

Well Operator's Report of Well Work



Well Number: Haggard 2H (L017940)

API: 47 - 103 - 03526

Submission:  Initial  Amended

Notes: Original

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

08/16/2024

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-103-03526 County Wetzel District Center  
Quad Littleton Pad Name Haggard Field/Pool Name N/A  
Farm name Amie Lee Henderson Well Number Haggard 2H (L017940)  
Operator (as registered with the OOG) EQT Production Company  
Address 400 Woodcliff Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,389,449.612 Easting 532,581.539  
Landing Point of Curve Northing 4,388,589.063 Easting 531,665.516  
Bottom Hole Northing 4,385,946.989 Easting 533,141.089

Elevation (ft) 1519' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)

Synthetic Oil Based Mud 13.24 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 10/31/2022 Date drilling commenced 03/27/2023 Date drilling ceased 10/19/2023  
Date completion activities began 01/08/2024 Date completion activities ceased 04/10/2024  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

Freshwater depth(s) ft 437 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 2228 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1311,1429 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Approved by:   
**APPROVED**  
08/16/2024

API 47- 103 - 03526 Farm name Amie Lee Henderson Well number Haggard 2H (L017940)

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	40'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1459'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2895'	NEW	J-55 36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4", 8-1/2"	6"	19,341'	NEW	P-110 24#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1329' GL, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	83	15.6	1.18	98	0	8+
Surface	CLASS L	1255	16.0	1.09	1368	0	8
Coal							
Intermediate 1	CLASS L	1000	15.6	1.14	1140	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3125	15.0	1.19	3719	1329'	8+
Tubing							

Drillers TD (ft) 19,359' Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) 1,561'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No  Conventional  Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_  
 CONDUCTOR- NONE  
 SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE  
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE  
 PRODUCTION: ON SHOE TRACK AND EVERY OTHER JOINT TO 9397' AND EVERY JOINT TO 2186'

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

JUL 08 2024

WV Department of  
Environmental Protection

08/16/2024



API 47- 103 - 03526 Farm name Amie Lee Henderson Well number Haggard 2H (L017940)

Drilling Contractor Falcon (Rig 25)  
Address 1120 US-119 City Indiana State PA Zip 15701

Logging Company Scientific Drilling International  
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company GyroData  
Address 73 Noblestown Road City Carnegie State PA Zip 15106

Drilling Contractor \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

08/16/2024

Well # HAGGARD 2H (L017940) Final Formations API# 47-103-03526				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	1,311	1,311
Sewickley Coal	1,311	1,311	1,314	1,314
Sand/Shale	1,314	1,314	1,429	1,429
Pittsburgh Coal	1,429	1,429	1,438	1,438
Sand/Shale	1,438	1,438	2,771	2,756
Big Injun	2,771	2,756	2,896	2,879
Sand/Shale	2,896	2,879	3,045	3,024
Berea	3,045	3,024	3,286	3,256
Sand/Shale	3,286	3,256	3,404	3,368
Gantz	3,404	3,368	3,537	3,489
Sand/Shale	3,537	3,489	3,559	3,509
Fifty foot	3,559	3,509	3,597	3,542
Sand/Shale	3,597	3,542	3,643	3,582
Thirty foot	3,643	3,582	3,664	3,600
Sand/Shale	3,664	3,600	3,711	3,640
Bayard	3,711	3,640	3,803	3,714
Sand/Shale	3,803	3,714	4,155	3,971
Upper Speechley	4,155	3,971	4,216	4,015
Speechley	4,216	4,015	4,300	4,077
Balltown	4,300	4,077	4,630	4,324
Bradford	4,630	4,324	5,773	5,179
Benson	5,773	5,179	6,110	5,425
Alexander	6,110	5,425	6,569	5,779
Elk	6,569	5,779	8,544	7,241
Sonyea	8,544	7,241	8,730	7,373
Middlesex	8,730	7,373	8,781	7,406
Genesee	8,781	7,406	8,903	7,479
Geneseo	8,903	7,479	8,947	7,504
Tully	8,947	7,504	8,980	7,521
Hamilton	8,980	7,521	9,215	7,617
Marcellus	9,215	7,617	19,359	7,656

