Oxy Low Carbon Ventures, LLC

5 Greenway Plaza, Suite 110, Houston, Texas 77046-0521
P.O. Box 27570, Houston, Texas 77227-7570
Phone 713.215.7000

May 12, 2022

State of Louisiana
Department of Natural Resources
Office of Conservation Injection & Mining Division
617 North Third Street
Baton Rouge, LA 70802-5428

RE: Class V Stratigraphic Well
Well Name: Pelican MLR
Well No: 4
API: New Drill
Section 35, T-5S, R-5E
Livingston Parish, LA

To Mrs. Laura Sorey, Petroleum Scientist Supervisor:

Oxy Low Carbon Ventures, LLC. respectfully submits the attached UIC-25 Stratigraphic Test Class V- Well permit application. 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 copy of an electric well log of the nearest offset well showing the depths of the USDW and injection zones
- Work prognosis for drilling, completing, and testing the well
- Certified well schematic of the wellbore and wellhead (included in the prognosis). The schematics were certified by Robert X. Rodriguez PE, license No. 31545. The stamp is embossed in the original document and it's not clearly readable on the pdf.

The injection test fluid analysis will be provided once the source of fresh water has been identified and secured.

If you have any questions regarding this application, please contact me at 832-646-4450 or email Jose_Gago@oxy.com.

Sincerely,

Jose Gago
Regulatory Engineer

UIC-25 Stratigraphic Test

CLASS-V WELL PERMIT APPLICATION

1. APPLICATION TYPE: (Check One)	LOUISIANA DEPARTMENT OF NATURAL RESOURCES - OFFICE OF CONSERVATION
☑ DRILL AND COMPLETE NEW CLASS-V WELL ☐ CONVERT AN EXISTING WELL TO CLASS-V ☐ OTHER (SPECIFY):	INJECTION & MINING DIVISION Injection-Mining@la.gov (225) 342-5515

2. IDENTIFY WELL USE
Experimental Technologies LAC 43:XVII.103.C.5.o. After data collection it will be a monitoring well for a Carbon Dioxide geologic sequestration project.

3. OWNER/OPERATOR NAME	4. OC OPERATOR CODE
Oxy Low Carbon Ventures, LLC	60066

5. OWNER/OPERATOR MAILING ADDRESS	6. CITY, STATE, ZIP CODE
5 Greenway Plaza, Suite 110	Houston Texas, 77046

7. TELEPHONE NO	8. E-MAIL ADDRESS
(713) 366-5785	jose_gago@oxy.com

9. WELL NAME	10. WELL NO	11. WELL SERIAL NO (Well Conversions Only)
Pelican MLR	4	

12. FIELD NAME (if known)	13. FIELD CODE (if known)

14. PARISH NAME	15. SECTION	16. TOWNSHIP	17. RANGE
Livingston	35	5S	5E

18. LOUISIANA COORDINATE ZONE (Check One)	For Item Numbers 19 Through 24, Give Coordinates in Louisiana Coordinate System 1927 and 1983
☐ NORTH ZONE ☑ SOUTH ZONE	

19. LATITUDE (NORTH) NAD 1927	20. LONGITUDE (WEST) NAD 1927	21. LOUISIANA LAMBERT (X-Y) COORDINATES (NAD 1927)
30°34'05.35"	90°40'56.79"	X: 2204857.03 Y: 692060.84

22. LATITUDE (NORTH) NAD 1983	23. LONGITUDE (WEST) NAD 1983	24. LOUISIANA LAMBERT (X-Y) COORDINATES (NAD 1983)
30°34'06.03"	90°40'57.14"	X: 3485655.89 Y: 752770.42

25. 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

26. WELL CASING / CEMENT DATA

HOLE SIZE (inches)	CASING SIZE (OD - inches)	CASING WEIGHT (lb/ft)	CASING GRADE	CASING/LINER SETTING DEPTHS TOP (feet)	CASING/LINER SETTING DEPTHS BOTTOM (feet)	SACKS CEMENT	TYPE CEMENT/ YIELD (ft^3/sack	CEMENT TOP (feet)
12.25	9.625	40	K55	0	2380	784	G+additives/1.9	0
12.25	9.625	40	K55	2380	3380	540	G+additives/1.16	2380
8.5	5.5	17	L80	0	4700	790	G+additives/1.77	0
8.5	5.5	17	L80 Coated	4700	7800	750	CO2 Resistant/1.23	4700

