

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
WV Department of
Environmental Protection

API 47 - 051 - 02088 County Marshall District Washington
Quad Moundsville Pad Name Hines Field/Pool Name N/A
Farm name Donald Hines et UX Well Number Hines M21H
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 4,417,382.033 Easting 525,716.984
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,417,460.900 Easting 526,146.415

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 10/05/2018 Date drilling commenced 03/24/2019 Date drilling ceased 06/10/2019
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:
MSJK 5/11/22
05/27/2022

API 47-051 - 02088

Farm name Donald Hines et UX

Well number Hines M21H

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"	457'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2036'	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 ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	N/A	N/A	N/A	N/A	0	8+
Surface	CLASS A	412	15.6	1.19	490	0	8
Coal							
Intermediate 1	CLASS A	687	15.6	1.19	820	0	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 6015'

Loggers TD (ft) N/A

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure

Kick off depth (ft) 1026'

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 - 02088 Farm name Donald Hines et UX Well number Hines M21H

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Well# Hines M21H Final Formations API# 47-051-02088

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	1,594
Big Lime	1,596	1,594	1,658	1,656
Sand/Shale	1,658	1,656	1,832	1,829
Burgoon	1,832	1,829	1,985	1,981
Sand/Shale	1,985	1,981	2,199	2,193
Berea	2,199	2,193	2,220	2,214
Sand/Shale	2,220	2,214	2,456	2,450
Gordon	2,456	2,450	2,531	2,524
Sand/Shale	2,531	2,524	4,978	4,739
Elk	4,978	4,739	4,979	4,740
Sand/Shale	4,979	4,740	5,639	5,276
Rhinestreet	5,639	5,276	6,015	5,587

05/27/2022

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.

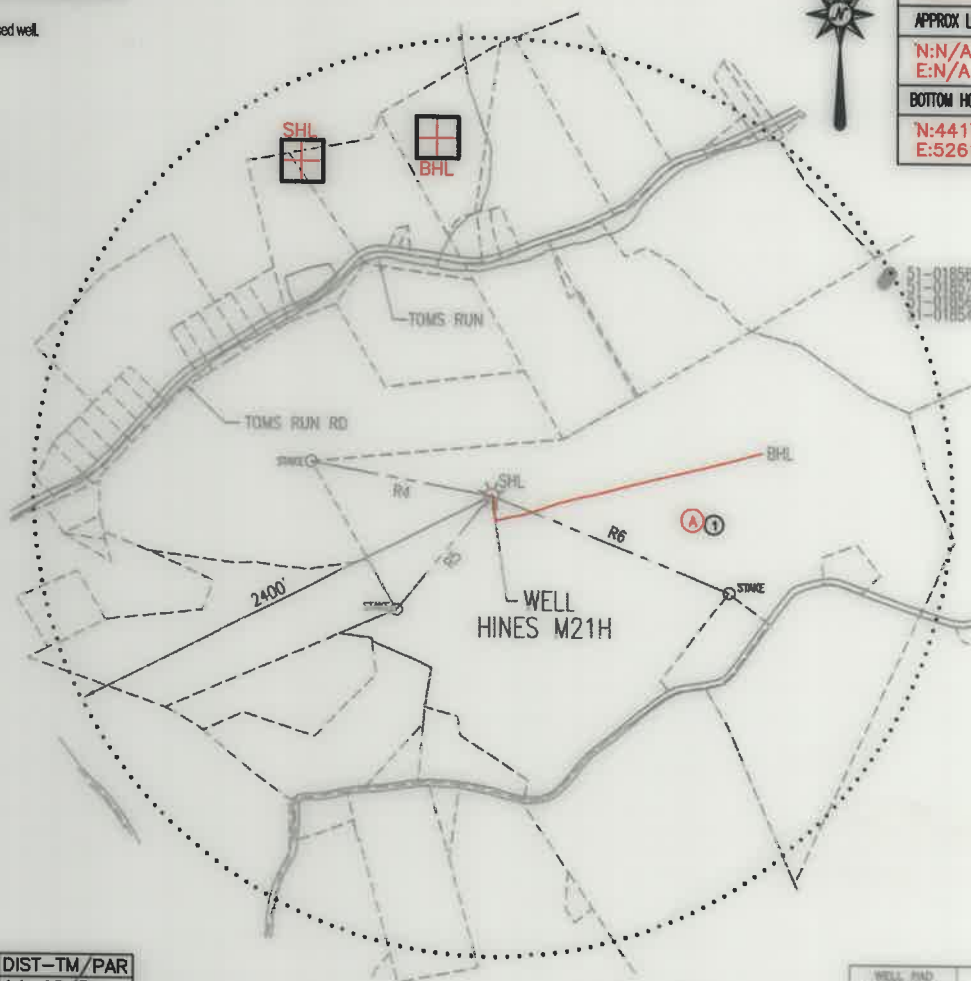
BHL is located on topo map 3,610 feet south of Latitude: 39° 55' 00"
 SHL is located on topo map 3,664 feet south of Latitude: 39° 55' 00"

AS DRILLED PLAT

AS-DRILLED LOCATIONS UTM 17-MDR3(M)	
SURFACE HOLE LOCATION (SHL)	
N:4417382.033	E:525716.984
APPROX LANDING POINT (LP)	
N:N/A	E:N/A
BOTTOM HOLE LOCATION (BHL)	
N:4417460.900	E:526146.415

BHL is located on topo map 2,760 feet west of Longitude: 80° 40' 00"
 SHL is located on topo map 9,171 feet west of Longitude: 80° 40' 00"

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

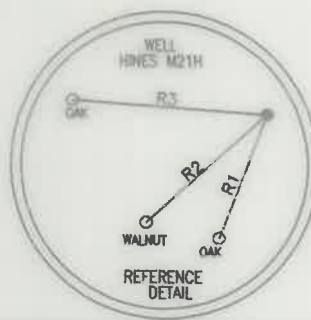


	SURFACE OWNER	DIST-TM/PAR
1	DONALD HINES ET UX	14-12/30

	LESSOR	DIST-TM/PAR
A	DONALD HINES ET UX	14-12/30

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

LINE	BEARING	DISTANCE
R1	S 21°31'18" W	144.98'
R2	S 48°20'33" W	177.70'
R3	N 86°04'20" W	213.58'
R4	N 79°40'07" W	958.35'
R5	S 39°33'03" W	778.13'
R6	S 68°06'44" E	1334.22'



WELL PAD ORIENTATION DETAIL			
M01HO	M14HO	U11SHO	U28HO
M02HO	M13HO	U18HO	U27HO
M03HO	M12HO	U17HO	U26HO
M04HO	M11HO	M18HO	U25HO
M05HO	M10HO	M19HO	U24HO
M06HO	M09HO	M20HO	U23HO
M07HO	M08HO	M21HO	U22HO
		M22HO	U21HO
			U20HO
			U19HO
			U18HO
			U17HO
			U16HO
			U15HO
			U14HO
			U13HO
			U12HO
			U11HO
			U10HO
			U09HO
			U08HO
			U07HO
			U06HO
			U05HO
			U04HO
			U03HO
			U02HO
			U01HO

N.T.S.

FILE #: HINES M21H - AS DRILLED
 DRAWING #: HINES M21H - 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 M21H - AS DRILLED
 API WELL #: 47 51 2088
 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: 947.587± **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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 5,612'± TMD: 6,040'±

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