8000-FM-OOGM0005 Rev. 11/2024
Form

Pennsylvania Department of Environmental Protection

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS MANAGEMENT

AUTH ID 1537676

ALT SITE ID: WLPAD - HUMBERSTON UNIT 1H

NOTICE OF INTENTION BY WELL OPERATOR TO PLUG A WELL

☒ Well Operator ☐ Coal Operator	OGO No. 68579	U.S. Well No. (Permit / Reg) 37-051-24367	Date Drilled (If known) 3/18/2011
Name LPR Energy, LLC 304679		Well Farm Name Humberston Unit 735895	
Address P.O. Box 192009	Telephone No. 814 765-6300	Well No. 1H	Well Serial No.
City Dallas / State TX / Zip Code 75219		County Fayette	
☒ Agent (contractor) acting on behalf of the operator named above. Howard Drilling, LLC		Municipality Henry Clay	
Address P.O. Box N, Bridge Street	Telephone No. 814 778-5820	Latitude (DD) 39.740383	Longitude (DD) -79.439622
City Mt. Jewett / State PA / Zip Code 16740		*Attach well record if not previously submitted.*	

Complete this section if applicable. Prior to abandoning any well in an area underlain by a workable coal seam, the well operator or owner shall notify the coal operator, lessee, or owner of the intention to plug and abandon the well, and shall submit a plat showing the location and affix the date and time at which the work of plugging will commence.

Coal: ☐ Operator ☒ Owner ☐ Lessee Name: James F. Humberston Address: 115 12th Avenue, E City, State, Zip Code: Palmetto, FL 34221 Telephone No. / Notified? ☒Yes ☐No This Party hereby waives the rights to be notified of the date and time before plugging work will begin and to be present at the plugging of this well. *Signature:*	Coal: ☐ Operator ☐ Owner ☐ Lessee Name: Address: City, State, Zip Code: Telephone No. / Notified? ☐Yes ☐No This Party hereby waives the rights to be notified of the date and time before plugging work will begin and to be present at the plugging of this well. *Signature:*	Coal: ☐ Operator ☐ Owner ☐ Lessee Name: Address: City, State, Zip Code: Telephone No. / Notified? ☐Yes ☐No This Party hereby waives the rights to be notified of the date and time before plugging work will begin and to be present at the plugging of this well. *Signature:*

Scheduled Date and Time of Plugging

Plugging is scheduled to begin on *(date)* 8/18/2025 at *(time)* 8 AM

☐ **CHECK BLOCK IF THIS WELL IS BEING PLUGGED PERSUANT TO MINE THROUGH STANDARDS OF ACT 214 of 1984 (REVISED 2011) AND the 2012 Oil & Gas Act.**

Checklist and Additional Attached Information

- ☒ Location Plat
- ☒ Current Well Record
- ☐ Available Well Record
- ☒ Application for Approval of Alternate Method of Plugging
- ☐ Mine - Through
- ☒ Other, describe: Appendix D- Plugging Procedure Letter, Appendix E - Well Plugging Schematic, Appendix F - Coal Owner Notification Letter

Signature of Applicant (Operator or Agent)

Signature: Adam Schoppe
Date: 8/14/2025

Print or Type Signer's Name and Title
Adam Schoppe, COO, LPR Energy, LLC

RECEIVED
8/14/2025

Groundwater and Environmental Professionals Since 1891

August 14, 2025

Mr. Justin Najewicz
Pennsylvania Department of Environmental Protection
New Stanton District Office
131 Broadview Road
New Stanton, PA 15672

RE: ***LPR Energy, LLC***
Humberston Unit 1H Gas Well (API #37-051-24367)
Henry Clay Township, Fayette County, Pennsylvania
Notice of Intention By Well Operator To Plug A Well

Dear Justin:

As a follow up to our recent conversations, Moody and Associates, Inc. (Moody) continues to assist LPR Energy (LPR) to provide well plugging consulting services to work toward addressing the various concerns that the Pennsylvania Department of Environmental Protection (PA DEP) has regarding the plugging of the Humberston #1H gas well located in Henry Clay Township, Fayette County, Pennsylvania. Please find enclosed as part of our submittal, the following items (several as appendices) that are part of the Notice of Intention By Well Operator To Plug A Well (NOI) submittal for the above referenced well:

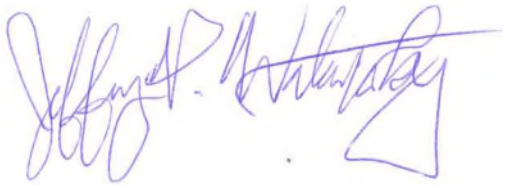
- NOI Form
- Well Location Plat
- Current Well Record and Post-Drilling Well Details
- Application for Approval of Alternate Method of Plugging (Including the Coal Notification Letter and Coal Owner Waiver)
- Plugging Procedure Letter from Moody

- Well Plugging Schematic

Moody and LPR greatly appreciates your assistance with this well plugging project for the Humberston #1H gas well. If you have any questions or require additional information, please contact our office at 724-746-5200 or via email me at jwalentosky@moody-s.com.

Sincerely,

Moody and Associates, Inc.



Jeffrey P. Walentosky, P.G.

President

Cc: Adam Schoppe – LPR Energy
Bob Liddle – LPR Energy
Joe Scipione – LPR Energy
Forrest Smith – Pennsylvania Department of Environmental Protection
Sean McGovern – Babst Calland
File

APPENDIX A

WELL LOCATION PLAT

5500-PM-OG0002-DWG Rev. 09/2008

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program

WELL LOCATION PLAT

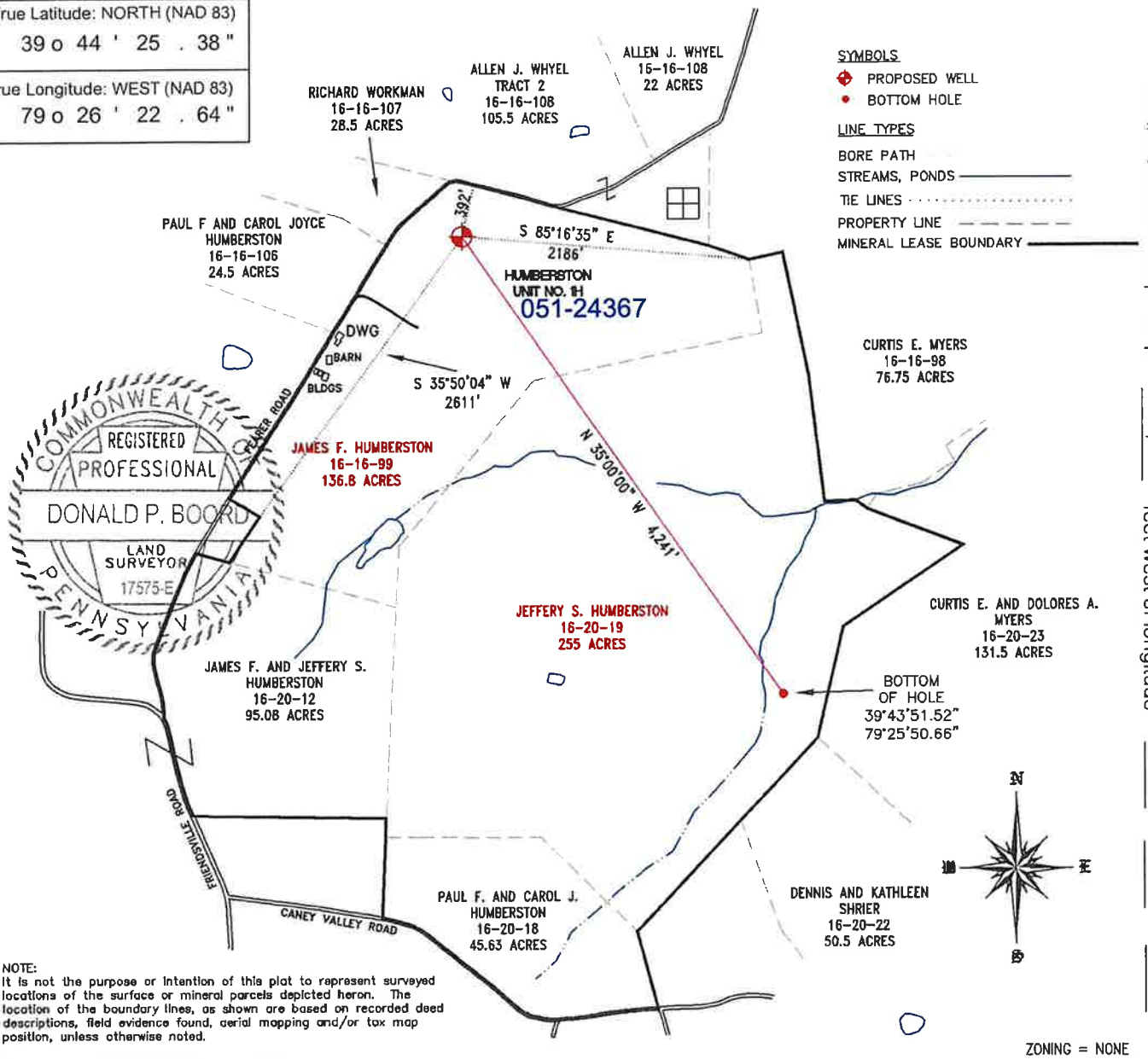
DEP USE ONLY	DEP Application Tracking #	G:
	Permit #	C:
	Project #	

Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)
39 o 44 ' 25 . 38 "

True Longitude: WEST (NAD 83)
79 o 26 ' 22 . 64 "

Well is located on topo map 3,510 feet south of latitude 39° 45' 00"



NOTE:
It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted heron. The location of the boundary lines, as shown are based on recorded deed descriptions, field evidence found, aerial mapping and/or tax map position, unless otherwise noted.

ZONING = NONE
Tract
ACREAGE 391.8 +/-

Surveyor or Engineer: BOORD, BENCHEK and ASSOC. DONALD P. BOORD P.L.S. Phone # 724-746-1105 Dwg. # 1406 DATE: MAY 12, 2010 Scale 1" = 1200'

Lat. & Long Metadata Method GPSKN Accuracy 4' Datum NAD83		Elevation Metadata Method GPSKN Accuracy 6' Datum NAVD88	Survey Date APRIL 16, 2010
Applicant / Well Operator Name: CHIEF OIL & GAS LLC	DEP. ID #258445	Well(Farm) Name: HUMBERSTON UNIT	Well # 1H / Serial #
Address: 5956 SHERRY LANE, DALLAS, TX 75225		County – Code: FAYETTE – 26 / Municipality: HENRY CLAY TWP.	WELL TYPE: GAS
Surface Landowner/Lessor: PAUL F. AND CAROL J. HUMBERSTON/ JAMES F. AND TENNILLE L. HUMBERSTON		USGS 7 1/2 Quadrangle Map Name: FRIENDSVILLE, MD / Map Section: 2	Surface Elevation: 2,000 ft.
Target Formation(s): MARCELLUS		Angle & Course of Deviation (Drilling): HORIZONTAL–90 N 35°00'00" W @ 4,241'	Anticipated Total Depth: TVD: 9,500' TMD: 13,536'

Surface Owner or Water Purveyor with a Water Supply within 1,000 ft.	Approximate Course and Distance to Water Supply	Owner, Lessee, or Operator of Workable Coal Seam	Name of Coal Seam Owned, Leased, or Operated
		1/2 PAUL F. AND CAROL J. HUMBERSTON	UPPER FREEPORT
		1/2 JAMES F. AND TENNILLE HUMBERSTON	UPPER FREEPORT

APPENDIX B

CURRENT WELL RECORD &

POST-DRILLING WELL DETAILS

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS MANAGEMENT PROGRAM

Well Record and Completion Report

DEP USE ONLY	
Site ID	Primary Fac ID
Client Id	Subfacility Id

Well Operator	DEP ID#	Well API # (Permit / Reg)	Project Number	Acres
Chief Oil & Gas LLC	258445	37-051-24367-00		

Address	Well Farm Name	Well #	Serial #
5956 Sherry Lane STE 1500	Humberston Unit	1H	

City	State	Zip Code	County	Municipality
Dallas	TX	75225	Fayette	Henry Clay

Phone	Fax	USGS 7.5 min. quadrangle map
214-265-9590	214-265-9593	Friendsville MD

Check all that apply: ☒ Original Well Record ☒ Original Completion Report ☐ Amended Well Record ☐ Amended Completion Report

WELL RECORD

Also complete the Log of Formations on back (page 2)

Well Type ☒ Gas ☐ Oil ☐ Combination Oil & Gas ☐ Injection ☐ Storage ☐ Disposal

Drilling Method ☒ Rotary – Air ☒ Rotary – Mud ☐ Cable Tool

Date Drilling Started	Date Drilling Completed	Surface Elevation	Total Depth – Driller	Total Depth - Logger
1/31/11	4/04/11	2000 ft.	12683 ft.	12683 ft.

Casing and Tubing

Cement returned on surface casing? ☒ Yes ☐ No
Cement returned on coal protective casing? ☐ Yes ☐ No ☒ N/A

Hole Size	Pipe Size	Wt.	Thread / Weld	Amount in Well (ft)	*Material Behind Pipe* Type and Amount	*Packer / Hardware / Centralizers* Type	Size	Depth	Date Run
22	20		Wld	95(GL)	Sanded In	None		95	1/31/11
17 1/2	13 3/8	54.5	Thr	565 (GL)	430sx Class 1 + Additives	FloatShoe	13 3/8	565	2/02/11
						Centralizer	13 3/8	565-0	02/02/11
12 1/4	9 5/8	36	Thr	1813(KB)	604sx Class 1 + Additives	FloatCollar	9 5/8	1764	2/06/11
						Float Shoe	9 5/8	1811	2/06/11
					SURF STRING & INTERMEDIATE	Centralizer	9 5/8	1813-0	2/06/11

COMPLETION REPORT

Perforation Record

Date	Interval Perforated From	To
5/27/11	12274	12636
5/28/11	11862	12224

Stimulation Record

Date	Interval Treated	*Fluid* Type	Amount	*Propping Agent* Type	Amount	Average Injection Rate
5/27/11	12274 - 12636	BFW	9,950	100Mesh	185,700	90.3
		(Treated)		40/70Sd	190,300	
				30/50Sd	181,500	
5/28/11	11862 - 12224	BFW	9,840	100Mesh	200,200	90.1
		(Treated)		40/70Sd	204,400	
				30/50Sd	198,700	

Natural Open Flow	Natural Rock Pressure	Hours	Days
After Treatment Open Flow	After Treatment Rock Pressure	Hours	Days

Well Service Companies -- Provide the name, address, and phone number of all well service companies involved.

Name	Address	City - State – Zip	Phone
Union Drilling, LP	Rt 33 West Mudlick PO Drawer 40	Buchannon, WV 26201	304-472-4610
Appalachian Drilling Company	1200 Heavy Haul Rd	Morgan Town, WV 26501	304-772-2310
BJ Services, USa	660 Longview Rd	Fairmont City, PA 16224	814-365-2003

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS MANAGEMENT PROGRAM

Well Record and Completion Report

DEP USE ONLY	
Site ID	Primary Fac ID
Client Id	Subfacility Id

Well Operator: Chief Oil & Gas LLC		DEP ID#: 258445	Well API # (Permit / Reg): 37-051-24367-00	Project Number	Acres
Address: 5956 Sherry Lane STE 1500			Well Farm Name: Humberston Unit	Well #: 1H	Serial #
City: Dallas	State: TX	Zip Code: 75225	County: Fayette	Municipality: Henry Clay	
Phone: 214-265-9590	Fax: 214-265-9593		USGS 7.5 min. quadrangle map: Friendsville MD		

Check all that apply: ☒ Original Well Record ☒ Original Completion Report ☐ Amended Well Record ☐ Amended Completion Report

WELL RECORD

Also complete the Log of Formations on back (page 2)

Well Type: ☒ Gas ☐ Oil ☐ Combination Oil & Gas ☐ Injection ☐ Storage ☐ Disposal

Drilling Method: ☒ Rotary – Air ☒ Rotary – Mud ☐ Cable Tool

Date Drilling Started	Date Drilling Completed	Surface Elevation	Total Depth – Driller	Total Depth - Logger
1/31/11	4/04/11	2000 ft.	12683 ft.	12683 ft.

