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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Thursday, April 12, 2018  
WELL WORK PERMIT  
Horizontal / New Drill

EQUITRANS, L. P.  
625 LIBERTY AVE. SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 519603  
47-103-03228-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin  
Chief

Operator's Well Number: 519603  
Farm Name: JOHN W. WYCOFF  
U.S. WELL NUMBER: 47-103-03228-00-00  
Horizontal New Drill  
Date Issued: 4/12/2018

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## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

WW - 2B  
(Rev. 8/10)

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

1) Well Operator: Equitrans L.P.

307652	Wetzel	Grant	Big Run
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Operator ID County District Quadrangle

2) Operator's Well Number: 519603 3) Elevation: 1516

4) Well Type: (a) Oil \_\_\_\_\_ or Gas  \_\_\_\_\_  
(b) If Gas: Production \_\_\_\_\_ / Underground Storage  \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow  \_\_\_\_\_

5) Proposed Target Formation(s): Keener Proposed Target Depth: 2603

6) Proposed Total Depth: 9441 Measured Depth Feet Formation at Proposed Total Depth: Keener

7) Approximate fresh water strata depths: 86, 626, 1014

8) Approximate salt water depths: 2174, 2288

9) Approximate coal seam depths: 828, 876, 1127, 1283

10) Approximate void depths, (coal, Karst, other): no past mining

11) Does land contain coal seams tributary to active mine? no

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Drill a new horizontal well in the Keener Formation. Drill the vertical to an approximate depth of 1800'. Kick off and drill curve. Run casing to the top of the Keener formation and cement casing. Drill the lateral in the Keener formation. Bore will be left as an open hole completion.

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13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
<u>3 1/2" 9.2mm</u> Conductor	<u>20</u>	J-55	<u>54.5</u>	40	40	29 ft <sup>3</sup> /CTS
Fresh Water	9 5/8	A-500	40	1363	1363	455 ft <sup>3</sup> /CTS
Coal						
Intermediate	7"	J-55	23.3	2593	2593	405 ft <sup>3</sup> /CTS
Production						
Tubing						
Liners						

Packers: Kind: n/a

Sizes: n/a

Depths Set n/a

04/13/2018

ATTACHMENT *ww28*Operator's Well No. 519603

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

- Air is used to drill the top-hole sections of the well bore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

- Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud - Ba rite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud - synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

*DMH*  
*2-23-18*

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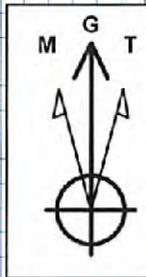
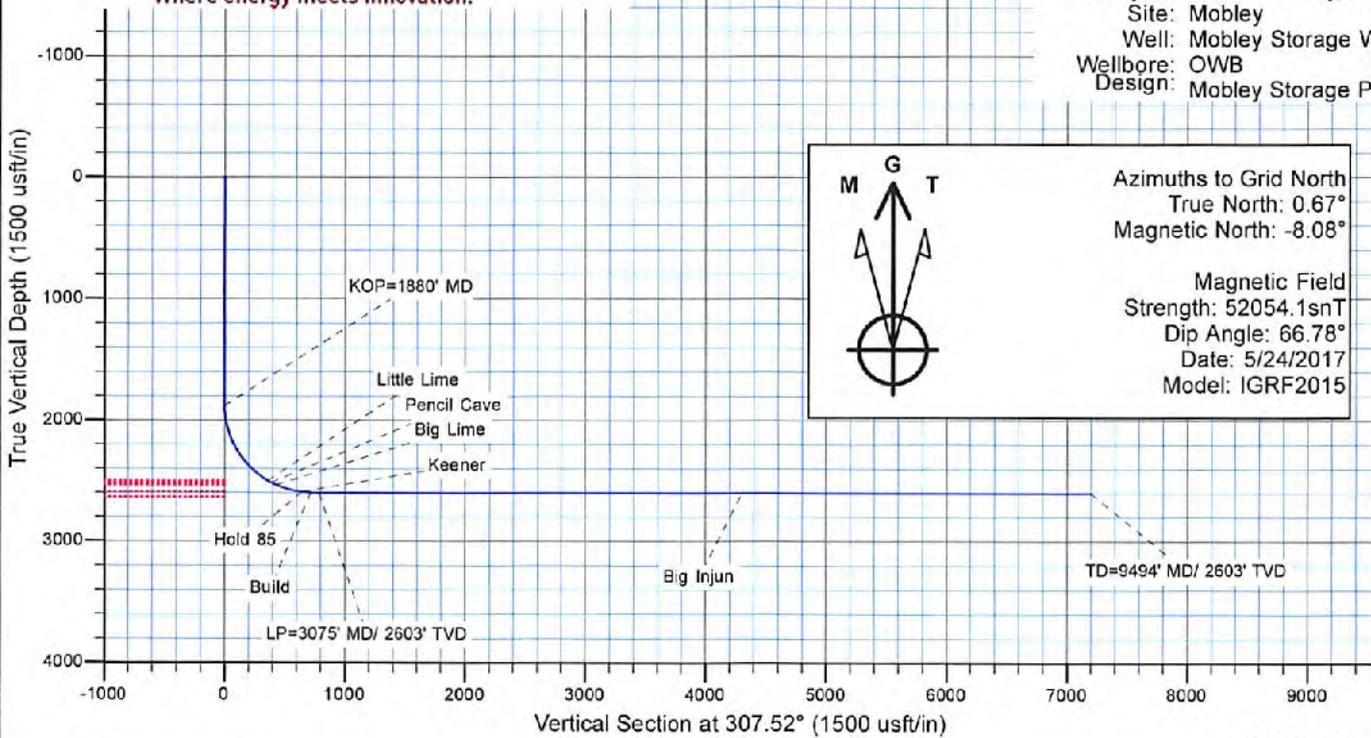
04/13/2018



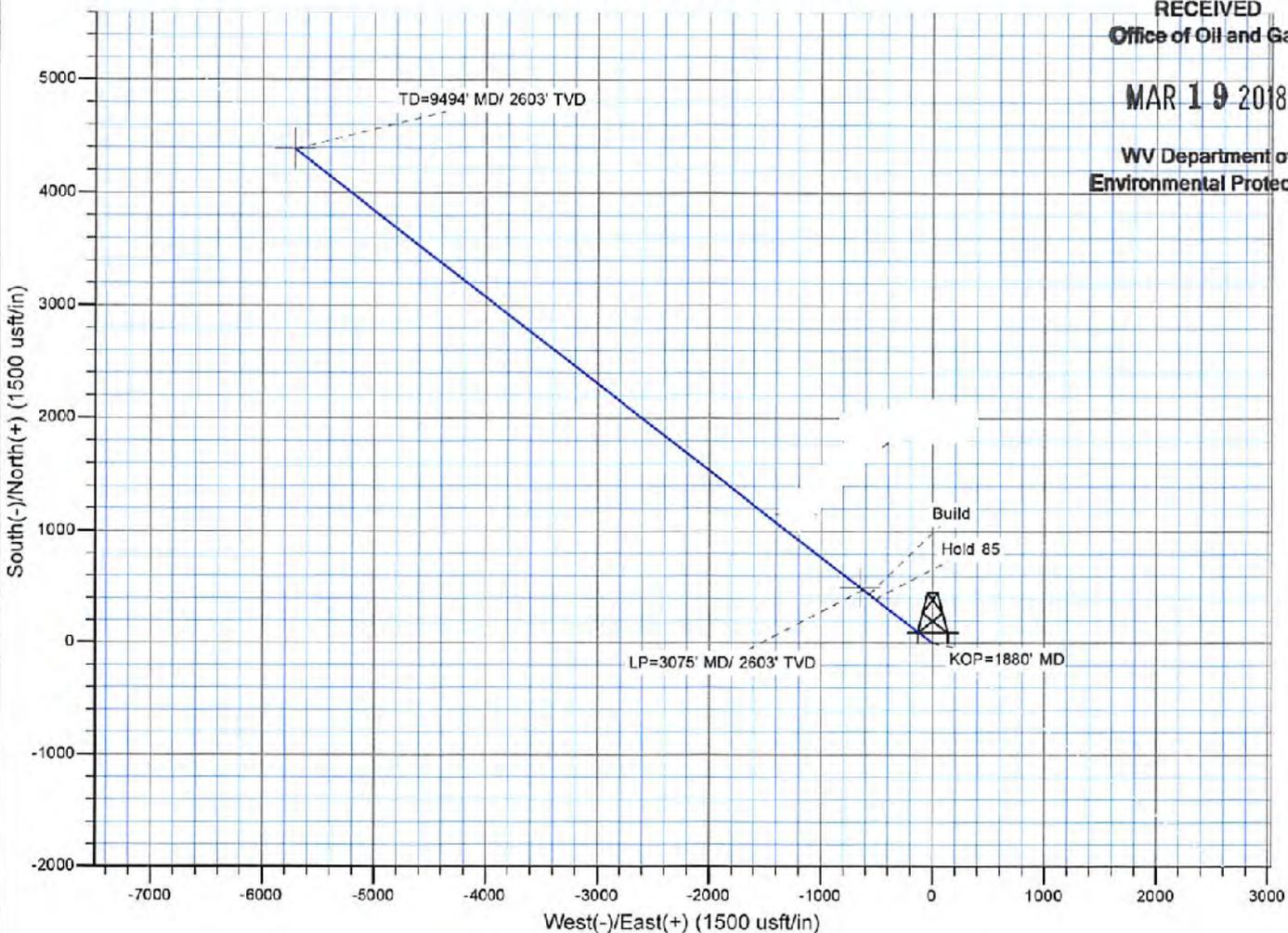
Where energy meets innovation.

# EQT PRODUCTION

Project: Wetzel County, WV  
 Site: Mobley  
 Well: Mobley Storage Well  
 Wellbore: OWB  
 Design: Mobley Storage Plan 2



Azimuths to Grid North  
 True North: 0.67°  
 Magnetic North: -8.08°  
 Magnetic Field  
 Strength: 52054.1snT  
 Dip Angle: 66.78°  
 Date: 5/24/2017  
 Model: IGRF2015



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## **EQT PRODUCTION**

Wetzel County, WV

Mobley

Mobley Storage Well

OWB

Plan: Mobley Storage Plan 4

## **Standard Planning Report (Directional)**

01 November, 2017



EQT Corporation  
Planning Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Well Mobley Storage Well
Company:	EQT PRODUCTION	TVD Reference:	KB@1 @ 1553.0usft
Project:	Wetzel County, WV	MD Reference:	KB@1 @ 1553.0usft
Site:	Mobley	North Reference:	Grid
Well:	Mobley Storage Well	Survey Calculation Method:	Minimum Curvature
Wellbore:	OVB		
Design:	Mobley Storage Plan 4		

Project	Wetzel County, WV		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site	Mobley				
Site Position:		Northing:	393,633.55 usft	Latitude:	39° 34' 33.654 N
From:	Lat/Long	Easting:	1,704,347.16 usft	Longitude:	80° 32' 56.000 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.67 °

Well	Mobley Storage Well					
Well Position	+N-S	-605.9 usft	Northing:	393,027.61 usft	Latitude:	39° 34' 27.660 N
	+E-W	-43.1 usft	Easting:	1,704,304.06 usft	Longitude:	80° 32' 56.461 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	1,540.0 usft

Wellbore	OVB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/24/2017	-8.75	66.77	52,053

Design	Mobley Storage Plan 4			
<b>Audit Notes:</b>				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	306.73

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,880.1	0.00	0.00	1,880.1	0.0	0.0	0.00	0.00	0.00	0.00	
2,936.3	84.50	306.73	2,593.0	387.3	-519.0	8.00	8.00	0.00	306.73	
3,006.3	84.50	306.73	2,599.7	428.9	-574.8	0.00	0.00	0.00	0.00	
3,075.1	90.00	306.73	2,603.0	470.0	-629.8	8.00	8.00	0.00	0.01	
9,441.1	90.00	306.73	2,603.0	4,277.3	-5,731.9	0.00	0.00	0.00	0.00	MOBLEY Plat TD2



EQT Corporation  
Planning Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Well Mobley Storage Well
Company:	EQT PRODUCTION	TVD Reference:	KB@1 @ 1553.0usft
Project:	Wetzel County, WV	MD Reference:	KB@1 @ 1553.0usft
Site:	Mobley	North Reference:	Grid
Well:	Mobley Storage Well	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Mobley Storage Plan 4		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	
0.0	0.00	0.00	0.0	-1,553.0	0.0	0.0	0.0	0.00	
100.0	0.00	0.00	100.0	-1,453.0	0.0	0.0	0.0	0.00	
200.0	0.00	0.00	200.0	-1,353.0	0.0	0.0	0.0	0.00	
300.0	0.00	0.00	300.0	-1,253.0	0.0	0.0	0.0	0.00	
400.0	0.00	0.00	400.0	-1,153.0	0.0	0.0	0.0	0.00	
500.0	0.00	0.00	500.0	-1,053.0	0.0	0.0	0.0	0.00	
600.0	0.00	0.00	600.0	-953.0	0.0	0.0	0.0	0.00	
700.0	0.00	0.00	700.0	-853.0	0.0	0.0	0.0	0.00	
800.0	0.00	0.00	800.0	-753.0	0.0	0.0	0.0	0.00	
900.0	0.00	0.00	900.0	-653.0	0.0	0.0	0.0	0.00	
1,000.0	0.00	0.00	1,000.0	-553.0	0.0	0.0	0.0	0.00	
1,100.0	0.00	0.00	1,100.0	-453.0	0.0	0.0	0.0	0.00	
1,200.0	0.00	0.00	1,200.0	-353.0	0.0	0.0	0.0	0.00	
1,300.0	0.00	0.00	1,300.0	-253.0	0.0	0.0	0.0	0.00	
1,400.0	0.00	0.00	1,400.0	-153.0	0.0	0.0	0.0	0.00	
1,500.0	0.00	0.00	1,500.0	-53.0	0.0	0.0	0.0	0.00	
1,600.0	0.00	0.00	1,600.0	47.0	0.0	0.0	0.0	0.00	
1,700.0	0.00	0.00	1,700.0	147.0	0.0	0.0	0.0	0.00	
1,800.0	0.00	0.00	1,800.0	247.0	0.0	0.0	0.0	0.00	
1,880.1	0.00	0.00	1,880.1	327.1	0.0	0.0	0.0	0.00	
1,900.0	1.59	306.73	1,900.0	347.0	0.2	-0.2	0.3	8.00	
2,000.0	9.59	306.73	1,999.4	446.4	6.0	-8.0	10.0	8.00	
2,100.0	17.59	306.73	2,096.6	543.6	20.0	-26.8	33.5	8.00	
2,200.0	25.59	306.73	2,189.5	636.5	42.0	-56.3	70.3	8.00	
2,300.0	33.59	306.73	2,276.4	723.4	71.5	-95.9	119.6	8.00	
2,400.0	41.59	306.73	2,355.5	802.5	108.0	-144.7	180.6	8.00	
2,500.0	49.59	306.73	2,425.4	872.4	150.7	-201.9	251.9	8.00	
2,600.0	57.59	306.73	2,484.8	931.8	198.8	-266.4	332.4	8.00	
2,700.0	65.59	306.73	2,532.3	979.3	251.3	-336.8	420.2	8.00	
2,800.0	73.59	306.73	2,567.1	1,014.1	307.3	-411.9	513.9	8.00	
2,900.0	81.59	306.73	2,588.6	1,035.6	365.7	-490.1	611.5	8.00	
2,936.3	84.50	306.73	2,593.0	1,040.0	387.3	-519.0	647.6	8.00	
3,000.0	84.50	306.73	2,599.1	1,046.1	425.2	-569.8	710.9	0.00	
3,006.3	84.50	306.73	2,599.7	1,046.7	428.9	-574.8	717.2	0.00	
3,075.1	90.00	306.73	2,603.0	1,050.0	470.0	-629.8	785.9	8.00	
3,100.0	90.00	306.73	2,603.0	1,050.0	484.9	-649.8	810.8	0.00	
3,200.0	90.00	306.73	2,603.0	1,050.0	544.7	-729.9	910.8	0.00	
3,300.0	90.00	306.73	2,603.0	1,050.0	604.5	-810.1	1,010.8	0.00	
3,400.0	90.00	306.73	2,603.0	1,050.0	664.3	-890.2	1,110.8	0.00	
3,500.0	90.00	306.73	2,603.0	1,050.0	724.1	-970.4	1,210.8	0.00	
3,600.0	90.00	306.73	2,603.0	1,050.0	783.9	-1,050.5	1,310.8	0.00	
3,700.0	90.00	306.73	2,603.0	1,050.0	843.7	-1,130.7	1,410.8	0.00	
3,800.0	90.00	306.73	2,603.0	1,050.0	903.5	-1,210.8	1,510.8	0.00	
3,900.0	90.00	306.73	2,603.0	1,050.0	963.3	-1,291.0	1,610.8	0.00	
4,000.0	90.00	306.73	2,603.0	1,050.0	1,023.1	-1,371.1	1,710.8	0.00	
4,100.0	90.00	306.73	2,603.0	1,050.0	1,082.9	-1,451.3	1,810.8	0.00	
4,200.0	90.00	306.73	2,603.0	1,050.0	1,142.8	-1,531.4	1,910.8	0.00	
4,300.0	90.00	306.73	2,603.0	1,050.0	1,202.6	-1,611.5	2,010.8	0.00	
4,400.0	90.00	306.73	2,603.0	1,050.0	1,262.4	-1,691.7	2,110.8	0.00	
4,500.0	90.00	306.73	2,603.0	1,050.0	1,322.2	-1,771.8	2,210.8	0.00	
4,600.0	90.00	306.73	2,603.0	1,050.0	1,382.0	-1,852.0	2,310.8	0.00	