RECEIVED  
Office of Oil and Gas

JUL 08 2024

WV Department of  
Environmental Protection

08/16/2024

# Perforation Data

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

08/16/2024

Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	01/10/2024	19255	19073	40	Marcellus
3	01/11/2024	19054	18872	40	Marcellus
4	01/11/2024	18853	18671	40	Marcellus
5	01/13/2024	18652	18470	40	Marcellus
6	01/14/2024	18451	18269	40	Marcellus
7	01/14/2024	18250	18068	40	Marcellus
8	01/16/2024	18049	17867	40	Marcellus
9	01/19/2024	17848	17666	40	Marcellus
10	01/21/2024	17647	17465	40	Marcellus
11	01/22/2024	17446	17264	40	Marcellus
12	01/23/2024	17245	17063	40	Marcellus
13	01/24/2024	17044	16862	40	Marcellus
14	01/24/2024	16843	16661	40	Marcellus
15	01/26/2024	16642	16460	40	Marcellus
16	01/26/2024	16441	16259	40	Marcellus
17	01/27/2024	16240	16058	40	Marcellus
18	01/28/2024	16039	15857	40	Marcellus
19	01/29/2024	15838	15656	40	Marcellus
20	01/30/2024	15637	15455	40	Marcellus
21	01/30/2024	15436	15254	40	Marcellus
22	01/31/2024	15235	15053	40	Marcellus
23	02/01/2024	15034	14852	40	Marcellus
24	02/02/2024	14833	14651	40	Marcellus
25	02/02/2024	14632	14450	40	Marcellus
26	02/03/2024	14431	14249	40	Marcellus
27	02/03/2024	14230	14048	40	Marcellus
28	02/04/2024	14029	13847	40	Marcellus
29	02/05/2024	13828	13646	40	Marcellus
30	02/05/2024	13627	13445	40	Marcellus
31	02/06/2024	13426	13244	40	Marcellus
32	02/06/2024	13225	13043	40	Marcellus
33	02/08/2024	13024	12842	40	Marcellus
34	02/08/2024	12823	12641	40	Marcellus
35	02/09/2024	12622	12440	40	Marcellus
36	02/09/2024	12421	12239	40	Marcellus
37	02/10/2024	12220	12038	40	Marcellus
38	02/10/2024	12019	11837	40	Marcellus
39	02/10/2024	11818	11636	40	Marcellus
40	02/11/2024	11617	11435	40	Marcellus
41	02/11/2024	11416	11234	40	Marcellus
42	02/12/2024	11215	11033	40	Marcellus
43	02/12/2024	11014	10832	40	Marcellus
44	02/12/2024	10813	10631	40	Marcellus

08/16/2024





---

45	02/13/2024	10612	10430	40	Marcellus
46	02/13/2024	10411	10229	40	Marcellus
47	02/13/2024	10210	10028	40	Marcellus
48	02/13/2024	10009	9827	40	Marcellus
49	02/13/2024	9808	9626	40	Marcellus
50	02/13/2024	9607	9425	40	Marcellus
51	02/14/2024	9406	9244	36	Marcellus

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

---

08/16/2024

# Stimulation Data

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

08/16/2024

Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	01/09/2024	88	8460	6882	3955	176257	4458	
2	01/11/2024	99	8917	6560	4320	439977	10098	
3	01/11/2024	98	8722	5536	4377	440065	10255	
4	01/13/2024	99	8773	5135	4612	440641	10142	
5	01/14/2024	99	8539	6120	5231	440582	10140	
6	01/14/2024	99	8894	6352	4255	440193	10092	
7	01/17/2024	86	9198	6628	4201	440054	10112	
8	01/19/2024	93	8372	6222	4760	440724	10103	
9	01/22/2024	100	8523	6585	5033	440078	10125	
10	01/22/2024	100	8572	6138	5094	440321	10104	
11	01/23/2024	68	9218	6404	3914	440483	10109	
12	01/24/2024	98	8788	6477	4431	440129	10091	
13	01/24/2024	98	8877	6367	4270	440906	10083	
14	01/26/2024	100	8536	6599	4573	440144	9993	
15	01/26/2024	98	8697	6664	4261	440159	10057	
16	01/27/2024	99	8607	6466	4434	440195	10028	
17	01/28/2024	96	8091	5804	4537	439829	10224	
18	01/29/2024	98	8274	6286	4715	438823	10730	
19	01/30/2024	98	8030	5940	4579	440023	10028	
20	01/31/2024	100	8417	6511	4405	439988	9986	
21	01/31/2024	99	8069	6280	4683	440081	9960	
22	02/01/2024	100	7945	6201	4529	440154	9970	
23	02/02/2024	100	8391	6527	4305	440034	9971	
24	02/02/2024	100	8406	6639	4316	440058	9985	
25	02/03/2024	99	8553	6610	4383	439905	9952	
26	02/04/2024	93	9008	6277	4195	440069	9956	
27	02/04/2024	100	7929	6329	5149	439976	9936	
28	02/05/2024	99	8501	6519	4426	440084	9921	
29	02/05/2024	99	8624	6351	4530	439999	9920	
30	02/06/2024	100	8014	6128	4333	440071	9954	
31	02/07/2024	100	8541	6238	4866	440311	9912	
32	02/08/2024	100	8561	6417	4594	440064	9917	
33	02/08/2024	100	8437	6390	4183	440387	9925	
34	02/09/2024	100	8462	6075	4320	440468	9862	
35	02/09/2024	100	8227	6309	4314	440102	9850	
36	02/10/2024	99	8447	6501	4917	440167	9983	
37	02/10/2024	99	8460	6963	4238	439999	9843	
38	02/11/2024	100	8259	5909	4315	440235	9817	
39	02/11/2024	94	8720	6406	4152	440040	9838	
40	02/12/2024	100	8187	6358	4084	440359	9822	
41	02/12/2024	93	8442	6248	4039	440000	9796	
42	02/12/2024	100	8091	6183	4299	440119	9780	
43	02/13/2024	100	7820	6507	4406	440335	9802	