27. BASE OF USDW	28. WELL TOTAL DEPTH	29. WELL PLUGBACK DEPTH	30. TUBING SIZE & DEPTH	31. PACKER SIZE & DEPTH
3280	7800	7800	N/A	N/A

32. INJECTION ZONE DEPTHS (if applicable)	33. COMPLETION/PERFORATION DEPTHS (if applicable)	34. WELL COMPLETION (Check One)
Top: 5350' 6250' Bottom: 5675' 7510'	Top: 5350' 6250' Bottom: 5675' 7510'	☐ OPEN HOLE ☑ PERFORATIONS ☐ SCREEN

INJECTIVITY TEST INFORMATION (if applicable)

35. TEST MATERIAL (e.g. nitrogen, brine, etc):	36. MAXIMUM TEST PRESSURE (psi):	37. TOTAL INJECTION VOLUME:
Fresh water ******CO2 is prohibited as a Class V test material******	Estimated to be 2000 psi (at surface) Step rate test to find frac pressure.	Estimated to be 8000 barrels (volume for SRT in three zones)

38. Is the Well Located on Indian Lands or Other Lands Owned by or under the Jurisdiction or Protection of the Federal Government? ☐ YES ☑ NO

39. 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

40. AGENT OR CONTACT AUTHORIZED TO ACT ON BEHALF OF THE APPLICANT DURING THE PROCESSING OF THIS APPLICATION

NAME: Jose Gago

MAILING ADDRESS: 5 Greenway Plaza, Suite 110

CITY, STATE, ZIP CODE: Houston, Texas, 77046

TELEPHONE NUMBER: 713-366-5785 FAX NUMBER:

