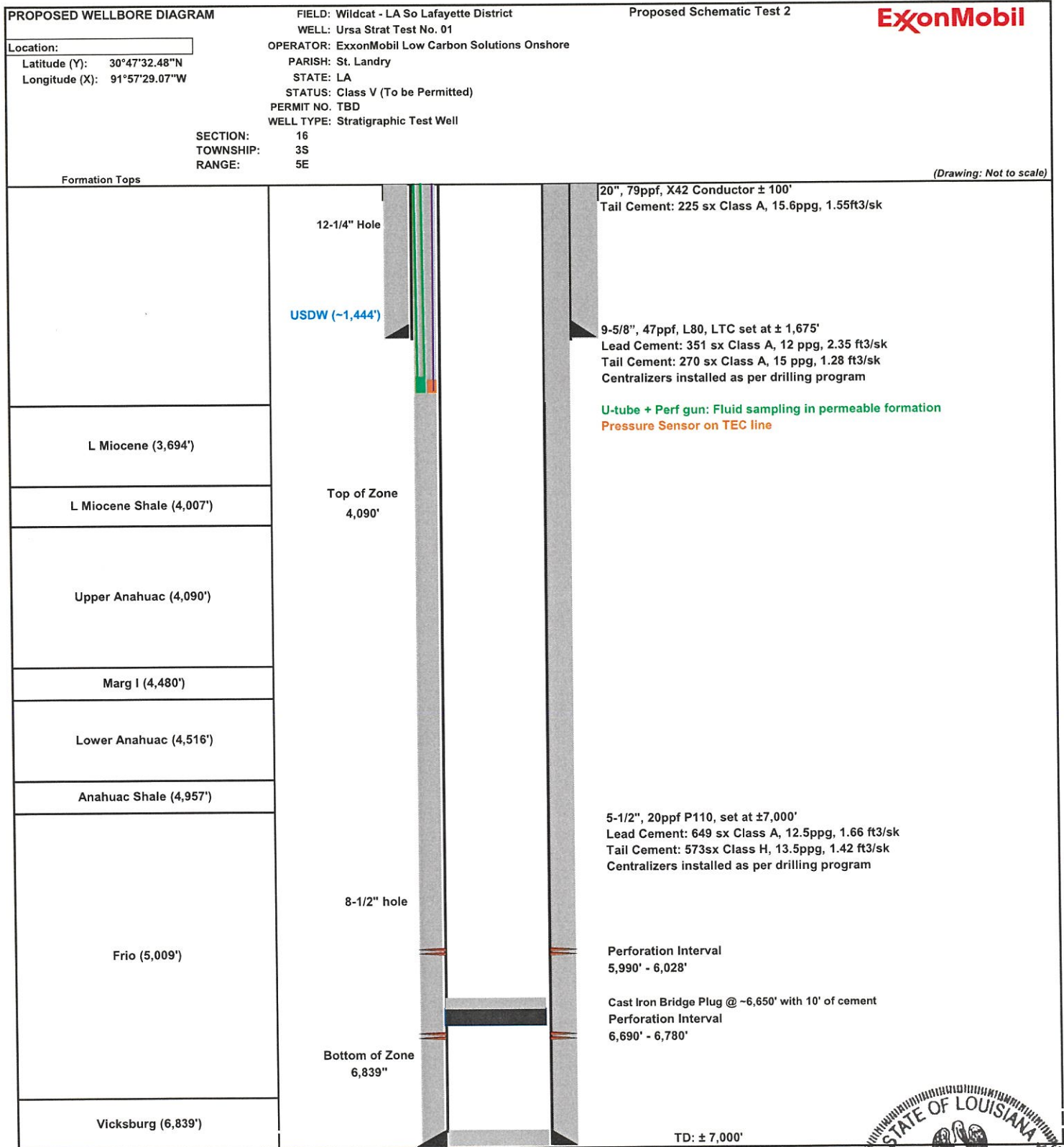
The schematic is stamped and signed by a Louisiana-registered Professional Engineer (PE)

OFFICE OF CONSERVATION

JUN 09 2025

046102

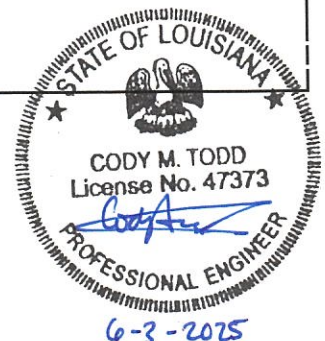




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JUN 09 2025

INJECTION & MINING DIVISION



046102

PROPOSED WELLBORE DIAGRAM

FIELD: Wildcat - LA So Lafayette District

Proposed Schematic Test 3

ExxonMobil

Location:

Latitude (Y): 30°47'32.48"N

Longitude (X): 91°57'29.07"W

WELL: Ursa Strat Test No. 01

OPERATOR: ExxonMobil Low Carbon Solutions Onshore

PARISH: St. Landry

STATE: LA

STATUS: Class V (To be Permitted)