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

08/16/2024

---

44	02/13/2024	98	7671	6406	4507	440326	9835
45	02/13/2024	100	7639	6075	4560	440333	9832
46	02/13/2024	100	7651	5795	4440	440007	9820
47	02/13/2024	100	7833	6146	4974	440118	9760
48	02/13/2024	100	7667	6052	4451	439996	9748
49	02/14/2024	100	7945	6352	4716	440314	9759
50	02/14/2024	99	8109	6288	4522	440266	9821
51	02/14/2024	100	8215	6692	4184	396214	8839

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of  
Environmental Protection

---

08/16/2024

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	01/08/2024
Job End Date:	03/20/2024
State:	West Virginia
County:	Wetzel
API Number:	47-103-03526-00-00
Operator Name:	EQT Production
Well Name and Number:	Haggard 2H
Latitude:	39.654225
Longitude:	-80.620212
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7684
Total Base Water Volume (gal)*:	21085848
Total Base Non Water Volume:	0



Water Source	Percent
--------------	---------

## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	88.69647	None
Sand (Proppant)	EQT	Proppant					
			Silica Substrate	14808-60-7	100.00000	11.16014	None
Clearal 268	ChemStream	Biocide					
			Non-hazardous substances	Proprietary	80.00000	0.00902	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Copolymer of 2-propenamamide	Proprietary	30.00000	0.00828	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Non-hazardous substances	Proprietary	90.00000	0.00769	None
StimSTREAM	ChemStream	Friction					

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of Environmental Protection

08/16/2024

FR 9800		Reducer					
			Petroleum Distillate	64742-47-8	20.00000	0.00368	None
Enviro-Syn HCR-7000-WL	Fluid Energy Group Ltd.	Synthetic Acid					
			Proprietary	Proprietary	20.00000	0.00111	None
Clearal 268	ChemStream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00056	None
Enviro-Syn HCR-7000-WL	Fluid Energy Group Ltd.	Synthetic Acid					
			Proprietary	Proprietary	10.00000	0.00028	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00010	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00004	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00004	None
Clearal 268	ChemStream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00001	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Ethanol	64-17-5	1.50000	0.00000	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