EQT Corporation  
Planning Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Wall Mobley Storage Well
Company:	EQT PRODUCTION	TVD Reference:	KB@1 @ 1553.0usft
Project:	Wetzel County, WV	MD Reference:	KB@1 @ 1553.0usft
Site:	Mobley	North Reference:	Grid
Well:	Mobley Storage Well	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Mobley Storage Plan 4		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	
4,700.0	90.00	306.73	2,603.0	1,050.0	1,441.8	-1,932.1	2,410.8	0.00	
4,800.0	90.00	306.73	2,603.0	1,050.0	1,501.6	-2,012.3	2,510.8	0.00	
4,900.0	90.00	306.73	2,603.0	1,050.0	1,561.4	-2,092.4	2,610.8	0.00	
5,000.0	90.00	306.73	2,603.0	1,050.0	1,621.2	-2,172.6	2,710.8	0.00	
5,100.0	90.00	306.73	2,603.0	1,050.0	1,681.0	-2,252.7	2,810.8	0.00	
5,200.0	90.00	306.73	2,603.0	1,050.0	1,740.8	-2,332.8	2,910.8	0.00	
5,300.0	90.00	306.73	2,603.0	1,050.0	1,800.6	-2,413.0	3,010.8	0.00	
5,400.0	90.00	306.73	2,603.0	1,050.0	1,860.4	-2,493.1	3,110.8	0.00	
5,500.0	90.00	306.73	2,603.0	1,050.0	1,920.2	-2,573.3	3,210.8	0.00	
5,600.0	90.00	306.73	2,603.0	1,050.0	1,980.0	-2,653.4	3,310.8	0.00	
5,700.0	90.00	306.73	2,603.0	1,050.0	2,039.8	-2,733.6	3,410.8	0.00	
5,800.0	90.00	306.73	2,603.0	1,050.0	2,099.7	-2,813.7	3,510.8	0.00	
5,900.0	90.00	306.73	2,603.0	1,050.0	2,159.5	-2,893.9	3,610.8	0.00	
6,000.0	90.00	306.73	2,603.0	1,050.0	2,219.3	-2,974.0	3,710.8	0.00	
6,100.0	90.00	306.73	2,603.0	1,050.0	2,279.1	-3,054.1	3,810.8	0.00	
6,200.0	90.00	306.73	2,603.0	1,050.0	2,338.9	-3,134.3	3,910.8	0.00	
6,300.0	90.00	306.73	2,603.0	1,050.0	2,398.7	-3,214.4	4,010.8	0.00	
6,400.0	90.00	306.73	2,603.0	1,050.0	2,458.5	-3,294.6	4,110.8	0.00	
6,500.0	90.00	306.73	2,603.0	1,050.0	2,518.3	-3,374.7	4,210.8	0.00	
6,600.0	90.00	306.73	2,603.0	1,050.0	2,578.1	-3,454.9	4,310.8	0.00	
6,700.0	90.00	306.73	2,603.0	1,050.0	2,637.9	-3,535.0	4,410.8	0.00	
6,800.0	90.00	306.73	2,603.0	1,050.0	2,697.7	-3,615.2	4,510.8	0.00	
6,900.0	90.00	306.73	2,603.0	1,050.0	2,757.5	-3,695.3	4,610.8	0.00	
7,000.0	90.00	306.73	2,603.0	1,050.0	2,817.3	-3,775.5	4,710.8	0.00	
7,100.0	90.00	306.73	2,603.0	1,050.0	2,877.1	-3,855.6	4,810.8	0.00	
7,200.0	90.00	306.73	2,603.0	1,050.0	2,936.9	-3,935.7	4,910.8	0.00	
7,300.0	90.00	306.73	2,603.0	1,050.0	2,996.8	-4,015.9	5,010.8	0.00	
7,400.0	90.00	306.73	2,603.0	1,050.0	3,056.6	-4,096.0	5,110.8	0.00	
7,500.0	90.00	306.73	2,603.0	1,050.0	3,116.4	-4,176.2	5,210.8	0.00	
7,600.0	90.00	306.73	2,603.0	1,050.0	3,176.2	-4,256.3	5,310.8	0.00	
7,700.0	90.00	306.73	2,603.0	1,050.0	3,236.0	-4,336.5	5,410.8	0.00	
7,800.0	90.00	306.73	2,603.0	1,050.0	3,295.8	-4,416.6	5,510.8	0.00	
7,900.0	90.00	306.73	2,603.0	1,050.0	3,355.6	-4,496.8	5,610.8	0.00	
8,000.0	90.00	306.73	2,603.0	1,050.0	3,415.4	-4,576.9	5,710.8	0.00	
8,100.0	90.00	306.73	2,603.0	1,050.0	3,475.2	-4,657.0	5,810.8	0.00	
8,200.0	90.00	306.73	2,603.0	1,050.0	3,535.0	-4,737.2	5,910.8	0.00	
8,300.0	90.00	306.73	2,603.0	1,050.0	3,594.8	-4,817.3	6,010.8	0.00	
8,400.0	90.00	306.73	2,603.0	1,050.0	3,654.6	-4,897.5	6,110.8	0.00	
8,500.0	90.00	306.73	2,603.0	1,050.0	3,714.4	-4,977.6	6,210.8	0.00	
8,600.0	90.00	306.73	2,603.0	1,050.0	3,774.2	-5,057.8	6,310.8	0.00	
8,700.0	90.00	306.73	2,603.0	1,050.0	3,834.0	-5,137.9	6,410.8	0.00	
8,800.0	90.00	306.73	2,603.0	1,050.0	3,893.8	-5,218.1	6,510.8	0.00	
8,900.0	90.00	306.73	2,603.0	1,050.0	3,953.7	-5,298.2	6,610.8	0.00	
9,000.0	90.00	306.73	2,603.0	1,050.0	4,013.5	-5,378.3	6,710.8	0.00	
9,100.0	90.00	306.73	2,603.0	1,050.0	4,073.3	-5,458.5	6,810.8	0.00	
9,200.0	90.00	306.73	2,603.0	1,050.0	4,133.1	-5,538.6	6,910.8	0.00	
9,300.0	90.00	306.73	2,603.0	1,050.0	4,192.9	-5,618.8	7,010.8	0.00	
9,400.0	90.00	306.73	2,603.0	1,050.0	4,252.7	-5,698.9	7,110.8	0.00	
9,441.1	90.00	306.73	2,603.0	1,050.0	4,277.3	-5,731.9	7,151.9	0.00	



EQT Corporation  
Planning Report

Database:	PEPCDBSW01DB	Local Co-ordinate Reference:	Well Mobley Storage Well
Company:	EQT PRODUCTION	TVD Reference:	KB@1 @ 1553.0usft
Project:	Wetzel County, WV	MD Reference:	KB@1 @ 1553.0usft
Site:	Mobley	North Reference:	Grid
Well:	Mobley Storage Well	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Mobley Storage Plan 4		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
MOBLEY Plat LP2 - plan misses target center by 91.5usft at 3909.7usft MD (2603.0 TVD, 969.1 N, -1298.7 E) - Point	0.00	360.00	2,603.0	1,042.4	-1,244.0	394,070.05	1,703,060.05	39° 34' 37.819 N	80° 33' 12.503 W
MOBLEY Plat TD2 - plan hits target center - Point	0.00	360.00	2,603.0	4,277.3	-5,731.9	397,304.87	1,698,572.20	39° 35' 9.265 N	80° 34' 10.308 W
Mobley LP 786 VS - plan hits target center - Point	0.00	0.00	2,603.0	470.0	-629.8	393,497.60	1,703,674.21	39° 34' 32.233 N	80° 33' 4.574 W

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
2,633.4	2,502.0	Little Lime				
2,667.1	2,518.0	Pencil Cave				
2,714.1	2,538.0	Big Lime				
2,936.3	2,593.0	Keener				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
(usft)	(usft)	(usft)	(usft)		
1,880.1	1,880.1	0.0	0.0	KOP=1880' MD	
2,936.3	2,593.0	387.3	-519.0	Hold 85	
3,006.3	2,599.7	428.9	-574.8	Build	
3,075.1	2,603.0	470.0	-629.8	LP=3075' MD/ 2603' TVD	
9,441.0	2,603.0	4,277.2	-5,731.8	TD=9441' MD/ 2603' TVD	

103-032285

Mobley Storage Plan 4

EQT PRODUCTION  
 Wetzel County, WV  
 Mobley  
 Mobley Storage Well  
 OWB  
 Mobley Storage Plan 4

KB@1  
 Elevation+KB=: 1553.00  
 Surface N: 393027.61  
 Surface E: 1704304.06  
 US State Plane 1927 (Exact solution)

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Measured Depth (ft)	Incl.	Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/S- (ft)	+E/W- (ft)	UTM Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	
0.00	0.000	0.000	-1553.00	0.00	0.00	0.00	393027.610 N	1704304.059 E	0.00	0.00	
1880.10	0.000	0.000	327.10	1880.10	0.00	0.00	393027.610 N	1704304.059 E	0.00	0.00	KOP=1880' MD - MWD+IGRF (1)
1900.00	1.592	306.730	347.00	1900.00	0.17	-0.22	393027.776 N	1704303.837 E	0.28	8.00	
1950.00	5.592	306.730	396.89	1949.89	2.04	-2.73	393029.649 N	1704301.327 E	3.41	8.00	
2000.00	9.592	306.730	446.44	1999.44	5.99	-8.02	393033.599 N	1704296.034 E	10.01	8.00	
2050.00	13.592	306.730	495.41	2048.41	12.00	-16.08	393039.606 N	1704287.983 E	20.06	8.00	
2100.00	17.592	306.730	543.56	2096.56	20.03	-26.84	393047.642 N	1704277.214 E	33.49	8.00	
2150.00	21.592	306.730	590.66	2143.66	30.06	-40.28	393057.666 N	1704263.780 E	50.26	8.00	
2200.00	25.592	306.730	636.47	2189.47	42.02	-56.31	393069.631 N	1704247.745 E	70.26	8.00	
2250.00	29.592	306.730	680.77	2233.77	55.87	-74.87	393083.479 N	1704229.188 E	93.42	8.00	
2300.00	33.592	306.730	723.35	2276.35	71.53	-95.86	393099.140 N	1704208.199 E	119.61	8.00	
2350.00	37.592	306.730	764.01	2317.01	88.93	-119.18	393116.540 N	1704184.881 E	148.70	8.00	
2400.00	41.592	306.730	802.53	2355.53	107.98	-144.71	393135.593 N	1704159.347 E	180.56	8.00	
2450.00	45.592	306.730	838.73	2391.73	128.60	-172.34	393156.207 N	1704131.721 E	215.03	8.00	
2500.00	49.592	306.730	872.45	2425.45	150.67	-201.92	393178.281 N	1704102.139 E	251.94	8.00	
2550.00	53.592	306.730	903.50	2456.50	174.10	-233.32	393201.708 N	1704070.744 E	291.11	8.00	
2600.00	57.592	306.730	931.75	2484.75	198.76	-266.37	393226.374 N	1704037.689 E	332.36	8.00	
2633.42	60.266	306.730	949.00	2502.00	215.88	-289.31	393243.493 N	1704014.747 E	360.98	8.00	Little Lime
2650.00	61.592	306.730	957.05	2510.05	224.55	-300.92	393252.157 N	1704003.135 E	375.47	8.00	
2667.08	62.958	306.730	965.00	2518.00	233.59	-313.04	393261.199 N	1703991.018 E	390.59	8.00	Pencil Cave
2700.00	65.592	306.730	979.29	2532.29	251.32	-336.81	393278.934 N	1703967.251 E	420.24	8.00	
2714.13	66.723	306.730	985.00	2538.00	259.05	-347.17	393286.664 N	1703956.892 E	433.17	8.00	Big Lime
2750.00	69.592	306.730	998.34	2551.34	278.96	-373.85	393306.573 N	1703930.211 E	466.46	8.00	
2800.00	73.592	306.730	1014.13	2567.13	307.33	-411.86	393334.939 N	1703892.196 E	513.89	8.00	
2850.00	77.592	306.730	1026.57	2579.57	336.28	-450.67	393363.895 N	1703853.391 E	562.31	8.00	

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Mobley Storage Plan 4												
2900.00	81.592	306.730	1035.60	2588.60	365.69	-490.07	393393.299	N	1703813.985	E	611.47	8.00
2936.35	84.500	306.730	1040.00	2593.00	387.27	-518.99	393414.876	N	1703785.070	E	647.55	8.00
3006.35	84.500	306.730	1046.71	2599.71	428.94	-574.83	393456.546	N	1703729.226	E	717.23	0.00
3025.41	86.024	306.730	1048.28	2601.28	440.29	-590.05	393467.904	N	1703714.005	E	736.22	8.00
3050.00	87.992	306.731	1049.57	2602.57	454.98	-609.74	393482.591	N	1703694.322	E	760.78	8.00
3075.10	90.000	306.731	1050.01	2603.01	469.99	-629.85	393497.600	N	1703674.210	E	785.88	8.00
3100.00	90.000	306.731	1050.01	2603.01	484.88	-649.80	393512.491	N	1703654.254	E	810.77	0.00
3200.00	90.000	306.731	1050.01	2603.01	544.69	-729.95	393572.298	N	1703574.109	E	910.77	0.00
3300.00	90.000	306.731	1050.01	2603.01	604.49	-810.09	393632.104	N	1703493.964	E	1010.77	0.00
3400.00	90.000	306.731	1050.01	2603.01	664.30	-890.24	393691.911	N	1703413.820	E	1110.77	0.00
3435.50	90.000	306.731	1050.01	2603.01	685.53	-918.69	393713.141	N	1703385.370	E	1146.27	0.00
3500.00	90.000	306.731	1050.01	2603.01	724.11	-970.38	393751.717	N	1703333.675	E	1210.77	0.00
3600.00	90.000	306.731	1050.01	2603.01	783.91	-1050.53	393811.523	N	1703253.530	E	1310.77	0.00
3700.00	90.000	306.731	1050.01	2603.01	843.72	-1130.67	393871.330	N	1703173.385	E	1410.77	0.00
3800.00	90.000	306.731	1050.01	2603.01	903.53	-1210.82	393931.136	N	1703093.240	E	1510.77	0.00
3900.00	90.000	306.731	1050.01	2603.01	963.33	-1290.96	393990.943	N	1703013.095	E	1610.77	0.00
3909.67	90.000	306.731	1050.01	2603.01	969.12	-1298.72	393996.728	N	1703005.343	E	1620.45	0.00
4000.00	90.000	306.731	1050.01	2603.01	1023.14	-1371.11	394050.749	N	1702932.951	E	1710.77	0.00
4100.00	90.000	306.731	1050.01	2603.01	1082.95	-1451.25	394110.556	N	1702852.806	E	1810.77	0.00
4200.00	90.000	306.731	1050.01	2603.01	1142.75	-1531.40	394170.362	N	1702772.661	E	1910.77	0.00
4288.08	90.000	306.731	1050.01	2603.01	1195.43	-1601.99	394223.041	N	1702702.068	E	1998.86	0.00
4300.00	90.000	306.731	1050.01	2603.01	1202.56	-1611.54	394230.168	N	1702692.516	E	2010.77	0.00
4400.00	90.000	306.731	1050.01	2603.01	1262.36	-1691.69	394289.975	N	1702612.371	E	2110.77	0.00
4500.00	90.000	306.731	1050.01	2603.01	1322.17	-1771.83	394349.781	N	1702532.227	E	2210.77	0.00
4600.00	90.000	306.731	1050.00	2603.00	1381.98	-1851.98	394409.588	N	1702452.082	E	2310.77	0.00
4700.00	90.000	306.731	1050.00	2603.00	1441.78	-1932.12	394469.394	N	1702371.937	E	2410.77	0.00
4800.00	90.000	306.731	1050.00	2603.00	1501.59	-2012.27	394529.201	N	1702291.792	E	2510.77	0.00
4900.00	90.000	306.731	1050.00	2603.00	1561.40	-2092.41	394589.007	N	1702211.647	E	2610.77	0.00
5000.00	90.000	306.731	1050.00	2603.00	1621.20	-2172.56	394648.813	N	1702131.502	E	2710.77	0.00
5100.00	90.000	306.731	1050.00	2603.00	1681.01	-2252.70	394708.620	N	1702051.358	E	2810.77	0.00
5200.00	90.000	306.731	1050.00	2603.00	1740.82	-2332.85	394768.426	N	1701971.213	E	2910.77	0.00
5300.00	90.000	306.731	1050.00	2603.00	1800.62	-2412.99	394828.233	N	1701891.068	E	3010.77	0.00
5400.00	90.000	306.731	1050.00	2603.00	1860.43	-2493.14	394888.039	N	1701810.923	E	3110.77	0.00
5500.00	90.000	306.731	1050.00	2603.00	1920.24	-2573.28	394947.845	N	1701730.778	E	3210.77	0.00
5600.00	90.000	306.731	1050.00	2603.00	1980.04	-2653.43	395007.652	N	1701650.634	E	3310.77	0.00
5700.00	90.000	306.731	1050.00	2603.00	2039.85	-2733.57	395067.458	N	1701570.489	E	3410.77	0.00
5800.00	90.000	306.731	1050.00	2603.00	2099.65	-2813.72	395127.265	N	1701490.344	E	3510.77	0.00
5900.00	90.000	306.731	1050.00	2603.00	2159.46	-2893.86	395187.071	N	1701410.199	E	3610.77	0.00
6000.00	90.000	306.731	1050.00	2603.00	2219.27	-2974.00	395246.878	N	1701330.054	E	3710.77	0.00
6100.00	90.000	306.731	1050.00	2603.00	2279.07	-3054.15	395306.684	N	1701249.909	E	3810.77	0.00
6200.00	90.000	306.731	1050.00	2603.00	2338.88	-3134.29	395366.490	N	1701169.765	E	3910.77	0.00
6300.00	90.000	306.731	1050.00	2603.00	2398.69	-3214.44	395426.297	N	1701089.620	E	4010.77	0.00
6400.00	90.000	306.731	1050.00	2603.00	2458.49	-3294.58	395486.103	N	1701009.475	E	4110.77	0.00
6500.00	90.000	306.731	1050.00	2603.00	2518.30	-3374.73	395545.910	N	1700929.330	E	4210.77	0.00