Casing and Tubing

Cement returned on surface casing? ☒ Yes ☐ No
Cement returned on coal protective casing? ☐ Yes ☐ No ☒ N/A

Hole Size	Pipe Size	Wt.	Thread / Weld	Amount in Well (ft)	*Material Behind Pipe* Type and Amount	*Packer / Hardware / Centralizers* Type	Size	Depth	Date Run
8 3/4-	5 1/2	20	Thr	12682(KB)	1193sx 50/50 Type 1 + Additives	FloatCollar	5 1/2	12659	4/03/11
7 7/8					408sx Class H + Additives	Float Shoe	5 1/2	12678	4/03/11
						Centralizer	5 1/2	12682-	4/03/11
								3800	
					PRODUCTION STRING				

COMPLETION REPORT

Perforation Record			Stimulation Record					
Date	Interval Perforated From	To	Date	Interval Treated	*Fluid* Type	Amount	*Propping Agent* Type	Amount	Average Injection Rate
				COMPLETION					
				PENDING					

Natural Open Flow		Natural Rock Pressure	Hours / Days
After Treatment Open Flow		After Treatment Rock Pressure	Hours / Days

Well Service Companies – Provide the name, address, and phone number of all well service companies involved.

Name: Superior Well Services	Name	Name
Address: 333 Technology Drive Suite 260	Address	Address
City - State – Zip: Canonsburg, PA 15317	City - State – Zip	City - State – Zip
Phone: 724-746-2414	Phone	Phone

LOG OF FORMATIONS

Well API#: 37-051-24367-00

(If you will need more space than this page, please photocopy the blank form before filling it in.)

Formation Name or Type	Top (feet)	Bottom (feet)	Gas at (feet)	Oil at (feet)	Water at (fresh / brine; ft.)	Source of Data
Sand & Shale	0	3200				Drillers Log
Sand	3200	3300				Drillers Log
Shale	3300	3350				Drillers Log
Silt	3350	3950				Drillers Log
Sand & Shale	3950	4080				Drillers Log
Silt	4080	4220				Drillers Log
Sand & Shale	4220	4850				Drillers Log
Shale	4850	4950				Drillers Log
Sand & Shale	4950	5200				Drillers Log
Sand	5200	5300				Drillers Log
Sand & Shale	5300	7893				Drillers Log
Burkett	7893	7971				Gamma Log
Tully	7971	7974				Gamma Log
Hamilton	7974	8434				Gamma Log
Marcellus	8434	8687				Gamma Log
Purcell	8687	8830				Gamma Log
Lower Marcellus	8830					Gamma Log

I do hereby certify to the best of my knowledge, information and belief that the well identified on this Well Record and Completion Report has been properly cased and cemented in accordance with the requirements of 25 Pa. Code Chapter 78 and any conditions contained in the permit for this well. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator's Signature

LINDA Ray

Title: Regulator Affairs Coordinator

Date: 6/3/11

DEP USE ONLY

Reviewed by: Date:

Comments:

CHIEF OIL & GAS LLC

Chief Oil & Gas - AM

Fayette County, PA
Humberston Unit
Humberston Unit 1H

Wellbore #1

Survey: MWD

DDC Survey Report

04 April, 2011

DDC
The DIRECTIONAL DRILLING COMPANY

Company:	Chief Oil & Gas - AM	**Local Co-ordinate Reference:**	Well Humberston Unit 1H
Project:	Fayette County, PA	**TVD Reference:**	Well @ 2019.0usft (UDI#59)
Site:	Humberston Unit	**MD Reference:**	Well @ 2019.0usft (UDI#59)
Well:	Humberston Unit 1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Project	Fayette County, PA		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Pennsylvania Southern Zone		

Site	Humberston Unit				
Site Position:		**Northing:**	152,829.32 usft	**Latitude:**	39° 44' 25.380 N
From:	Lat/Long	**Easting:**	1,493,354.52 usft	**Longitude:**	79° 26' 22.640 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-1.10 °

Well	Humberston Unit 1H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	152,829.29 usft	**Latitude:**	39° 44' 25.380 N
	+E/-W	0.0 usft	**Easting:**	1,493,354.52 usft	**Longitude:**	79° 26' 22.640 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,000.0 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	3/21/2011	-9.35	67.33	52,708

Design	Wellbore #1					
Audit Notes:						
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**		0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**		
	0.0	0.0	0.0	145.00		

Survey Program **Date** 4/4/2011

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,470.0	GYRO (Wellbore #1)	MWD default	MWD - Standard
7,586.0	12,683.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Tie-In									
7,470.0	1.24	126.15	7,468.8	9.0	-68.5	-46.6	0.00	0.00	0.00
7,586.0	0.90	119.00	7,584.8	7.8	-66.7	-44.6	0.31	-0.29	-6.16
7,649.0	1.60	120.80	7,647.7	7.1	-65.5	-43.4	1.11	1.11	2.86
7,713.0	1.90	132.20	7,711.7	5.9	-63.9	-41.5	0.72	0.47	17.81
7,776.0	2.30	134.60	7,774.7	4.3	-62.3	-39.3	0.65	0.63	3.81
7,839.0	2.50	131.30	7,837.6	2.5	-60.3	-36.7	0.39	0.32	-5.24
7,871.0	2.50	137.50	7,869.6	1.6	-59.3	-35.3	0.84	0.00	19.38
7,903.0	3.00	125.60	7,901.5	0.6	-58.2	-33.8	2.36	1.56	-37.19
7,934.0	7.00	109.00	7,932.4	-0.5	-55.7	-31.5	13.59	12.90	-53.55

Company:	Chief Oil & Gas - AM	**Local Co-ordinate Reference:**	Well Humberston Unit 1H
Project:	Fayette County, PA	**TVD Reference:**	Well @ 2019.0usft (UDI#59)
Site:	Humberston Unit	**MD Reference:**	Well @ 2019.0usft (UDI#59)
Well:	Humberston Unit 1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,966.0	11.20	107.00	7,964.0	-2.1	-50.9	-27.5	13.16	13.13	-6.25
7,998.0	15.10	101.00	7,995.2	-3.8	-43.9	-22.1	12.90	12.19	-18.75
8,030.0	19.00	94.00	8,025.8	-4.9	-34.6	-15.8	13.75	12.19	-21.88
8,061.0	23.10	86.10	8,054.7	-4.9	-23.5	-9.5	16.06	13.23	-25.48
8,093.0	27.20	80.90	8,083.7	-3.3	-10.0	-3.0	14.54	12.81	-16.25
8,125.0	30.30	82.70	8,111.7	-1.1	5.3	3.9	10.06	9.69	5.63
8,156.0	30.30	92.00	8,138.5	-0.4	20.8	12.3	15.12	0.00	30.00
8,188.0	30.00	102.70	8,166.2	-2.4	36.7	23.0	16.80	-0.94	33.44
8,219.0	32.10	106.90	8,192.7	-6.5	52.2	35.3	9.73	6.77	13.55
8,251.0	36.30	104.90	8,219.2	-11.4	69.5	49.2	13.59	13.13	-6.25
8,282.0	40.90	102.50	8,243.4	-16.0	88.3	63.7	15.60	14.84	-7.74
8,314.0	46.20	100.00	8,266.6	-20.3	109.9	79.6	17.41	16.56	-7.81
8,346.0	51.80	97.70	8,287.6	-24.0	133.7	96.3	18.32	17.50	-7.19
8,378.0	55.30	96.30	8,306.6	-27.1	159.3	113.5	11.49	10.94	-4.38
8,409.0	57.30	94.70	8,323.8	-29.5	184.9	130.3	7.75	6.45	-5.16
8,441.0	59.20	93.70	8,340.6	-31.5	212.1	147.5	6.50	5.94	-3.13
8,473.0	61.00	94.60	8,356.6	-33.5	239.7	165.0	6.13	5.63	2.81
8,504.0	64.20	96.30	8,370.9	-36.2	267.1	182.9	11.41	10.32	5.48
8,536.0	68.00	97.40	8,383.8	-39.7	296.2	202.4	12.28	11.88	3.44
8,568.0	71.70	97.00	8,394.8	-43.4	326.0	222.5	11.62	11.56	-1.25
8,599.0	73.40	96.80	8,404.1	-47.0	355.3	242.3	5.52	5.48	-0.65
8,631.0	77.20	97.80	8,412.3	-50.9	386.0	263.1	12.25	11.88	3.13
8,663.0	79.50	101.00	8,418.7	-56.0	416.9	285.1	12.15	7.19	10.00
8,695.0	79.40	103.60	8,424.6	-62.7	447.7	308.2	7.99	-0.31	8.13
8,726.0	79.70	106.90	8,430.2	-70.8	477.1	331.6	10.51	0.97	10.65
8,758.0	80.60	112.20	8,435.7	-81.3	506.8	357.3	16.56	2.81	16.56
8,790.0	82.50	117.10	8,440.4	-94.5	535.5	384.6	16.27	5.94	15.31
8,822.0	84.60	122.40	8,444.0	-110.3	563.1	413.3	17.72	6.56	16.56
8,853.0	85.20	127.30	8,446.7	-127.9	588.5	442.3	15.86	1.94	15.81
8,885.0	84.50	132.70	8,449.6	-148.4	612.9	473.1	16.95	-2.19	16.88
8,917.0	83.80	138.80	8,452.9	-171.2	635.1	504.5	19.09	-2.19	19.06
8,948.0	83.50	140.80	8,456.3	-194.7	655.0	535.2	6.48	-0.97	6.45
8,980.0	84.60	141.50	8,459.6	-219.5	674.9	566.9	4.07	3.44	2.19
9,012.0	86.70	142.70	8,462.1	-244.7	694.5	598.8	7.55	6.56	3.75
9,044.0	87.50	143.10	8,463.7	-270.2	713.8	630.7	2.79	2.50	1.25
9,075.0	87.80	143.20	8,464.9	-294.9	732.4	661.7	1.02	0.97	0.32
9,107.0	89.10	144.10	8,465.8	-320.7	751.3	693.7	4.94	4.06	2.81
9,139.0	91.50	144.50	8,465.6	-346.7	770.0	725.7	7.60	7.50	1.25
9,170.0	92.20	145.00	8,464.6	-372.0	787.9	756.6	2.77	2.26	1.61
9,233.0	92.30	147.00	8,462.2	-424.2	823.1	819.6	3.18	0.16	3.17
9,297.0	92.80	150.50	8,459.3	-478.8	856.3	883.4	5.52	0.78	5.47
9,360.0	91.90	152.20	8,456.7	-534.1	886.4	945.9	3.05	-1.43	2.70
9,424.0	90.90	152.70	8,455.2	-590.8	916.0	1,009.4	1.75	-1.56	0.78

Company:	Chief Oil & Gas - AM	**Local Co-ordinate Reference:**	Well Humberston Unit 1H
Project:	Fayette County, PA	**TVD Reference:**	Well @ 2019.0usft (UDI#59)
Site:	Humberston Unit	**MD Reference:**	Well @ 2019.0usft (UDI#59)
Well:	Humberston Unit 1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,487.0	91.40	152.90	8,453.9	-646.8	944.8	1,071.8	0.85	0.79	0.32
9,551.0	91.70	153.50	8,452.2	-703.9	973.7	1,135.1	1.05	0.47	0.94
9,614.0	89.20	151.50	8,451.7	-759.8	1,002.7	1,197.5	5.08	-3.97	-3.17
9,678.0	89.80	151.80	8,452.2	-816.1	1,033.1	1,261.1	1.05	0.94	0.47
9,741.0	91.70	153.80	8,451.4	-872.1	1,061.9	1,323.5	4.38	3.02	3.17
9,804.0	91.50	154.50	8,449.7	-928.8	1,089.4	1,385.7	1.16	-0.32	1.11
9,868.0	90.60	153.10	8,448.5	-986.2	1,117.6	1,448.9	2.60	-1.41	-2.19
9,931.0	88.20	150.50	8,449.1	-1,041.7	1,147.4	1,511.5	5.62	-3.81	-4.13
9,994.0	90.20	149.90	8,450.0	-1,096.4	1,178.7	1,574.2	3.31	3.17	-0.95
10,058.0	92.20	151.20	8,448.7	-1,152.1	1,210.2	1,637.9	3.73	3.13	2.03
10,121.0	92.20	151.70	8,446.3	-1,207.4	1,240.3	1,700.4	0.79	0.00	0.79
10,185.0	92.30	152.00	8,443.8	-1,263.8	1,270.4	1,763.9	0.49	0.16	0.47
10,248.0	91.70	152.50	8,441.6	-1,319.5	1,299.7	1,826.4	1.24	-0.95	0.79
10,310.0	90.40	152.60	8,440.4	-1,374.5	1,328.3	1,887.8	2.10	-2.10	0.16
10,373.0	88.80	150.40	8,440.9	-1,429.9	1,358.4	1,950.4	4.32	-2.54	-3.49
10,436.0	88.00	150.60	8,442.6	-1,484.7	1,389.4	2,013.1	1.31	-1.27	0.32
10,500.0	88.50	151.00	8,444.6	-1,540.5	1,420.6	2,076.8	1.00	0.78	0.63
10,563.0	89.30	151.60	8,445.8	-1,595.8	1,450.8	2,139.4	1.59	1.27	0.95
10,627.0	89.30	152.00	8,446.6	-1,652.2	1,481.1	2,202.9	0.62	0.00	0.63
10,690.0	88.20	151.30	8,447.9	-1,707.6	1,511.0	2,265.5	2.07	-1.75	-1.11
10,754.0	88.80	152.30	8,449.6	-1,764.0	1,541.2	2,329.0	1.82	0.94	1.56
10,818.0	87.70	152.10	8,451.6	-1,820.6	1,571.1	2,392.5	1.75	-1.72	-0.31
10,880.0	87.30	152.60	8,454.3	-1,875.5	1,599.8	2,453.9	1.03	-0.65	0.81
10,944.0	87.30	153.60	8,457.3	-1,932.5	1,628.7	2,517.2	1.56	0.00	1.56
11,008.0	85.90	153.60	8,461.1	-1,989.7	1,657.1	2,580.3	2.19	-2.19	0.00
11,071.0	86.10	153.70	8,465.5	-2,046.0	1,685.0	2,642.5	0.35	0.32	0.16
11,134.0	85.80	153.60	8,469.9	-2,102.3	1,712.9	2,704.6	0.50	-0.48	-0.16
11,197.0	86.30	151.90	8,474.3	-2,158.2	1,741.7	2,766.9	2.81	0.79	-2.70
11,261.0	86.50	151.90	8,478.3	-2,214.5	1,771.8	2,830.3	0.31	0.31	0.00
11,324.0	88.70	152.20	8,480.9	-2,270.1	1,801.3	2,892.8	3.52	3.49	0.48
11,387.0	89.70	152.40	8,481.8	-2,325.9	1,830.6	2,955.2	1.62	1.59	0.32
11,450.0	89.00	151.50	8,482.5	-2,381.5	1,860.2	3,017.8	1.81	-1.11	-1.43
11,512.0	88.30	151.10	8,484.0	-2,435.9	1,889.9	3,079.4	1.30	-1.13	-0.65
11,575.0	87.70	151.20	8,486.2	-2,491.0	1,920.3	3,142.0	0.97	-0.95	0.16
11,639.0	87.70	150.90	8,488.7	-2,547.0	1,951.3	3,205.6	0.47	0.00	-0.47
11,702.0	86.80	152.20	8,491.8	-2,602.3	1,981.3	3,268.1	2.51	-1.43	2.06
11,769.0	86.90	153.30	8,495.5	-2,661.8	2,011.9	3,334.4	1.65	0.15	1.64
11,828.0	86.80	152.40	8,498.7	-2,714.2	2,038.8	3,392.7	1.53	-0.17	-1.53
11,892.0	87.90	152.00	8,501.7	-2,770.7	2,068.6	3,456.2	1.83	1.72	-0.63
11,955.0	89.20	151.70	8,503.2	-2,826.3	2,098.3	3,518.7	2.12	2.06	-0.48
12,019.0	90.60	152.90	8,503.4	-2,882.9	2,128.0	3,582.2	2.88	2.19	1.88
12,082.0	91.10	153.30	8,502.4	-2,939.1	2,156.5	3,644.5	1.02	0.79	0.63
12,146.0	90.10	152.90	8,501.8	-2,996.2	2,185.5	3,707.9	1.68	-1.56	-0.63