PERMIT NO. TBD

WELL TYPE: Stratigraphic Test Well

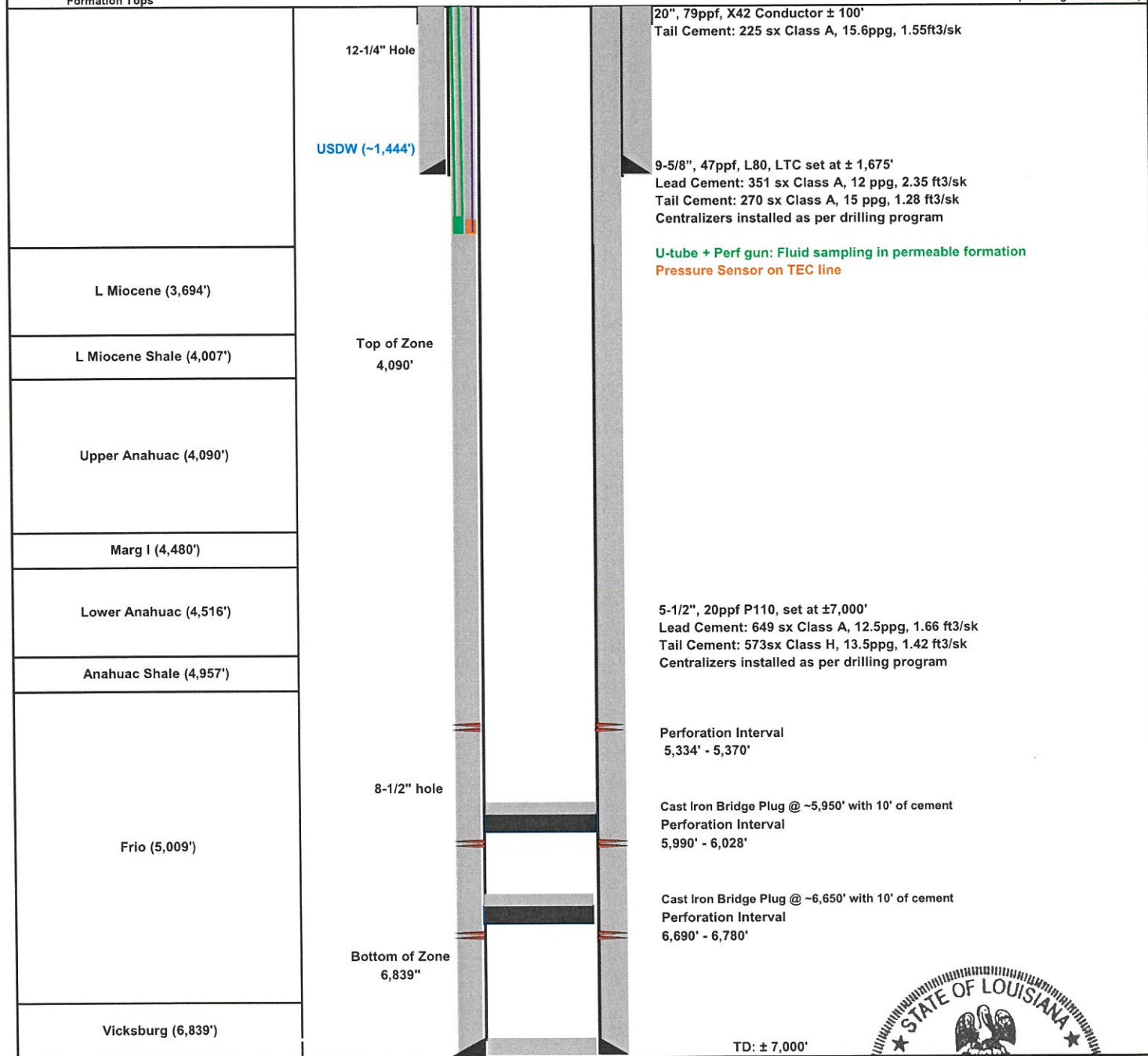
SECTION: 16

TOWNSHIP: 3S

RANGE: 5E

Formation Tops

(Drawing: Not to scale)



OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION



046102

ExxonMobil

PROPOSED WELLBORE DIAGRAM

FIELD: Wildcat - LA So Lafayette District

Proposed Schematic Test 4

WELL: Ursa Strat Test No. 01

Location:

Latitude (Y): 30°47'32.48"N

Longitude (X): 91°57'29.07"W

OPERATOR: ExxonMobil Low Carbon Solutions Onshore

PARISH: St. Landry

STATE: LA

STATUS: Class V (To be Permitted)