Hold 85 - Keener  
Build  
Mobley LP 786 VS  
LP=3075' MD/ 2603' TVD

Mobley LP 819 VS

MOBLEY Plat LP2

MOBLEY Plat LP

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6600.00	90.000	306.731	1050.00	2603.00	2578.11	-3454.87	395605.716	N	1700849.185	E	4310.77	0.00
6700.00	90.000	306.731	1050.00	2603.00	2637.91	-3535.02	395665.523	N	1700769.041	E	4410.77	0.00
6800.00	90.000	306.731	1050.00	2603.00	2697.72	-3615.16	395725.329	N	1700688.896	E	4510.77	0.00
6900.00	90.000	306.731	1050.00	2603.00	2757.52	-3695.31	395785.135	N	1700608.751	E	4610.77	0.00
7000.00	90.000	306.731	1050.00	2603.00	2817.33	-3775.45	395844.942	N	1700528.606	E	4710.77	0.00
7100.00	90.000	306.731	1050.00	2603.00	2877.14	-3855.60	395904.748	N	1700448.461	E	4810.77	0.00
7200.00	90.000	306.731	1050.00	2603.00	2936.94	-3935.74	395964.555	N	1700368.316	E	4910.77	0.00
7300.00	90.000	306.731	1050.00	2603.00	2996.75	-4015.89	396024.361	N	1700288.172	E	5010.77	0.00
7400.00	90.000	306.731	1050.00	2603.00	3056.56	-4096.03	396084.167	N	1700208.027	E	5110.77	0.00
7500.00	90.000	306.731	1050.00	2603.00	3116.36	-4176.18	396143.974	N	1700127.882	E	5210.77	0.00
7600.00	90.000	306.731	1050.00	2603.00	3176.17	-4256.32	396203.780	N	1700047.737	E	5310.77	0.00
7700.00	90.000	306.731	1050.00	2603.00	3235.98	-4336.47	396263.587	N	1699967.592	E	5410.77	0.00
7800.00	90.000	306.731	1050.00	2603.00	3295.78	-4416.61	396323.393	N	1699887.448	E	5510.77	0.00
7900.00	90.000	306.731	1050.00	2603.00	3355.59	-4496.76	396383.200	N	1699807.303	E	5610.77	0.00
8000.00	90.000	306.731	1050.00	2603.00	3415.40	-4576.90	396443.006	N	1699727.158	E	5710.77	0.00
8100.00	90.000	306.731	1050.00	2603.00	3475.20	-4657.05	396502.812	N	1699647.013	E	5810.77	0.00
8200.00	90.000	306.731	1050.00	2603.00	3535.01	-4737.19	396562.619	N	1699566.868	E	5910.77	0.00
8300.00	90.000	306.731	1050.00	2603.00	3594.81	-4817.34	396622.425	N	1699486.723	E	6010.77	0.00
8400.00	90.000	306.731	1050.00	2603.00	3654.62	-4897.48	396682.232	N	1699406.579	E	6110.77	0.00
8500.00	90.000	306.731	1050.00	2603.00	3714.43	-4977.63	396742.038	N	1699326.434	E	6210.77	0.00
8600.00	90.000	306.731	1050.00	2603.00	3774.23	-5057.77	396801.845	N	1699246.289	E	6310.77	0.00
8700.00	90.000	306.731	1050.00	2603.00	3834.04	-5137.91	396861.651	N	1699166.144	E	6410.77	0.00
8800.00	90.000	306.731	1050.00	2603.00	3893.85	-5218.06	396921.457	N	1699085.999	E	6510.77	0.00
8900.00	90.000	306.731	1050.00	2603.00	3953.65	-5298.20	396981.264	N	1699005.855	E	6610.77	0.00
9000.00	90.000	306.731	1050.00	2603.00	4013.46	-5378.35	397041.070	N	1698925.710	E	6710.77	0.00
9100.00	90.000	306.731	1050.00	2603.00	4073.27	-5458.49	397100.877	N	1698845.565	E	6810.77	0.00
9200.00	90.000	306.731	1050.00	2603.00	4133.07	-5538.64	397160.683	N	1698765.420	E	6910.77	0.00
9300.00	90.000	306.731	1050.00	2603.00	4192.88	-5618.78	397220.489	N	1698685.275	E	7010.77	0.00
9400.00	90.000	306.731	1050.00	2603.00	4252.69	-5698.93	397280.296	N	1698605.130	E	7110.77	0.00
9441.00	90.000	306.731	1050.00	2603.00	4277.21	-5731.79	397304.817	N	1698572.271	E	7151.77	0.00
9441.09	90.000	306.731	1050.00	2603.00	4277.26	-5731.86	397304.869	N	1698572.201	E	7151.86	0.00

TD=9441' MD/ 2603' TVD  
 MOBLEY Plat TD - MOBLEY Plat TD2

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to KB@1. Northings and Eastings are relative to well.

The Dogleg Severity is in Degrees per 100 feet. Vertical Section is from slot and calculated along an Azimuth of 306.731° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), west Virginia North 4701. Grid Convergence at Surface is -0.669°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 9441.09ft., the Bottom Hole Displacement is 7151.86ft., in the Direction of 306.731° (Grid).

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(Rev. 6-14)

1.) Date: 2/8 /2018  
2.) Operator's Well Number 519603  
State County Permit  
3.) API Well No.: 47- - -

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name John Wycoff  
Address c/o Carolyn McGill  
105 Valley View Ln  
Fairmont, WV 26554  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
5) (a) Coal Operator  
Name None  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name See attached sheet  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name None  
Address \_\_\_\_\_  
6) Inspector Derek Haught  
Address P.O. Box 85  
Smithville, WV 26178  
Telephone (304) 206-7613

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Environmental Protection

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

x Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through     on the above named parties by:

- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

*Samuel K. Smallwood*  
Attorney-in-Fact

Well Operator Equitrans, L.P. Contact: \_\_\_\_\_  
By: Samuel K. Smallwood Brian Hall   
Its: Attorney-in-Fact Sr Storage Specialist  
Address: 303 Sand Cut Rd Same address  
Clarksburg, WV 26301  
Telephone: (304) 626-7999 (304) 626-6419  
Email: SSmallwood@eqt.com BRHall@eqt.com

Subscribed and sworn before me this 8th day of February, 2018

*Rachel Wyckoff*  
My Commission Expires March 14, 2022

Notary Public



Oil and Gas Privacy Notice  
The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)

04/13/2018

Operator's Well No. 519603

ATTACHMENT WW-2A-4) Additional Surface Owner(s) (Access Road-See Mobley Storage Well Final Site Design, Construction Plans, & Erosion & Sediment Control Plans for Parcel ID)

**Surface Owners:**

✓ Parcel ID 04-14-10, 17, 18, 22  
John Wycoff  
579 Morgan Ridge Rd  
Fairmont, WV 26554-5586  
\*See attached Surface Waiver, Personal Service Affidavit

Parcel ID 04-14-26, 32 ✓  
Mary J. Byard  
2917 S 7<sup>th</sup> St.  
Missoula, MT 59801

Parcel ID 04-20-1 ✓  
Coastal Forest Resources Company  
ATTN: Edward G. Kraynok, Vice President  
PO Box 709  
Buckhannon, WV 26201

Parcel ID 04-14-33 ✓  
Atlee H. Conaway, Jr. Trust  
ATTN: Barbara Conaway, Trustee  
800 Southerly Rd., Apt 904  
Baltimore, MD 21286-8409

\*The following Parcel IDs 04-14-23, 24, 25, 29 in Wetzel County, West Virginia are currently owned by an EQT entity.

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Operator's Well No. 519603

ATTACHMENT WW-2A-5)(a) Coal Operator, (b) Coal Owner(s) with Declaration, (c) Coal Lessee with Declaration

**Coal Owners:**

Benedum-Trees Oil Company  
Kerr-McGee Oil & Gas Onshore LP  
Anandarko Petroleum Corp  
ATTN: Dave Ward  
PO Box 1330  
Houston, TX 77251-1330

CNX RCPC, LLC  
DuPont Energy Coal Holdings, Inc  
CNX Land Resources-Property  
ATTN: Casey Saunders (CNX Center)  
Engineering and Operations Support Dept Coal  
1000 Consol Energy Dr  
Canonsburg, PA 15317-6506

CCC Land Resources LLC  
Murray Energy Corp  
Murray American Energy, Inc WV & OH  
ATTN: Alex O'Neill  
46226 National Rd  
St. Clairsville, OH 43950

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04/13/2018

WW-70  
Rev. 7/01

Affidavit of Personal Service

State Of West Virginia  
County Of Harrison

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A)  / WW-3(A)  / WW-4(A)  / WW-5(A)  / WW-6(A)
- (2) Application on Form WW-2(B)  / WW-3(B)  / WW-4(B)  / WW-5(B)  / WW-6(B)
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. 519603 located in Grant District, Wayne County, West Virginia, upon the person or organization named--  
Equitans LP

--by delivering the same in Marion County, State of West Virginia on the 21th day of February, 2018 in the manner specified below

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him  / her  / or, because he  / she  / refused to take it when offered it, by leaving it in his  / her  / presence.

Handing it to a member of his or her family above the age of 16 years named \_\_\_\_\_ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to \_\_\_\_\_, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named \_\_\_\_\_, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee  / officer  / director  / attorney in fact  / named \_\_\_\_\_.

[Signature]  
(Signature of person executing service)

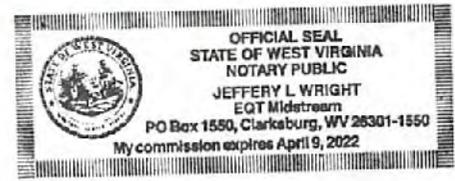
Taken, subscribed and sworn before me this 1st day of March 2018  
My commission expires April 9 2022

[Signature]  
Notary Public

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MAR 2 2018  
WV Department of Environmental Protection

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)

[Signature]



WW-2A Surface Waiver  
(4/16)

**SURFACE OWNER WAIVER**

County Wetzel Operator Equitrans, L.P.  
Operator well number 519603

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A**

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation.

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MAR 2 2018  
Environmental Protection

**If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.**

**List of Water Testing Laboratories.** The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW2-B, a survey plat, WW-9, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

John Wycoff Date 3-1-18  
Signature

Company Name N/A  
By N/A  
Its \_\_\_\_\_ Date \_\_\_\_\_  
N/A

John Wycoff  
Print Name

Signature \_\_\_\_\_ Date \_\_\_\_\_

04/13/2018



MAR 29 2018

WW-2A Surface Waiver  
(4/16)

**SURFACE OWNER WAIVER**

WV Department of  
Environmental Protection

County Wetzel

Operator

Equitrans, L.P.

Operator well number

519603

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Department of Environmental Protection  
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- 4) The proposed well work fails to protect fresh water sources or supplies;
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I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

\_\_\_\_\_  
Signature Date \_\_\_\_\_

\_\_\_\_\_  
Print Name

Company Name Atlee H. Conaway, Jr. Trust  
By Barbara Conaway Date \_\_\_\_\_  
Its \_\_\_\_\_

Trustee Barbara H. Conaway Date 3/25/18  
Signature Date

WW-2A1  
(Rev. 1/11)

Operator's Well Number 519603

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached Sheet			

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:  
By: Its:

Samuel K. Smallwood  
Equitrans, L.P.  
Samuel K. Smallwood, Attorney-in-Fact

WW-2A1 ATTACHMENT

Operator's Well No. 519603

<u>Lease No.</u>	<u>Grantor, Lessor, etc.</u>	<u>Grantee, Lessee, etc.</u>	<u>Royalty</u>	<u>Book/Page</u>
<u>706740</u>	<u>EQT Production Company Inc. (Current)</u> Benedum-Trees Oil Company and Parker and Edwards Oil Company Carnegie Natural Gas Company Carnegie Production Company ETAL Carnegie Natural Gas Company Equitable Resources, Inc. EQT Production Company	Carnegie Natural Gas Company  Carnegie Production Company USX Corporation Equitable Resources, Inc. EQT Production Company Equitrans, L.P.	----- *	O&G 2A/180  O&G 78A/513 Unrecorded Unrecorded Various Mergers 201A/372
<u>125423</u>	<u>AMP Fund III, LP, etal (Current)</u> C.E. Brown, etux, etal Equitable Gas Company Equitrans, Inc.	Equitable Gas Company Equitrans, Inc Equitrans, L.P.	\$300.00 Storage	O&G 45A/278 O&G 71A/453 DB 105/908
<u>125421</u>	<u>H. Dorn Higginbotham etal (Current)</u> Elva R. King, etal Willard E. Ferrell Elva R. King, etal Equitable Gas Company Equitrans, Inc.	Willard E. Ferrell Equitable Gas Company Equitable Gas Company (storage rights) Equitrans, Inc Equitrans, L.P.	\$300.00 Storage	O&G 42A/411 O&G 44A/320 O&G 44A/316 O&G 71A/453 DB 105/908
<u>125445</u>	<u>H. Dorn Higginbotham etal (Current)</u> Elva R. King, etal Equitable Gas Company Equitrans, Inc.	Equitable Gas Company Equitrans, Inc Equitrans, L.P.	\$300.00 Storage	O&G 45A/25 O&G 71A/453 DB 105/908
<u>106285</u>	<u>Fredric G. Ritcher, etal (Current)</u> John E. Snider and Mahala A. Snider John LaValle PH Glover The Philadelphia Co of West Virginia Pittsburgh and West Virginia Gas Co. Equitable Gas Company Equitrans, Inc.	John Lavelle PH Glover The Philadelphia Co of West Virginia Pittsburgh and West Virginia Gas Co. Equitable Gas Company Equitrans, Inc. Equitrans, L.P.	\$300.00 Storage	DB 76/239 Unrecorded Unrecorded O&G 22A/352 DB 187/374 O&G 71A/453 DB 105/908

\*EQT Production Company Inc. is 100% oil and gas royalty holder and storage rights of Lease No. 706740.

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MAR 2 2018

WV DEPARTMENT OF  
Environmental Protection  
Environmental Protection

04/13/2018

WW-2B1  
(5-12)

Well No. 519603

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name See attached sheet  
Sampling Contractor Allegheny Surveys, Inc.

Well Operator Equitrans, L.P., Samuel K. Smallwood, Attorney-in-Fact  
Address 303 Sand Cut Rd  
Clarksburg, WV 26301  
Telephone (304) 626-7999; Email: SSmallwood@eqt.com

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FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

0 water supplies within 2,500' of the proposed well site.

ATTACHMENT WW-2B1

Operator's Well No. 519603

RE: Proposed Mobley Horizontal Storage Well, Wetzel County, West Virginia

Potential Water Sample Data Sheet

Owner		Mailing Address					Land Information				
Name 1	In Care Of	Street	City	State	Zip	Zip+4	County	District	Map	Parcel	Sub
Jeremy T. Collins, et al		1030 Ohltown Road	Austintown	OH	44515		Wetzel	Grant	13	27	1
Coastal Forest Resources Company		P.O. Box 709	Buckhannon	WV	26201	709	Wetzel	Grant	13	45	
Norman Derby		9985 Willey Fork Road	Burton	WV	26562		Wetzel	Grant	14	7	
Esther R. Coen		5477 North Fork Road	Pine Grove	WV	26419	8337	Wetzel	Grant	14	8	
John W. Wycoff	Carolyn S. McGill	105 Valley View Lane	Fairmont	WV	26554	9390	Wetzel	Grant	14	10	
John W. Wycoff	Carolyn S. McGill	105 Valley View Lane	Fairmont	WV	26554	9390	Wetzel	Grant	14	16	
John W. Wycoff	Carolyn S. McGill	105 Valley View Lane	Fairmont	WV	26554	9390	Wetzel	Grant	14	17	
John W. Wycoff	Carolyn S. McGill	105 Valley View Lane	Fairmont	WV	26554	9390	Wetzel	Grant	14	18	
John W. Wycoff	Carolyn S. McGill	105 Valley View Lane	Fairmont	WV	26554	9390	Wetzel	Grant	14	22	

The above parcels are identified as being within 2500 foot radius of the proposed Mobley Horizontal Storage Well as depicted on the Exhibit A (attached hereto) and a notice of the same has been sent to each property owner as listed via certified mail. As to date, no known water source, i.e., water well or spring, is being utilized for human consumption, domestic animals, or other general use.