Company:	Chief Oil & Gas - AM	**Local Co-ordinate Reference:**	Well Humberston Unit 1H
Project:	Fayette County, PA	**TVD Reference:**	Well @ 2019.0usft (UDI#59)
Site:	Humberston Unit	**MD Reference:**	Well @ 2019.0usft (UDI#59)
Well:	Humberston Unit 1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,209.0	89.90	152.10	8,501.8	-3,052.1	2,214.6	3,770.3	1.31	-0.32	-1.27
12,272.0	91.10	153.50	8,501.2	-3,108.1	2,243.4	3,832.8	2.93	1.90	2.22
12,335.0	91.40	152.80	8,499.8	-3,164.3	2,271.8	3,895.1	1.21	0.48	-1.11
12,398.0	91.30	152.50	8,498.3	-3,220.2	2,300.8	3,957.5	0.50	-0.16	-0.48
12,461.0	90.20	151.40	8,497.5	-3,275.8	2,330.4	4,020.1	2.47	-1.75	-1.75
12,525.0	88.70	150.70	8,498.1	-3,331.8	2,361.4	4,083.7	2.59	-2.34	-1.09
12,588.0	89.20	151.20	8,499.3	-3,386.9	2,392.0	4,146.3	1.12	0.79	0.79
12,620.0	90.40	151.40	8,499.4	-3,415.0	2,407.3	4,178.1	3.80	3.75	0.63
TD									
12,683.0	90.40	151.40	8,499.0	-3,470.3	2,437.5	4,240.8	0.00	0.00	0.00

Survey Annotations

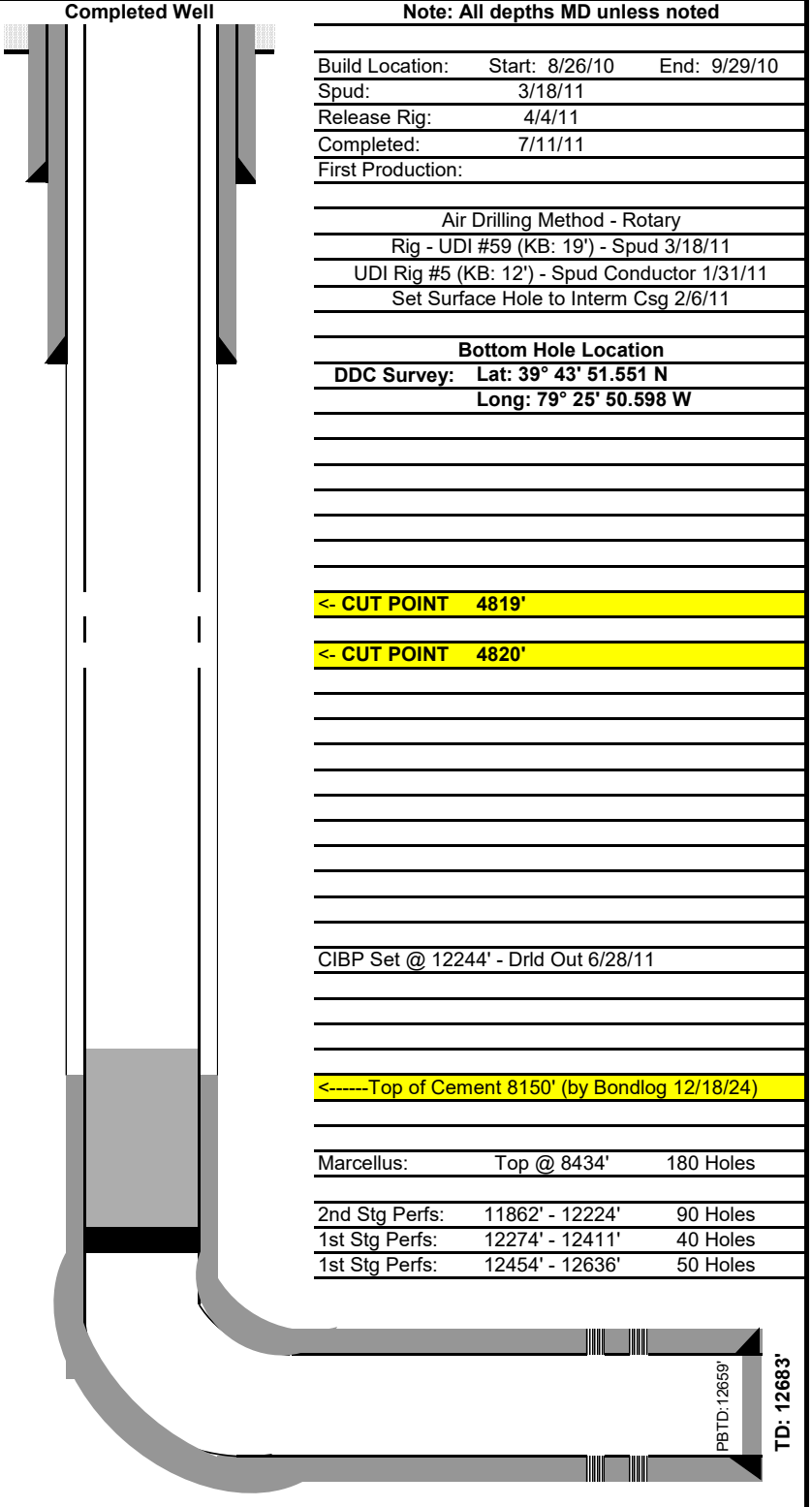
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
7,470.0	7,468.8	9.0	-68.5	Tie-In
12,683.0	8,499.0	-3,470.3	2,437.5	TD

Checked By: _____ Approved By: _____ Date: _____

CHIEF OIL & GAS LLC

WELLBORE DATA AND SKETCH

Well: Humberston Unit 1H	**Quad 7.5: Friendship, Henry Clay Twp-MS 2**	**Updated: 7/12/11**
County: Fayette	**State: Pennsylvania**	**Status: SI - WOPL**
Directions: See Prognosis	Location: Lat 39° 44' 25.38" N	Survey: Refer to Plat
Well Type: **Horizontal Well, No Pilot Hole**	Long 79° 26' 22.64" W	API # 37-051-24367 Drlg Permit
Elevation: GL: 2000'	**Completed Well**	**Note: All depths MD unless noted**
DF: 2018'		
KB: 2019'		Build Location: Start: 8/26/10 End: 9/29/10
		Spud: 3/18/11
22" Hole @ 95'		Release Rig: 4/4/11
20" Conductor @ 95'		Completed: 7/11/11
Sanded-in		First Production:
17 1/2" Hole @ 602'		Air Drilling Method - Rotary
		Rig - UDI #59 (KB: 19') - Spud 3/18/11
13 3/8" 54.5# J-55 Surface Csg @ 565'		UDI Rig #5 (KB: 12') - Spud Conductor 1/31/11
Cemented w/ 430 sxs - Circ		Set Surface Hole to Interm Csg 2/6/11
12 1/4" Hole @ 1829"		**Bottom Hole Location**
		DDC Survey: Lat: 39° 43' 51.551 N
9 5/8" 36# J-55 Intermediate Csg @ 1813'		**Long: 79° 25' 50.598 W**
Cemented w/ 604 sxs - Circ		
8 3/4" Hole @ 8937' MD		
7 7/8" Hole @ 12683' MD (8499' TVD)		
TOC @ 8100' by Field Calc		**<- CUT POINT 4819'**
KOP: 7900'		**<- CUT POINT 4820'**
Target Centerline - 8465' TVD		
Pen. Marcellus - 8434' MD (8336' TVD) VS 143'		
Maximum Deflection - 19.1 degree @ 8917'		
Maximum Angle - 92.8 degree @ 9297'		
Displacement - 4240' S 28.6 E		
Landing Point - 9075' MD (8465' TVD) VS 661'		
MWD Gamma run. No OH log run.		
		CIBP Set @ 12244' - Drld Out 6/28/11
30 Sacks Cement (TOC Plug @ 8093'		<------Top of Cement 8150' (by Bondlog 12/18/24)
New 5.5" CIBP set at 8400' ---------->		Marcellus: Top @ 8434' 180 Holes
		2nd Stg Perfs: 11862' - 12224' 90 Holes
		1st Stg Perfs: 12274' - 12411' 40 Holes
		1st Stg Perfs: 12454' - 12636' 50 Holes
		PBTD:12659'
		TD: 12683'
		5 1/2" 20# P-110 Csg @ 12682'
		Cemented w/ 1601 sxs - Circ
5/28/11: Superior Frac w/ 9,840 BFW (Treated) & 200,200# 100 Mesh, 204,400# 40/70, 198,700# 30/50 Sand. TLTR: 19,790 bbls - 2nd Stg	5/27/11: Superior Frac w/ 9,950 BFW (Treated) & 185,700# 100 Mesh, 190,300# 40/70, 181,500# 30/50 Sand. LTR: 9,950 bbls - 1st Stg	



APPENDIX C

APPLICATION FOR APPROVAL OF ALTERNATE METHOD OF PLUGGING & SUPPLEMENTAL DOCUMENTS

AUGUST 14, 2025

LPR ENERGY, LLC
P.O. Box 403 DuBois, PA 15801
Tel (814) 765-6300 X 205
regulatory@lprenergy.com
www.lprenergy.com

LPR ENERGY

August 14, 2025

James F. Humberston

224 Fearer Road

Markleysburg, PA 15459

Delivered Electronically Via DocuSign

RE: NOTICE OF INTENT TO PLUG – HUMBERSTON 1H - API 37-051-24367-00

Mr. Humberston,

The records of Fayette County indicate that you are the owner of the coal seams underlying the Humberston 1H Well, API #37-051-24367. LPR Energy LLC ("LPR") intends to plug and abandon the Humberston 1H Well and is required by law to advise you of its intent to do so.

Included within are the following documents for your review:

1. Well location plat
2. Proposed alternate method for plugging form that will be submitted to the DEP

LPR plans to submit a notice of intention by well operator to plug a well ("NOI") with an alternate method to the Department of Environmental Protection ("DEP") on August 14, 2025, and if approved by DEP, plans to commence plugging operations, as soon as allowed by law thereafter.

Should you have any questions please feel free to contact the undersigned at 814-765-6300 x 205 or by email at bob@lprenergy.com.

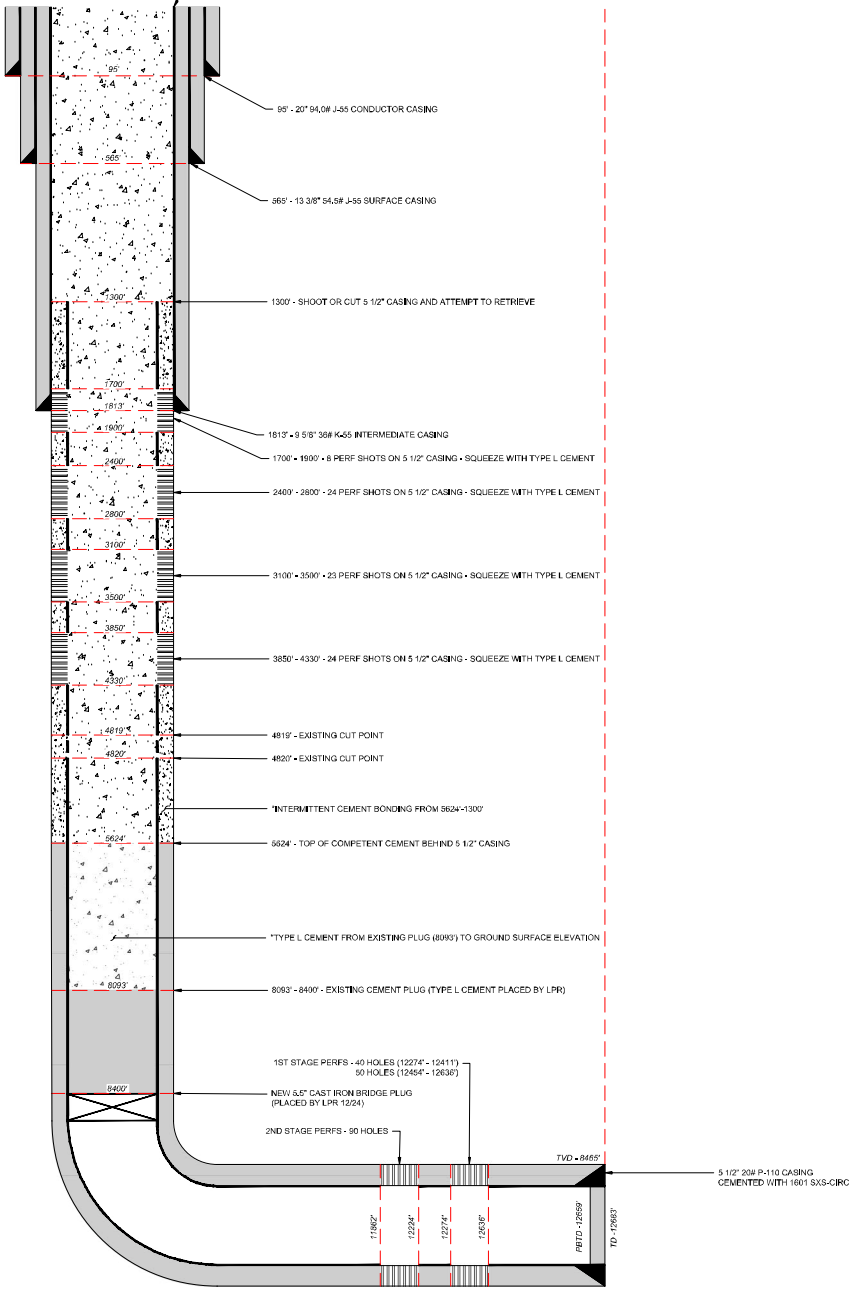
Robert J. Liddle

Enclosures
Location Plat
Proposed alternate method form

Docusign Envelope ID: 9012ACAA-D5BB-434E-B52A-417E54FD9517

WELL PLUGGING SCHEMATIC
NOT TO SCALE

ELEVATIONS:
KB - 2019'
DF - 2018'
GL - 2000'



NO.	DATE	DESCRIPTION	INT.
0	XXXX-XX-XX	INITIAL SUBMISSION	--

SEAL

PREPARED FOR:

LPR ENERGY, LLC
P.O. BOX 192009
DALLAS TX, 75219

PREPARED BY:

MOODY AND ASSOCIATES, INC
1720 WASHINGTON RD, SUITE 100
WASHINGTON, PA 15301
724-746-5200

PROJECT ID: 25-119-JW	DRAWN: JE
DATE: 2025-07-30	DESIGN: JE
SCALE: AS NOTED	CHECKED: JW

PROJECT:

HUMBERSTON UNIT #1H
API# 37-051-24367

TITLE:

WELL PLUGGING SCHEMATIC

PLAN STATUS:	SHEET NO.
PLUGGING	**1 OF 1**

Docusign Envelope ID: 9012ACAA-D5BB-434E-B52A-417E54FD9517

5500-PM-OG0002-DWG Rev. 09/2008

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Oil and Gas Management Program

WELL LOCATION PLAT

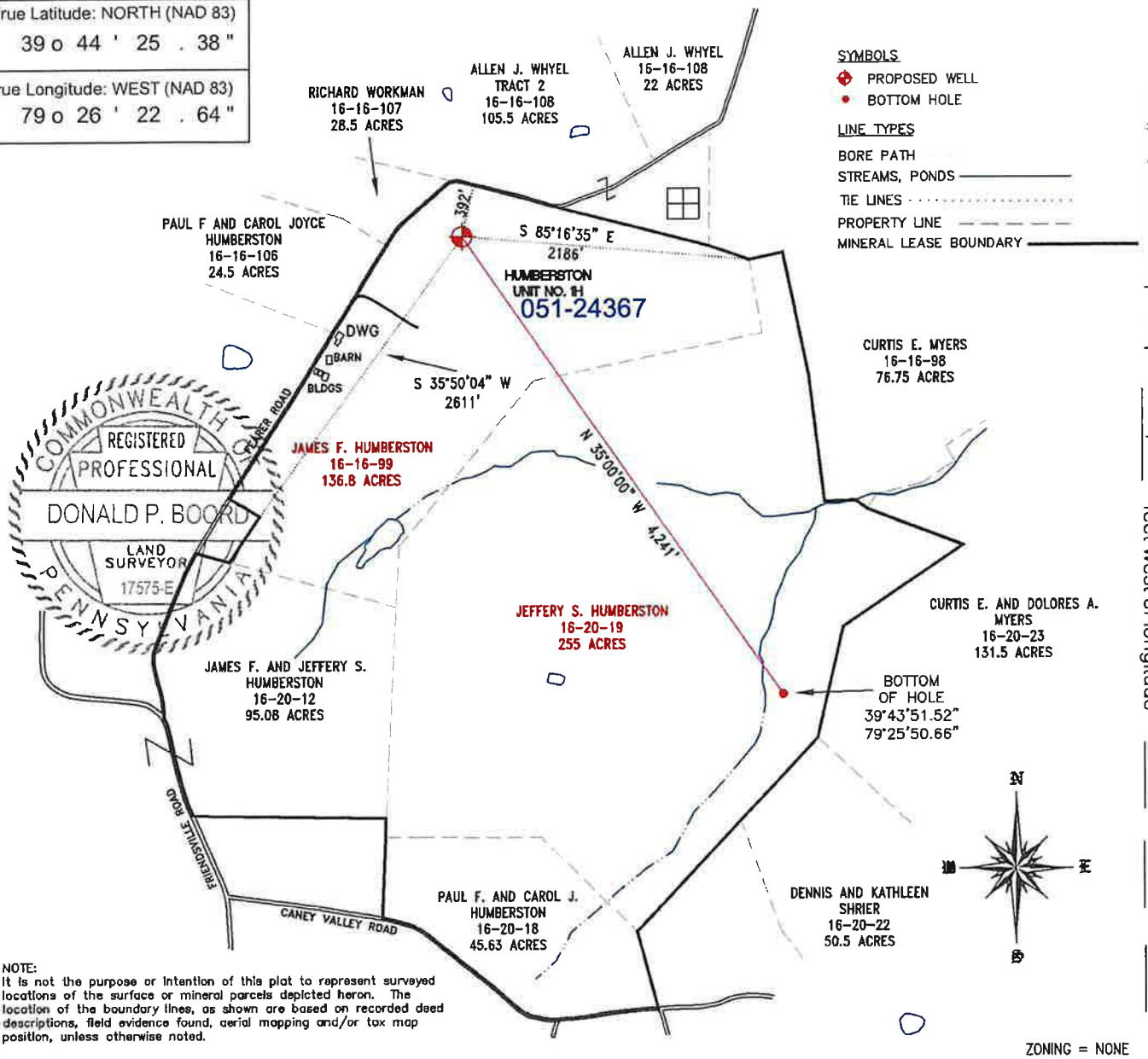
DEP USE ONLY	DEP Application Tracking #	G:
	Permit #	C:
	Project #	

Denotes location of well on topo map.

True Latitude: NORTH (NAD 83)
39 o 44 ' 25 . 38 "

True Longitude: WEST (NAD 83)
79 o 26 ' 22 . 64 "

Well is located on topo map 3,510 feet south of latitude 39° 45' 00"



COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL DONALD P. BOORD LAND SURVEYOR 17575-E

NOTE:
It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted heron. The location of the boundary lines, as shown are based on recorded deed descriptions, field evidence found, aerial mapping and/or tax map position, unless otherwise noted.

ZONING = NONE
Tract
ACREAGE 391.8 +/-

Surveyor or Engineer: BOORD, BENCHEK and ASSOC. DONALD P. BOORD P.L.S. Phone # 724-746-1105 Dwg. # 1406 DATE: MAY 12, 2010 Scale 1" = 1200'

Lat. & Long Metadata Method GPSKN Accuracy 4' Datum NAD83		Elevation Metadata Method GPSKN Accuracy 6' Datum NAVD88	Survey Date APRIL 16, 2010
Applicant / Well Operator Name: CHIEF OIL & GAS LLC	DEP. ID #258445	Well(Farm) Name: HUMBERSTON UNIT	Well # 1H / Serial #
Address: 5956 SHERRY LANE, DALLAS, TX 75225		County – Code: FAYETTE – 26	Municipality: HENRY CLAY TWP. / WELL TYPE: GAS
Surface Landowner/Lessor: PAUL F. AND CAROL J. HUMBERSTON/ JAMES F. AND TENNILLE L. HUMBERSTON		USGS 7 1/2 Quadrangle Map Name: FRIENDSVILLE, MD	Map Section: 2 / Surface Elevation: 2,000 ft.
Target Formation(s): MARCELLUS		Angle & Course of Deviation (Drilling): HORIZONTAL–90 N 35°00'00" W @ 4,241'	Anticipated Total Depth: TVD: 9,500' TMD: 13,536'

Surface Owner or Water Purveyor with a Water Supply within 1,000 ft.	Approximate Course and Distance to Water Supply	Owner, Lessee, or Operator of Workable Coal Seam	Name of Coal Seam Owned, Leased, or Operated
		1/2 PAUL F. AND CAROL J. HUMBERSTON	UPPER FREEPORT
		1/2 JAMES F. AND TENNILLE HUMBERSTON	UPPER FREEPORT

APPENDIX D

PLUGGING PROCEDURE LETTER

MOODY AND ASSOCIATES, INC.

JUNE 30, 2025

Groundwater and Environmental Professionals Since 1891

June 30, 2025

Mr. Adam Schoppe
LPR Energy
8333 Douglas Avenue, Suite 1010
Dallas, TX 75225

RE: Proposed Plugging Procedure
Humberston Unit 1H Gas Well (API #37-051-24367)
Henry Clay Township, Fayette County, Pennsylvania

Dear Adam:

As a follow up to our recent conversations and continued engagement with the Pennsylvania Department of Environmental Protection (PA DEP) on the proposed well plugging procedures for the Humberston Unit 1H gas well, Moody and Associates, Inc. (Moody) has again reviewed the well completion report and your initial plans for the plugging of the subject well. Moody appreciates the opportunity to work with LPR Energy (Client) to provide consulting services to work toward addressing the various concerns that the PA DEP has regarding the plugging of the subject well located in Henry Clay Township, Fayette County, Pennsylvania. While we have prepared our recommended approach, Moody does not offer any guarantees that these proposed procedures will be accepted by the Department.

Here is Moody's understanding that the following conditions exist in the Humberston Unit #1H:

Casing Schedule:

- 20" Casing at 95 Feet (Conductor)
- 13.375" Casing at 565 Feet (Surface)
- 9.625" Casing at 1813 Feet (Intermediate)
- 5.5" Casing at 12,682 Feet (Production)

Total Depth of Borehole at 12,683 Feet

Hole Displacement: 4,240 Feet S28.6 degrees E.

Drilling Date: March 18, 2011 to July 11, 2011

Completion Treated Interval:

- Top of Marcellus Shale: 8,434 Feet
- First stage perforations: 40 holes - 12,274-12,411 Feet and 50 holes – 12,454-12,636 Feet
- Second stage perforations: 90 holes – 11,862-12,224 Feet

Additional Well Information:

- A new Cast Iron Bridge Plug (CIBP) was set by LPR at 8,400 Feet in December 2024.
- A new Cement Plug was set by LPR from the top of the CIBP – 30 sacks of cement were placed inside the 5-1/2" production casing between at 8,400-8,093 Feet.
- The new Cement Plug was tagged and approximately 360 barrels of non-porous (bentonite gel) material was pumped and emplaced to approximately 4,820 feet.

With that cement plug set and lack of stratum bearing or having borne oil, gas or water between 4,820 and 8,400 feet, LPR made the decision to cut the 5-1/2" production casing at 4,819 and 4,820 feet to attempt to pull this production casing with pulling force ranging from 220,000 and 560,000 pounds between December 20, 2024 and December 26, 2024. As part of the decision-making process, the cement bond log (CBL) was reviewed to determine the appropriate placement of the cut point of the 5-1/2" casing. Based on that review of good cement bonding from 4,820 to 8,093 feet (top of existing cement plug) and the existence of no oil, gas or water producing strata, the decision was made to make the cut point at 4,820 and 4,819 to prepare to pull casing. This was followed in accordance with §78a.92(a)(1).

Anticipated Plugging Procedure:
Even though no coal was present in the Driller's Log, Moody recommends that the procedures in §78a.92 will be followed, as the well is located in a known coal area, which is noted on the original well plat.

With the presence of the new CIBP at 8,400 feet with a 307 foot cement plug on top of the CIBP, along with minimal accessibility below the cut point located at 4,820 feet, it is suggested that the Alternate Method and Attainable Bottom is requested, where Section 3221 of the Oil and Gas Act is followed to stop the vertical flow of fluids or gas within the well bore. It is anticipated that between the newly installed

CIBP at 8,400 feet, along with emplacement of in excess of 1,350 sacks of Class L cement from the existing cement top to the surface should meet or exceed the regulatory obligations and the overall objectives of this well plugging process. All recommended perforations and squeezing of cement through the 5-1/2" casing above 4,819 feet are being conducted to address potential producing zones having borne gas, oil or brine water in accordance with §78a.92(a)(1).

No additional perforations are being proposed between 4,820 and 8,093 feet due to the presence of competent cement throughout, along with wireline accessibility concerns and the lack of oil/gas/brine production zone in this horizon based on the conclusions and recommendations detailed in the attached report from Hickman Consulting Services (Appendix A). The following outlines our recommended procedures to be followed, which is built upon LPR's original well plugging process that was previously submitted to PA DEP:

1. Meet onsite to conduct site inspection, install well site containment controls, review and implement E&S plans and controls (§78a.53), pressure barrier policy (§78a.72 and §78a.87), review and implement control and disposal (C & D) plan (§78a.55).
2. Mobilize all necessary equipment on site and rig up on well.
3. Load the hole with water and trip in hole (TIH) to circulate and remove previously placed bentonite gel from 4,820 to 8,093 feet at the existing cement top. Rig out of hole (ROOH).
4. Mobilize and TIH with wireline. Based on the geologic review and review of the radial cement bond log (RCBL), LPR will proceed to perforate casing on approximately 20-foot intervals at the following vertical locations:
    a. 3,850 to 4,330 feet
    b. 3,100 to 3,550 feet
    c. 2,400 to 2,800 feet
    d. 1,700 to 1,900 feet
5. Pull out of hole (POOH) with wireline following last interval completion.
6. RIH with 2 3/8" tubing through the existing 5 ½" cut point at 4,820 feet to existing cement top at 8,093 feet.
7. In separate cement plug intervals, pump a total of approximately 700 sacks of Type L cement from 8,093 to 1,813 feet, which is the location of the 9 5/8" intermediate casing shoe. A minimum of 4 hours will be given to ensure proper curing between plugs. POOH

8. Mobilize and TIH with wireline to cut the 5 ½" casing at 1,300 feet. This location was determined based on previous attempt at 4,820 feet to cut and remove casing and RCBL information illustrating poor cement at this location.
9. If 5 1/2" casing is successfully removed, run in hole with 2 3/8" tubing and pump 667 sacks of Type L cement in a 138.0-barrel slurry with two separate plugs (and 4 hour wait time between plugs) to cement between 1,813 feet and surface.
10. In lieu of venting requirements, the landowner has requested to not have a visible surface vent (§78a.92 (3)), the well casing would be cut near the ground surface, capped and the API identification tag will be welded on and buried below depth. In addition, this well is being cemented to the surface. This is being completed due to ensure compliance with §78a.91(h).
11. Clean up site, demobilize rig and all equipment off site. Complete all require well site restoration activities. Plugging operations have been completed.

While it is expected that these prescribed well plugging procedures are intended to be followed, these procedures are subject to change due to unknown subsurface conditions in the Humberston #1H Well or as part of any well plugging process.

As previously stated, it is Moody's professional opinion that this plugging procedure meets or exceeds the following regulations in the Oil and Gas Act:

- § 3220. Plugging requirements. (a) General rule.
- § 3221. Alternative methods.

In addition to the above procedures being added as a narrative to the *Notice of Intention By Well Operator To Plug A Well* form (8000-FM-OOGM0005) and the *Proposed Alternate Method of Material for Casing, Plugging, Venting or Equipping a Well* form (8000-PM-OOGM0024) will be submitted in separate correspondence. Moody suggests adding the following to ensure all pertinent information regarding the Humberston #1H Well is provided to the Department:

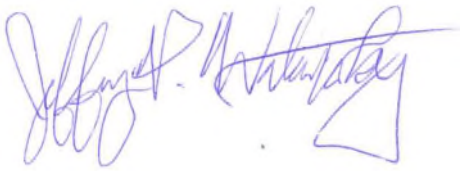
- Original Well Location Plat (5500-PM-OG0002-DWG)
- Original Well Record (5500-FM-OG0004a) with Driller's Log

- Well Bore Diagram illustrating the details of the well, including the existence of the two existing CIBPs.
- The listing of Coal Owners, Lessees, or Operators of Workable Coal Seams and which coals that are owned, leased or operator in the area of the Humberston Unit #1H. A Notice of Filing of the application shall be given by the well operator by certified mail to any affected Coal Owners, Lessees or Operators, who may, within 15 days after the notice, file objections to the proposed alternative method or material. If no timely objections are filed or raised by the Department, the Department shall determine whether to allow use of the proposed alternative method or material.

This concludes our review of the work completed to date and potential well plugging scenarios of the Humberston #1H gas well. Moody would be pleased to meet with you to further discuss our approach and recommended procedures to this project. If you have any questions or require additional information, please contact our office at 724-746-5200 or via email me at jwalentosky@moody-s.com.

Sincerely,

MOODY AND ASSOCIATES, INC.



Jeffrey P. Walentosky, P.G.

President

Cc: Joseph Scipione – LPR Energy
Bob Liddle – LPR Energy
Sean McGovern – Babst Calland
Moody File

Mr. Josh Hickman, PG
518 Blossom Drive
Canonsburg, PA 15317
(304) 952-9397
March 31, 2025

Mr. Adam Schoppe
LPR Energy
90 Beaver Dr., Suite 104A
DuBois, PA 15801

RE: Humberston Well (37-051-24367) Productive Zones Between 4,820 and 8,400 Feet

Mr. Schoppe,

This letter has been written within the Scope of Work agreed to in our mutually executed engagement on February 17, 2025. The objective of this work was for Hickman Consulting Services, LLC (HCS) to determine whether or not the Humberston Unit 1H well (API 37-051-24367) contained producing or producible formations between the measured vertical depths (MVD) of 4,820 feet and 8,400 feet. After reviewing the available data, HCS has determined that no historically or commercially producing or producible reservoirs exist in the available data between these depths in the referenced well.