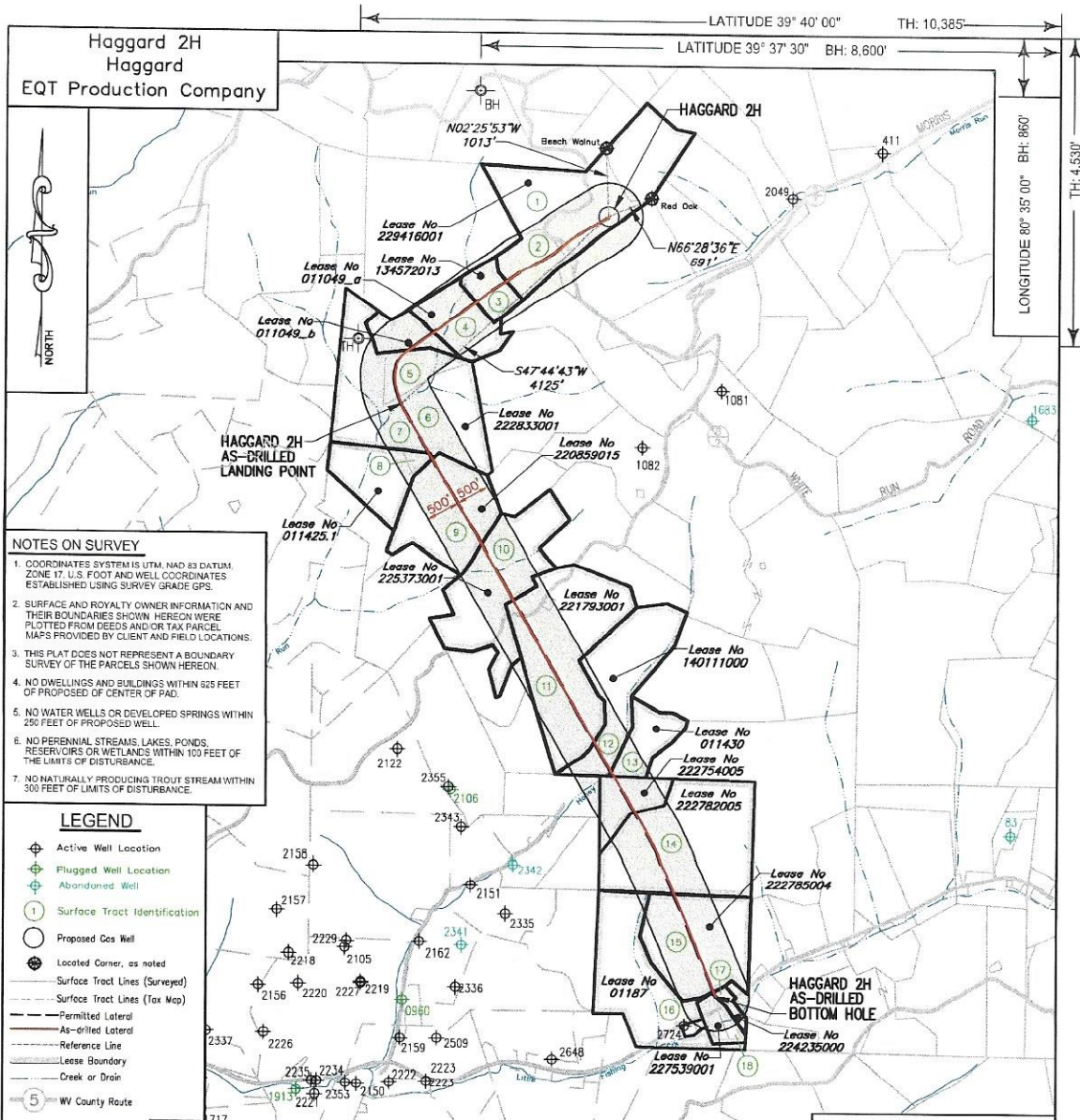
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingreident information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
Environmental Protection  
Department of  
Environmental Protection  
MSDS

08/16/2024



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

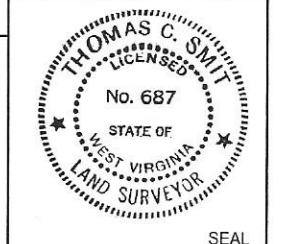
- LEGEND**
- Active Well Location
  - Plugged Well Location
  - Abandoned Well
  - Surface Tract Identification
  - Proposed Gas Well
  - Located Corner, as noted
  - Surface Tract Lines (Surveyed)
  - Surface Tract Lines (Tax Map)
  - Permitted Lateral
  - As-drilled Lateral
  - Reference Line
  - Lease Boundary
  - Creek or Drain
  - WV County Route
  - WV State Route

( - ) Denotes Location of Well on United States Topographic Maps



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



FILE NO:  
DRAWING NO:  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

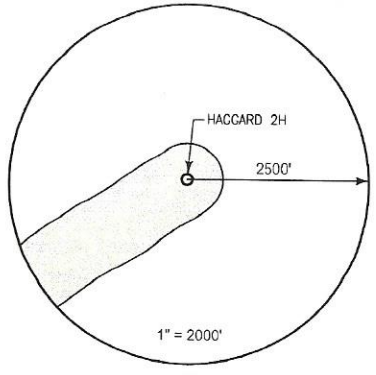
DATE: OCTOBER 25, 20 23  
OPERATORS WELL NO: Haggard 2H  
API WELL NO: 47 - 103 - 03526  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 1519' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
 DISTRICT: Center COUNTY: Wetzel  
 SURFACE OWNER: Amie Lee Henderson ACREAGE: 45.5 ±  
 ROYALTY OWNER: Blackrock Enterprises LLC, et al. LEASE NO: 229416001 ACREAGE: 84.94 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,665'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 26301