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Environmental Protection

WW-9  
(5/16)

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. 519803

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Equitrans, L.P. OP Code 307652

Watershed (HUC 10) Wiley Fork Quadrangle Big Run

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: Yes - the closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off site facility. \_\_\_\_\_

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. See Attached

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud

Additives to be used in drilling medium? See Attached

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? See Attached List

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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MAR 2 2018

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Samuel K. Smallwood  
Company Official (Typed Name) Samuel K. Smallwood  
Company Official Title Attorney-in-Fact

Subscribed and sworn before me this 8th day of February, 2018

Rachel Wycroft

My commission expires March 14, 2022

Notary Public



Proposed Revegetation Treatment: Acres Disturbed 45.07 Prevegetation pH n/a - no soil sample

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: \_\_\_\_\_

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Title: Oil + Gas Inspector Date: 2-23-18

Field Reviewed?  Yes  No

ATTACHMENT WW-9

Operator's Well No. 519603

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

- Air is used to drill the top-hole sections of the well bore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

- Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud - Ba rite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud - synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

DMH  
2-23-18RECEIVED  
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MAR 2 2018  
WV Department of  
Environmental Protection

04/13/2018

ATTACHMENT WW-9

Operator's Well No. 519603**OFFSITE DISPOSALS/LANDFILL LOCATIONS****Waste Management-Meadowfill Landfill**

Rt. 2, Box 86 Dawson Drive  
Bridgeport, WV 26330  
304-326-6027  
Permit #SWF-1032-98  
Approval #100785WV

**Waste Management-Northwestern Landfill**

512 E. Dry Road  
Parkersburg, WV 26104  
304-428-0602  
Permit #SWF-1025 WV-0109400  
Approval #100833WV

DMH  
2-23-18

RECEIVED  
Office of Oil and Gas  
MAR 2 2018  
WV Department of  
Environmental Protection

04/13/2018

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
GROUNDWATER PROTECTION PLAN

Operator Name: Equitrans, L.P.  
Watershed (HUC 10): 0503020102 (Fishing Creek) Quad: Big Run  
Farm Name: Mobley

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Secondary containment will be used to contain potential groundwater contaminants. Potential contaminants that spill will be contained within the secondary containment and are to be removed and taken to an appropriate location permitted for disposal of the spilled material. Fuel tanks and construction equipment are all sources of potential groundwater contamination during construction. Potential contaminants during site construction include fuels, oils, and fluids from construction equipment. The operations of drilling and cementing followed by stimulation of the well can also produce potential contaminants that could effect groundwater. The well is proposed to be drilled with air and drilling mud. Chemicals used in drilling the well shall be stored in their original containers until used. Chemicals anticipated to be used during drilling include: Air foam HD, SC-900 (Shale Control Copolymer), CC-120 (Liquid KCL Replacement)(Clay Stabilizer), ALPHA 2296 (Corrosion inhibitor), De-foamer, Hammer oil, potassium chloride, biodegradable oil lubricant, detergent, defoaming, water, barite, viscosifier, alkalinity control, lime, filtration control, deflocculates, walnut shell, salt, x-cide, and carbonates. Chemical storage containers will be located within a secondary containment footprint. Petroleum will be stored in doubled walled steel tanks. Production fluid will be stored in production tanks within secondary containment until it is hauled off for disposal at a facility permitted for disposal of the material

CONTAMINANTS

NO PLAN TO TREAT AND DISCHARGE. FLUIDS WILL

DISPOSE OF OFF SITE. P.M.M.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

All Safety Data Sheet shall be kept on-site. The use of primary and secondary containment with berms will be used to contain potential pollutants that could contaminate groundwater. Tears in containment will be fixed immediately. Transfers of fluids will take place over secondary containment and will be monitored. Equipment will be inspected daily, and if an issue is discovered clean up and maintenance of equipment will take place immediately. A vacuum truck will be on stand-by to remove fluids from secondary containment and taken to a facility permitted for disposal of that fluid. Contractors will notify the authorized Equitrans representative immediately of spills in any amount (inside or outside of secondary containment) or discovery of potential contaminants leaving site in accordance with Equitrans Standard Operating Procedures. An authorized Equitrans representative will make the required notifications to the regulatory agencies and local emergency contacts.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Two ephemeral waterbodies (Unnamed Tributary [UNT] to Mobley Run, UNT to Haymond Run) were delineated adjacent to the proposed Project access road LOD. The head of these streams are approximately 50 feet (UNT to Mobley Run) and 70 feet (UNT to Haymond Run) downslope of the proposed access road LOD. Based on USGS Quadrangle mapping, the following streams are downslope of the Project LOD with approx. distance from LOD: Mobley Run (approx. 650 LF), UNT to Mobley Run (approx. 780 LF), UNT to North Fork Fishing Creek (approx. 860), UNT to Wiley Fork (approx. 1495 LF), UNT to Haymond Run (approx. 725 LF), UNT to Willey Fork (approx. 915 LF). The closest Well Head Protection Areas identified relative to the Project location are New Martinsville Water (approximately 38 miles downstream) and Paden City Water Works (approximately 43 miles downstream).

4. Summarize all activities at your facility that are already regulated for groundwater protection.

There are no other activities on-site that are regulated for groundwater protection.

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

No existing groundwater quality data is available.

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

Any fluids that may potentially cause groundwater contamination in secondary containment will be removed by a vacuum truck, including snow as it melts. All solids will go into an appropriate covered bin for disposal. Waste material shall not be used for deicing, fill material or any other use unless provided for in another regulation or permit.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

Frequent tailgate meetings or Job Site Analyses (JSA) will be used to train staff on how to prevent and respond to spills that may potentially contaminate groundwater. The tailgate meeting or JSA should be used to discuss potential sources of pollution and best management practices (BMPs) to prevent groundwater contamination. During the meetings, emergency procedures should be reviewed and discussed for the specific construction site and conditions. Employee training programs shall be used to inform personnel at all levels of responsibility of potential groundwater contaminants and BMPs for preventing contamination. Training should address topics such as spill response, good housekeeping and routine inspection. Training should be conducted at a minimum on a quarterly basis while construction and operational activities are occurring. Records of the quarterly training should be maintained on site.

Contractors and their employees will be instructed in the following BMPs: 1. Use of secondary containment. 2. Notify authorized Equitrans representative immediately of any spills or discovery of potential contaminate leaving site. Equitrans representative will make the required notifications to the regulatory agencies and local emergency contacts. 3. All tears in containment are to be reported immediately to Equitrans representative so it can be fixed. 4. Transfers of fluids will be monitored and take place over secondary containment. 5. Equipment is to be inspected daily. If an issue is discovered the area will be cleaned up and maintenance of equipment will take place immediately. 6. An Equitrans representative is to be notified if a vacuum truck is needed.

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Office of Oil and Gas

MAR 2 2018

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

The site will be formally inspected a minimum of once every month during the life of site construction activities to ensure that all elements and equipment of the site's ground water protection program are in place, properly functioning, and appropriately managed. Inspections are to be documented. More frequent inspections will be conducted as required by the Project's other permits. During post site construction operations, the inspection of GPP elements and equipment will be conducted at shift change by the relief coming on. As the shift goes on, all operators will monitor their equipment to maintain it in operational condition and look for tears in containment in their area.

WV Department of  
Environmental Protec.

Signature: \_\_\_\_\_

*Semuel H. Anacevad*  
Attorney-in-Fact

Date: \_\_\_\_\_

2/8/18

04/13/2018

PROJECT: Mobley Horizontal Storage Well  
COUNTY: Wetzel  
DISTRICT: Grant (04)  
TAX MAP/PARCEL: 14/10, 17, 18, and 22

**ROAD RIGHT OF WAY AND EASEMENT AGREEMENT**

**THIS ROAD RIGHT OF WAY AND EASEMENT AGREEMENT ("Agreement"),** dated February 27, 2018, is made and entered into by and between **John W. Wycoff, married but dealing as his sole and separate property,** of 579 Morgan Ridge Rd, Fairmont, WV 26554-5586 ("**Grantor**"), and **Equitrans, L.P.,** a Pennsylvania Limited Partnership, with an office located at 625 Liberty Avenue, Suite 1700, Pittsburgh, PA 15222 ("**Grantee**").

**FOR AND IN CONSIDERATION** of the sum of one dollar (\$1.00), cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor grants and conveys, with covenant of General Warranty, to Grantee a perpetual right of way and easement ("**Right of Way**") in the location depicted on "**Exhibit A**" attached hereto, to construct, use, maintain, upgrade, replace, alter, improve, protect (including the installation of gates, environmental and erosion controls), and repair a road ("**Road**"), together with all necessary or convenient rights, including ingress and egress thereto by most convenient routes, and installation of utility lines. Said perpetual Right of Way is over, upon, and across the lands of the Grantor being in Grant District, Wetzel County, West Virginia, which lands or part thereof were devised to Grantor from W.A. Wycoff in Will Book 32, Page 581 dated November 23, 1973 and recorded on December 1, 1981, of record in Wetzel County, West Virginia, containing 29 acres, 6.2 acres, 66.7 acres, and 48 acres, more or less, and being more specifically identified as Tax Map 14 and Parcel Numbers 10, 17, 18 and 22 ("**Property**"). The Road's centerline is marked and described on "**Exhibit A**".

1. Grantee may use the Road as necessary or convenient to facilitate its current and future operations wherever located, including construction, reclamation, and use for access to any other properties. By way of example and not limitation, Grantee may use the Road for the transportation of pipe, machinery, rigs, equipment, and all other supplies or equipment necessary or useful for the construction, installation, operation, reclamation, and maintenance of pipelines or other equipment or facilities used and useful to Grantee's operations or business or for the transporting of natural gas, its' byproducts, water, and or other liquids and gases.

2. The Right of Way shall be of sufficient width to accommodate any and all operations of, and uses necessary or convenient to Grantee, including but not limited to, all activities related to constructing, maintaining, upgrading, replacing, altering, improving, protecting, and repairing the Road.

3. Grantor shall not place or permit to be placed any obstruction on or over the Right of Way or Road, including, but not limited to, buildings, mobile homes, garages, sheds, trees, vehicles, or other items or activities that could impede access to or use of the Right of Way or Road. Subject to the foregoing, Grantor may continue to use and enjoy the Property and the Road in any way that does not interfere with the rights of Grantee under this Agreement.

4. Grantee has the right to maintain the Right of Way and Road by keeping them free from all trees, limbs, brush, weeds, and other undergrowth which, in the judgment of the Grantee, might interfere with the construction, use, maintenance, upgrading, replacement, alteration, improvement, protection, repair, or safety of the Road. Grantee is also given the right to access the Property as required to reclaim the Road and any other affected areas on the Property.

5. Grantee shall have the right to make such changes in the location of the Road from time to time as may be necessary or advisable owing to road construction or relocations, ground slips, migrating streams, or other causes beyond the control of the Grantee that are required for safety, regulatory, or operational reasons. For any such changes required by Grantee, Grantee shall pay a dollar amount per foot/acre of relocated road equal to the per foot/acre amount paid to Grantor for the initial Road constructed hereunder. Grantor agrees to



PROJECT: Mobley Horizontal Storage Well  
COUNTY: Wetzel  
DISTRICT: Grant (04)  
TAX MAP/PARCEL: 14/10, 17, 18, and 22

execute any further amendments or instruments necessary to confirm such adjustments to the location of the Road.

6. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors, assigns, heirs, administrators, and executors.

7. It is hereby understood that no agreement or representation concerning this Agreement shall be binding on the Grantee unless expressed in a writing signed by the Grantee; and any agreements or representations, verbal or written, made by any person on behalf of either the Grantor or the Grantee not contained in this instrument are unauthorized and do not bind the parties. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which shall be deemed to comprise one single instrument. This right of way and easement shall run with the land and remain in force and effect until released and relinquished by the Grantee back to the Grantor, in writing.

8. Grantor shall from time to time execute and deliver such further instruments as necessary to effectuate the rights granted under this Agreement.

9. The Grantor herein declares that the value of the interest in the real estate transfer herein, to the best of their knowledge and belief is \$ 18,139.68.

TO HAVE AND TO HOLD the said Agreement unto Grantee, its successors and assigns.

IN WITNESS WHEREOF, the Grantor has executed this Agreement as of the date first set forth above.

GRANTOR:

John W. Wyckoff  
John W. Wyckoff

STATE OF WEST VIRGINIA :  
COUNTY OF MARION :

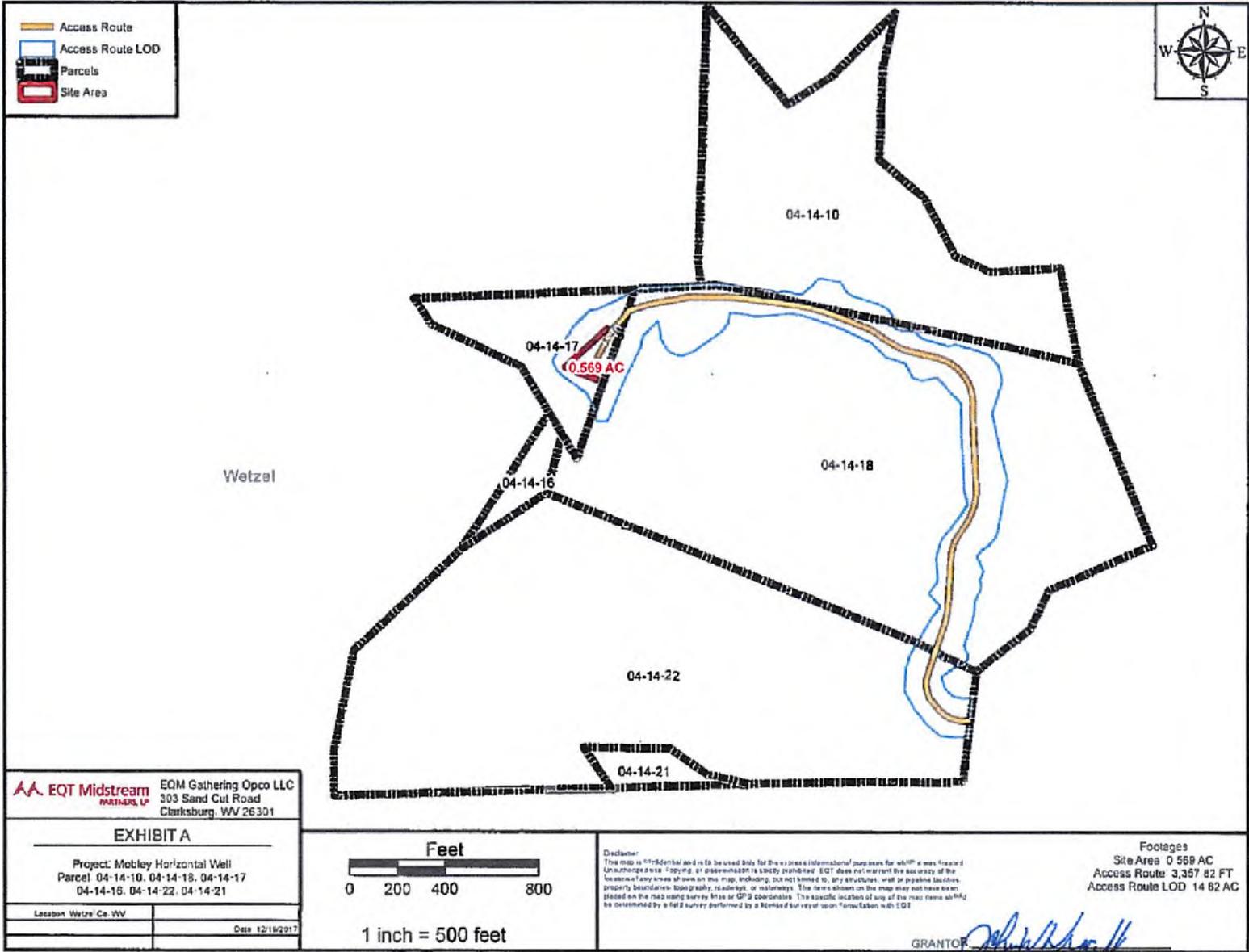
I, Rachel Wyckoff, a Notary Public in and for said County and State, certify that John W. Wyckoff, married but dealing as his sole and separate property, personally known to me to be the same person who signed above, appeared before me today in said State and County, and acknowledged and delivered the instrument to be their free act and deed. Given under my hand this 27th day of February, 2018.

My commission expires: March 14, 2022.