PERMIT NO. TBD

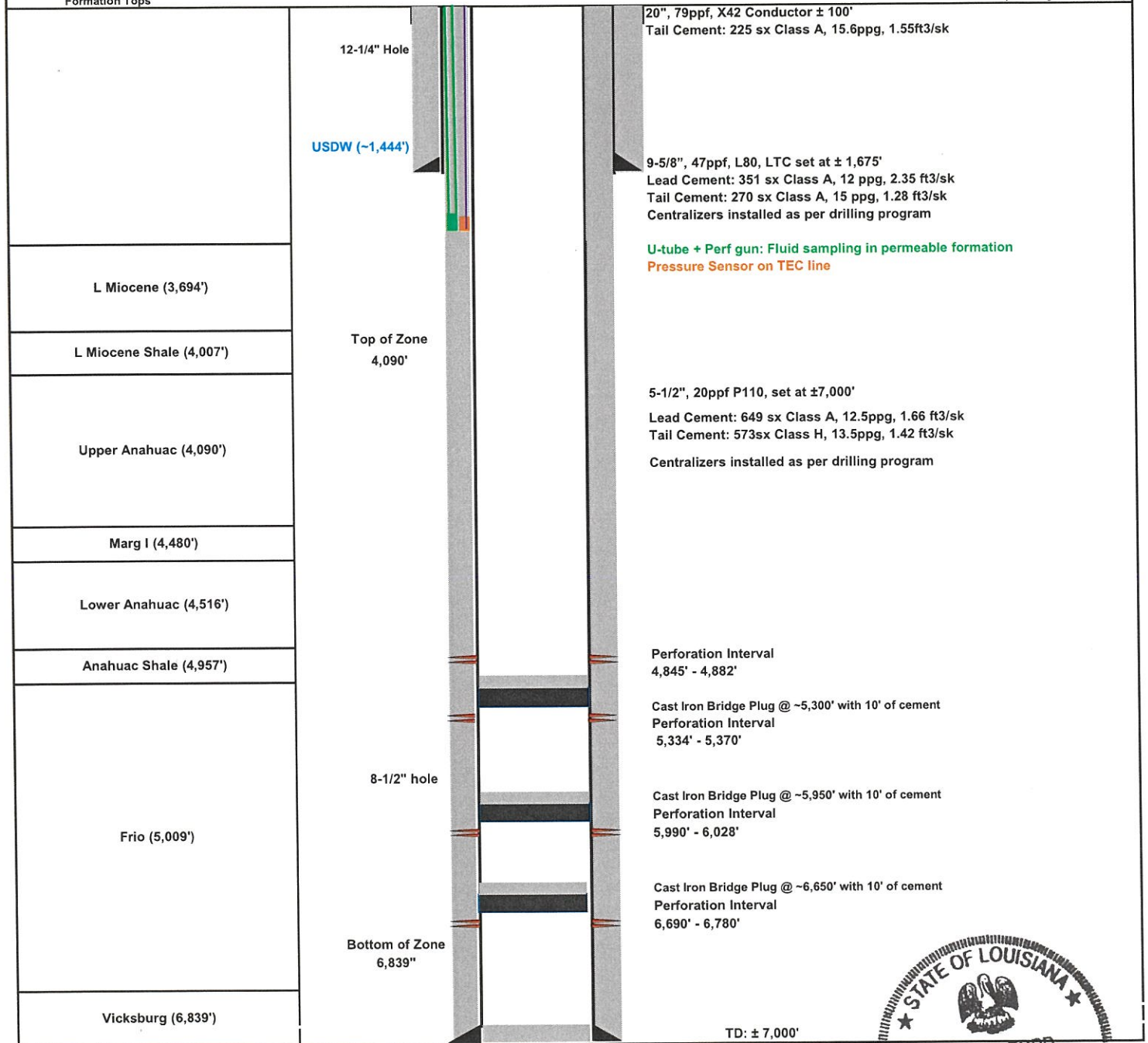
WELL TYPE: Stratigraphic Test Well

SECTION: 16

TOWNSHIP: 3S

RANGE: 5E

(Drawing: Not to scale)