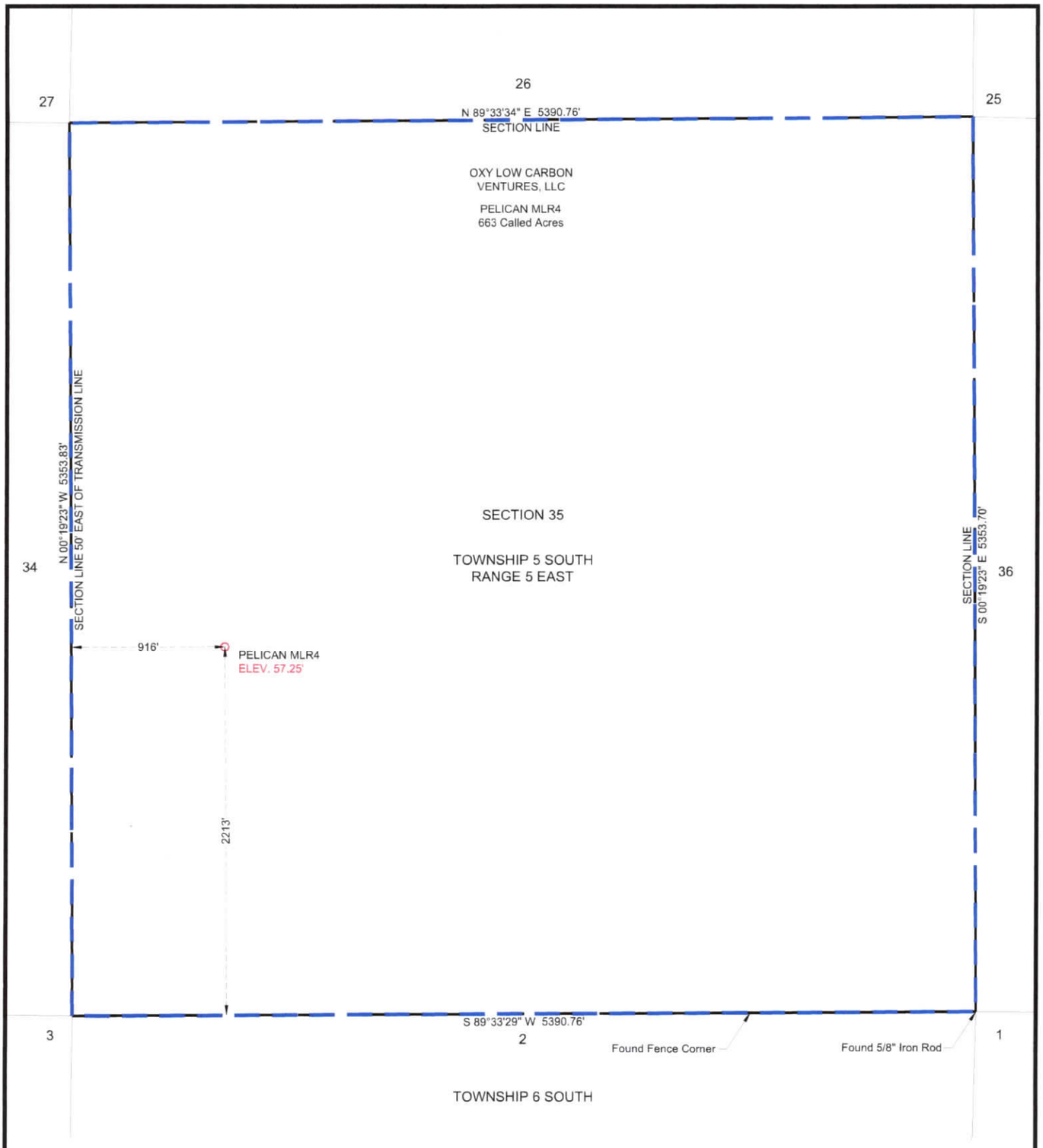
E-MAIL ADDRESS: jose_gago@oxy.com

41. CERTIFICATION BY WELL OWNER/OPERATOR

I certify that as the owner/operator of the injection well, the person identified in Item No. 46 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	Print Title of Company Official (as applicable)
Douglas Conquest	VP Low Carbon Venture Services

Signature of Well Owner/Operator	Date
	05/10/2022



Application for Well No. #4
6.0 miles Northeast of Livingston, LA.

Location Coordinates for PELICAN MLR4

NAD 27 X = 2204857.03
NAD 27 Y = 692060.84
NAD 27 LAT. = 30°34'05.35" / 30.568153
NAD 27 LONG. = -90°40'56.79" / -90.682443
NAD 83 X = 3485655.89
NAD 83 Y = 752770.42
NAD 83 LAT. = 30°34'06.03" / 30.568342
NAD 83 LONG. = -90°40'57.14" / -90.682538

Driving Directions:
From Livingston, LA (int. of South Frost Road & Florida Boulevard) to well drive East on Florida Boulevard for 3.2 mi. Turn left onto Sidney Woods Road, and drive for 1.0 mi. Turn right onto Charles Holden Road and continue for 0.2 mi. Then turn left onto LA-1036 N and continue for 2.9 mi. Then turn right onto LA-442 E and continue for 0.4 mi. Then turn left onto an existing lease road and continue for 0.7 mi. The proposed PELICAN MLR4 location will be on the right-hand side of road.

NOTES:
1. BEARINGS AND COORDINATES SHOWN HEREON ARE REFERENCED TO THE LOUISIANA COORDINATE SYSTEM OF 1983 (LOUISIANA SOUTH ZONE 1702).
2. LATITUDE & LONGITUDE ARE NAD 83 AND NAD 27 GEOGRAPHIC.
3. THIS IS AN EXHIBIT AND DOES NOT REPRESENT A TRUE BOUNDARY SURVEY. THIS SURVEY IS BASED ON OWNERSHIP AND EASEMENT INFORMATION PROVIDED BY OXY USA, INC. SURVEYOR DID NOT ABSTRACT SUBJECT TRACT AND THERE MAY BE EASEMENTS OR OTHER ENCUMBRANCES THAT AFFECT THE SUBJECT TRACT THAT ARE NOT SHOWN HEREON.

