

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

RECEIVED  
Office of Oil and Gas

APR 5 2022

API 47-051-02158 County Marshall District Washington  
Quad Moundsville Pad Name Hines Field/Pool Name NE  
Farm name Donald Hines et UX Well Number Hines M13H  
Operator (as registered with the OOG) EQT CHAP LLC  
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 4,417,405.08 Easting 525,708.36  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4,417,766.84 Easting 526,339.59

Elevation (ft) 1125' 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)  
\_\_\_\_\_  
\_\_\_\_\_

Date permit issued 02/22/2019 Date drilling commenced 03/21/2019 Date drilling ceased 05/27/2019  
Date completion activities began \_\_\_\_\_ Date completion activities ceased \_\_\_\_\_  
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

Freshwater depth(s) ft 365 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1039,1595,1632 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 365,655 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) Y

Reviewed

Reviewed by:  
MDK 5/11/22  
05/27/2022

API 47-051 - 02158 Farm name Donald Hines et UX Well number Hines M13H

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"	20"	50'	NEW	X-52 78.6#	N/A	Y
Surface	17-1/2"	13-3/8"	460'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2039'	NEW	L-80 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production						N/A	N
Tubing							
Packer type and depth set							

Comment Details  
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	N/A	N/A	N/A	N/A	0	8+
Surface	CLASS A	448	15.6	1.19	533	0	8
Coal							
Intermediate 1	CLASS A	687	15.6	1.19	817	0	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 6365' Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure

Kick off depth (ft) 2203'

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

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





API 47- 051 - 02158 Farm name Donald Hines et UX Well number Hines M13H

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

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

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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

## Well # Hines M13H Final Formations API # 47-051-02158

Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	366	366
Waynesburg Coal	366	366	369	369
Sand/Shale	369	369	656	656
Pittsburgh Coal	656	656	662	662
Sand/Shale	662	662	1,596	1,596
Big Lime	1,596	1,596	1,658	1,658
Sand/Shale	1,658	1,658	1,832	1,832
Burgoon	1,832	1,832	1,985	1,985
Sand/Shale	1,985	1,985	2,199	2,199
Berea	2,199	2,199	2,220	2,220
Sand/Shale	2,220	2,220	2,456	2,454
Gordon	2,456	2,454	2,531	2,528
Sand/Shale	2,531	2,528	4,978	4,483
Elk	4,978	4,483	4,979	4,484
Sand/Shale	4,979	4,484	5,639	4,982
Rhinestreet	5,639	4,982	6,365	5,526

05/27/2022



BHL is located on topo map 2,608 feet south of Latitude: 39° 55' 00"  
 SHL is located on topo map 3,788 feet south of Latitude: 39° 55' 00"

**SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS**

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
3. There are no native trout streams within 300' of proposed well.
4. Proposed well is greater than 1000' from surface groundwater intake or public water supply.
5. It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
6. There are no existing buildings within 625' of proposed well.



LINE	BEARING	DISTANCE
R1	S 07°03'53" W	212.60'
R2	S 28°33'40" W	221.14'
R3	S 71°42'43" W	195.94'
R4	S 34°51'33" W	822.06'
R5	S 05°51'50" W	1330.63'
R6	S 65°40'02" E	1388.96'

AS-DRILLED LOCATIONS UTM 17-MDB3(M)
SURFACE HOLE LOCATION (SHL) N:4417405.08 E:525708.36
APPROX LANDING POINT (LP) N:N/A E:N/A
BOTTOM HOLE LOCATION (BHL) N:4417766.84 E:526339.59

BHL is located on topo map 7,123 feet west of Longitude: 80° 40' 00"  
 SHL is located on topo map 9,199 feet west of Longitude: 80° 40' 00"