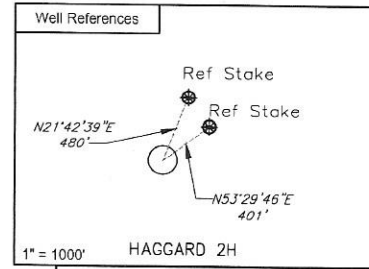
RECEIVED  
Office of Oil and Gas  
JUL 08 2024  
WV Department of Environmental Protection

08/16/2024

Haggard 2H Haggard EQT Production Company						
Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	10	36.0	Wetzel	Center	Amie Lee Henderson	45.50
2	10	37.0	Wetzel	Center	Amie Lee Henderson	14.50
3	10	51.0	Wetzel	Center	Sharon J. McMillan	10.00
4	10	49.0	Wetzel	Center	Sharon J. McMillan	33.00
5	10	50.0	Wetzel	Center	Coastal Forest Resources Co.	16.50
6	14	4.0	Wetzel	Center	Coastal Forest Resources Co.	31.25
7	14	3.0	Wetzel	Center	Coastal Forest Resources Co.	44.00
8	14	25.1	Wetzel	Center	Coastal Forest Resources Co.	3.25
9	14	17.0	Wetzel	Center	Coastal Forest Resources Co.	36.00
10	14	25.0	Wetzel	Center	James H. Holt	78.00
11	14	28.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	80.00
12	14	29.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	43.36
13	14	30.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	16.25
14	14	41.0	Wetzel	Center	James E. Ashcraft	92.43
15	18	8.0	Wetzel	Center	James E. Ashcraft	50.00
16	18	7.0	Wetzel	Center	Billy Ray Dent	62.55
17	18	7.8	Wetzel	Center	Pelma Morris	2.57
18	18	7.3	Wetzel	Center	Anthony D. & Shirley D. Morris	3.88



Lease	Owner	Acres
229416001	Blackrock Enterprises LLC, et al.	84.94 ac of 198.1275 ac
134572013	Ohio Valley University, Inc., et al.	105.7625 ac
011049_a	KKS Minerals, LLC, et al.	22.753 ac
011049_b	KKS Minerals, LLC, et al.	10.247 ac of 1,147.39 ac
222833001	Jane Lee Pfalzgraf Wilson, et al.	91.75 ac
011425.1	Earnest H. Cadle, et al.	30.161 ac of 64 ac
220859015	Paul Irvin Reis, et al.	39 ac
225373001	Barbara Poslethwait Norris, et al.	78.1 ac
221793001	Thomas E. Garner, et al.	79.42 ac
140111000	TH Exploration II LLC	43.3 ac of 1,962.7875 ac
011430	SWZ Minerals, LLC, et al.	16.25 ac
222754005	Lisa A. Glover, et al.	21.5 ac
222782005	Lisa A. Glover, et al.	67 ac
222785004	Lisa A. Glover, et al.	50.5 ac
01187	Tribune Resources Minerals, LLC, et al.	47.50 ac & 25 ac
224235000	Pelma B. Swiger, et al.	4.261 ac
227539001	Anthony D. Morris, et al., et al.	8.126 ac

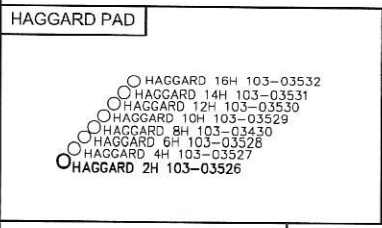


**Notes:**  
 HAGGARD 2H coordinates are  
 NAD 27 N: 422,331.750 E: 1,684,645.631  
 NAD 27 Lat: 39.654144 Long: -80.620402  
 NAD 83 UTM N: 4,389,449.612 E: 532,581.539

HAGGARD 2H Landing Point coordinates are  
 NAD 27 N: 419,558.200 E: 1,681,492.770  
 NAD 27 Lat: 39.645424 Long: -80.631119  
 NAD 83 UTM N: 4,388,589.063 E: 531,665.516

HAGGARD 2H Bottom Hole coordinates are  
 NAD 27 N: 410,807.450 E: 1,686,190.270  
 NAD 27 Lat: 39.622562 Long: -80.614053  
 NAD 83 UTM N: 4,385,946.989 E: 533,141.089