I HEREBY STATE THAT THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION

STATE OF LOUISIANA
FRED P. LANGHAM
REG No. 04593
REGISTERED
PROFESSIONAL
LAND SURVEYOR

Fred P. Langham 04/14/22

FRED P. LANGHAM
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF LOUISIANA #04593

Date Surveyed April 9, 2022

OXY Occidental

OXY LOW CARBON VENTURES, LLC
PELICAN MLR4
2213' FSL & 916' FWL

Section 35
Township 5 South, Range 5 East
Livingston Parish, Louisiana

LEGEND
- DENOTES SURVEY BOUNDARY/TRACT LINE
- DENOTES LEASE TRACT
- DENOTES PROPOSED WELL LOCATION
- DENOTES PRODUCING WELL LOCATION
- DENOTES PERMITTED WELL LOCATION

TRANSGLOBAL SERVICES LLC
TBPELS FIRM# 10193740 / 19148
2129 S Great Southwest Parkway Suite 313
Grand Prairie, TX 75051
(817) 529-1180 ~ Fax (817) 529-1181

600' 0' 600'
Scale: 1" = 600'

DRAWN BY: BAB	DATE: 04/12/2022
CHECKED BY: FPL	DATE: 04/12/2022
PAGE 1 OF 1	SCALE: 1" = 600'

DWG. NO. 10691_PELICAN MLR4_REV1

REVISION NO. 1

DUAL INDUCTION BOREHOLE COMPENSATED SONIC LOG

Schlumberger 169854

COMPANY SHELL OIL COMPANY
API NO. 17-063-20043
WELL J. H. HAUBERG. ET AL NO. 1
FIELD WILDCAT - ~~NORTHEAST SATSUMA~~
COUNTY LIVINGSTON STATE LOUISIANA

LOCATION 1000' FNL & 2185' FEL SEC. 11.
Other Services: FDC/CNL/GR. CNL/GR. ST

SERIAL NO.	SEC.	TWP	RANGE
169854	11	6S	5E

COUNTY LIVINGSTON
FIELD WILDCAT-NORTHEAST
LOCATION SATSUMA
WELL J. H. HAUBERG. ET AL NO. 1
COMPANY SHELL OIL COMPANY

Permanent Datum: BHF ; Elev.: 52.9
Log Measured From RKB 22.0 Ft. Above Perm. Datum
Drilling Measured From SAME
Elev.: K.B. 74.9 D.F. 73.9 G.L. 51.9

Date	8-13-80	8-31-80	
Run No.	1(DIL/SFL/LS-S/GR)	2(DIL/SFL/S/GR)	
Depth–Driller	3550	9500	
Depth–Logger (Schl.)	3547	9492	
Btm. Log Interval	3544	9482	
Top Log Interval	120	3549	
Casing–Driller	16 @ 101	9 5/8 @ 3350	@
Casing–Logger	120	3549	
Bit Size	12 1/4	8 3/4	
Type Fluid in Hole	SPUD MUD	LIGNO.-GEL	
Dens. / Visc.	8.6 / 40	9.4 / 46	
pH / Fluid Loss	11.5 / NC ml	10.0 / 9.6 ml	ml
Source of Sample	FLOW LINE	MUD PIT	
Rm @ Meas. Temp.	2.06 @ 94 °F	2.61 @ 78 °F	@ °F
Rmf @ Meas. Temp.	2.45 @ 84 °F	2.20 @ 78 °F	@ °F
Rmc @ Meas. Temp.	3.09 @ 94 °F	3.92 @ 78 °F	@ °F
Source: Rmf / Rmc	M / C	M / C	
Rm @ BHT	1.83 @ 107 °F	1.17 @ 183 °F	@ °F
Time: Circulation Stopped	2200/8-13	1200/8-31	
Time: Logger on Bottom	0300/8-14	0200/9-1	
Max. Rec. Temp.	107 °F	183 °F	°F
Equip. / Location	8031 / OPEL. F	8052 / NOE	
Recorded By	WEBB	RAHAIM	
Witnessed By	MS. SPEAR	MESSRS. SILVERNAIL-ROLETTE	

Department of Conservation RECEIVED OCT 22 1980 GEOLOGICAL SECTION

LSN22111700000169854

FOLD HERE KG/DL The well name, location and borehole reference data were furnished by the customer.