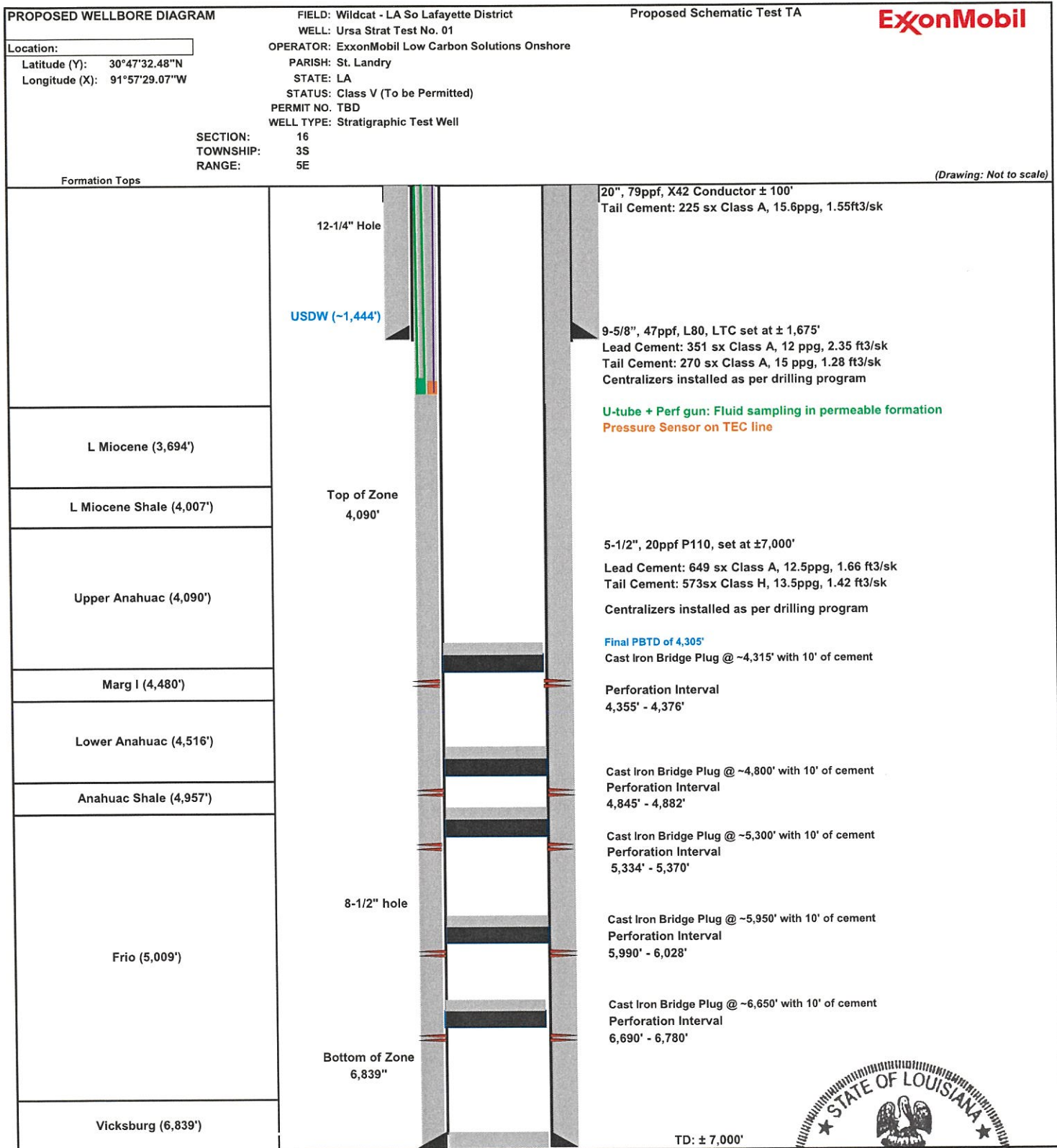


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JUN 09 2025

INJECTION & MINING DIVISION



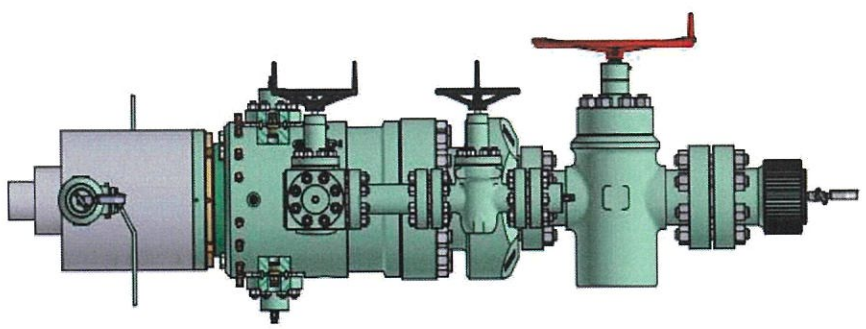
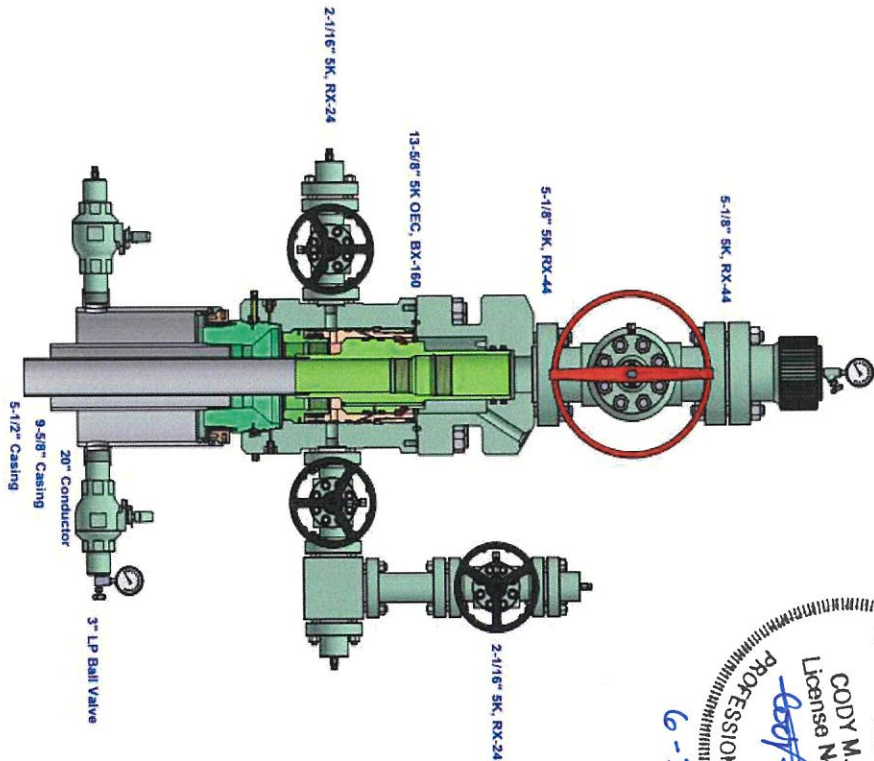


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JUN 09 2025

INJECTION & MINING DIVISION





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JUN 09 2025

INJECTION & MINING DIVISION

046102

ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Ursa Strat Test No. 1
St. Landry Parish, LA

Attachment 5

WORK PROGNOSIS FOR DRILLING, COMPLETING, AND TESTING THE WELL

ExxonMobil

OFFICE OF CONSERVATION

JUN 09 2025

INJECTION & MINING DIVISION



040102

DRILLING, COMPLETION, & TESTING PLAN

Ursa Strat Test No. 1

ExxonMobil Low Carbon Solutions Onshore Storage LLC

WELL INFORMATION

Location: **Lat:** 30°47'32.48"N (NAD 27) **Long:** 91°57'29.07"W (NAD 27)
(Section - 16; Township – 3S; Range – 5E; St. Landry Parish; Louisiana)

Objective: The primary objective is a stratigraphic test of various formations as part of ExxonMobil's Carbon Sequestration project.

Operator: ExxonMobil Low Carbon Solutions Onshore
22777 Springwoods Village Parkway
Spring, Texas 77389

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INJECTION & MINING DIVISION



GEOLOGICAL PROGNOSIS

Formation	Estimated Depth, (KB), feet
Base of Underground Source of Drinking Water	Approx. 1,444'
L Miocene	3,694'
L Miocene Shale	4,007'
Upper Anahuac (TOZ)	4,090'
Marg I	4,480'
Lower Anahuac	4,516'
Anahuac Shale	4,957'
Frio	5,009'
Vicksburg (BOZ)	6,839'

Coring Program

Sidewall cores are proposed to be collected from selected formations as desired. Additional whole cores may be collected in select formations.

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Logging and Testing Program

Cased Hole / Open Hole	Hole Size (inch)	Interval Depth (feet)	Individual Logging Tools	Interval
Open Hole	12-1/4	0 – 1,675	Gamma Ray, Resistivity, Spontaneous Potential Logs.	Surface (Open Hole).
Open Hole	8-1/2	1,675' – 7,000'	Gamma Ray, Resistivity, Density Porosity, Dipole Sonic, Spectroscopy, Image Log, Fluid and pressure samples	Production (Open Hole)
Cased Hole	12-1/4	0 – 1,675'	Cement Bond Log, CCL, Gamma Ray	Surface (Cased Hole)
Case Holed	8-1/2	0 – 7,000'	Cement Bond Log, CCL, Gamma Ray	Production (Cased Hole)

Note: SP Log will be run in open hole surface section but not in remainder of hole due to Oil Based Mud