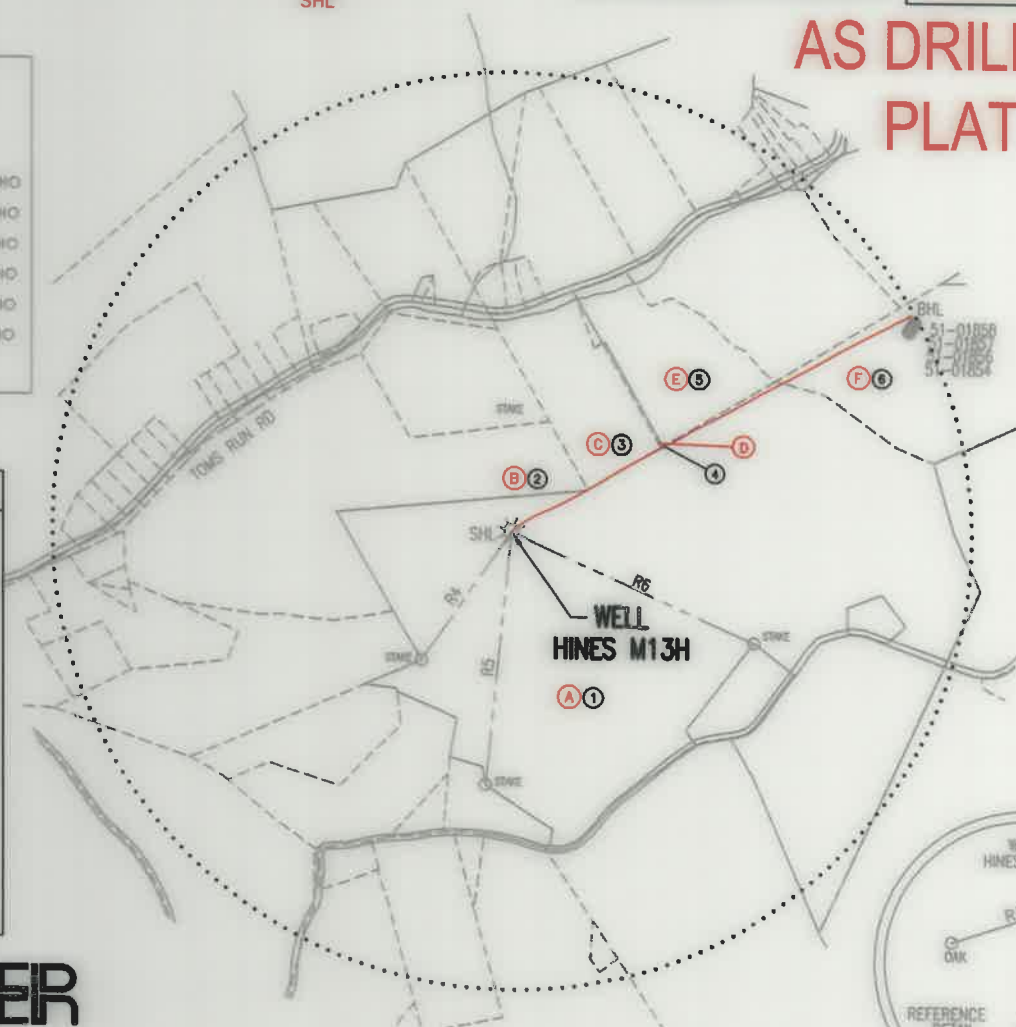
WELL PAD ORIENTATION DETAIL
M01HO M14HO U15HO U28HO
M02HO M15HO U16HO U27HO U29HO
M03HO M16HO U17HO U26HO U30HO
M04HO M17HO M18HO U25HO U31HO
M05HO M19HO M20HO U24HO U32HO
M06HO M21HO M22HO U23HO U33HO
M07HO M23HO M24HO U22HO U34HO