Run No.	ONE	TWO		
Service Order No.	148993	120414		
Fluid Level	FULL	FULL		
Speed F.P.M.		60		
Salinity ppm. cl		900		
EQUIPMENT DATA				
Panel DIP -	BB-72	BB-173		
Cartridge DIC -	DA-361	DA-485		
Sonde DIS -	EA-382	EA-560		
Memorizer Panel ILP -		CSU		
Centralizer Type		STANDOFF		
Stand-off - Inches		1 1/2		
G.R. Panel	BB-65	BB-140		
G.R. Cartridge	JC-2597	JC-2060		
Sonic Panel No. SLP -	CA-49	DA-56		
Sonic Cart. No. SLC -	FA-411	FA-444		
Sonic Sonde No. SLS -	SB-75	RC-1		
Caliper No. MCD -				
CALIBRATION DATA				
ILD Sonde Error	3.73	1.95		
ILM Sonde Error	6.29	7.91		
G.R. Background		13		
G.R Source		173		
T.C. - Cal.		AUTO		
LOGGING DATA				
ILD Sonde Error	3.73	1.95		
ILM Sonde Error	6.29	7.91		
G.R. Scale per 100 Div.		0-120		
G.R. - T.C. - Log		AUTO		
LS-S	X			

SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

REMARKS
RUN 1) SONIC SPACING = 8'-10' & 10'-12'. SONIC CENTRALIZERS = CMEZ.
LOG RUN IN SECTIONS TO ELIMINATE CYCLE SKIPS. SPLICES AT 415 AND 2105 TO ELIMINATE BAD DATA.
NO BHF INSTALLED ON THIS WELL AS OF THIS TIME.
CREW: NED-OLIVER.
RUN 2) CSU-LAND JOB.

Run 1

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DO		0.0	FNUM		0.6200	FEXP		2.150
FPHI		SPHI	ITTS		DTL	DTF	US	189.0
DTM	US	55.60	CDTS	US	100.0	MSEC	MM/M	6.290
SDR	OHMM	1.000	DSEC	MM/M	3.730	BS	INCH	12.25

Run 2

PARAMETERS

NAME	UNIT	VALUE	NAME	UNIT	VALUE	NAME	UNIT	VALUE
DO		0.0	FPHI		SPHI	DTF	US	189.0
DTM	US	55.60	CDTS	US	100.0	MSEC	MM/M	3.440
SDR	OHMM	0.5000	DSEC	MM/M	5.370	BS	INCH	8.750

GR (GAPI) 0.0 – 120.0 / SP (MV) -160.0 – 40.00		ILD (OHMM) 0.0 – 10.00 / SFLA(OHMM) 0.0 – 2.000 / SFLA(OHMM) 0.0 – 10.00	CILD(MM/M) 2450. – -550.0 / DT (US/F) 150.0 – 50.00

7

8

GR (GAPI) 0.0 – 120.0 / SP (MV) -160.0 – 40.00		ILD (OHMM) 0.0 – 10.00 / SFLA(OHMM) 0.0 – 2.000 / SFLA(OHMM) 0.0 – 10.00	CILD(MM/M) 2450. – -550.0 / DT (US/F) 150.0 – 50.00

COMPANY SHELL OIL COMPANY
WELL J. H. HAUBERG. ET AL NO. 1
FIELD WILDCAT - NORTHEAST SATSUMA
COUNTY LIVINGSTON STATE LOUISIANA