Note: Additional logs may be run for data acquisition purposes

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INJECTION & MINING DIVISION



Drilling Procedure

1. Pre-install 20" conductor at approximately ~100ft below ground level, cementing to surface with 225 sx of Class A, 1.55 ft³/sack. Cut casing as necessary.
2. **Notify LDENR upon intent to spud the well a minimum of 48 hours before the planned spud time.**
3. Mobilize and rig up drilling rig and equipment.
4. Install load ring on conductor and nipple up flowline.
5. Spud and drill hole to ~1,675'.
6. Circulate the hole clean. Pull out of hole with BHA.
7. Run open hole wireline logs per the Logging and Testing Program
 - **Note: The Open-hole logs will be submitted to LDENR for USDW determination and minimum surface casing depth requirement prior to setting the surface casing to ensure adequate isolation and protection of the USDW.**
8. Run 9-5/8 in. surface casing with centralizers to ±1,675'.
9. Cement 9-5/8 in. casing to surface. The proposed cement slurries are presented below, but the final slurries and volumes will be based on wellbore conditions:

Slurry Specifications:

Lead: Class A cement with additives

Sacks: 351 sacks

Yield: 2.35 ft³/sack

Density: 12 ppg

Tail: Class A cement with additives

Sacks: 270 sacks

Yield: 1.28ft³/sack

Density: 15 ppg

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- **Note: If the cement is not circulated to surface, cement top off job may be performed. Notify LDENR if cement is not circulated to the surface, prior to conducting cement top up.**
10. Install wellhead and BOPs. Test BOPs.
 11. Wait on cement 12 hours prior to testing casing.
 12. **Pressure test the casing to a minimum of 600 psi for 30 minutes per LDENR regulations.**
 - **A maximum of 5% pressure loss is allowed over the 30 minutes test period.**
 - **The pressure test will be charted and recorded on form CSG-T (Casing Test affidavit) and submitted to LDENR.**
 - **Notify LDENR-IMD at least 48 hours prior to conducting the pressure test in the event staff wishes to witness the test.**
 13. Pick up 8-1/2 in. BHA and drill out shoe track, and 10ft of new formation.

14. Perform Formation Integrity Test.
15. Drill 8-1/2 in. hole to TD, taking cores in select formations as desired.
16. Run open hole wireline logs per the Logging and Testing Program
17. Run 9-5/8 in. cased hole wireline logs per the Logging and Testing Program
18. Run 5-1/2 in. production casing with centralizers to TD ($\pm 7,000'$) and with the following equipment installed:

- Casing mounted perforating guns, U-tube system for fluid sampling, and pressure array installed to ~3,850 ft.

19. Cement 5-1/2 in. production casing to surface. The proposed cement slurries are presented below, but the final slurries and volumes will be based on wellbore conditions:

Slurry Specifications:

Lead: Class A cement with additives

Sacks: 649 sacks

Yield: 1.66 ft³/sack

Density: 12.5 ppg

Tail: Class H cement with additives

Sacks: 573 sacks

Yield: 1.42 ft³/sack

Density: 13.5 ppg

- *Note: If the cement is not circulated to surface, cement top off job may be performed. Notify LDENR if cement is not circulated to the surface, prior to conducting cement top up.*
- *Note: If casing packer and stage tool are required, the cement program will be modified to add the equipment.*
- *Note: The final cement slurry designs and volumes will be based on as-drilled hole conditions.*

20. Wait on cement 12 hours prior to testing casing.

21. Pressure test the casing to a minimum of 1,000 psi for 30 minutes per LDENR regulations.

- A maximum of 5% pressure loss is allowed over the 30 minutes test period.
- The pressure test will be charted and recorded on form CSG-T (Casing Test affidavit) and submitted to LDENR.
- Notify LDENR-IMD, at least 48 hours prior to conducting the pressure test in the event staff wishes to witness the test.

22. Nipple down BOP and install dry hole tree.

23. Rig down and move out drilling rig.

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Completion Procedure (Rigless Ops)

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24. Rig up surface pressure equipment.

25. Rig up wireline unit and PCE.

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26. Run cased hole wireline logs per the Logging and Testing program

- The CBL will be submitted to LDENR-IMD for confirmation of good cement prior to injection into the well. The CBL must show evidence of the minimum required interval of 60% bonded cement in the isolating shale immediately above the top of zone. If CBL does not show good bond, perform squeeze and re-run CBL.

27. Pick up guns and RIH.

28. Perforate ~ 6,690 – 6,780 ft and POOH

Note: Actual perforation depths are subject to change based on the open hole logs of the well itself

29. RIH with P/T gauge on wireline to perforation interval to take bottomhole P/T reading.

30. Rig up surface iron and pumping equipment.

31. Perform step rate fall off test

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

Note: The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

Note: A detailed step rate fall off test procedure for all tests will be provided to IMD along with the Fluid Source Analysis prior to injection

32. POOH with P/T gauge.

33. Pick up 5-1/2" cast iron bridge plug and set at ~6,650 ft (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.

34. RIH wireline cement bailer and spot 10' of cement on top of CIBP

35. Pick up guns and RIH.

36. Perforate ~ 5,990 – 6,028 ft and POOH

Note: Actual perforation depths are subject to change based on the open hole logs of the well itself

37. RIH with P/T gauge on wireline to perforation interval to take bottomhole P/T reading.

38. Rig up surface iron and pumping equipment.



39. Perform step rate fall off test

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

Note: The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

Note: A detailed step rate fall off test procedure for all tests will be provided to IMD along with the Fluid Source Analysis prior to injection

40. POOH with P/T gauge.

41. Pick up 5-1/2" cast iron bridge plug and set at ~5,950 ft (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.

42. RIH wireline cement bailer and spot 10' of cement on top of CIBP

43. Pick up guns and RIH.

44. Perforate ~ 5,334 – 5,370 ft and POOH

Note: Actual perforation depths are subject to change based on the open hole logs of the well itself

45. RIH with P/T gauge on wireline to perforation interval to take bottomhole P/T reading.

46. Rig up surface iron and pumping equipment.

47. Perform step rate fall off test

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

Note: The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

Note: A detailed step rate fall off test procedure for all tests will be provided to IMD along with the Fluid Source Analysis prior to injection