[SEAL]



Rachel Wyckoff  
Notary Public



Access Route  
 Access Route LOD  
 Parcels  
 Site Area



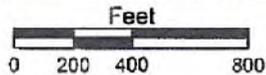
Wetzel

**AA EQT Midstream** EQM Gathering Opco LLC  
 PARTNERS, LP 303 Sand Cut Road  
 Clarksburg, WV 26301

**EXHIBIT A**

Project: Mobley Horizontal Well  
 Parcel: 04-14-10, 04-14-16, 04-14-17  
 04-14-18, 04-14-21, 04-14-22

Location: Wetzel Co, WV	Date: 12/18/2017
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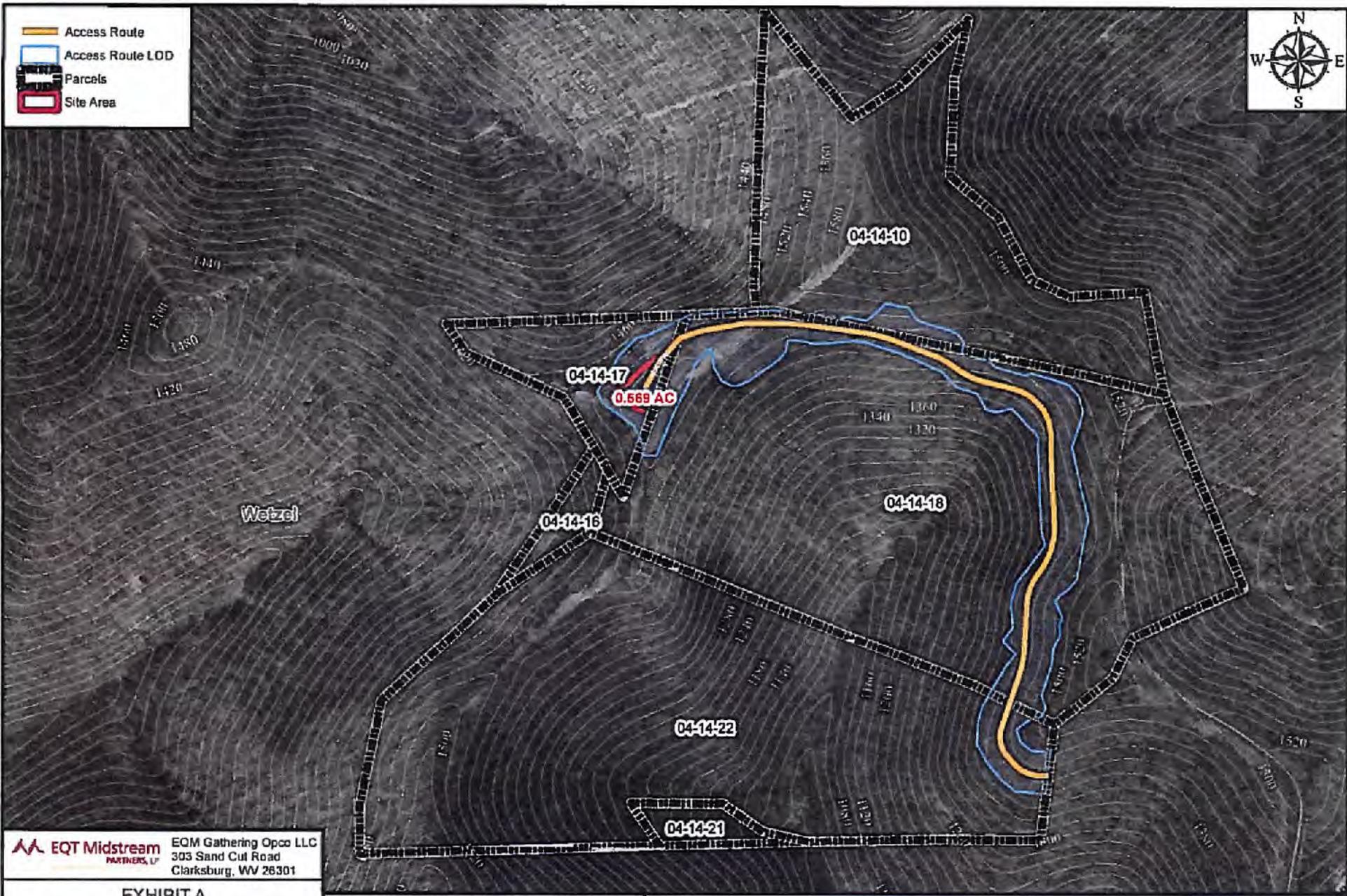
1 inch = 500 feet

**Disclaimer:**  
 This map is confidential and is to be used only for the express informational purposes for which it was prepared. No warranty is made by EQT as to the accuracy of the information shown on this map, including, but not limited to, any structures, well or pipeline locations, property boundaries, topography, roadways, or mileages. The users shown on this map may not have been placed on the map using survey files or GPS coordinates. The specific location of any of the users shown may be determined by a field survey performed by a licensed surveyor in consultation with EQT.

**Footages**  
 Site Area: 0.569 AC  
 Access Route: 3,357.82 FT  
 Access Route LOD: 14.62 AC

GRANTOR

103-032287

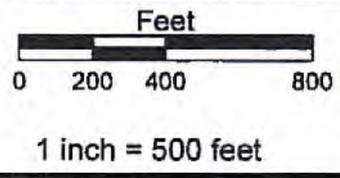


**EQT Midstream PARTNERS, LP** EQM Gathering Opco LLC  
 303 Sand Cut Road  
 Clarksburg, WV 26301

**EXHIBIT A**

Project: Moble Horizontal Well  
 Parcel: 04-14-10, 04-14-18, 04-14-17  
 04-14-16, 04-14-22, 04-14-21

Location: Wetzel Co, WV  
 Date: 12/19/2017



**Disclaimer:**  
 This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any lines shown on the map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon cooperation with EQT.

**Footages**  
 Site Area: 0.569 AC  
 Access Route: 3,357.82 FT  
 Access Route LOD: 14.82 AC

GRANTOR:

103-032287

PROJECT: Mobley Horizontal Storage Well  
COUNTY: Wetzel  
DISTRICT: Grant (04)  
TAX MAP/PARCEL: 14/26, 32

**ROAD RIGHT OF WAY AND EASEMENT AGREEMENT**

**THIS ROAD RIGHT OF WAY AND EASEMENT AGREEMENT** ("Agreement"), dated January 8, 2018, is made and entered into by and between Mary Jane Byard, a single woman, of 2917 S. 7<sup>th</sup> Street, Missoula, MT 59804-2021 ("Grantor"), and Equitrans, L.P., a Pennsylvania Limited Partnership, with an office located at 625 Liberty Avenue, Suite 1700, Pittsburgh, PA 15222 ("Grantee").

**FOR AND IN CONSIDERATION** of the sum of one dollar (\$1.00), cash in hand paid and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor grants and conveys, with covenant of General Warranty, to Grantee a perpetual right of way and easement ("Right of Way") in the location depicted on "Exhibit A" attached hereto, to construct, use, maintain, upgrade, replace, alter, improve, protect (including the installation of gates, environmental and erosion controls), and repair a road ("Road"), together with all necessary or convenient rights, including ingress and egress thereto by most convenient routes, and installation of utility lines. Said perpetual Right of Way is over, upon, and across the lands of the Grantor being in Grant District, Wetzel County, West Virginia, which lands or part thereof were conveyed to Grantor from Mary Byard, widow in Deed Book 264, Page 119 dated September 9, 1971 of record in Wetzel County, West Virginia, containing 14.5 acres and 13.3 acres, more or less, and being more specifically identified as Tax Map 14 and Parcel Numbers 26 and 32 ("Property"). The Road's centerline is marked and described on "Exhibit A".

1. Grantee may use the Road as necessary or convenient to facilitate its current and future operations wherever located, including construction, reclamation, and use for access to any other properties. By way of example and not limitation, Grantee may use the Road for the transportation of pipe, machinery, rigs, equipment, and all other supplies or equipment necessary or useful for the construction, installation, operation, reclamation, and maintenance of pipelines or other equipment or facilities used and useful to Grantee's operations or business or for the transporting of natural gas, its' byproducts, water, and or other liquids and gases.

2. The Right of Way shall be of sufficient width to accommodate any and all operations of, and uses necessary or convenient to Grantee, including but not limited to, all activities related to constructing, maintaining, upgrading, replacing, altering, improving, protecting, and repairing the Road.

3. Grantor shall not place or permit to be placed any obstruction on or over the Right of Way or Road, including, but not limited to, buildings, mobile homes, garages, sheds, trees, vehicles, or other items or activities that could impede access to or use of the Right of Way or Road. Subject to the foregoing, Grantor may continue to use and enjoy the Property and the Road in any way that does not interfere with the rights of Grantee under this Agreement.

4. Grantee has the right to maintain the Right of Way and Road by keeping them free from all trees, limbs, brush, weeds, and other undergrowth which, in the judgment of the Grantee, might interfere with the construction, use, maintenance, upgrading, replacement, alteration, improvement, protection, repair, or safety of the Road. Grantee is also given the right to access the Property as required to reclaim the Road and any other affected areas on the Property.

5. Grantee shall have the right to make such changes in the location of the Road from time to time as may be necessary or advisable owing to road construction or relocations, ground slips, migrating streams, or other causes beyond the control of the Grantee that are required for safety, regulatory, or operational reasons. For any such changes required by Grantee, Grantee shall pay a dollar amount per foot/acre of relocated road equal to the per foot/acre amount paid to Grantor for the initial Road constructed hereunder. Grantor agrees to

PROJECT: Mobley Horizontal Storage Well  
COUNTY: Wetzel  
DISTRICT: Grant (04)  
TAX MAP/PARCEL: 14/26, 32

execute any further amendments or instruments necessary to confirm such adjustments to the location of the Road.

6. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors, assigns, heirs, administrators, and executors.

7. It is hereby understood that no agreement or representation concerning this Agreement shall be binding on the Grantee unless expressed in a writing signed by the Grantee; and any agreements or representations, verbal or written, made by any person on behalf of either the Grantor or the Grantee not contained in this instrument are unauthorized and do not bind the parties. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which shall be deemed to comprise one single instrument. This right of way and easement shall run with the land and remain in force and effect until released and relinquished by the Grantee back to the Grantor, in writing.

8. Grantor shall from time to time execute and deliver such further instruments as necessary to effectuate the rights granted under this Agreement.

9. The Grantor herein declares that the value of the interest in the real estate transfer herein, to the best of their knowledge and belief is \$ 6,646.32.

TO HAVE AND TO HOLD the said Agreement unto Grantee, its successors and assigns.

IN WITNESS WHEREOF, the Grantor has executed this Agreement as of the date first set forth above.

GRANTOR:

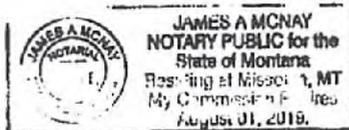
Mary Jane Byard  
Mary Jane Byard

STATE OF MONTANA :  
COUNTY OF MISSOULA :

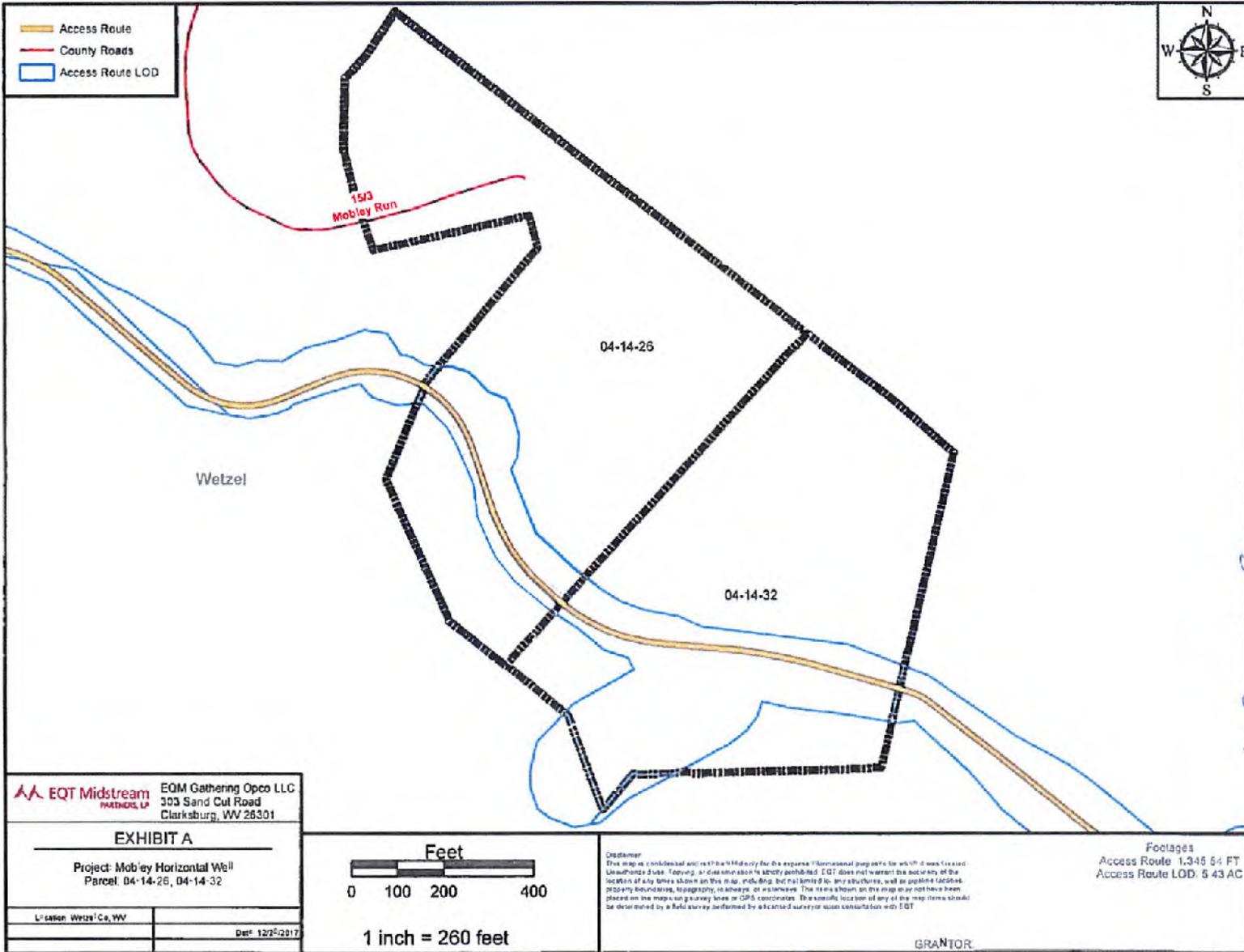
I, James A. McNay, a Notary Public in and for said County and State, certify that Mary Jane Byard, a single woman, personally known to me to be the same person who signed above, appeared before me today in said State and County, and acknowledged and delivered the instrument to be their free act and deed. Given under my hand this 16 day of February, 2018.

My commission expires: 8-1-2019

[SEAL]



James A. McNay  
Notary Public



**AA EQT Midstream PARTNERS, LP** EQM Gathering Opco LLC  
 303 Sand Cut Road  
 Clarksburg, WV 26301

**EXHIBIT A**

Project: Mobley Horizontal Well  
 Parcel: 04-14-26, 04-14-32

L: Jason Wetzel, Co., WV	Date: 12/20/2017
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103-032287



103-03228T

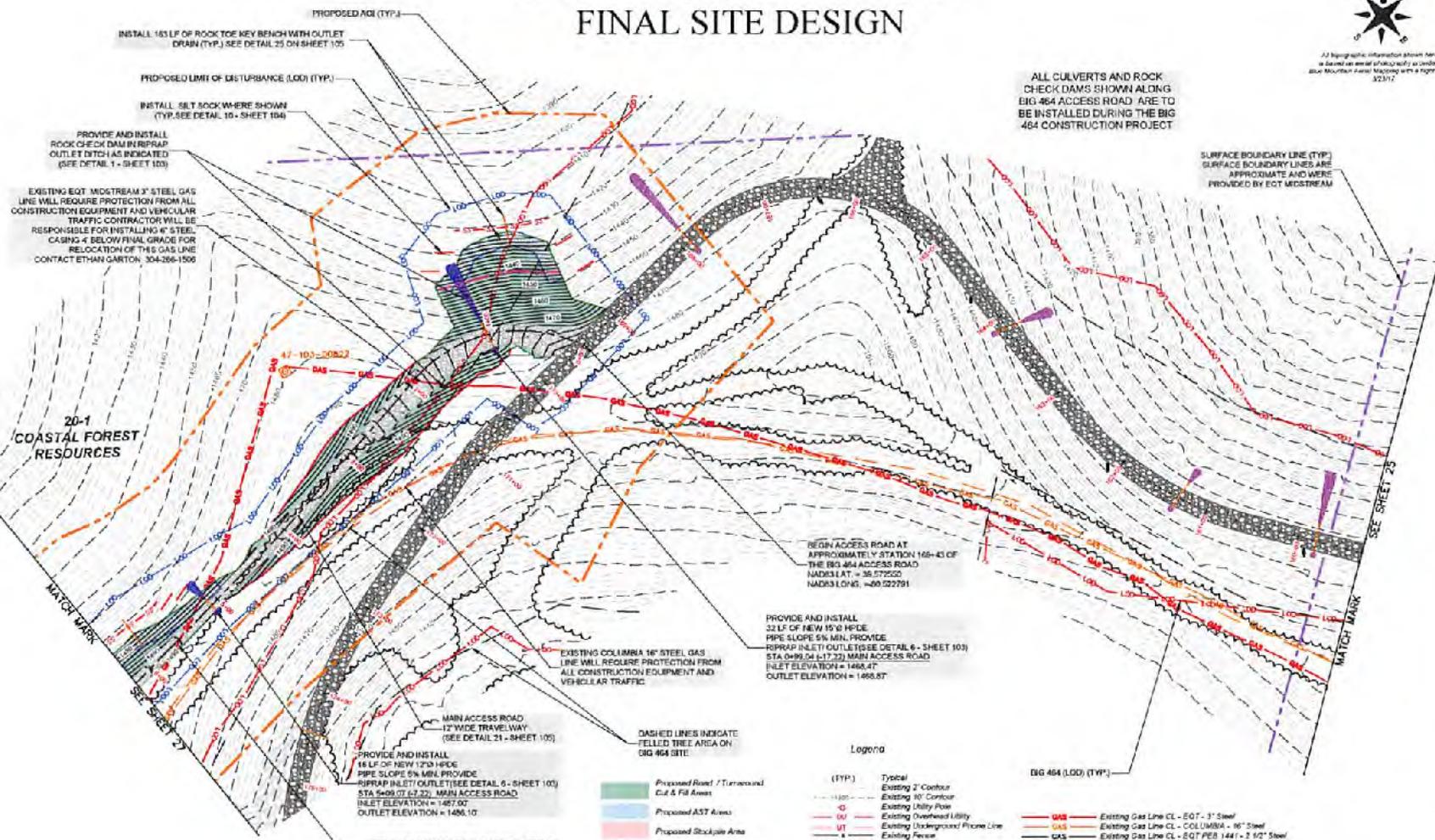
# MOBLEY STORAGE WELL FINAL SITE DESIGN



All geographic information shown herein is based on aerial photography as located by the Northern State Mapping with a right date of 3/2017

ALL CULVERTS AND ROCK CHECK DAMS SHOWN ALONG BIG 464 ACCESS ROAD ARE TO BE INSTALLED DURING THE BIG 464 CONSTRUCTION PROJECT