Professional Statement

My name is Josh Hickman, P.G., and I have been retained by LPR Energy, on their behalf to independently arrive at a professional opinion on whether or not there are producing or producible oil and gas reservoirs between 4,820 feet and 8,400 feet in the Humberston Unit 1H well.

I, Josh Hickman, P.G. present the professional opinions contained in this report and attest that reasonable professional care and skill were taken in their preparation. Should additional information be available or come available outside of what was reviewed to form this professional opinion, I reserve the right to expand upon or update the opinion presented in this report.

Information Reviewed

The following Client provided data was available for review in this matter:

Humberston Unit 1H well

- Well File
    - Completion and workover report
    - Daily drilling reports
    - Directional Survey
    - Flowback report
    - Pressure and annular pressure
    - Well plat
    - Well site pictures
    - Well schematics
- Well Logs
    - Boresight interpretation
    - Radial cement bondlog with gamma
    - True Stratigraphic Position (TSP) Log

Fike Unit 1H - API 37-051-24164

- Well Logs
    - Directional Log
    - Laterlog 8,480'-8,660'
    - Mudlog 100' – 8,700'
    - Nuclear Combined
    - ShaleGas Log 8,480'-8,660'
    - Sonic 8,480'-8,660'

Hall Unit 1H – API 37-051-24403

- Well Logs
    - Pilothole Mudlog 3,050' -8,750'
    - MWD Log 7,800'-8,600'
    - Nuclear Combined 100'-8,750'
    - Resistivity 1,650'-8,740'

John Holt Unit 1H – API 37-051-24140

- Well Logs
    - Mudlog 0'-8,400'
    - Nuclear combined 0'-8,410'
    - ShaleGas 6,600'-8,350'

PMG Allen Unit 1H – API 37-111-20296

- Well Logs

- Laterlog 2,000’-9,000’
- Mudlog 2,000’-9,000’
- Nuclear combined 100’-9,000’
- Rate of Penetration 2,000’-9,000’
- ShaleGas Log 7,880’-8,040’
- Sonic 2,000’-9,000’

PMG Baird Unit 1H – API 37-111-20297

- Well Logs
  - Cement Bond Log 4,680’-9,000’
  - FraCADE Advisor 8,000’-8,920’
  - Gamma 0’-8,950’
  - Geoframe OMBI 7,980’-8,970’
  - Mudlog 4,340’-9,000’
  - Nuclear combined 0’-8,980’
  - Rate of Penetration 7,680’-12,500’
  - ShaleGas Log 8,000’-8,940’
  - Sonic Scanner 7,640’-8,920’

PMG Grace Unit 1H – API 37-111-20304

- Well Logs
  - Cement Bond Log 0’-2,200’
  - Directional Survey
  - FraCADE Advisor 7,830’-9,110’
  - Mechanical Properties Log 7,830’-9,120’
  - Nuclear combined 100’-9,170’
  - Pulsed Neutron Log 300’-1,740’
  - Rate of Penetration 8,100’-13,300’
  - Resistivity 100’-9,170’
  - Sonic Platform Express 2060’-9,110’
  - True Stratigraphic Position (TSP) Log

The following public files were reviewed for this work:

Ashley, George H and Robinson J French, Oil and Gas Fields of Pennsylvania, Pennsylvania Geological Survey, 1922

Carter, Kristin, Subsurface Lithostratigraphy of the Oil- and Gas-Producing Regions of Pennsylvania, Open-File Oil and Gas Report 19-01.1, 2019

Carter, Kristin et al, Oil and Gas Fields and Pools of Pennsylvania – 1859-2011, Open-File Oil and Gas Report 15-01.2, Pennsylvania Geological Survey, 2015

Flint, Norman K, Geology and Mineral Resources of Southern Somerset County, Pennsylvania, County Report C56A, Pennsylvania Geological Survey, 1965

Harper, J.A., 1999, Devonian, chap. 7 of Shultz, C.H., ed., The geology of Pennsylvania: Pennsylvania Geological Survey and Pittsburgh Geological Society Special Publication 1, p. 108–127

Heyman, Louis, Tully (Middle Devonian) to Queenston (Upper Ordovician) Correlations in the Subsurface of Western Pennsylvania, Mineral Resource Report 73, Pennsylvania Geological Survey, 1977

Hickok IV, WO and Moyer FT, Geology and Mineral Resources of Fayette County, Pennsylvania, Bulletin C26, Pennsylvania Geological Survey, 1940

Kelley, Dana et al, The Petoleum Industry and the Future Petroleum Province in Pennsylvania, Mineral Resource Report 65, Pennsylvania Geologcal Survey, 1983

Moyer, Forrest T, Structure and Stratigraphy of Fayette County (Preliminary Report), Bulletin No. 115, Topographic and Geologic Survey of Pennsylvania, 1937

Geological Setting

The Humberston Unit 1H well is structurally located on the western side of the Lower Youghiogheny Syncline, as it is called in more recent publications, or the Johnstown Syncline, in older publications. The syncline sets up a broad valley that is walled by Laurel Hill in the west and Packhorse Mountain in the East. The Youghiogheny River, that flows in the valley has been dammed to create the Youghiogheny Reservoir, south of the town of Confluence, PA. The Humberston Unit 1H sits on the western side of the reservoir. In the valley some of the youngest rocks in the area are present with the Pennsylvanian Aged, Casselman Formation of the Conemaugh Group exposed at the surface. With depth, the Glenshaw Formation, Allegheny Group, and then the Pottsville Group are present. These rocks are all part of a Pennsylvanian-aged sequence of shale, sandstone, minor coals, clay, and limestones that represent a nearshore depositional environment.

A disconformity separates the Pennsylvanian-aged rocks from the Mississippian-aged marine limestone, shale, and occasional sandstone. These rocks are made up of the Mauch Chunk Formation, Loyalhanna Formation, and the Pocono Formation. The shallower (more recent) rocks are primarily made up of red and green shales and thin-bedded limestones and then change to sandstones in the Pocono formation.

The Devonian age rocks lie comfortably below the Pocono Formation sandstones and shales and are represented by thousands of feet of red and grey shales. In the upper part of these rocks, occasional low porosity lensatic sandstones exist. Where it is exposed on the surface in the area, the upper Devonian aged rocks are known as the Catskill Formation (which has red and some green shales with grey lensatic sandstones) and the Jennings Formation (which are grey and black shales with platy sandstone). The transition between the formations is uncertain as the formations inter-tongue. No consistent stratigraphic markers are seen in the shale at depth until the slightly organic Burkett Shale is reached. This thin shale sits upon an equally thin (or absent) limestone known as the Tully limestone, which is generally not well-developed in the area. Below the Tully limestone is a grey shale known as the Hamilton Shale. At the base of the Devonian-aged rocks is the Marcellus Formation, which is a black organic-rich anoxic shale.

Large-scale low-angle tectonic faulting is rooted in the Marcellus Shale through the area. Due to its low shear strength, the Marcellus Shale acts as a preferred shear zone for this low-angle faulting. Steeper angle imbricate thrusts, ramps, and listric faults rise out of the Marcellus Shale and through the shallower rocks. The area's valley and ridge topography is a product of this process.

Professional Opinion

The vertical section in the Humberston Unit 1H well that has been reviewed for producing or producible oil and gas reservoirs is between 4,820 feet and 8,400 feet in the well. This zone begins in the Mahantago Formation/Hamilton Group in the well, approximately 320 vertical

feet (not measured depth) below the base of the Burkett Shale, which is at 7,996 feet MVD in the Radial Cement Bond log reviewed for the well. The top of the zone is below the deepest Upper Devonian Sand of note in the well, which has a gamma reading of 40 units and is between 3,305 feet to 3,338 feet MVD in the Radial Cement Bond log reviewed for the well. This is likely somewhere in the stratigraphic intertonguing between the Catskill and Jennings Formations. The intervening rock between these points is interpreted as an interbedded silty sandstone and sandy siltstone that grades to a siltstone and/or shale with depth. This interpretation is assisted by comparing the gamma-ray log in the Humberston well's radial cement bond log to the mudlog and neutron combination log in the Hall Unit 1H, which is northeast of the Humberston well along the current geologic strike. However, there are noted constraints with the Hall Unit 1H due to the mudlog starting at 4,000 feet and an inconsistent thickness of the Devonian section between the wells.

Through discussions with LPR staff, it was noted that the production casing from the Humberston well could not be removed after it was shot at approximately 4,820 feet after pulling with 500,000 pounds of force. This separation remains open in the well. A plug has been set in the well at 8,400 feet to shut off the lateral section of the well. A review of the radial bond log for the well shows a zone of competent cement from 5,624 feet to 5,676 feet in the well as well as three additional competent sections of cement bonding exist from 8,208 to 8,220, 8,248 to 8,278, and intermittent good bond between 8,345 to 8,400 feet.

To determine whether or not any producing zones exist between the stratigraphic equivalent of the depths (4,820 feet and 8,400 feet) in the general area, a review of the surrounding oil and gas wells and the published oil and gas literature was made. It was found after reviewing the wells on the general area map (Figure 1) that all of the wells are Marcellus Shale wells and do not produce from formations shallower than the Marcellus Shale. A literature review of the papers referenced previously in this letter shows that no oil and gas pools or fields are found in this area within the stratigraphic bounds of the referenced interval. A summary of the Pennsylvania Geological Survey's knowledge of oil and gas production in the state, Oil and Gas Fields and Pools of Pennsylvania, shows that the only known production in the area is from the Marcellus Shale to the east of the Humberston well and represents the drilling of the PMG wells (Figure 2).

Since no literature or drilling records indicate producible reservoirs in this interval that the Humberston Unit 1H well penetrated, a review of the surrounding drilling records was conducted to determine if any zones were penetrated that could be productive. The well logs from the Humberston Unit 1H are limited to a Radial Cement Bond log that covers the interval from 0' to 8,400' and measurement while drilling survey gamma ray log from 7,460 to TD. This data set does not provide any indication of the presence of porosity, rock type, or the presence of oil and/or gas. Therefore, the stratigraphic interpretation support for the well is limited to what can be derived from gamma-ray logs, which is the general stratigraphy of low gamma-ray rock (sandstone and limestones) to moderate gamma rocks (like siltstones and shales) to high gamma-ray rocks (which are black shales such as the Marcellus Shale). Comparing the gamma-ray log from the Humbertson Unit 1H to surrounding wells for additional insight is thus

necessary. The closest and most stratigraphically and structurally similar well is the Hall Unit 1H to the northeast along strike with the syncline (valley) axis. A review of the available data for the Hall Unit 1H well shows that it also includes a mudlog, resistivity log, and a neutron combination log. All three log sets also include a gamma ray log. The gamma-ray log allows for rock units to be interpreted between the wells and some properties to be inferred.

After a review of the Hall Unit 1H well logs, it was determined that the only potentially oil and gas-bearing rock in that well within the interval of review was located at 5,530 and 5,537 feet (Figure 3). These porosity zones are within the Devonian-aged siltstone package known as the Jennison Formation (Flint, 1965). These zones have a neutron porosity of 13% and 12% respectively according to the neutron combination log run on the well. Although not definitive, it is possible to interpret that the lower of these zones is also present in the Humbertson Unit 1H well at 5,497 feet (Figure 4). The correlation is not a perfect match due to the thickness of the Devonian aged units above and below the sand package not matching and the general signature of the sand package being a rather poor match. However, given the significant distance between the wells and the ephemeral nature of sand lenses in this section of the rock record, the correlation can be argued with some merit. The response of the resistivity log across the porosity zones in the Hall Unit 1H well shows moderate resistivity above the natural background signal of the rock indicating non-fluid-filled porosity (Figure 5). The mudlog response through the zone, shows no gas release through the porosity zone above the normal levels, which is 40 to 60 units, even though the well was logged on air (Figure 6). A casing gas increase is seen approximately ten to twenty feet above the zone, but does not appear related to these sands as the bit would not have reached this zone and the casing gas readings are well correlated with joint connections. The Fike Unit 1H and the John Holt Unit 1H also show developed sandy lenses in the same stratigraphic position in the rock record to the west of the Hall Unit 1H well (Figure 7 and Figure 8). Neither well shows any indication of producible gas from the sands. The sandy (conglomerate) zone appears to fade to the east. The response across the approximately correlated zone shows a muted gamma response and no porosity in the PMG Allen Unit 1H and PMG Grace Unit 1H wells (Figure 9 and Figure 10).

The Geology and Mineral Resources of Southern Somerset County, Pennsylvania (Flint, 1964) provides insight into the nature of these sandy sections in the Jennings Formation of the Devonian Aged shales. These beds are exposed in anticlines throughout the area and a direct interpretation of the rock is thus possible. The beds are silty conglomerates with the larger pieces made up of fossiliferous sandstone ‘blocks’ of various sizes. The porosity is generated in these beds by the presence of fossil molds, primarily of brachiopods. From the study, it is inferred that while these beds have porosity, the exposure of these beds at the surface in the nearby anticlines prevents any closure from existing to create an impermeable natural gas trap. Thus, the beds are not natural gas or oil reservoirs in this area.

During the course of the engagement, the client reported that the production casing currently has pressure on it at the surface after the production casing was separated during the initial plugging operations. The annulus between the intermediate casing and the production casing, which is reported as uncemented to the surface, does not have pressure on it at the surface.

This indicates that a source of gas exists in an area that is at or connected to the area of the production pipe separation at approximately 4,820 feet. At the point of separation, which is in the Upper Devonian Jennison Formation (also known as the Brallier Formation), there are no known or observed producing or producible formations below this point. Deeper in the section, stratigraphically between the Burkett Shale (the Tully Limestone is absent here) and the top of the Marcellus Shale, there are no known oil and gas reservoirs. This stratigraphic interval is called the Mahantago Formation and is made up of near-shore fossiliferous claystones in central to western Pennsylvania. Near the Allegheny Front, the Mahantago Formation grades laterally into the finer-grained and undifferentiated Hamilton Group (Harper, 1999). At the location of the Humberston well, it is unknown whether or not it should be referred to as the Mahantago or Hamilton, but it is known that it consists of fine-grained claystones that are not known as oil and gas reservoirs.

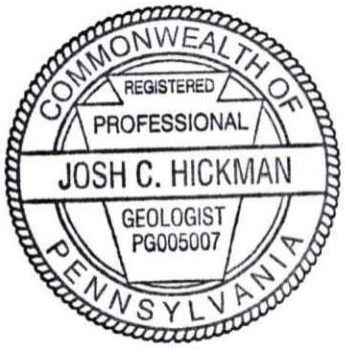
The likely source of the gas pressure is above the separation point from shallow sands of the Elk, Bradford, and/or Venango Groups. These sands inter-tongue into the Jennison Formation (also known as the Brallier Formation). The lowest sand identified is interpreted as the Elk Sand and it is present from 3305-3338 feet in the Humberston well (Figure 11). The shallower sands can be found from 3,137 to 3179 feet (interpreted as the Kane Sand), 2,927 to 2,935 feet (interpreted as the Speechley Sand), and 2,755 to 2,767 feet (interpretation uncertain). These sands are only indicated by their clean gamma-ray signature on the radial cement bond log and therefore any information about reservoir characteristics is unknown.

Since the section of interest lacks known producing or producible oil and gas reservoirs, but there is gas pressure on the production casing, but not the intermediate casing the following is deduced:

- Pressure is isolated to above the bonded cement zone from 5,624 feet to 5,676 feet shown on the radial cement bond log. In this section, no producing or producible oil and gas reservoirs are present between the top of this section (5,624 feet) and the separation point at 4,820 feet. The cement bond log shows no cement from the separation point to the shallower sandstones, which are known reservoirs in the region and are the likely source of the gas entering into the production casing.
- Sufficient cement bond exists in the section shallower than the separation point to prevent the extraction of the production casing and to seal off the pressure entering the production casing from also being seen at the surface in the annulus between the production casing and the intermediate casing.