SCHL. FR 9482
SCHL. TD 9492
DRLR TD 9500
Elev:
KB 74.9
DF 73.9
GL 51.9

Pelican MLR-04 (Class V)
Drilling, Completion and Testing

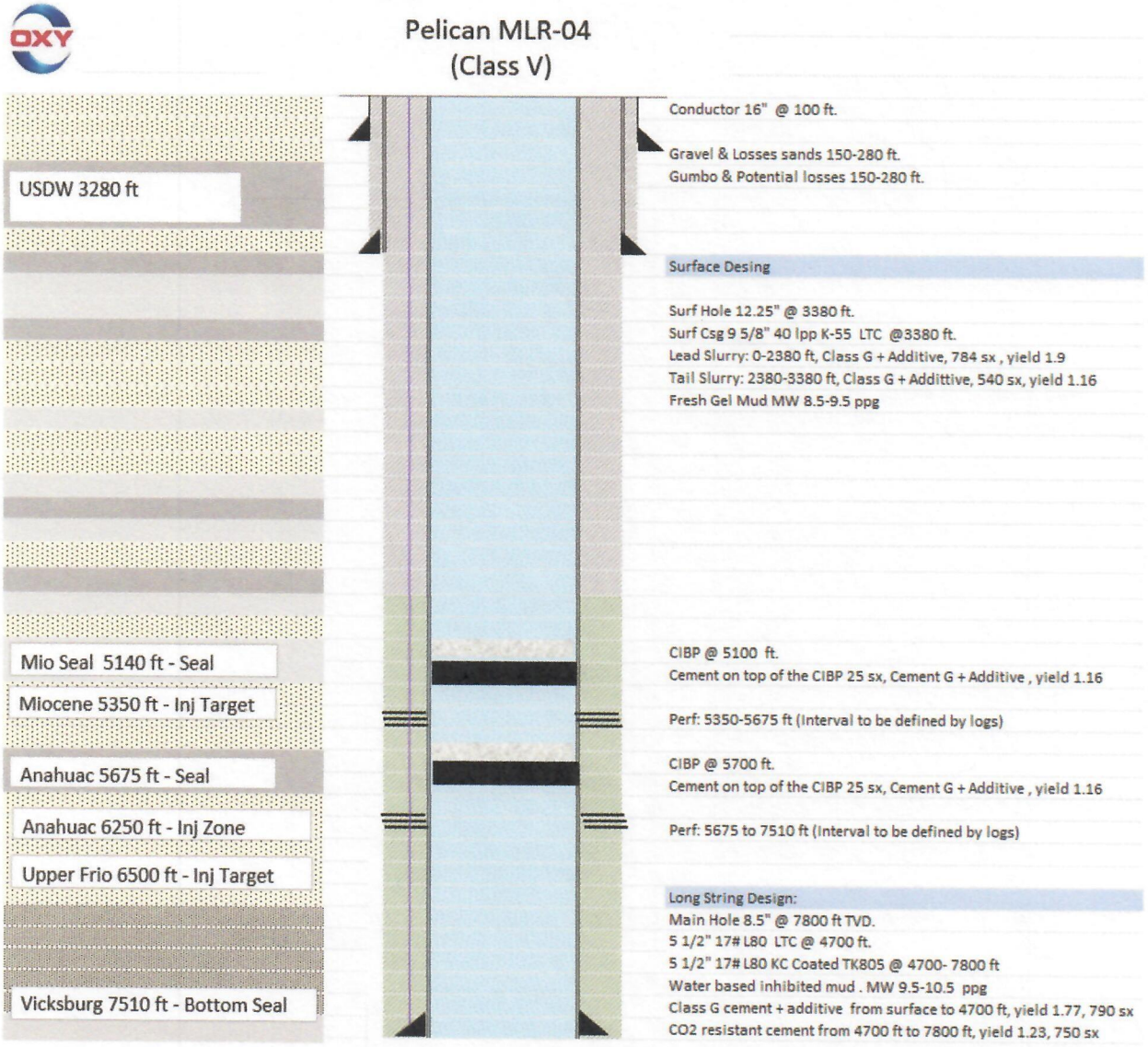
a) General Well Information

Well Name	Pelican MLR-04
Well Classification	Class V
County , State	Livingston, Louisiana
Target Formation	Miocene, Anahuac, Frio
TVD / MD (ft)	7800 ft.
Trajectory	Vertical.

b) Prognosis:

Intervals	TVD (ft)	Comments
Base of USDW	3280	
Mio- Seal	5140	Shale Seal.
Miocene – Injection Target	5350	Sandstone permeable zone.
Top of Anahuac - Seal	5675	Shale Seal.
Top of Anahuac – Injection Target	6250	Sandstone permeable zone.
Top of Frio – Injection Target	6500	Sandstone permeable zone. Main Target.
Top of Vicksburg	7510	Shale Seal.