West Virginia Coordinates system of 1927 (North Zone) based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon the grid north meridian  
 Well location references are based upon the grid north meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*L. L. S. 687*  
 L. L. S. 687



FILE NO: \_\_\_\_\_  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: OCTOBER 25, 20 23  
 OPERATORS WELL NO: Haggard 2H  
 API WELL NO: 47 - 103 - 03526  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1519' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
 DISTRICT: Center COUNTY: Wetzel

SURFACE OWNER: Amie Lee Henderson ACREAGE: 45.5 ±  
 ROYALTY OWNER: Blackrock Enterprises LLC, et al. LEASE NO: 229416001 ACREAGE: 84.94 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,665'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 26301

RECEIVED  
 Office of Oil and Gas  
 JUL 08 2024  
 WV Department of Environmental Protection

08/16/2024



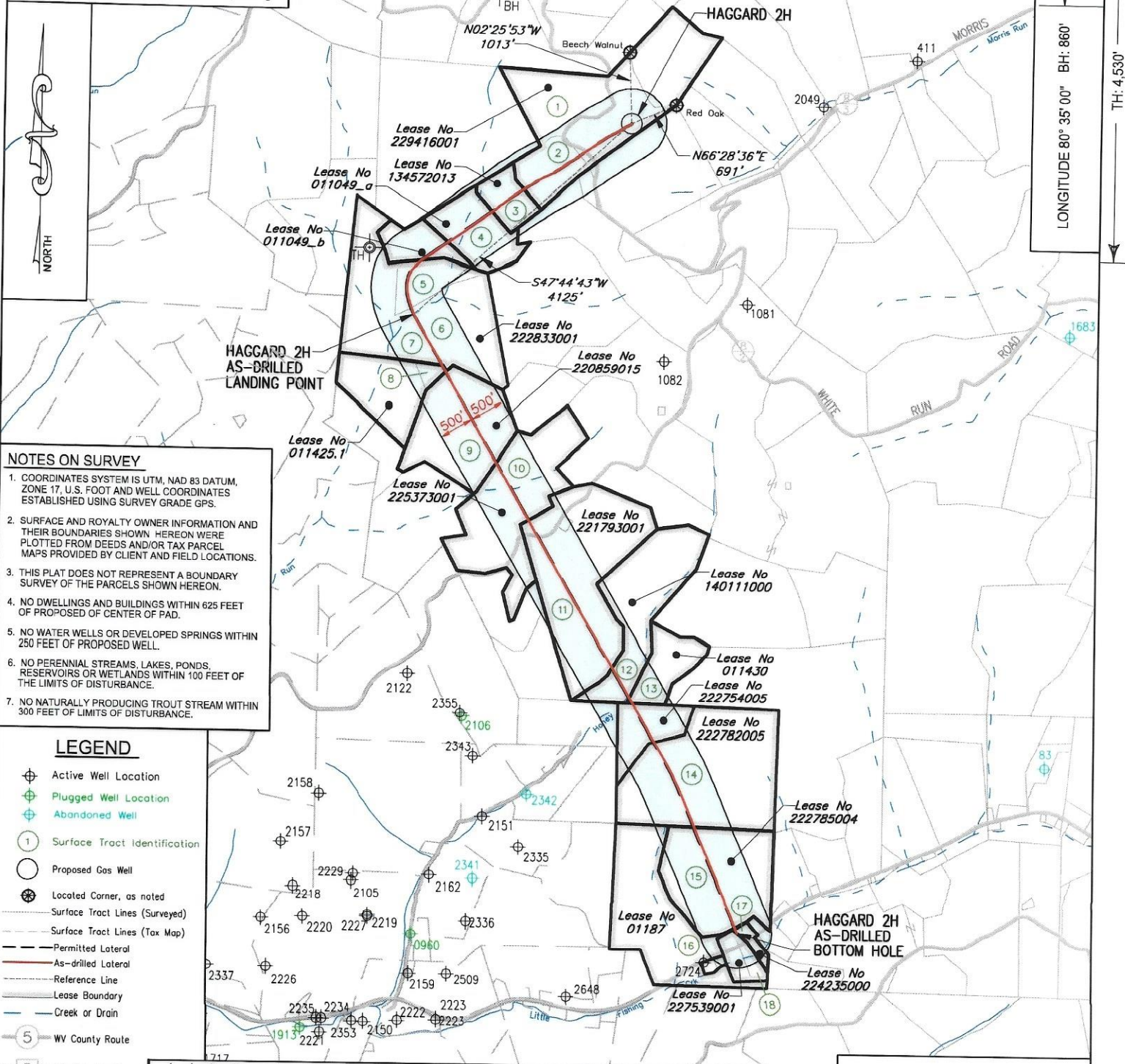
Haggard 2H  
Haggard  
EQT Production Company