SURFACE BOUNDARY LINES (TYP.) SURFACE BOUNDARY LINES ARE APPROXIMATE AND WERE PROVIDED BY EOT MIDSTREAM



20-1 COASTAL FOREST RESOURCES

BEGIN ACCESS ROAD AT APPROXIMATELY STATION 106+43 OF THE BIG 464 ACCESS ROAD NAD83 (LAT. = 35.572520 NAD83 (LONG. = -80.522791)

PROVIDE AND INSTALL 32 LF OF NEW 15\"/>

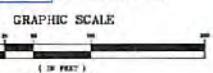
PROVIDE AND INSTALL 16 LF OF NEW 12\"/>

EXISTING EOT MIDSTREAM 3\"/>

- Proposed Road / Turnaround C/A & Fill Areas
- Proposed AST Areas
- Proposed Stockpile Area
- Proposed Storage Area
- Proposed Timber / Brush Storage Area
- Proposed Toe Key Areas

Legend

- (TYP.) Typical
- Existing 2' Corridor
- Existing 8' Corridor
- Existing Utility Pole
- Existing Overhead Utility
- Existing Underground Phone Line
- Existing Fence
- Existing Trailline
- Proposed 2' Corridor
- Proposed 8' Corridor
- Proposed A/CJ
- ADP Pin Pile Area
- LOD
- BIG 464 LOD
- Proposed SR Sock
- Proposed Super 88 Fence
- Proposed Straw Wall
- Proposed C/A Areas
- Proposed Fill Areas
- Existing Gas Line CL - EOT - 3" Steel
- Existing Gas Line CL - COLUMBIA - 16" Steel
- Existing Gas Line CL - EOT PEB 144" - 2 1/2" Steel
- Existing Gas Line CL - EOT - 8" Steel
- Existing Gas Line CL - UNKNOWN OWNER - 2" Steel
- Existing Gas Line CL - EOT H010 - 30"
- Existing Gas Line CL - EOT H002 - 74"
- Existing Gas Line CL - EOT GSW5318 - 6"
- Existing Gas Line CL - EOT G3F 971 - 12"



Allegheny Survey Inc.  
P.O. Box 439  
237 Birch River Road  
Birch River, WV 26610  
304-649-8600



Robert B. Hornor, Engineer  
Civil, Mining, Environmental and  
Construction  
103 Beech Hill Road, Box 100  
Martinsburg, WV 26151



THIS DOCUMENT  
PREPARED FOR:  
EQT PRODUCTION  
COMPANY

FINAL SITE DESIGN  
MOBLEY  
STORAGE WELL  
GRANT DISTRICT  
WETZEL COUNTY, WV

DATE	REVISIONS	Date 11/03/2017
12/4/17	REVISION TO REMOVE FILL ON 10' PARCEL 147 - MOBLEY STORAGE	Scale: 1" = 50'
1/23/17	UPDATED PARCEL 20-1 TO COASTAL FOREST FRONTS	Designed by: RBC
1/25/14	REVISION TO REMOVE FILL OFF OF PARCEL 148A - FILLING IN WITHIN EXISTING 10' BENCH TOPS - 20' PARCEL 148B - FILLING AND EXPOSURE	File No: 103-03228T-1
1/1/08		Page: 26 of 36

103-03278T

# MOBLEY STORAGE WELL FINAL SITE DESIGN



All geographic information shown herein is based on aerial photography provided by the Mountain Aerial Mapping with a flight date of 3/25/17



Allegheny Surveyors Inc.  
P.O. Box 438  
237 Birch River Road  
Birch River, WV 26610  
304-649-8606

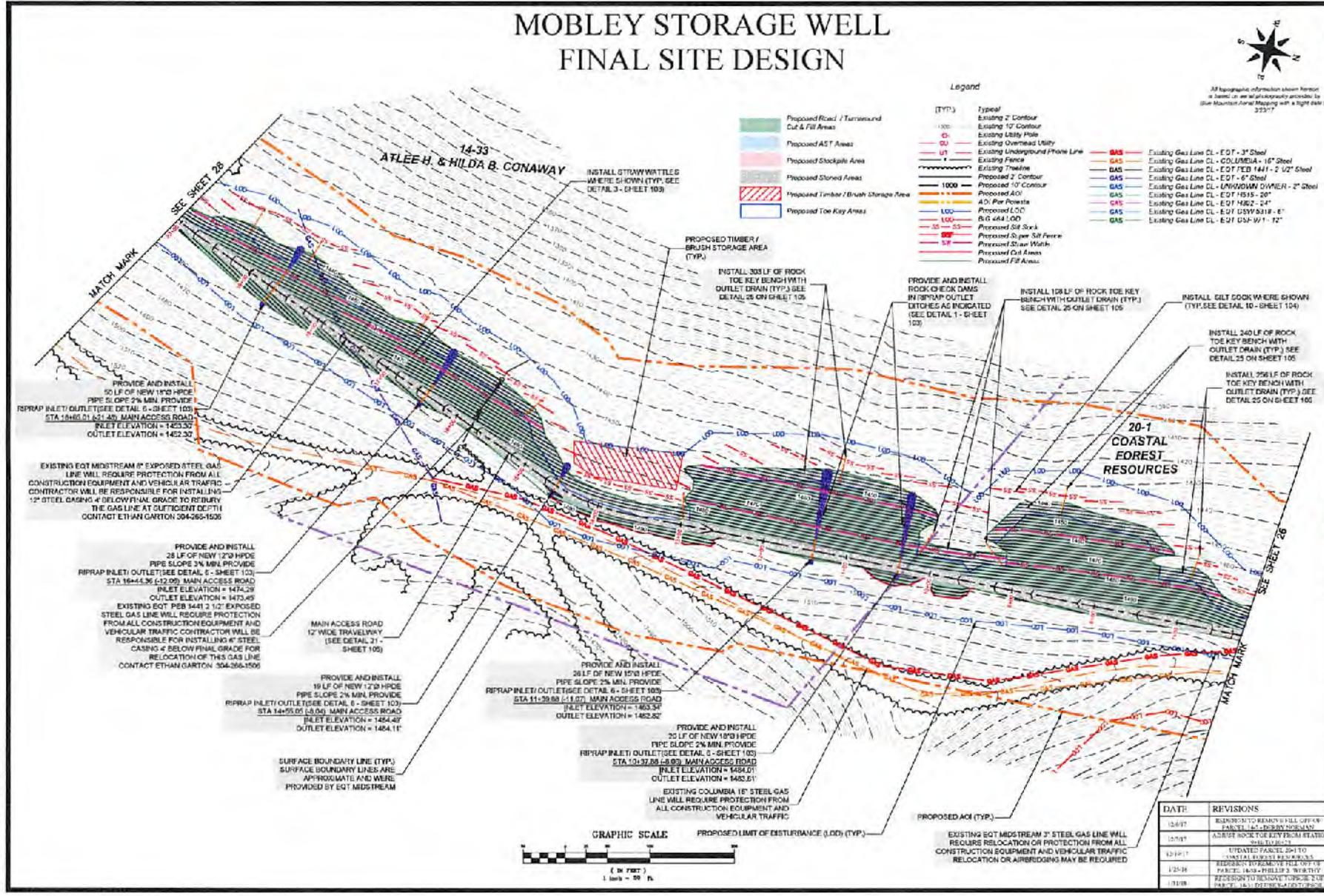


Horror Engineering  
Civil, Mining, Environmental and  
Surveying  
1400 Main Street, Suite 200  
Martinsburg, WV 26150



THIS DOCUMENT PREPARED FOR  
EQT PRODUCTION COMPANY

FINAL SITE DESIGN  
**MOBLEY STORAGE WELL**  
GRANT DISTRICT  
WETZEL COUNTY, WV



DATE	REVISIONS
10/17	REVISION TO REMOVE HILL TOP FROM PARCEL 141 - BERRY NOEMAN
12/19	ADJUST ROCK TOE KEY FROM STATION 1043.37 TO 1043.36
12/19	UPDATED PARCEL 254 TO INCLUDE BERRY NOEMAN
1/25/18	REVISION TO REMOVE HILL TOP FROM PARCEL 140 - HILL 3 - BERRY NOEMAN
1/25/18	REVISION TO REMOVE TOP OF HILL FROM PARCEL 141 - BERRY NOEMAN

Date: 11/30/2017  
Scale: 1"=50'  
Designed By: TR  
Checked By: [Blank]  
Date: 11/30/2017  
Drawn By: [Blank]



103-03228T

# MOBLEY STORAGE WELL FINAL SITE DESIGN



All horizontal & vertical elevations are based on mean sea level unless otherwise noted by Blue Mountain Aerial Mapping with a flight date of 5/23/17



**Allegheny Surveys Inc.**  
P.O. Box 438  
237 Birch River Road  
Birch River, WV 26610  
304-649-9505



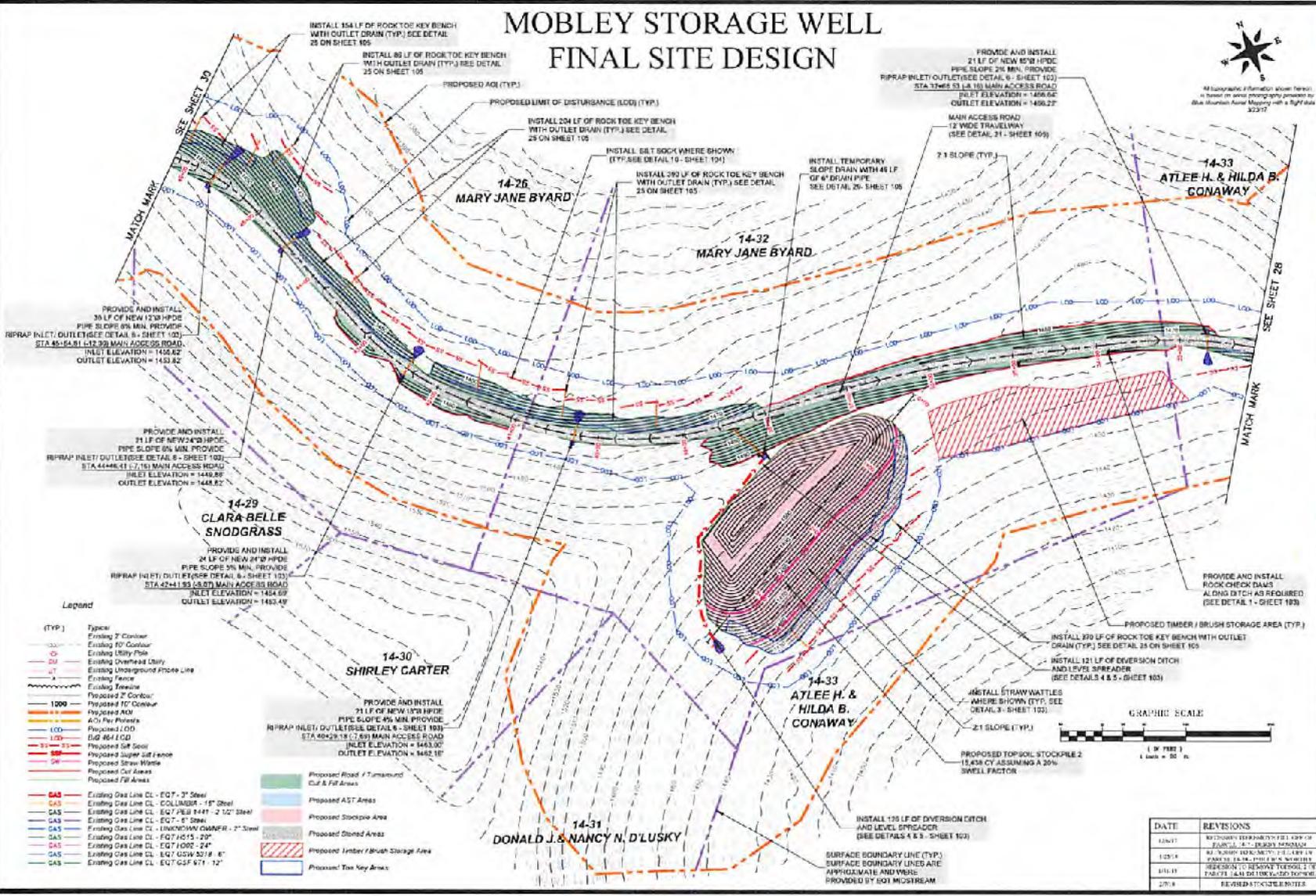
**Horner Engineers**  
Civil, Mining, Environmental and Consulting Engineering  
1000 1st Street, Suite 100  
Martinsburg, WV 26150  
304-251-1111



THESE DOCUMENTS PROVIDED FOR  
EQT PRODUCTION COMPANY

FINAL SITE DESIGN  
**MOBLEY STORAGE WELL**  
GRANT DISTRICT  
WETZEL COUNTY, WV

DATE	REVISIONS	DATE
12/21/17	REVISIONS FOR PERMITS FOR ELEVATION, POINT, ETC. - BRUSH STORAGE AREA	Scale: 1" = 50'
1/23/18	REVISIONS FOR PERMITS FOR ELEVATION, POINT, ETC. - BRUSH STORAGE AREA	Proposed by: ESR
3/14/18	REVISIONS FOR PERMITS FOR ELEVATION, POINT, ETC. - BRUSH STORAGE AREA	Drawn by: ESR
2/7/18	REVISIONS FOR PERMITS FOR ELEVATION, POINT, ETC. - BRUSH STORAGE AREA	Page: 21 of 105



PROVIDE AND INSTALL 30 LF OF NEW 12" HDPE PIPE SLOPE 0% MIN. PROVIDE RIPRAP INLET/OUTLET (SEE DETAIL 8 - SHEET 102) STA 40+54.81 (17.30) MAIN ACCESS ROAD INLET ELEVATION = 1455.82 OUTLET ELEVATION = 1453.82

PROVIDE AND INSTALL 21 LF OF NEW 24" HDPE PIPE SLOPE 0% MIN. PROVIDE RIPRAP INLET/OUTLET (SEE DETAIL 8 - SHEET 102) STA 44+46.41 (17.18) MAIN ACCESS ROAD INLET ELEVATION = 1449.87 OUTLET ELEVATION = 1448.82

PROVIDE AND INSTALL 24 LF OF NEW 24" HDPE PIPE SLOPE 0% MIN. PROVIDE RIPRAP INLET/OUTLET (SEE DETAIL 8 - SHEET 102) STA 42+41.93 (16.82) MAIN ACCESS ROAD INLET ELEVATION = 1454.89 OUTLET ELEVATION = 1453.49

INSTALL 154 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 85 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 204 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 390 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 204 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 270 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAIN (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL 121 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

INSTALL 120 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

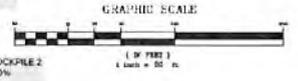
INSTALL 120 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

INSTALL 120 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

INSTALL 120 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

INSTALL 120 LF OF DEVIATION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

- Legend**
- (TYP.) Type
  - Existing 7" Conduit
  - Existing 10" Conduit
  - Existing Utility Pole
  - Existing Overhead Utility
  - Existing Underground Phone Line
  - Existing Fence
  - Existing Trench
  - Proposed 2" Conduit
  - Proposed 10" Conduit
  - Proposed 12" Conduit
  - A/C For Poles
  - Proposed LOD
  - 60' 6" 1:1
  - Proposed Soft Soil
  - Proposed Super Soil Fence
  - Proposed Straw Waste
  - Proposed Cut Areas
  - Proposed Fill Areas
  - Proposed Road / Turnaround Cut & Fill Areas
  - Proposed AST Area
  - Proposed Stockpile Area
  - Proposed Storage Area
  - Proposed Timber / Brush Storage Area
  - Proposed Tree Key Areas
  - Existing Gas Line CL - EQ7 - 3" Steel
  - Existing Gas Line CL - COLLUMBER - 18" Steel
  - Existing Gas Line CL - EQ7 / P&H 2447 - 2 1/2" Steel
  - Existing Gas Line CL - EQ7 - 8" Steel
  - Existing Gas Line CL - UNKNOWN GAUGE - 2" Steel
  - Existing Gas Line CL - EQ7 / 1015 - 20"
  - Existing Gas Line CL - EQ7 / 1002 - 24"
  - Existing Gas Line CL - EQ7 / 1006 - 30"
  - Existing Gas Line CL - EQ7 / 1007 - 36"



DATE PLOTTED: 11/20/2017 10:58:54 AM









103-03228T

# MOBLEY STORAGE WELL FINAL SITE DESIGN



All geographic information shown herein is based on aerial photography provided by the Maryland Aerial Mapping Unit's April 2007 1:25,000.



