

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 - 02084 County Marshall District Washington
Quad Moundsville Pad Name Hines Field/Pool Name N/A
Farm name Donald Hines et UX Well Number Hines M12H
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 4,417,400.512 Easting 525,708.256
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,417,327.893 Easting 525,184.673

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 10/04/2018 Date drilling commenced 03/22/2019 Date drilling ceased 05/20/2019
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 by

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

API 47-051 - 02084

Farm name Donald Hines et UX

Well number Hines M12H

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"	454'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2069'	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	448	15.6	1.19	533	0	8
Coal							
Intermediate 1	CLASS A	687	15.6	1.19	820	0	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5804'

Loggers TD (ft) N/A

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure

Kick off depth (ft) 833'

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 - 02084 Farm name Donald Hines et UX Well number Hines M12H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations 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)

Please insert additional pages as applicable.

API 47- 051 - 02084 Farm name Donald Hines et UX Well number Hines M12H

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 M12H Final Formations API# 47-051-02084

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	1,655
Sand/Shale	1,658	1,655	1,832	1,828
Burgoon	1,832	1,828	1,985	1,980
Sand/Shale	1,985	1,980	2,199	2,193
Berea	2,199	2,193	2,220	2,213
Sand/Shale	2,220	2,213	2,456	2,444
Gordon	2,456	2,444	2,531	2,516
Sand/Shale	2,531	2,516	4,978	4,674
Elk	4,978	4,674	4,979	4,675
Sand/Shale	4,979	4,675	5,639	5,255
Rhinestreet	5,639	5,255	5,804	5,400

05/27/2022

BHL is located on topo map 4,035 feet south of Latitude: 39° 55' 00"
 SHL is located on topo map 3,803 feet south of Latitude: 39° 55' 00"

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

AS DRILLED PLAT

AS-DRILLED LOCATIONS UTM 17-NAD83(M)	
SURFACE HOLE LOCATION (SHL)	
N:4417400.512	E:525708.256
APPROX LANDING POINT (LP)	
N:N/A	E:N/A
BOTTOM HOLE LOCATION (BHL)	
N:4417327.893	E:525184.673

BHL is located on topo map 10,918 feet west of Longitude: 80° 40' 00"
 SHL is located on topo map 9,199 feet west of Longitude: 80° 40' 00"

- NOTES:
- There are no water wells or developed springs within 250' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface groundwater intake or public water supply.
 - 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.
 - There are no existing buildings within 625' of proposed well.

WELL PAD OPERATOR DETAIL			
M01HO	M14HO	U15HO	U28HO
M02HO	M13HO	U16HO	U27HO
M03HO	M12HO	U17HO	U26HO
M04HO	M11HO	U18HO	U25HO
M05HO	M10HO	U19HO	U24HO
M06HO	M09HO	U20HO	U23HO
M07HO	M08HO	U21HO	U22HO
M08HO	M07HO	U22HO	U21HO
M09HO	M06HO	U23HO	U20HO
M10HO	M05HO	U24HO	U19HO
M11HO	M04HO	U25HO	U18HO
M12HO	M03HO	U26HO	U17HO
M13HO	M02HO	U27HO	U16HO
M14HO	M01HO	U28HO	U15HO

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



LINE	BEARING	DISTANCE
R1	S 07°25'46" W	197.66'
R2	S 30°23'40" W	207.80'
R3	S 75°55'28" W	191.19'
R4	N 18°40'30" E	626.36'
R5	N 79°50'58" E	2241.88'
R6	S 66°12'20" E	1385.53'

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

FILE #: HINES M12H - AS DRILLED

DRAWING #: HINES M12H - 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 M12H - AS DRILLED

API WELL #:

<u>47</u>	<u>51</u>	<u>2084</u>
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: 153.39± 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: 5,425'± TMD: 5,829'±

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 M12H 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

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

AS-DRILLED LOCATIONS UTM 17-WAD83(N)
SURFACE HOLE LOCATION (SHL)
N:4417400.512 E:525708.256
APPROX LANDING POINT (LP)
N:N/A E:N/A
BOTTOM HOLE LOCATION (BHL)
N:4417327.893 E:525184.673

05/27/2022

* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

THRASHER

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600 WHITE OAKS BLVD.
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PHONE 304-624-4108

DECEMBER 13, 2021