Summary of Professional Opinion

From the preceding analysis, it is the author's professional opinion that the interval between 4,820 feet and 8,400 feet in the Humberston well does not contain oil and gas reservoirs that are producing or producible. However, it is deduced from the data that shallower gas sands above the separation point are likely causing gas pressure to flow into the production casing.



With Professional Regards,

Josh Hickman, PG, MBA, M.Sc.

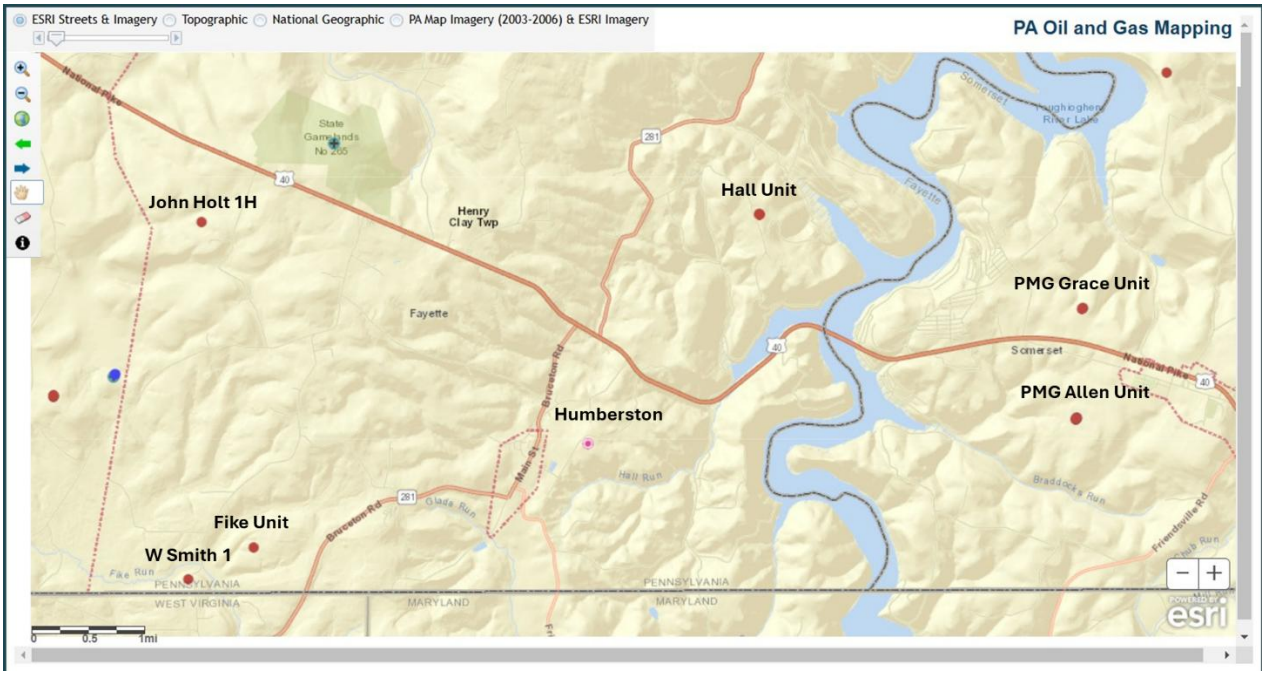


Figure 1: Map from the Pennsylvania Department of Environmental Protections showing the area around the Humberston Unit 1H well. All well types (conventional and unconventional) and status' (active, plugged, etc) are shown on this map.

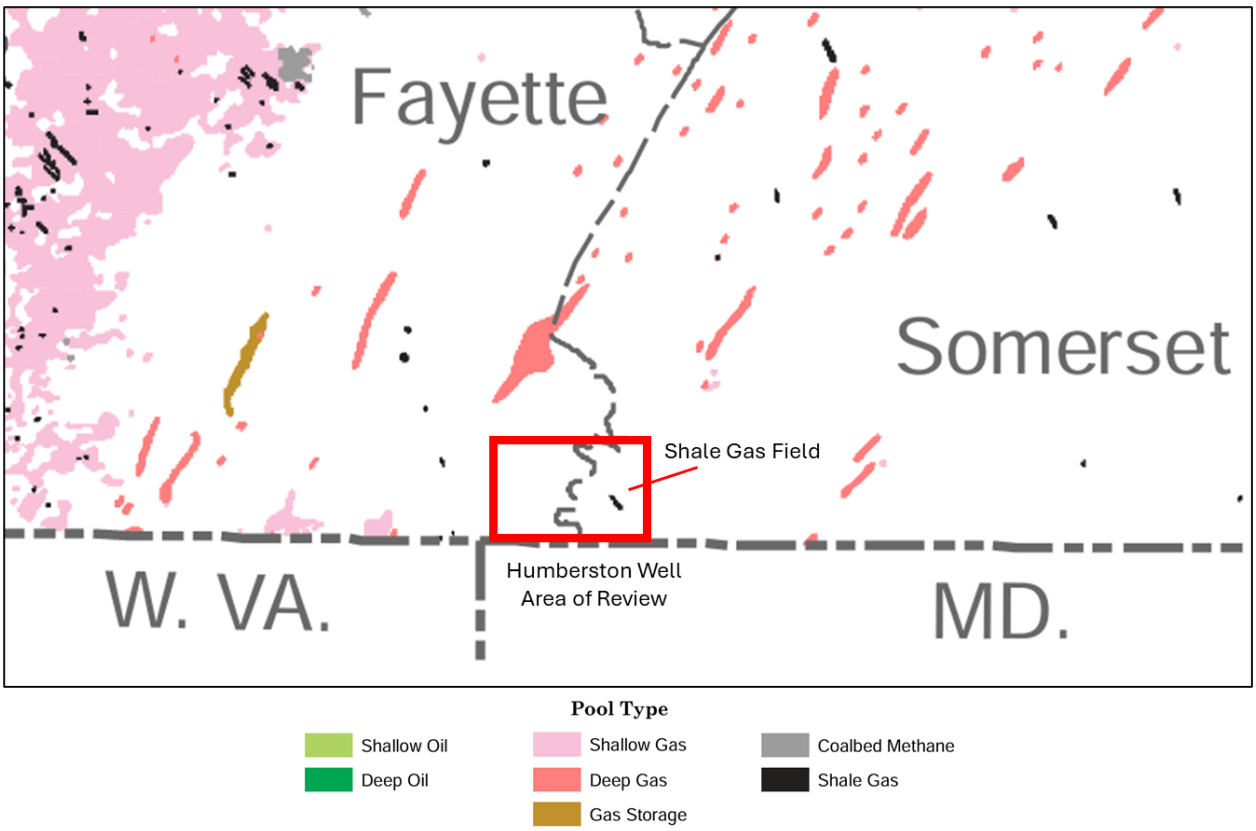


Figure 2: Excerpt from Oil and Gas Fields and Pools of Pennsylvania – 1859 – 2011 that summarizes all of the oil and gas drilling in the state. The study shows only a small Marcellus shale gas field in the eastern half of the area. This small field is made up of the PMG wells noted on the prior map.

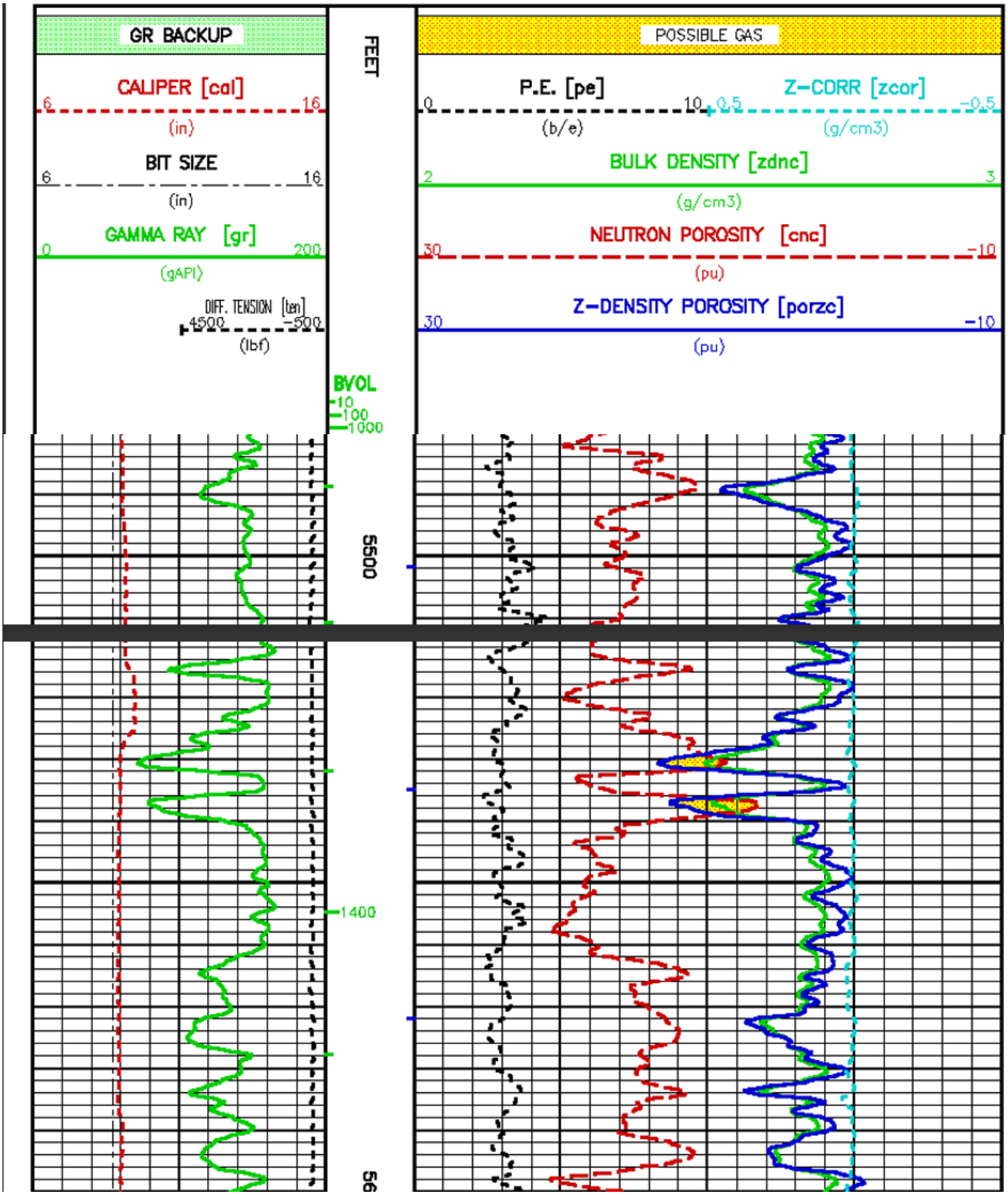


Figure 3: Porosity zone in the Devonian Aged rocks in the Hall Unit 1H well. The zone is a silty sand based on the response of 3 on the photoelectric log. A clean sand has a value of 2 on the photoelectric log, while limestone has a value of 5.

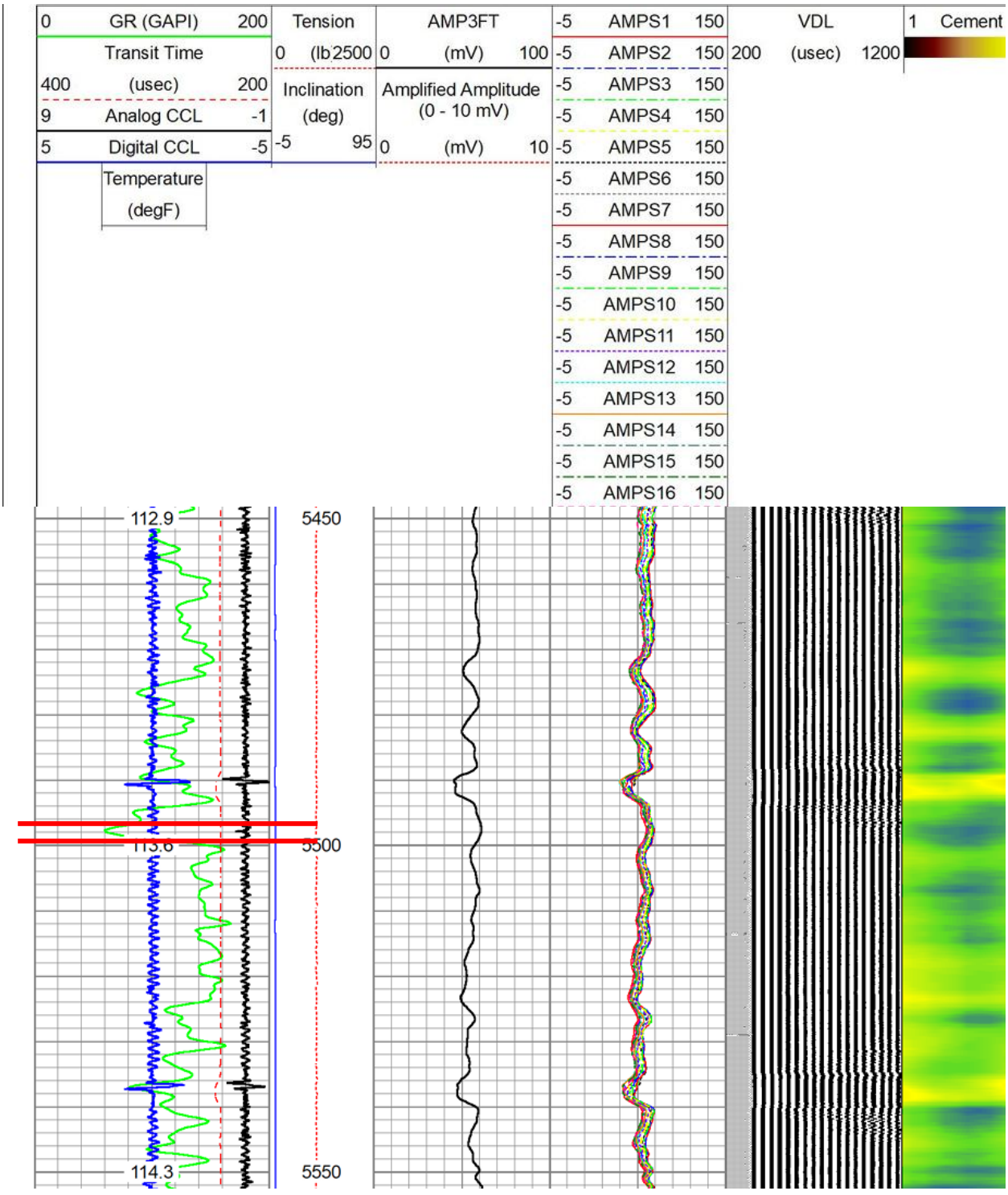


Figure 4: Radial Cement Bond log from the Humberston Unit 1H well showing the silty sand zone at 5,497 feet that is interpreted as being stratigraphically equivalent to the porosity zone found in the Hall Unit 1H well (marked between the red lines).