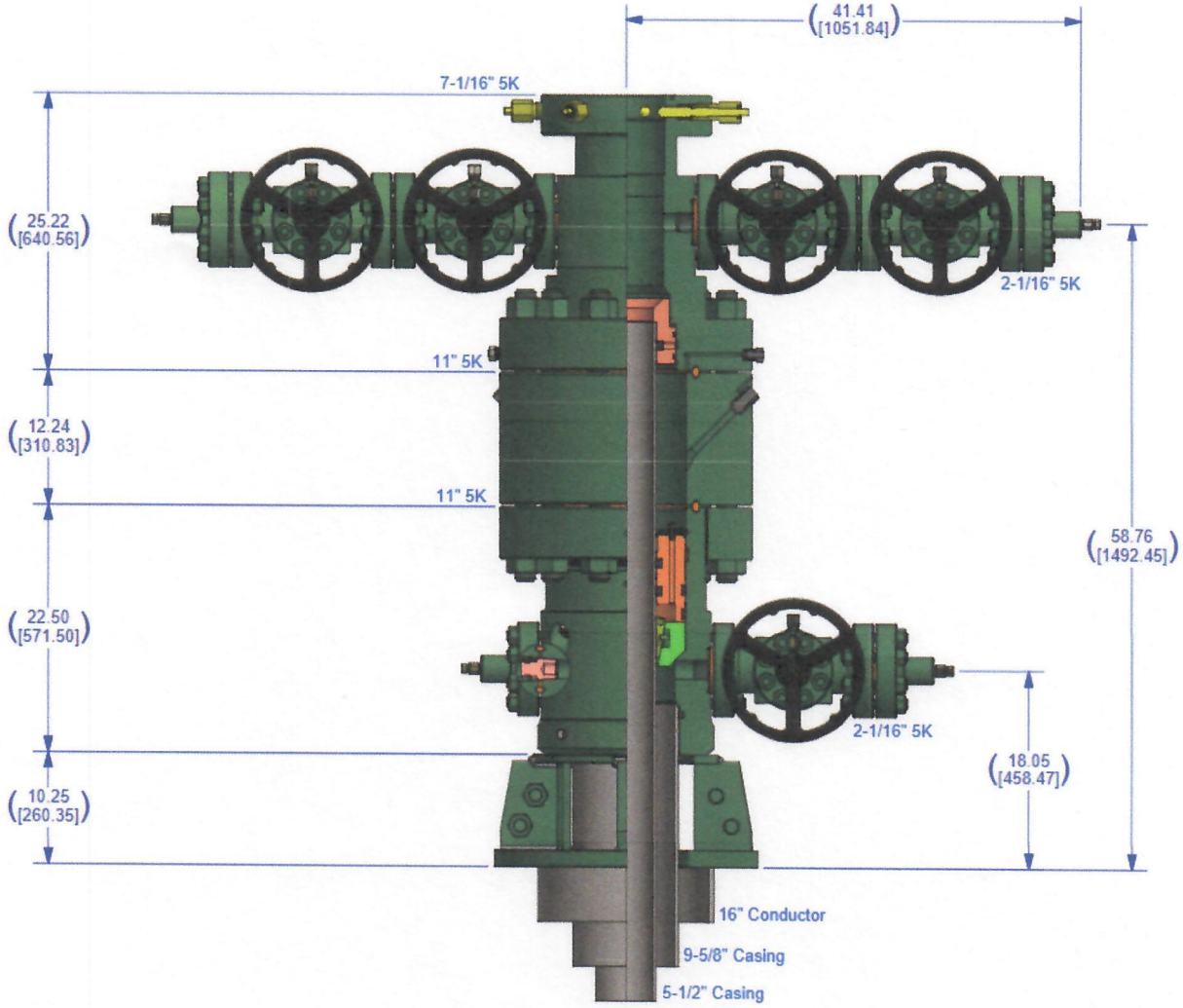
c) Proposed Well Schematic:



"I certify under penalty of law that I have personally 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, and/or imprisonment."