48. POOH with P/T gauge.

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49. Pick up 5-1/2" cast iron bridge plug and set at ~5,300 ft (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.
50. RIH wireline cement bailer and spot 10' of cement on top of CIBP
51. Pick up guns and RIH.
52. Perforate ~ 4,845 – 4,882 ft and POOH

Note: Actual perforation depths are subject to change based on the open hole logs of the well itself

53. RIH with P/T gauge on wireline to perforation interval to take bottomhole P/T reading.
54. Rig up surface iron and pumping equipment.
55. Perform step rate fall off test

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

Note: The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

Note: A detailed step rate fall off test procedure for all tests will be provided to IMD along with the Fluid Source Analysis prior to injection

56. POOH with P/T gauge.
57. Pick up 5-1/2" cast iron bridge plug and set at ~4,800 ft (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.
58. RIH wireline cement bailer and spot 10' of cement on top of CIBP
59. Pick up guns and RIH
60. Perforate ~4,355– 4,376 ft and POOH

Note: Actual perforation depths are subject to change based on the open hole logs of the well itself

61. RIH with P/T gauge on wireline to perforation interval.
62. Perform step rate fall off test

- The ISRT will consist of 5 to 10 minutes steps with each step holding a constant injection rate. The actual injection rates and step duration will be determined based on the downhole pressure response recorded real time, and the max rate is currently assumed to be below 25 bpm.
- The IFT will consist of a dual ramp-up followed by hard shut-ins with the second shut-in duration extending to 24 hours. The rates will be increased in 15 min increments until the max designed rate in the schedule is reached (assumed to be below 25 bpm).

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63. POOH with P/T gauge.
64. Pick up 5-1/2" cast iron bridge plug and set at ~4,315 ft (~20 - 40' above perf interval). Pressure Test plug to minimum of 300 psi for 30 minutes without losing more than 5% pressure.
 - **Notify LDENR-IMD CES at least 48 hours prior to conducting the final pressure test which will serve as the well's MIT**
65. RIH wireline cement bailer and spot 10' of cement on top of CIBP for a final PBTD of 4,305 ft.
66. Rig down wireline unit.
67. Install the TA plug in the wellhead.
68. Demob equipment from location.

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Attachment 6

FINANCIAL SURETY

- Financial Surety in the form of a performance bond covering the third party estimated P&A cost, once approved, will be submitted to LDENR prior to a permit to construct being issued.

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ExxonMobil Low Carbon Solutions Onshore
Class V Stratigraphic Test Well Application
Ursa Strat Test No. 1
St. Landry Parish, LA

Attachment 7

IT QUESTIONS DOCUMENTATION

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INJECTION & MINING DIVISION



1. Have the potential and real adverse environmental effects of the proposed project been avoided to the maximum extent possible?

The potential and real adverse environmental effects of the proposed Class V Stratigraphic Test Well (Well) have been minimized or avoided to the maximum extent practicable. The potential and real adverse environmental impacts that may occur are in relation to underground sources of drinking water (USDW) and to the surface environment. Preservation, avoidance, and minimization of the potential effects caused by the proposed activity is described below.

Standard USDW Protections

- a) Well design, drilling, installation, and testing will conform with all applicable standards.
- b) Ensure the USDW is protected by setting surface casing below the lowermost USDW formation and cementing the casing to surface in accordance with applicable standards.
- c) The surface cased section will be drilled vertically which minimizes the length of casing passing through any USDW at the site and minimizes complications of cementing.
- d) Pressure testing of the surface casing will be conducted to ensure no leaks or potential for migration of fluids to the USDW.
- e) Production casing will be cemented from the surface to the total depth of the well to seal off the formations and prevent migration of fluids outside of the injection zone.
- f) A cement bond log (CBL) will be run to confirm the integrity of the cement (i.e., assurance that there are no channels adjacent to the casing which would permit migration of fluids up the wellbore from the injection zone).
- g) Permanent monitors may be installed in the well and surrounding locations for both seismic and USDW monitoring.
- h) Should it be required, the well will be plugged and abandoned in accordance with all applicable regulations.

Standard Environmental Protections

The construction of the proposed Well will incorporate best management practices (BMPs), engineering practices, and regulatory requirements to help ensure that any potential and real adverse environmental effects occurring as the result of proposed Well are avoided to the maximum extent possible. The following BMPs, engineering practices, and regulatory requirements will be utilized as applicable for the proposed Well:

- a) Ensure all work sites and equipment access routes return to a clean and safe condition when the work is completed.

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- b) Contractors will be required to develop and implement a Stormwater Prevention Pollution Plan (SWPPP) to minimize runoff of stormwater and runoff of any fill materials into adjacent waterways during construction.
- c) Solid and/or hazardous waste generated during construction shall be temporarily stored on-site in accordance with applicable local, state, and federal regulations prior to off-site transport and shall be disposed of at an authorized state/federally approved treatment, storage, or disposal facility.
- d) Air emissions generated from the proposed facilities are expected to be minor and only last during construction activities.
- e) A U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) report was run and identified one (1) threatened and endangered species, three (3) proposed listed species, no critical habitats, no bald eagles, and migratory birds. As a result, a biological assessment was conducted and concluded that for the one (1) listed endangered species the area did not contain suitable/substantial foraging or habitat are or will have no impact on the species. No bald eagles or nests were observed within the vicinity of the project areas during the field survey. Suitable habitat or rookeries for wading birds were not observed.

2. Does a cost benefit analyses of the environmental impact costs versus the social and economic benefits of the proposed project demonstrate that the latter outweighs the former?

Yes, the potential social and economic benefits of the proposed project outweigh the potential environmental impact costs. The data gathered from the proposed Well may be used in support of developing a site for the geological sequestration of carbon dioxide (CO₂), if the subsurface data gathered from the Well is favorable. If the subsurface is favorable and a geological CO₂ sequestration site were to be developed it would provide significant economic and social benefits to the region.