Allegheny Surveys Inc.  
P. O. Box 438  
237 Birch River Road  
Birch River, WV 26610  
304-649-8606

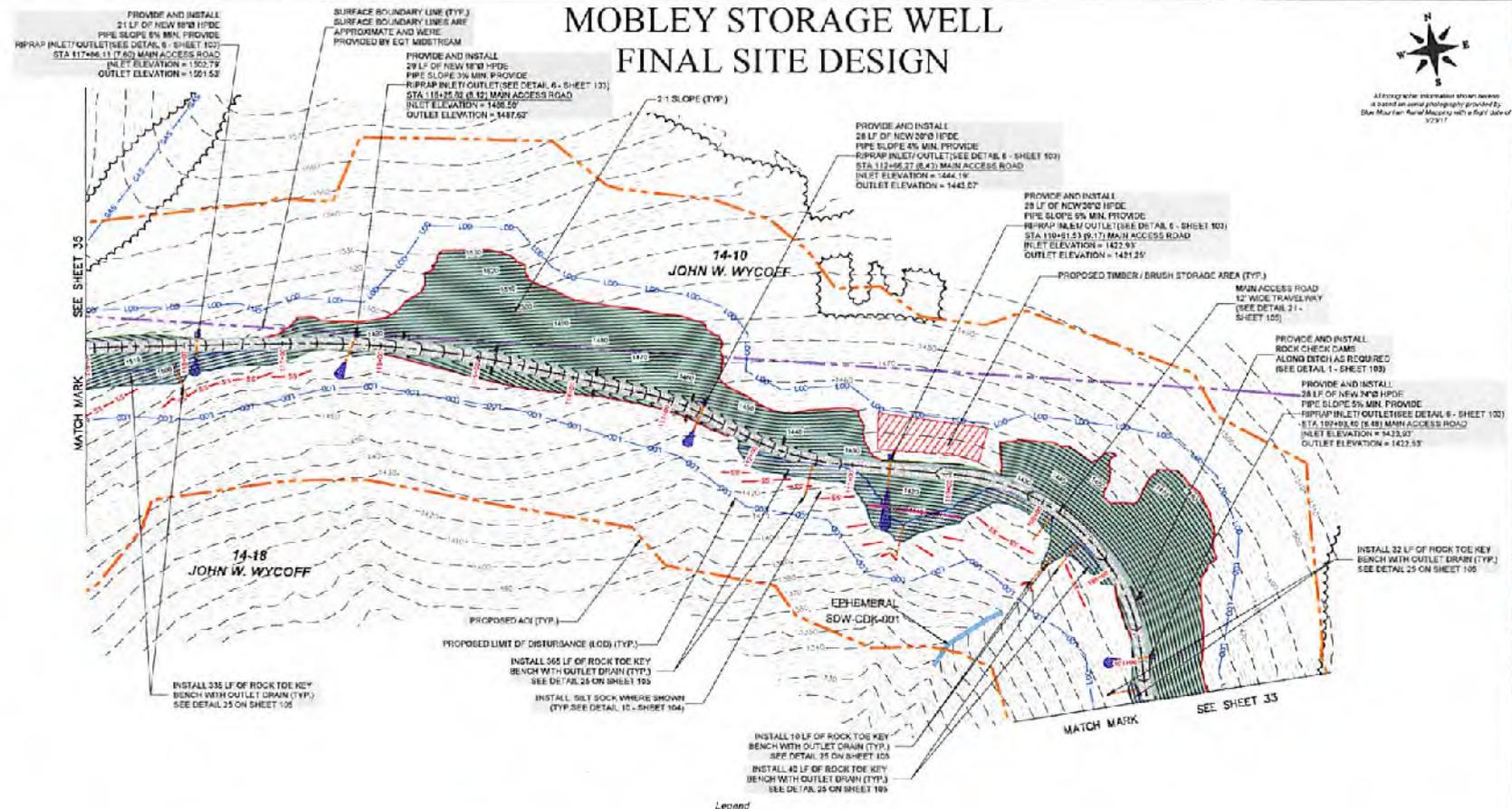


Horner Bros Engineers  
Shirley, WV  
Civil, Mining, Environmental, and  
Consulting Engineering  
1000 Main Street, Suite 200  
Shirley, WV 26165



THIS DOCUMENT  
PREPARED FOR:  
EQT PRODUCTION  
COMPANY

FINAL SITE DESIGN  
**MOBLEY  
STORAGE WELL**  
GRANT DISTRICT  
WETZEL COUNTY, WV



- |   |   |   |
|---|---|---|
| <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #90EE90; border: 1px solid black; margin-right: 5px;"></span> Proposed Road / Turnaround Cut &amp; Fill Areas</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> Proposed A&amp;T Areas</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Proposed Stockpile Area</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFB6C1; border: 1px solid black; margin-right: 5px;"></span> Proposed Staked Areas</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> Proposed Timber / Brush Storage Area</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> Proposed Tie Key Areas</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Typical Existing 2' Contour</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dashed black; margin-right: 5px;"></span> Existing 10' Contour</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dotted black; margin-right: 5px;"></span> Existing Utility Pole</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Existing Overhead Utility</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Existing Underground Phone Line</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Existing Fence</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Existing Pipeline</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed 2' Contour</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed AOT</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> AOT Per Pole</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed LOD</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Btu #44 LSO</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed SR Sack</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed Super SR Fence</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed Stone Wall</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed Out Areas</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Proposed Fill Areas</li> </ul> | <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FF0000; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT - 3" Steel</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFA500; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - COLLUMBA - 16" Steel</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFD700; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT FED 1441 - 2 1/2" Steel</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT 6" Steel</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFB6C1; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - LONACHON CORNER - 3" Steel</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT #615 - 20"</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT #802 - 24"</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT DSW 5318 - 6"</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: #FFDAB9; border: 1px solid black; margin-right: 5px;"></span> Existing Gas Line CL - EOT DSW 971 - 12"</li> </ul> |
|---|---|---|

DATE	REVISIONS
12/14/07	ISSUED FOR PERMITS

Date: 11/02/2017  
Scale: 1"=50'  
Drawn By: JAC  
Checked By: JAC  
Title: MOBLEY STORAGE WELL  
Sheet No. 1 of 100

103-03228T

# MOBLEY STORAGE WELL FINAL SITE DESIGN



Allegheny Surveys Inc.  
P.O. Box 436  
237 Birch River Road  
Birch River, W.V. 26610  
304-649-8006



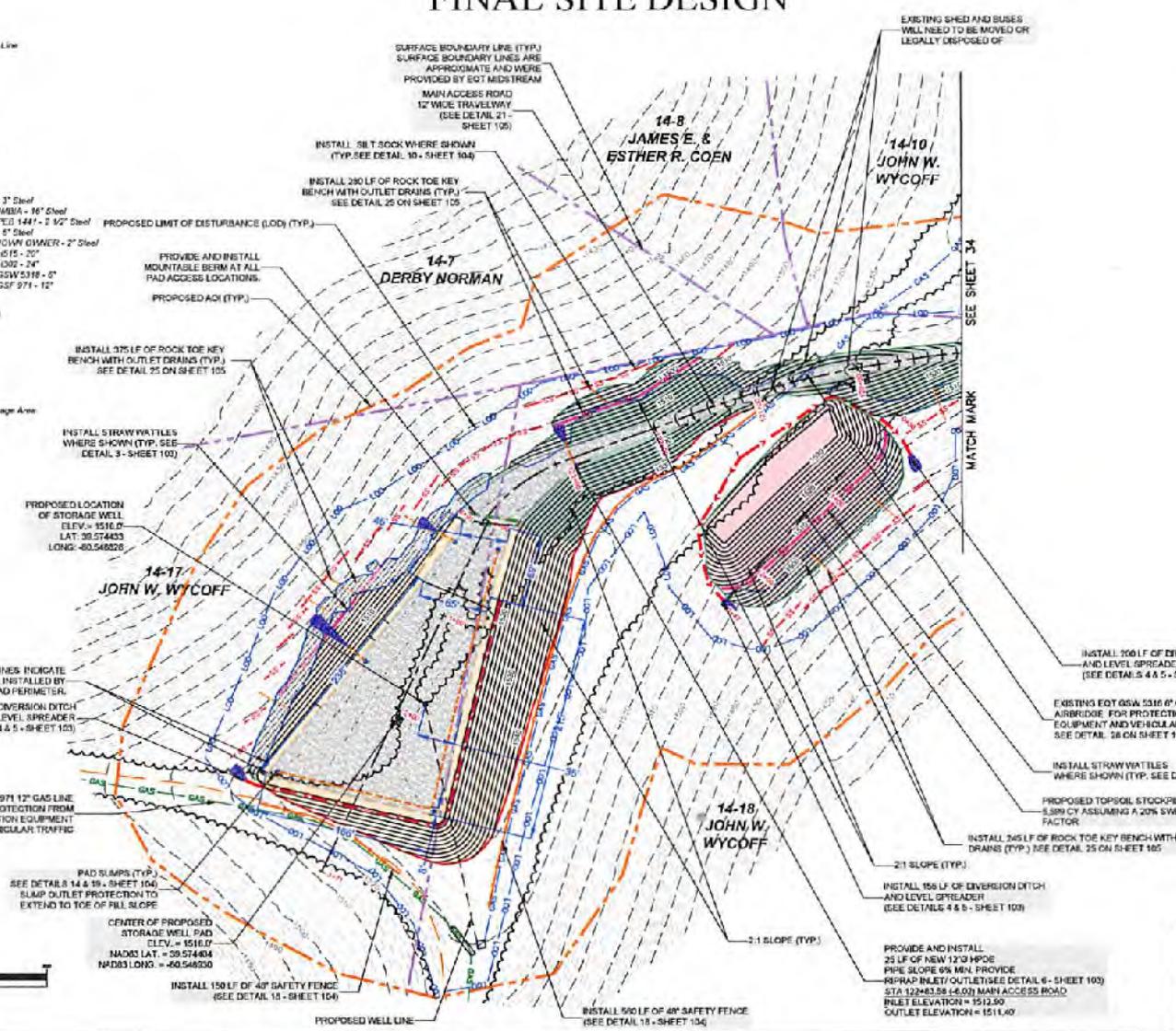
Horner Bros. Engineers  
306 Jones Professional and  
Civil Consulting Engineering  
1400 Main Street, And Over the  
Crested Butte, West Virginia



THIS DOCUMENT  
PREPARED FOR  
EQT PRODUCTION  
COMPANY

FINAL SITE DESIGN  
**MOBLEY STORAGE WELL**  
GRANT DISTRICT  
WHEELING COUNTY, WV

- Legend**
- (TYP.) Existing 2" Contour
  - (TYP.) Existing 10" Contour
  - (TYP.) Existing Utility Pole
  - (OU) Existing Overhead Utility
  - (U) Existing Underground Phone Line
  - (F) Existing Fence
  - (TYP.) Existing Tree Line
  - (1000) Proposed 2" Contour
  - (TYP.) Proposed A01
  - (TYP.) A01 For Forests
  - (LNO) Proposed LOD
  - (LNO) Proposed LOD
  - (S) Proposed 50' Sock
  - (SF) Proposed Super 50' Fence
  - (SW) Proposed Straw Walls
  - (F) Proposed Fill Areas
  - (GAS) Existing Gas Line CL - EOT - 3" Steel
  - (GAS) Existing Gas Line CL - COLUMBIA - 36" Steel
  - (GAS) Existing Gas Line CL - EOT PED 1441 - 2 1/2" Steel
  - (GAS) Existing Gas Line CL - EOT - 5" Steel
  - (GAS) Existing Gas Line CL - UNKNOWN OWNER - 2" Steel
  - (GAS) Existing Gas Line CL - EOT H615 - 20"
  - (GAS) Existing Gas Line CL - EOT H092 - 24"
  - (GAS) Existing Gas Line CL - EOT 65W5319 - 5"
  - (GAS) Existing Gas Line CL - EOT 65F 971 - 12"
  - Proposed Road / Turnaround
  - Cut & Fill Areas
  - Proposed AST Areas
  - Proposed Stockpile Area
  - Proposed Stowed Area
  - Proposed Trench / Basin Storage Area
  - Proposed Toe Key Areas



EXISTING SHED AND BUSES WILL NEED TO BE MOVED OR LEGALLY DISPOSED OF

AS Topographic information shown herein is based on aerial photography created by Blue Mountain Aerial Mapping with a flight date of 12/17

INSTALL 30' SOCK WHERE SHOWN (TYP. SEE DETAIL 10 - SHEET 104)

INSTALL 280 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAINS (TYP.) SEE DETAIL 25 ON SHEET 105

PROPOSED LIMIT OF DISTURBANCE (LOD) (TYP.)

PROVIDE AND INSTALL MOUNTABLE BERM AT ALL PAD ACCESS LOCATIONS

PROPOSED A01 (TYP.)

INSTALL 375 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAINS (TYP.) SEE DETAIL 25 ON SHEET 105

INSTALL STRAW WALLS WHERE SHOWN (TYP. SEE DETAIL 3 - SHEET 103)

PROPOSED LOCATION OF STORAGE WELL  
ELEV. = 1516.0'  
LAT. = 39.574833  
LONG. = -80.548228

DASHED LINES INDICATE BERM TO BE INSTALLED BY EQT AT PAD PERIMETER.

INSTALL 415 LF OF DIVERSION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

EXISTING EOT 65F 971 12" GAS LINE WILL REQUIRE PROTECTION FROM ALL CONSTRUCTION EQUIPMENT AND VEHICULAR TRAFFIC

PAD SLUMPS (TYP.)  
SEE DETAILS 14 & 15 - SHEET 104  
SLUMP OUTLET PROTECTION TO EXTEND TO TOE OF FILL SLOPE

CENTER OF PROPOSED STORAGE WELL PAD  
ELEV. = 1516.0'  
NAD83 LAT. = 39.574804  
NAD83 LONG. = -80.548250

INSTALL 150 LF OF 40" SAFETY FENCE (SEE DETAIL 18 - SHEET 104)

PROPOSED WELL LINE

INSTALL 500 LF OF 40" SAFETY FENCE (SEE DETAIL 18 - SHEET 104)

EXISTING EOT 65W 5316 6" GAS LINE WILL REQUIRE AN AIRBIDE FOR PROTECTION FROM ALL CONSTRUCTION EQUIPMENT AND VEHICULAR TRAFFIC (SEE DETAIL 28 ON SHEET 103)

INSTALL STRAW WALLS WHERE SHOWN (TYP. SEE DETAIL 3 - SHEET 103)

PROPOSED TOPSOIL STOCKPILE 1 5,891 CY ASSUMING A 20% SWELL FACTOR

INSTALL 245 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAINS (TYP.) SEE DETAIL 25 ON SHEET 105

2:1 SLOPE (TYP.)

INSTALL 155 LF OF DIVERSION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

2:1 SLOPE (TYP.)

PROVIDE AND INSTALL 25 LF OF NEW 12" HDPE PIPE SLOPE 6% MIN. PROVIDE R/R RAP INLET/OUTLET (SEE DETAIL 6 - SHEET 103)  
STA 12+45.58 TO 14+00 MAIN ACCESS ROAD  
INLET ELEVATION = 1512.50  
OUTLET ELEVATION = 1511.40

INSTALL 500 LF OF DIVERSION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

EXISTING EOT 65W 5316 6" GAS LINE WILL REQUIRE AN AIRBIDE FOR PROTECTION FROM ALL CONSTRUCTION EQUIPMENT AND VEHICULAR TRAFFIC (SEE DETAIL 28 ON SHEET 103)

INSTALL STRAW WALLS WHERE SHOWN (TYP. SEE DETAIL 3 - SHEET 103)

PROPOSED TOPSOIL STOCKPILE 1 5,891 CY ASSUMING A 20% SWELL FACTOR

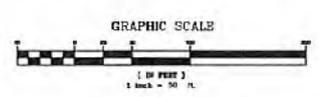
INSTALL 245 LF OF ROCK TOE KEY BENCH WITH OUTLET DRAINS (TYP.) SEE DETAIL 25 ON SHEET 105

2:1 SLOPE (TYP.)

INSTALL 155 LF OF DIVERSION DITCH AND LEVEL SPREADER (SEE DETAILS 4 & 5 - SHEET 103)

2:1 SLOPE (TYP.)

PROVIDE AND INSTALL 25 LF OF NEW 12" HDPE PIPE SLOPE 6% MIN. PROVIDE R/R RAP INLET/OUTLET (SEE DETAIL 6 - SHEET 103)  
STA 12+45.58 TO 14+00 MAIN ACCESS ROAD  
INLET ELEVATION = 1512.50  
OUTLET ELEVATION = 1511.40



DATE	REVISIONS	Date: 11/20/2017
12-01	REVISION TO REMOVE ALL COPY OF PARCEL 14-11 DERBY NORMAN	
12-07	UPDATE SAFE 3' FENCE TO MATCH SURVEY	
02-28	REMOVE STRAW WALL FILL OUT OF PARCEL 14-10 JOHN W. WYCOFF	
03-08	REWORK STRAW WALL FILL OUT OF PARCEL 14-11 DERBY NORMAN	
07-28	REVISION TO COMPLETE MODEL	

Scale: 1" = 50'

Drawn by: TNC

File No.: 103-03228T-01

Page: 18 of 18

Topo Quad: Big Run 7.5'

Scale: 1" = 1000'