5/11/2022

d) Wellhead Schematic:



Note: the well will be TA with a night cap flange.

"I certify under penalty of law that I have personally 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, and/or imprisonment."

5/11/2022

e) Drilling Scope:

- Pre-set 16” conductor to 100 ft.
- Mobilized rig to location.
- Pick up surface BHA.
- Drill 12 ¼” surface hole to 3380 ft.
- Run surface logs by program.
- Run surface casing to 3380 ft.
- Cement surface casing.
- Install and tested BOP.
- Pick up directional BHA.
- Test casing 1000 psi for 30 min.
- Performed FIT/LOT at the shoe.
- Drill 8 ½” hole to TD , following coring program proposed.
- Run logs by program.
- Run long string casing with fiber optic attached to the exterior.
- Cement long string casing to surface.
- Nipple down BOP .
- Install surface equipment and section.
- Demobilized rig.

f) Completion and testing procedure:

- Mobilized workover rig.
- Nipple up BOP (Blow Out Preventer).
- Pick up work string and bit to clean cement.
- Run in the hole and tag float collar or top of cement.
- Test casing for 30 min with 1000 psi.
- Drilled out cement to float collar (if needed).
- Pull BHA out of the hole.
- Run cement bond evaluation.
- Perforate first testing zone (Frio).
- Perform Step Rate Test and Fall Off Test.
- Perforate second testing zone (Anahuac).
- Perform Step Rate Test and Fall Off Test.
- Set cast iron bridge plug (CIBP) and 25 sx of cement to Temporary Abandoment(TA).
- Perforate third testing zone (Miocene).
- Set CIBP and 25 sx of cement to TA.
- Displace well with inhibited packer fluid.
- Pull out of the hole work string.
- Nipple down BOP.
- Install wellhead.
- Rig down equipment.

g) Logging & Testing Program:

1. Mudlogging Requirements:

a. Collect samples from surface to final TD, every 30 ft maximum.

2. Coring Requirements:

No	Formation	Depth (ft)	Length (ft)
1	Mio - Seal	5200	60
2	Miocene - Injection Zone	5400	60
3	Anahuac - Seal	5700	60
4	Anahuac - Injection Zone	6300	60
5	Frio - Injection Zone	6600	90
6	Frio - Injection Zone	6690	90
7	Vicksburg	7600	60

3. Logging Program:

Section	Log	Int/Sample
12.25 " @ 3300 ft	Open Hole Logs:	
	Resistivity	0-3380
	Neutron	0-3380
	Density	0-3380
	Gamma Ray	0-3380
	SP	0-3380
	4/6 arm caliper	0-3380
	Sonic Scanner	0-3380
	Cased Hole Logs:	
	CBL-VDL-CCL	0-3380
8 1/2" @ TD	Open Hole Logs:	
	Resistivity	3380-TD
	Density	3380-TD
	Neutron	3380-TD
	Spectral GR	3380-TD
	Sonic Scanner	3380-TD
	High Definition Image	3380-TD
	4/6 arm Caliper	3380-TD
	NMR / CMR	3380-TD
	Lithoscanner	3380-TD
	MDT Pressure	15
	SWC	50
	Fluid Samples	10
	MDT Mini Frac	6
	Cased Hole Logs & Test:	
	CBL-VDL, USIT, Temp Log	0-TD

4. Testing Program:

Testing	Formation	Test
1	Miocene – Injection Zone	SRT, Fall Off
2	Anahuac – Injection Zone	SRT, Fall Off
3	Frio – Injection Zone	SRT, Fall Off