Further, CO₂ sequestration is a type of project that the Louisiana Legislature has determined to be favored as a matter of Louisiana public policy. Specifically, the Louisiana Legislature has recognized the many benefits offered by carbon capture and sequestration (CCS) projects, stating that "[i]t is declared to be in the public interest for a public purpose and the policy of Louisiana that . . . [t]he geologic storage of carbon dioxide will benefit the citizens of the state and the state's environment by reducing greenhouse gas emissions." See La. R.S. 30:1 102(A). The Center for Climate and Energy Solution states that in 2022, the United States (U.S.) emitted nearly 6 billion metric tons of greenhouse gases and CO₂ accounted for 79% of all the greenhouse gases released. Per Louisiana's 2021 Greenhouse Gas Inventory, over 92% of all Louisiana greenhouse gas emissions (as of 2018) were CO₂. Per Louisiana's Climate Action Plan, Louisiana has an objective of net zero CO₂ emissions by 2050. A CCS Project specifically aids Louisiana in achieving the net zero CO₂ emission goal set forth in Louisiana's Climate Action Plan and can address the primary sector (industry) cited as the dominant source of CO₂ emissions per Louisiana's 2021 Greenhouse Gas Inventory Report.

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3. Are there alternative projects which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?

There are no alternative projects that would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits and meet the objectives of the Project. Site-specific information and data concerning the suitability of this Area of Interest (AOI) for the possible future sequestration and storage of CO₂ is not currently available. Such information, including core samples, fluid samples, and static pressure measurements, is required to support any future application to construct and operate a Class VI well. *E.g.*, LAC 43:XVII.3607.C.2; 40 C.F.R. 146.82. The necessary site-specific subsurface data cannot be obtained through means other than drilling a test well to collect the data within the AOI. Accordingly, there is no alternative project that would provide greater environmental protection without unduly curtailing the non-environmental benefits and objectives of the proposed project.

4. Are there alternative sites which would offer more protection to the environment than the proposed site without unduly curtailing non-environmental benefits?

There are no alternative sites which would offer more protection to the environment than the proposed site without unduly curtailing non-environmental benefits and meeting the objectives of the Project. This Well is uniquely positioned in the AOI to evaluate the feasibility of developing a geological CO₂ sequestration project within a particular subsurface geology. Since the Well is needed to collect data concerning the feasibility of the AOI for potential future geological CO₂ sequestration, the Project only considered alternative sites within the AOI. Sites outside the AOI would frustrate the purpose of the Project because data collected from outside the AOI could not be used to evaluate the AOI for potential geological CO₂ sequestration. Nor would data collected from outside the AOI be responsive to the regulatory requirements associated with an application to construct and operate a Class VI well. In addition, as discussed above, the AOI was screened for environmental, which were avoided to the maximum extent practical. The construction of the Well along with all access roads has been designed to the minimal practical footprint to safely construct, operate, maintain, and close the Well.

Within the AOI, the proposed Well site was selected due to the following metrics: wetland avoidance, proximity to existing roads, proximity to the existing CCS pipeline network, suitable monitoring location, and to maximize data collection.

5. Are there mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits?

No, there are currently no other mitigating measures which would offer more protection to the environment without unduly curtailing non-environmental benefits. Not drilling an appraisal well will limit the ability to evaluate the AOI for potential for CO₂ sequestration, which assists in meeting the state and national objectives of reducing greenhouse gases in the atmosphere. As discussed in the response to Question 1, the proposed Well will be designed and constructed as per applicable regulations and guidance from the Louisiana Office of Conservation (Injection & Mining Division). Surface activities shall comply with

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Louisiana Department of Energy & Natural Resources (LDENR), Louisiana Department of Environmental Quality, and other applicable agency regulations.

Efforts will be made to avoid and/or mitigate any impacts to the USDW, and any surface impacts associated with the Well. To the extent necessary, the Project will prepare a SWPPP and apply for coverage under the appropriate Storm Water General Permit for the construction activities associated with the Well.

Air and noise emissions associated with construction of the Well will be temporary, and they are not expected to exceed regulatory thresholds or impact local communities. The Project will use BMPs to mitigate any air or noise impacts associated with such construction.

The Project will comply with all applicable regulations and standards and implement any additional measures necessary to ensure compliance while ensuring safe and protective operation during the life of the Well.

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Attachment 8

LABAROTY ANALYSIS OF INJECTION TEST FLUID

- The fluid source for the injectivity test(s) will be a water source well drilled on location treated as needed with KCl, NaCl, and/or other additives to ensure adequate density and formation compatibility. A fluid source analysis from a LELAP accredited laboratory will be provided to the Injection & Mining Division (IMD) prior to any injection.