**LEGEND**

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- ROAD
- STREAM CENTER LINE
- LESSORS
- SURFACE OWNERS
- AS-DRILLED

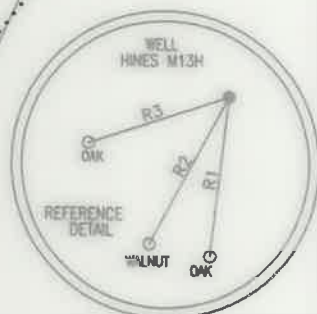
**GAS WELLS**

- EXISTING WELLS
- PLUGGED WELLS



**AS DRILLED PLAT**

**AS DRILLED PLAT**



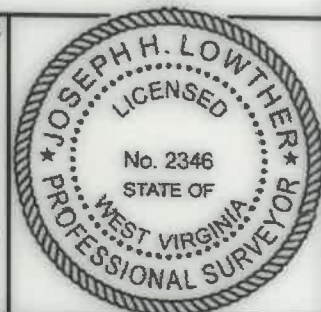
**THRASHER**

THE THRASHER GROUP, INC.  
 600 WHITE OAKS BLVD.  
 BRIDGEPORT, WV 26330  
 PHONE 304-624-4108

FILE #: HINES M13H - AS DRILLED  
 DRAWING #: HINES M13H - AS DRILLED  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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.

Signed: *Joseph H. Lowther*  
 R.P.E.: \_\_\_\_\_ L.L.S.: P.S. No. 2346



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304



DATE: DECEMBER 13, 2021  
 OPERATOR'S WELL #: HINES M13H - AS DRILLED  
 API WELL #: 47 51 2158  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  Gas  Liquid Injection  Storage  Shallow  
 WATERSHED: MIDDLE GRAVE CREEK-GRAVE CREEK ELEVATION: 1125.45'  
 COUNTY/DISTRICT: MARSHALL / WASHINGTON QUADRANGLE: MOUNDSVILLE, WV 7.5'  
 SURFACE OWNER: DONALD HINES ET UX ACREAGE: 114.934±  
 OIL & GAS ROYALTY OWNER: DONALD HINES ET UX ACREAGE: 260.83± 05/27/2022  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
 PERFORATE NEW FORMATION  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE   
 (SPECIFY): AS-DRILLED PLAT

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,551'± TMD: 6,390'±  
 WELL OPERATOR EQT CHAP, LLC DESIGNATED AGENT JOSEPH C. MALLOW  
 Address 400 WOODCLIFF DRIVE Address 427 MIDSTATE DRIVE  
 City CANONSBURG State PA Zip Code 15317 City CLARKSBURG State WV Zip Code 26301

# HINES M13H

## PAGE 2 OF 2

### AS DRILLED PLAT

	SURFACE OWNER	DIST-TM/PAR
1	DONALD HINES ET UX	14-12/30
2*	ARNIE N. GOODNIGHT ET UX	14-12/25
3*	EDWARD DAVID KNUTH ET UX	14-12/27
4*	EDWARD DAVID & KATHY JO KNUTH	14-12/28.1
5*	TOBIAS G. & JESSICA D. BROWN	14-12/28
6		

	LESSOR	DIST-TM/PAR
A	DONALD HINES ET UX	14-12/30
B	LYNN ELLEN COOK	14-12/25
	WILLIAM F. RULONG	
	CHARLES BURTON RULONG	
	GARY MORRISON	
	ELIZABETH Y. MORRISON	
	ROGER GLEN RULONG	
	TRUSTEES LIMESTONE PRESBYTERIAN CHURCH	
	CLYDE DOWLER ET UX	
	DRU ELLA FOX	
	LAURA J. REYES	
	DALE FRANCIS FURBEE	
	HAROLD DEAN FURBEE	
	JOHN T. MORRIS	
	ETHEL M. RULONG	
	RICHARD J. RULONG	
	ROBERT L. RULONG	
	TERRY LEE RULONG	
	TRACEY LYNN RULONG	
C	EULALIA MAE SIMMONS	14-12/27
D	EULALIA MAE SIMMONS	14-12/28.1
E	EULALIA MAE SIMMONS	14-12/28
F		

AS-DRILLED LOCATIONS UTM 17-NAD83(M)	
SURFACE HOLE LOCATION (SHL)	
N:4417405.08	E:525708.36
APPROX LANDING POINT (LP)	
N:N/A	E:N/A
BOTTOM HOLE LOCATION (BHL)	
N:4417766.84	E:526339.59

05/27/2022

\* -- DENOTES PARCEL WITHIN 30 FEET OF WELL BORE

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**DECEMBER 13, 2021**