County: Wetzel

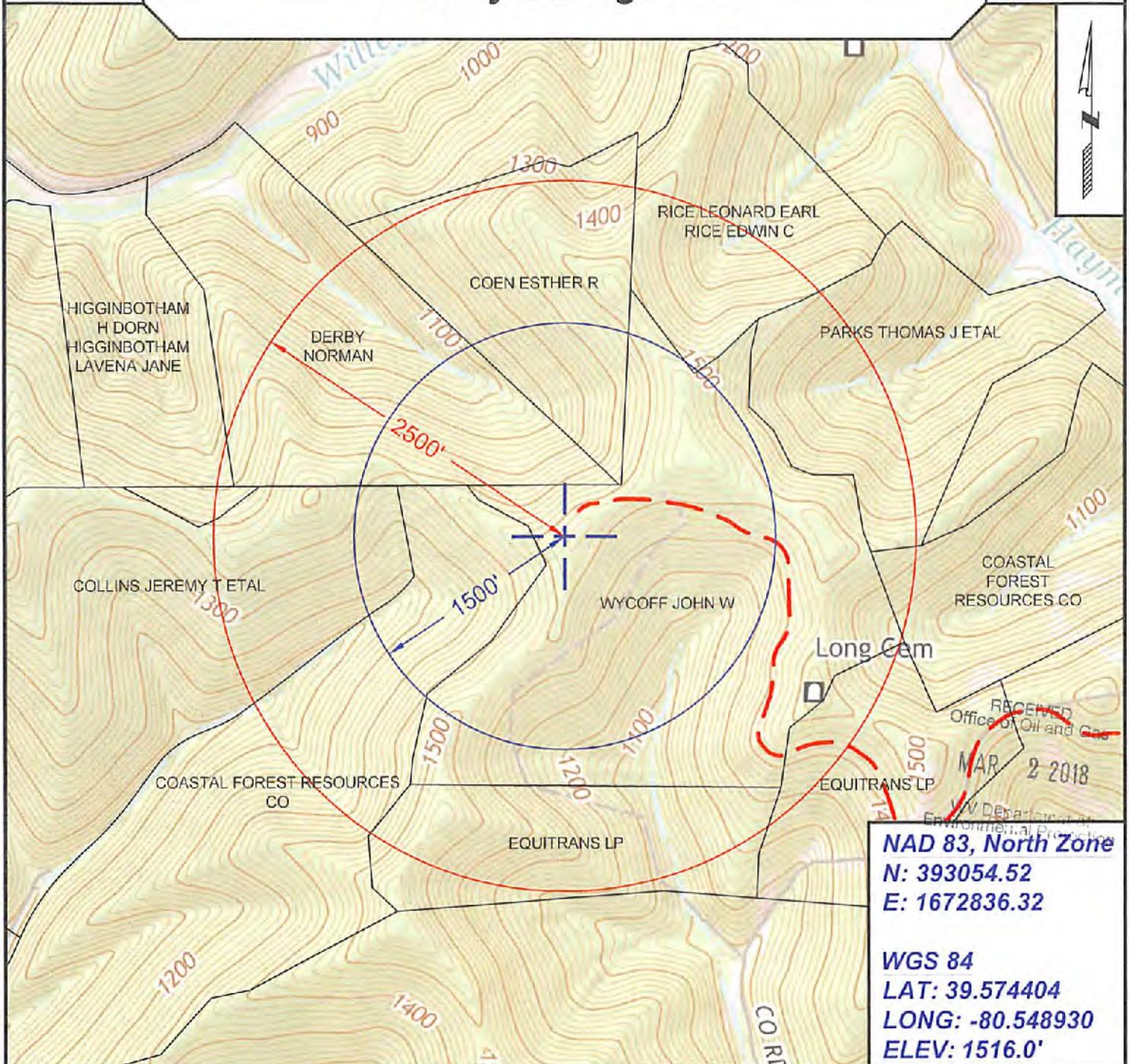
Date: November 16, 2017

District: Grant

Project No: 261-34-G-17

# Mobley Storage Well

Topo



RECEIVED  
Office of Oil and Gas  
MAR 2 2018  
WV Department of  
Environmental Protection

**NAD 83, North Zone**  
**N: 393054.52**  
**E: 1672836.32**  
**WGS 84**  
**LAT: 39.574404**  
**LONG: -80.548930**  
**ELEV: 1516.0'**



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 1-800-482-8606  
 237 Birch River Road  
 Birch River, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:  
*DMH*  
*2-27-18*  
**Equitrans, L.P.**  
 303 Sand Cut Road  
 Clarksburg, WV 26301

04/13/2018

Topo Quad: Big Run 7.5'

Scale: 1" = 2000'

County: Wetzel

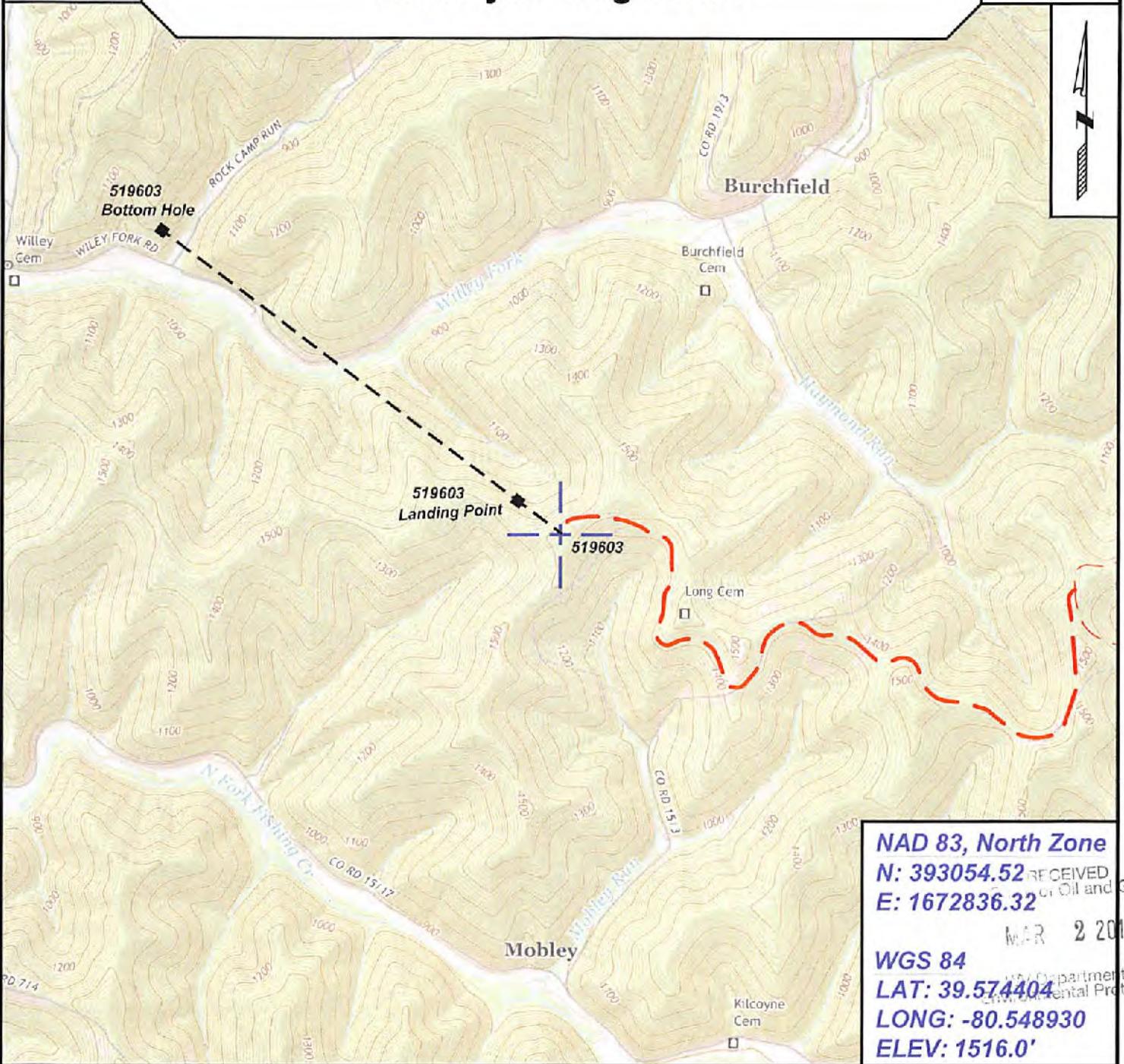
Date: November 16, 2017

District: Grant

Project No: 261-34-G-17

# Mobley Storage Well

Topo



**NAD 83, North Zone**  
**N: 393054.52**  
**E: 1672836.32**

**WGS 84**  
**LAT: 39.574404**  
**LONG: -80.548930**  
**ELEV: 1516.0'**



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

1-800-482-8606  
 237 Birch River Road  
 Birch River, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:

*DmH*  
*2-23-18*

**Equitrans, L.P.**

303 Sand Cut Road  
 Clarksburg, WV 26301

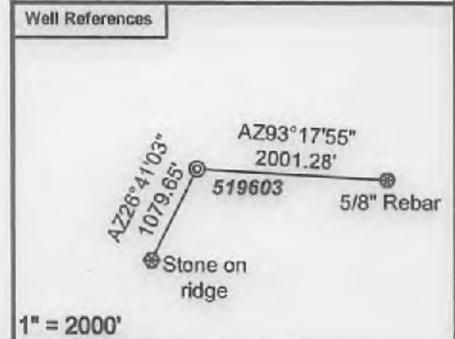
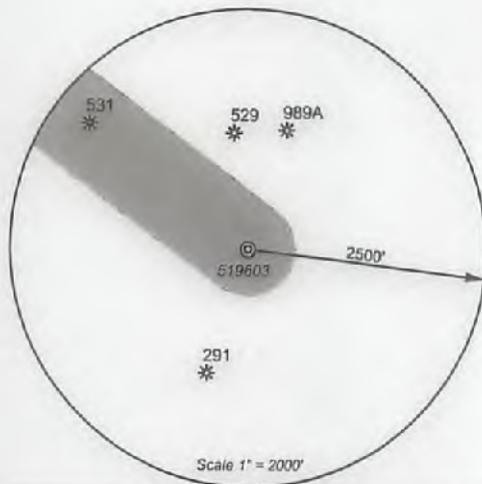
**04/13/2018**

**519603**  
**Mobley Horizontal Storage**  
**Equitrans, L.P.**

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	17	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	6.20
2	14	7	Wetzel	Grant	Norman Derby	83.00
3	8	53	Wetzel	Grant	Dom H. & Jane L. Higginbotham	196.21
4	14	18	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	86.70
5	14	10	Wetzel	Grant	John W. Wycoff & Carolyn S. McGill	1.90
6	13	45	Wetzel	Grant	Coastal Forest Resources Co.	135.10
7	13	27.1	Wetzel	Grant	Jeremy Collins	148.70
8	13	18	Wetzel	Grant	Unknown	unknown
9	8	54	Wetzel	Grant	Sherilyn Snider	20.00
10	9	40.1	Wetzel	Grant	Donald J. Dulaney	22.00
11	9	52	Wetzel	Grant	Norman Derby	61.51
12	14	8	Wetzel	Grant	Elzher R. Coan	59.50
13	13	9	Wetzel	Grant	Mary D. Higginbotham & Mary Lauck	30.10
14	13	17	Wetzel	Grant	Mary D. Higginbotham & Mary Lauck	112.00
15	13	8	Wetzel	Grant	Robert S. & Allied Bryan Cole	36.00
16	13	7	Wetzel	Grant	Mansel Lee McDiffitt, et al.	51.30
17	8	55	Wetzel	Grant	Mansel Lee McDiffitt, et al.	9.25
18	8	51	Wetzel	Grant	Henry E. Willey	2.34
19	8	52	Wetzel	Grant	Henry E. Willey	0.28
20	8	39	Wetzel	Grant	Dom H. & Jane L. Higginbotham	23.62
21	8	24	Wetzel	Grant	Dom H. & Jane L. Higginbotham	7.10
22	8	21	Wetzel	Grant	Joe Ray Willey	78.27
23	8	30	Wetzel	Grant	James & Jim Yoho	7.50
24	8	41	Wetzel	Grant	Dom H. & Jane L. Higginbotham	0.45
25	8	40	Wetzel	Grant	James & Jim Yoho	0.50
26	8	28	Wetzel	Grant	James Arthur Yoho	23.25
27	8	32	Wetzel	Grant	Joe W. & Joe A. Pigg	82.4
28	9	28	Wetzel	Grant	Sherilyn Snider	56.62

**Notes:**  
 519603 coordinates are  
 NAD 27 N: 393,027.61 E: 1,704,304.06  
 NAD 27 Lat: 39.574350 Long: -80.549017  
 NAD 83 UTM N: 4,380,622.43 E: 538,749.95  
 519603 Landing Point coordinates are  
 NAD 27 N: 393,497.60 E: 1,703,674.21  
 NAD 27 Lat: 39.575620 Long: -80.551271  
 NAD 83 UTM N: 4,380,762.41 E: 538,555.67  
 519603 Bottom Hole coordinates are  
 NAD 27 N: 397,304.87 E: 1,698,572.20  
 NAD 27 Lat: 39.585907 Long: -80.569530  
 NAD 83 UTM N: 4,381,896.35 E: 538,981.95  
 West Virginia Coordinate 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.

Lease No.	Acres	Owner
706740	1003.75	EQT Production Company Inc.
125423	85	AMP Fund III, LP, et al
125421	73	H. Dorn Higginbotham, et al
125445	121	H. Dorn Higginbotham, et al
106285	40	Fredric G. Ritcher, et al



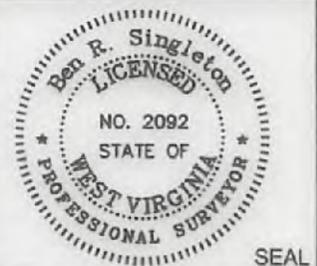
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- Ⓢ WV County Route
- Ⓟ WV State Route



*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.*

*Ben R. Singleton*

P.S. 2092



FILE NO: 261-17  
 DRAWING NO: 261-17 Mobley Storage  
 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: February 9 20 18  
 OPERATOR'S WELL NO.: 519603  
 API WELL NO  
 47 - 103 - 03228T  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: Existing: 1537.0 Proposed: 1516.0 WATERSHED Willey Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: John W. Wycoff ACREAGE: 1003.75  
 ROYALTY OWNER: EQT Production Company Inc. LEASE NO: 706740 ACREAGE: 1003.75  
 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: Keener ESTIMATED DEPTH: 2,603'

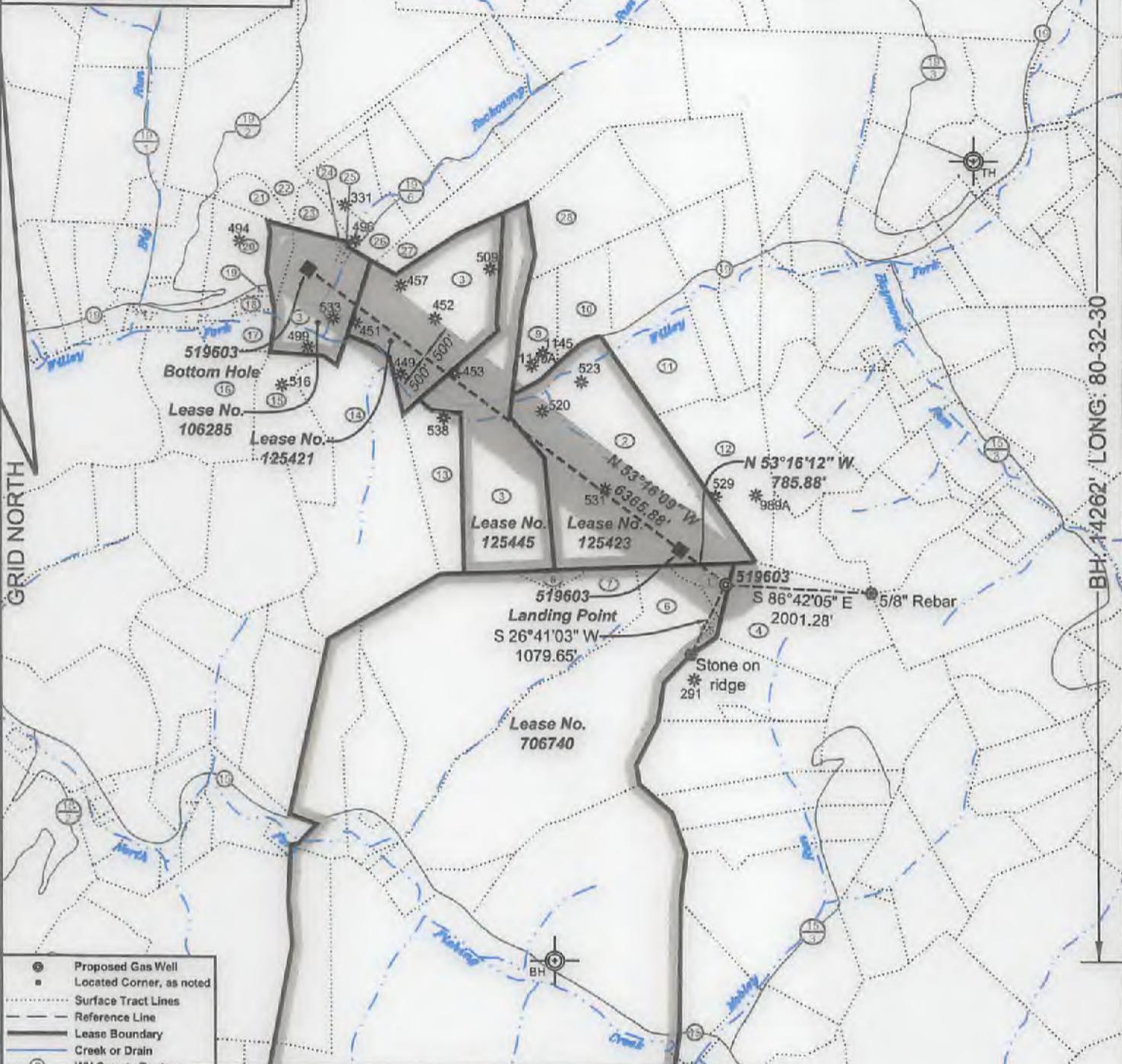
WELL OPERATOR: Equitrans, L.P. DESIGNATED AGENT: Justin Macken  
 ADDRESS: 303 Sand Cut Road ADDRESS: 625 Liberty Avenue Suite 1700  
 Clarksburg, WV 26301 Pittsburgh, PA 15222

04/13/2018

TH: 2071' LAT: 39-35-00

BH: 7853' LAT: 39-37-30

519603  
Mobley Horizontal Storage  
Equitrans, L.P.



TH: 3279' LONG: 80-32-30

BH: 14262' LONG: 80-32-30

- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ 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

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 261-17  
DRAWING NO: 261-17 Mobley Storage  
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: February 9 20 18  
OPERATOR'S WELL NO.: 519603  
API WELL NO  
47 - 103 - 03228  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: Existing: 1537.0 Proposed: 1516.0 WATERSHED Willey Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: John W. Wycoff ACREAGE: 1003.75  
ROYALTY OWNER: EQT Production Company Inc. LEASE NO: 706740 ACREAGE: 1003.75  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
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