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Ursa Strat Test No. 1
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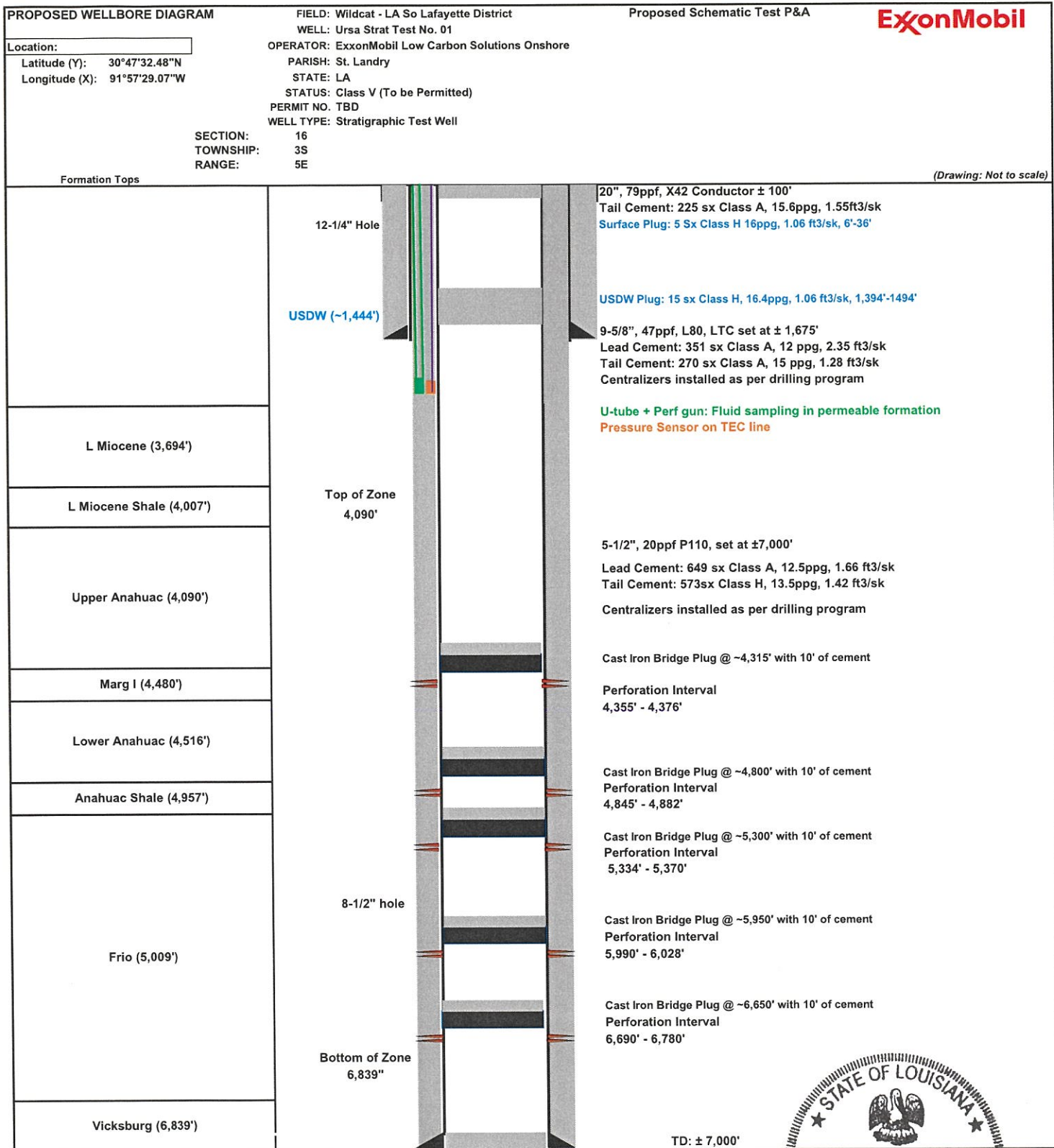
**P&A PROCEDURE, SCHEMATIC, AND THIRD-PARTY COST
ESTIMATE**

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May 29, 2025

Re: P&A Cost Verification

Please find attached the estimated cost to P&A the Ursa Strat Test No. 01 Well as per the attached procedure. Lonquist has verified this cost estimate.

P&A Cost Estimate			
Item	Days/# of Jobs	Rate	Cost Estimate
Rig Mob/Demob	2	\$ 6,500	\$ 13,000
Rig	3	\$ 6,500	\$ 19,500
Workstring Cost	3	\$ 4,200	\$ 12,600
Equipment Rentals	3	\$ 1,000	\$ 3,000
Trucking Loads	2	\$ 1,500	\$ 3,000
P&A Disposal	1	\$ 14,000	\$ 14,000
Cement	1	\$ 1,750	\$ 1,750
Cement Pumping Services	2	\$ 5,000	\$ 10,000
Forklift Rental Costs	1	\$ 3,250	\$ 3,250
Pipe Rack Costs	1	\$ 2,500	\$ 2,500
Welding and Casing Cutting	1	\$ 5,000	\$ 5,000
Waste Management/Disposal/Vacuum Trucks	1	\$ 4,500	\$ 4,500
Surface Restoration & Remediation	1	\$ 4,605	\$ 4,605
Supervision Expenses	3	\$ 1,500	\$ 4,500
PM Costs and Reports	1	\$ 4,000	\$ 4,000
Subtotal			\$ 105,205
10% Project Contingency			\$ 10,521
Project Total			\$ 115,726

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Class V Stratigraphic Test Well Application
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¼ MILE AOR DETAIL WELL REPORT

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SONRIS/2000

Well Name : AUS C RA SUD;INDIGO 16

Well Status : 29 DRY AND PLUGGED

Classification : Class Type :

Well Serial Num : 243774

Well Num : 001

Distance Between: 767 ft

Casing													
Completion Date		Casing Size	Wellbore Size	Casing Weight	Upper Set Depth	Lower Set Depth	Sacks Of Cement	Casing Pulled	CTOC				
01/02/2012		16		0	0	150			0				
01/02/2012		10.75	14.75	45.5	0	3535	2983		-683				
01/02/2012		7.625	9.875	39	0	15859	1145		11665				
Cement Plugs			Plug Type	Sacks Of Cement	Slurry Weight	Upper Plug Depth	Lower Plug Depth						
Completion Date : 01/02/2012			C	12	16.4	15	65						
Completion Date : 01/02/2012			C	35	18.4	3440	3640						
Completion Date : 01/02/2012			C	300	18.4	14589	14789						
Surface Coordinates													
Received Date		Coordinate Source Code	Coordinate System Code	Lambert X	Lambert Y	Zone	Ground Elevation	Latitude Degrees	Latitude Minutes	Latitude Seconds	Longitude Degrees	Longitude Minutes	Longitude Seconds
09/07/2011		02	01	1803198	773107	S	35.7						

Centerpoint (NAD 27 S)
X:1,803,818
Y:773,559

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Note: Wellbore sizes with an asterisk symbol (*) next to it are assumed values based on the casing size and these assumed values have been substituted in place of a null (or zero) value everywhere a null (or zero) value previously existed as the wellbore size.

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