LATITUDE 39° 40' 00"

TH: 10,385'

LATITUDE 39° 37' 30" BH: 8,600'

LONGITUDE 80° 35' 00" BH: 860'  
TH: 4,530'



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

**LEGEND**

- Active Well Location
- Plugged Well Location
- Abandoned Well
- Surface Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines (Surveyed)
- Surface Tract Lines (Tax Map)
- Permitted Lateral
- As-drilled Lateral
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

( - ⊕ - ) Denotes Location of Well on United States Topographic Maps



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



SEAL

FILE NO:  
DRAWING NO:  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OIL AND GAS DIVISION

DATE: OCTOBER 25, 20 23  
OPERATORS WELL NO: Haggard 2H  
API WELL NO  
47 - 103 - 03526  
STATE COUNTY PERMIT

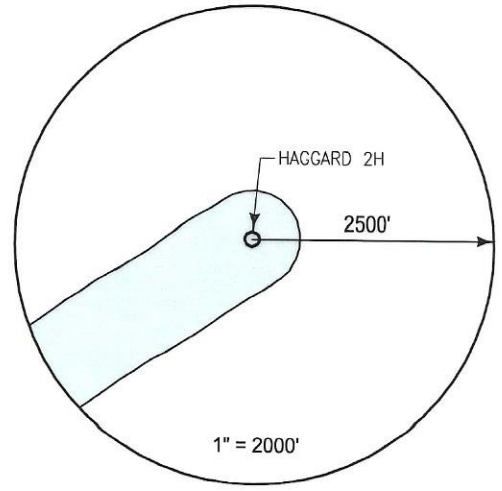
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION ELEVATION: 1519' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
DISTRICT: Center COUNTY: Wetzel  
SURFACE OWNER: Amie Lee Henderson ACREAGE: 84.94 ±  
ROYALTY OWNER: Blackrock Enterprises LLC, et al. LEASE NO: 229416001 ACREAGE: 84.94 ±  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,665'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
Canonsburg, PA 15317 Clarksburg, WV 26301

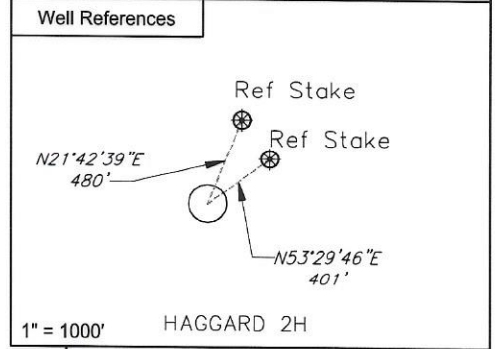
AS-DRILLED

Haggard 2H  
Haggard  
EQT Production Company

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	10	36.0	Wetzel	Center	Amie Lee Henderson	45.50
2	10	37.0	Wetzel	Center	Amie Lee Henderson	14.50
3	10	51.0	Wetzel	Center	Sharon J. McMillen	10.00
4	10	49.0	Wetzel	Center	Sharon J. McMillen	33.00
5	10	50.0	Wetzel	Center	Coastal Forest Resources Co.	16.50
6	14	4.0	Wetzel	Center	Coastal Forest Resources Co.	31.25
7	14	3.0	Wetzel	Center	Coastal Forest Resources Co.	44.00
8	14	25.1	Wetzel	Center	Coastal Forest Resources Co.	3.25
9	14	17.0	Wetzel	Center	Coastal Forest Resources Co.	36.00
10	14	26.0	Wetzel	Center	James H. Holt	78.00
11	14	28.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	80.00
12	14	29.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	43.36
13	14	30.0	Wetzel	Center	Kenneth R. & Jennifer L. Mason	16.25
14	14	41.0	Wetzel	Center	James E. Ashcraft	92.43
15	18	8.0	Wetzel	Center	James E. Ashcraft	50.00
16	18	7.0	Wetzel	Center	Billy Ray Dent	62.55
17	18	7.8	Wetzel	Center	Pelma Morris	2.57
18	18	7.3	Wetzel	Center	Anthony D. & Shirley D. Morris	3.88