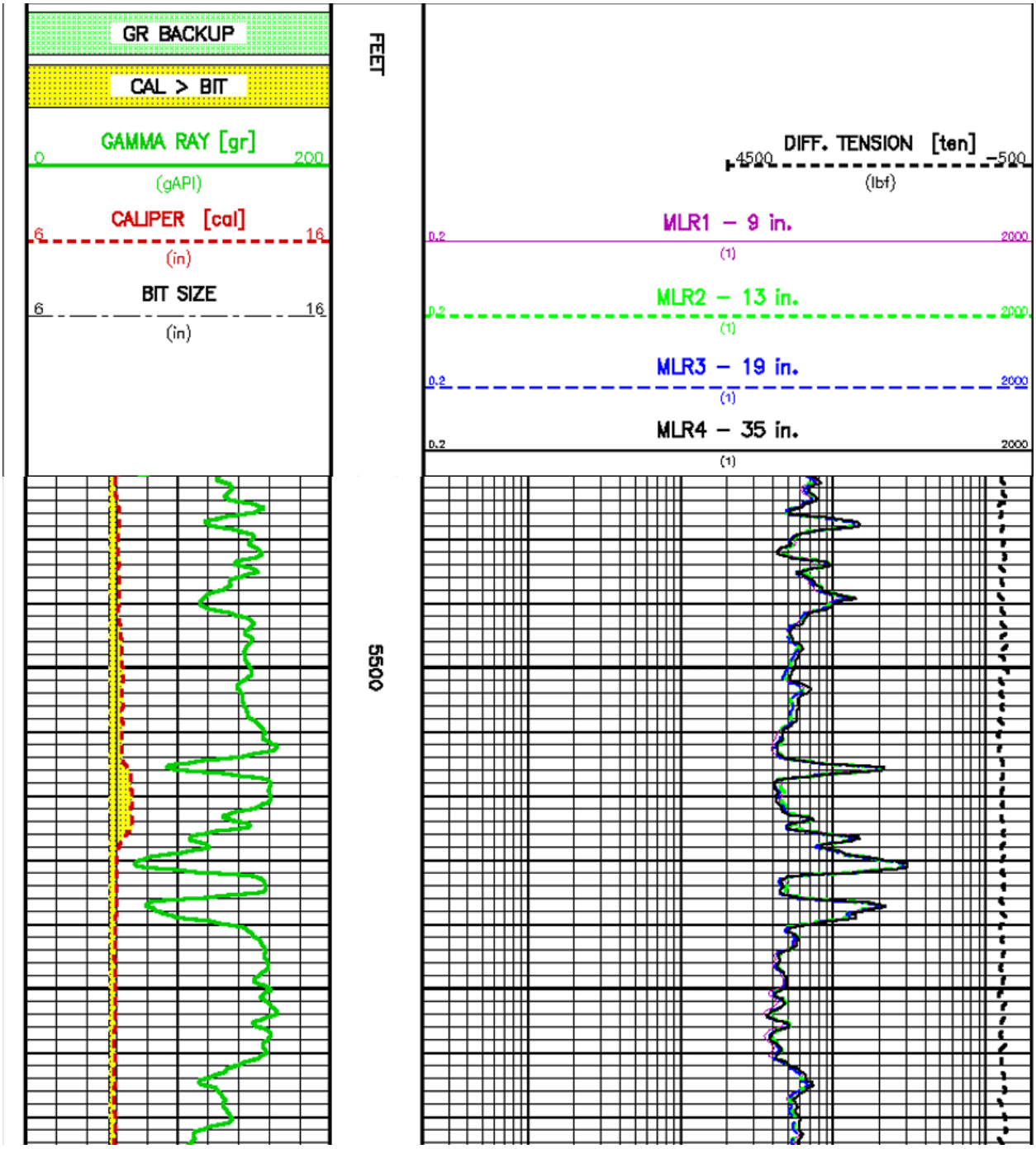


Figure 5: Resistivity log from the Hall Unit 1H across the porosity zones.

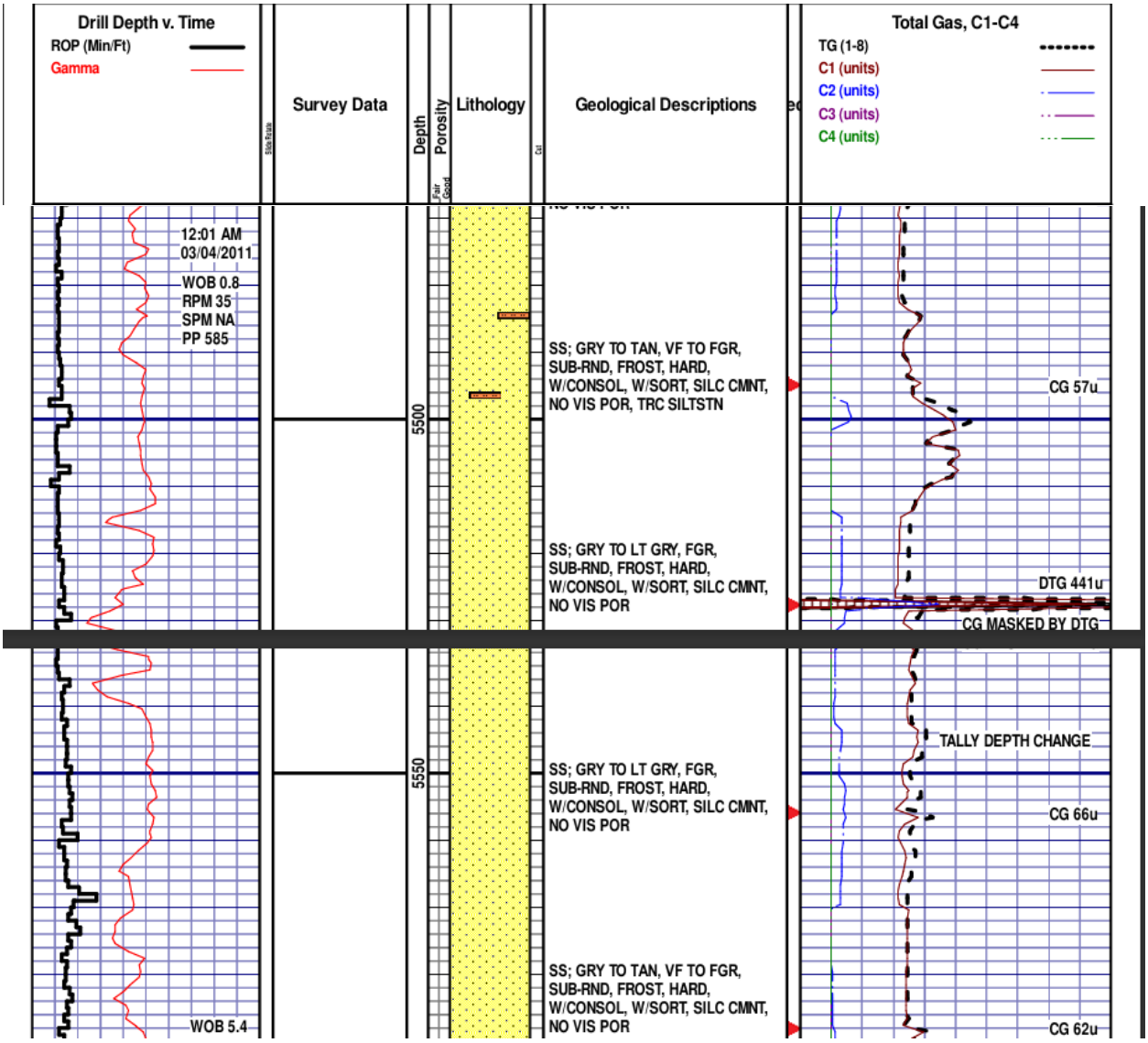


Figure 6: Mudlog from the Hall Unit 1H that covers the porosity intervals at 5,530 feet and 5,537 feet. Note the lack of gas response across the interval.

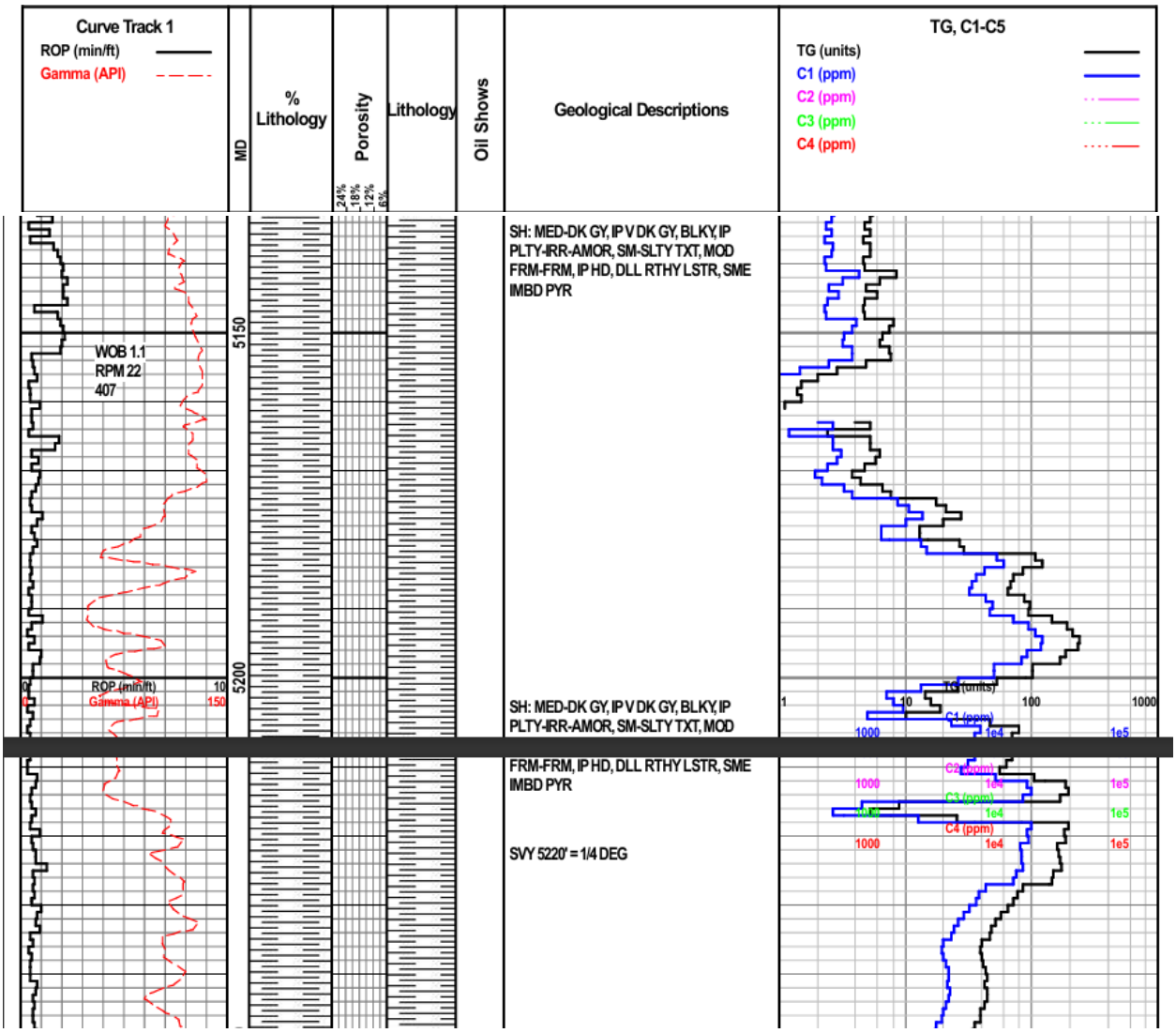


Figure 7: Mudlog from the Fike Unit 1H over the stratigraphic zone of interest. The gas response over the zone on the mudlog is inconslusive due to drilling on air and soap above the zone, which surpresses the gas response, and then just air, which increases the gas response.

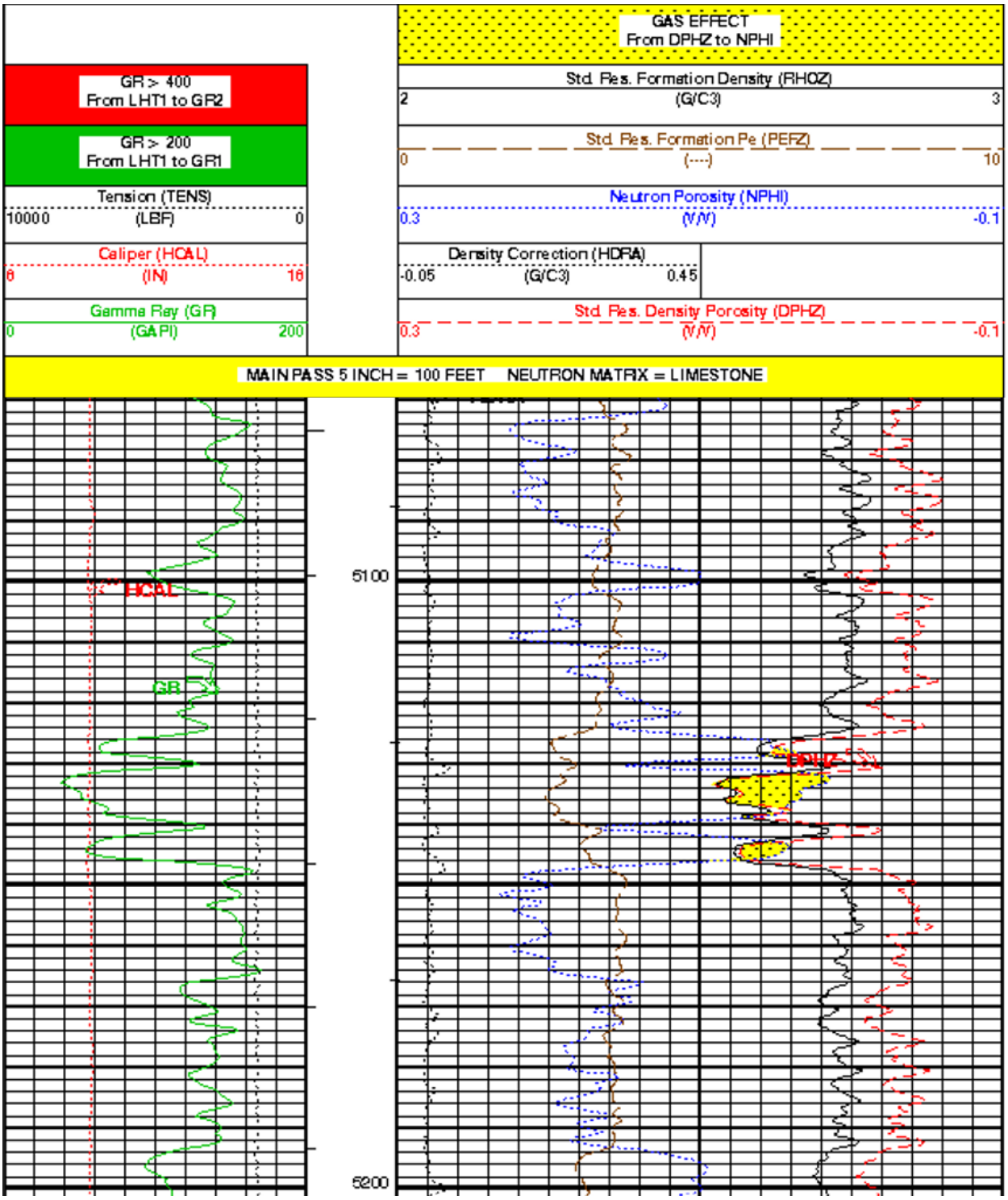


Figure 8: John Holt Unit 1H neutron combination log showing the zone of interest. The sandy lenses are thicker but the porosity in this well is significantly less than that in the Hall Unit 1H.