Lease	Owner	Acres
229416001	Blackrock Enterprises LLC, et al.	84.94 ac of 198.1275 ac
134572013	Ohio Valley University, Inc., et al.	105.7625 ac
011049_a	KKS Minerals, LLC, et al.	22.753 ac
011049_b	KKS Minerals, LLC, et al.	10.247 ac of 1,147.39 ac
222833001	Jane Lee Pfalzgraf Wilson, et al.	91.75 ac
011425_1	Ernest H. Cadle, et al.	30.161 ac of 64 ac
220859015	Paul Irvin Reis, et al.	36 ac
225373001	Barbara Postelthwait Norris, et al.	78.1 ac
221793001	Thomas E. Garner, et al.	79.42 ac
140111000	TH Exploration II LLC	43.3 ac of 1,962.7875 ac
011430	SW2 Minerals, LLC, et al.	16.25 ac
222754005	Lisa A. Glover, et al.	21.5 ac
222782005	Lisa A. Glover, et al.	67 ac
222785004	Lisa A. Glover, et al.	50.5 ac
011187	Tribune Resources Minerals, LLC, et al.	47.50 ac & 25 ac
224235000	Pelma B. Swiger, et al.	4.261 ac
227539001	Anthony D. Morris, et ux., et al.	8.128 ac

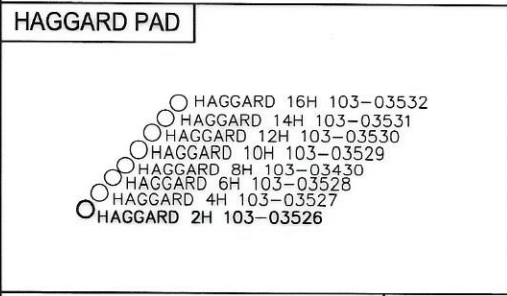


**Notes:**  
HAGGARD 2H coordinates are  
NAD 27 N: 422,331.750 E: 1,684,545.631  
NAD 27 Lat: 39.654144 Long: -80.620402  
NAD 83 UTM N: 4,389,449.612 E: 532,581.539

HAGGARD 2H Landing Point coordinates are  
NAD 27 N: 419,558.200 E: 1,681,492.770  
NAD 27 Lat: 39.646424 Long: -80.631119  
NAD 83 UTM N: 4,388,589.063 E: 531,665.516

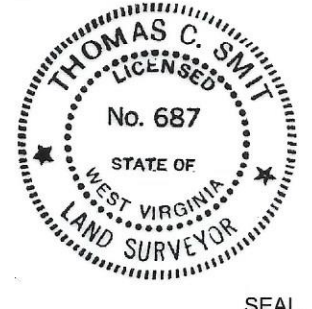
HAGGARD 2H Bottom Hole coordinates are  
NAD 27 N: 410,807.450 E: 1,686,190.270  
NAD 27 Lat: 39.622562 Long: -80.614053  
NAD 83 UTM N: 4,385,946.989 E: 533,141.089

West Virginia Coordinates system of 1927 (North Zone)  
based upon Differential GPS Measurements  
Plat orientation, Corner and well ties are based upon  
the grid north meridian  
Well location references are based upon the grid north  
meridian.  
UTM coordinates are NAD83, Zone 17, Meters.

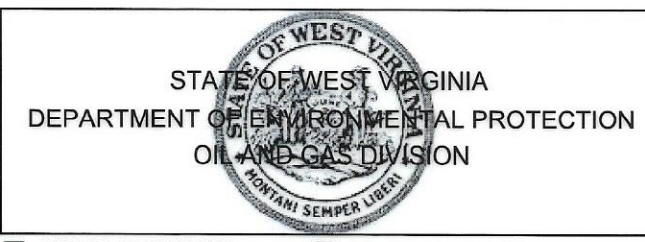


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



FILE NO:  
DRAWING NO:  
SCALE: 1" = 1000'  
MINIMUM DEGREE OF ACCURACY:  
1:2500  
PROVEN SOURCE OF ELEVATION:  
NGS CORS Station



DATE: OCTOBER 25, 20 23  
OPERATORS WELL NO: Haggard 2H  
API WELL NO  
47 - 103 - 03526  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1519' WATERSHED: LOWER WEST VIRGINIA FORK FISH CREEK QUADRANGLE: LITTLETON  
DISTRICT: Center COUNTY: Wetzel

SURFACE OWNER: Amie Lee Henderson ACREAGE: 45.5 ±  
ROYALTY OWNER: Blackrock Enterprises LLC, et al. LEASE NO: 229416001 ACREAGE: 84.94 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,665'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
Canonsburg, PA 15317 Clarksburg, WV 26301

08/16/2024