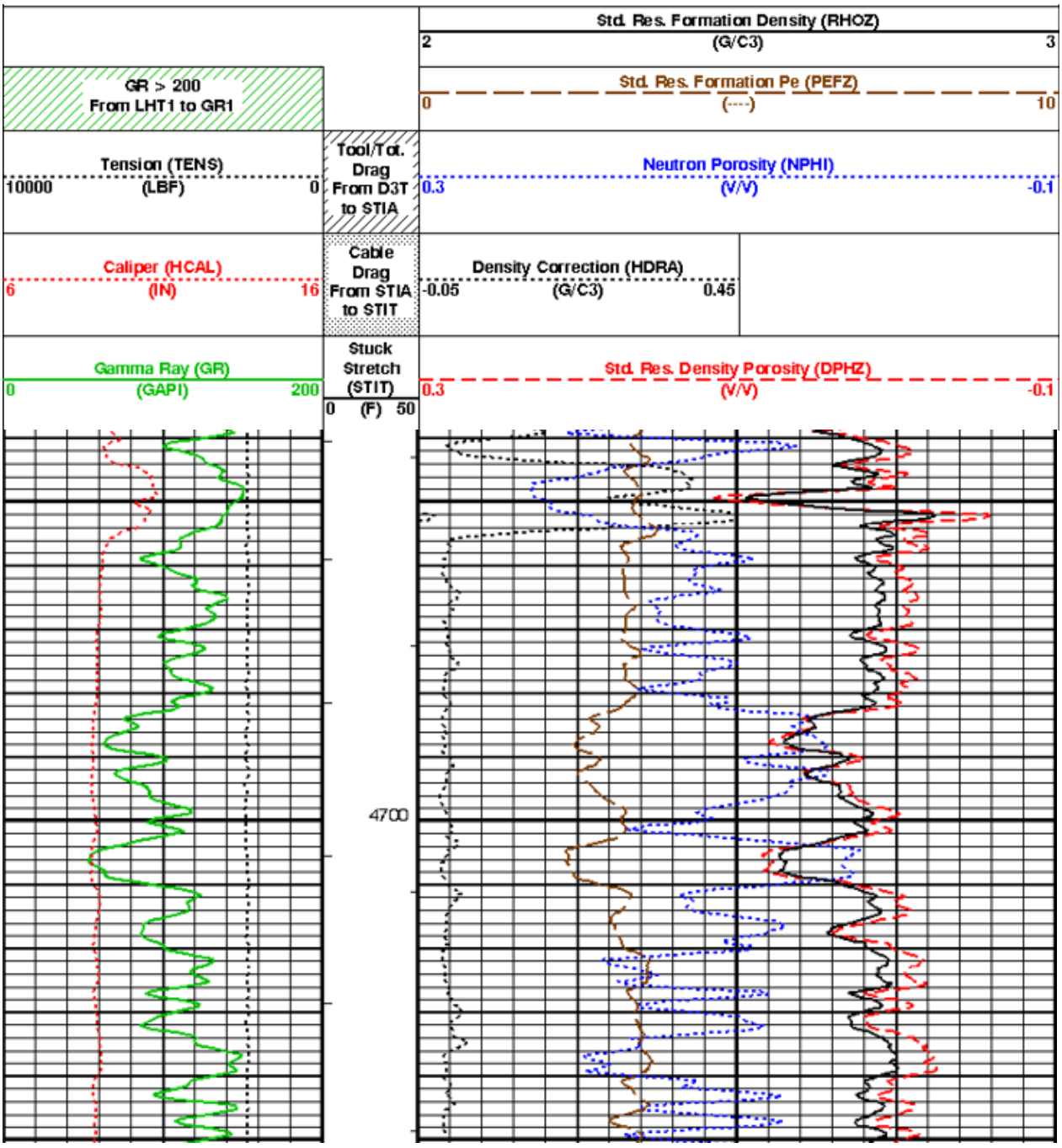


Figure 9: PMG Allen Unit 1H neutron combination log showing the zone of interest. This well is to the east of the Humberston Unit 1H and shows degradation in the clean sand response and the porosity development.

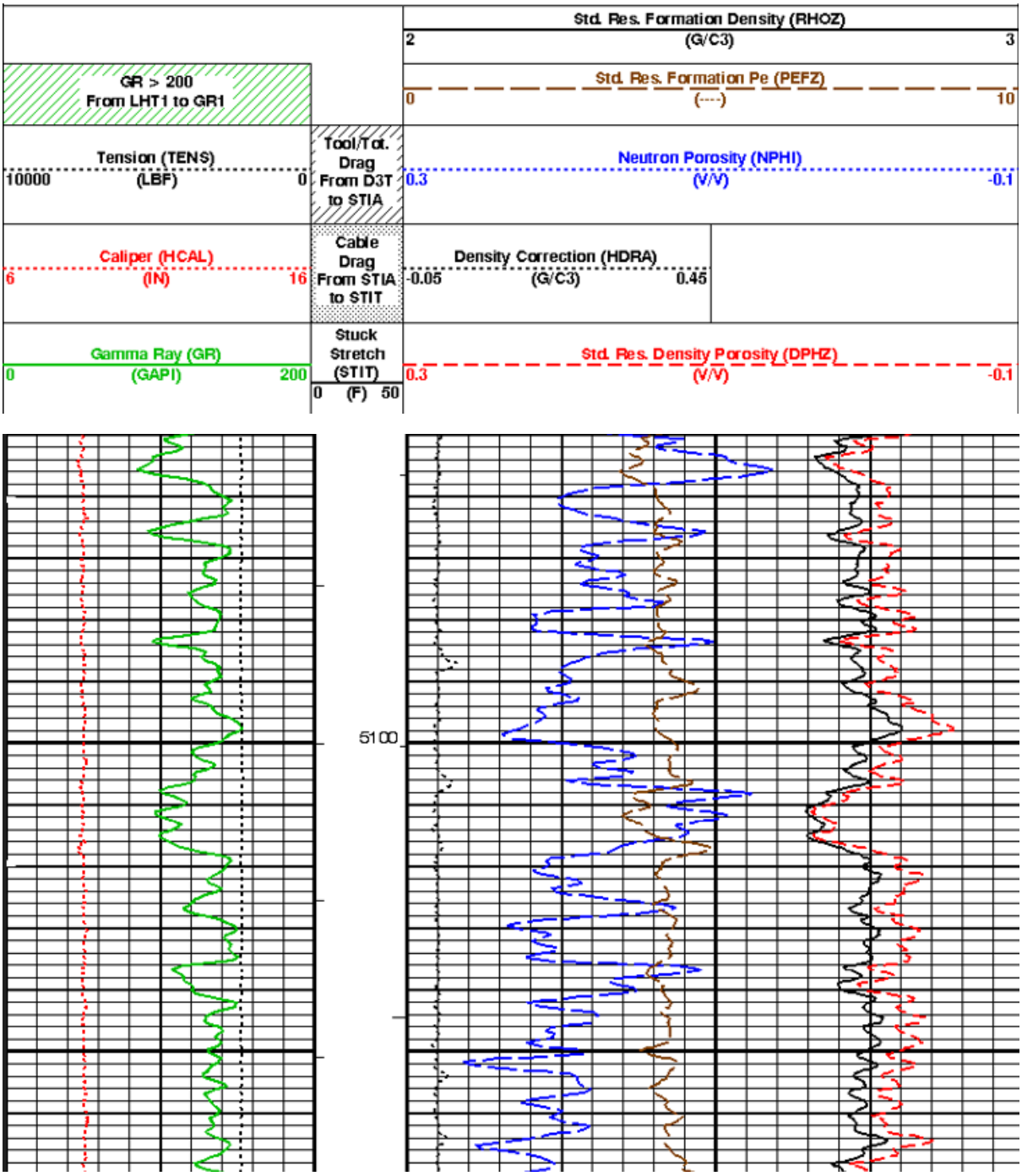


Figure 10: PMG Grace Unit 1H neutron combination log over the zone of interest. As in the PMG Allen Unit 1H the clean sand response is muted and the porosity is further degraded in this well, which is even further east from the Humberston Unit 1H well.

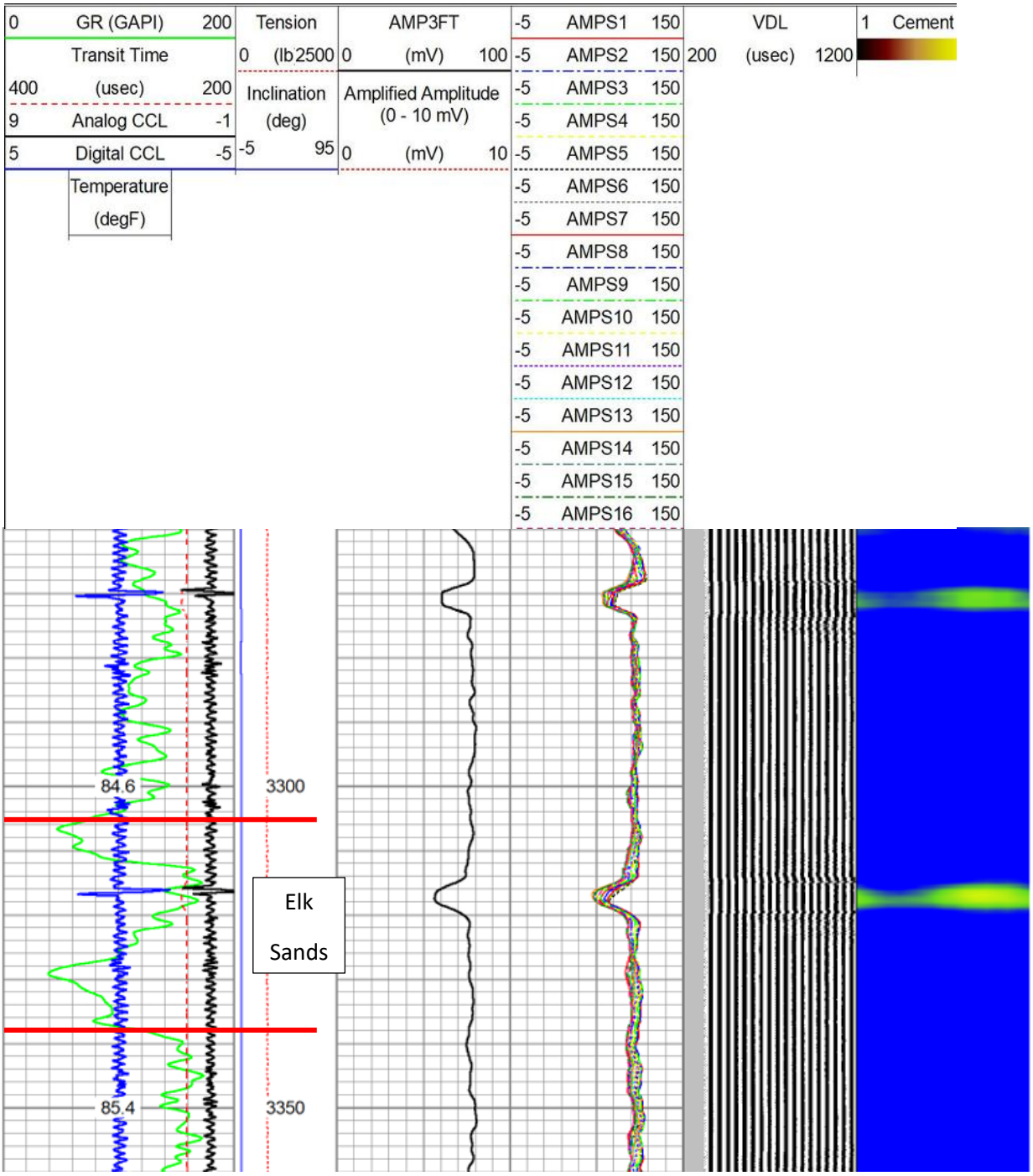


Figure 11: Humberston Unit 1H radial cement bond log showing the Elk Sand interval.

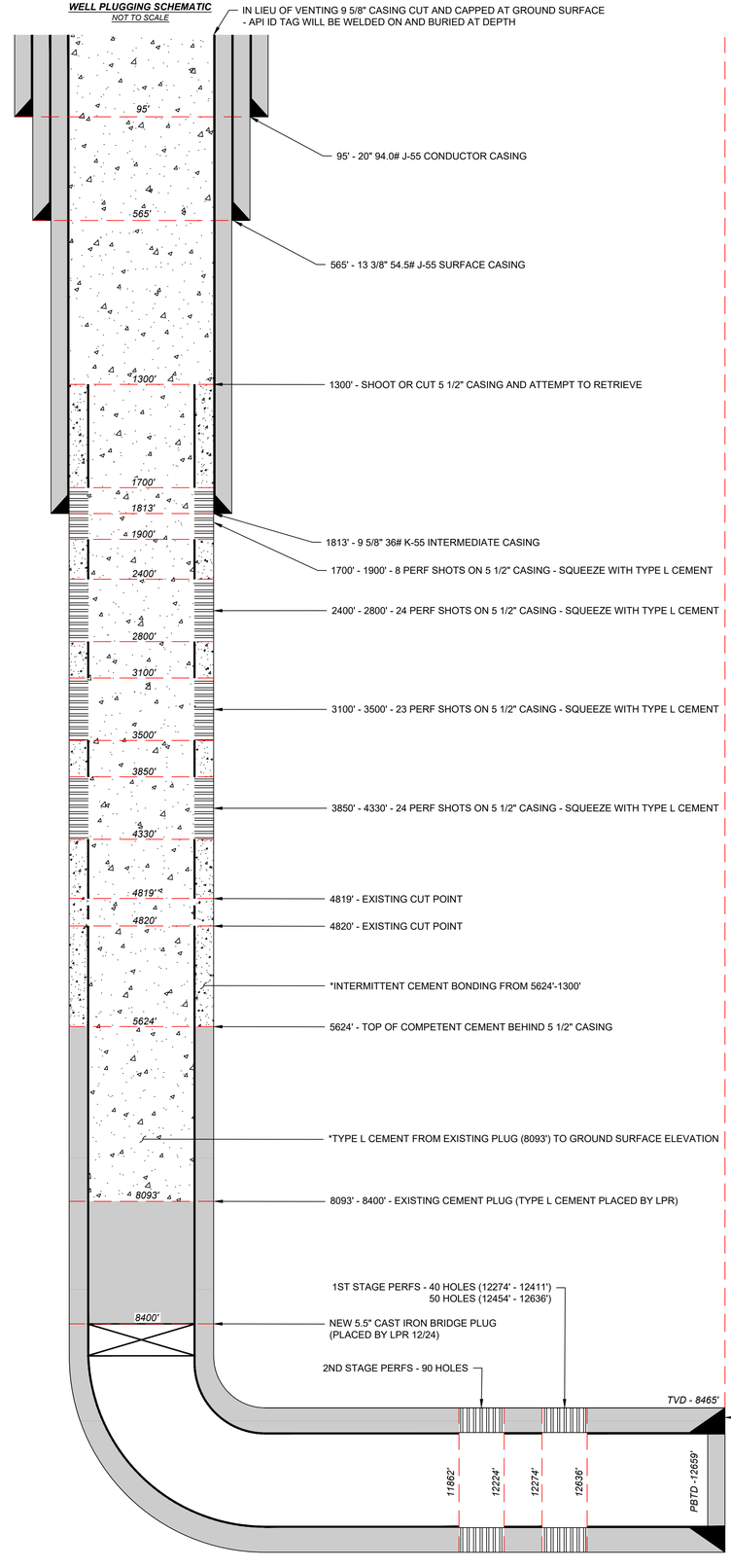
APPENDIX E

WELL PLUGGING SCHEMATIC

WELL PLUGGING SCHEMATIC

NOT TO SCALE

ELEVATIONS:
KB - 2019'
DF - 2018'
GL - 2000'



NO.	DATE	DESCRIPTION	INT.
0	XXXX-XX-XX	INITIAL SUBMISSION	---

SEAL

PREPARED FOR:

LPR ENERGY, LLC
P.O. BOX 192009
DALLAS TX, 75219

PREPARED BY:

MOODY AND ASSOCIATES, INC
1720 WASHINGTON RD, SUITE 100
WASHINGTON, PA 15301
724-746-5200

PROJECT ID: 25-119-JW	DRAWN: JE
DATE: 2025-07-30	DESIGN: JE
SCALE: AS NOTED	CHECKED: JW

PROJECT:

HUMBERSTON UNIT #1H
API# 37-051-24367

TITLE:

WELL PLUGGING SCHEMATIC

PLAN STATUS:	SHEET NO.
PLUGGING	**1 OF 1**