



west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Tuesday, August 3, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

NORTHEAST NATURAL ENERGY LLC
707 VIRGINIA STREET EAST
STE 1200
CHARLESTON, WV 25301

Re: Permit Modification Approval for ERP 14H
47-061-01880-00-00

Extend Lateral, Adjust Curve, Total Vertical Depth 8113' to 8141'. Total Measured Depth 20573'-21168'.

NORTHEAST NATURAL ENERGY LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: ERP 14H
Farm Name: PHOENIX ENERGY RESOURCES, LLC
U.S. WELL NUMBER: 47-061-01880-00-00
Horizontal 6A New Drill
Date Modification Issued: 08/03/2021

Promoting a healthy environment.

08/06/2021

WW-6B
(04/15)

CK# 74183
Date: 7/23/21
\$ 5,000.00

API NO. 47-061 - 01880

OPERATOR WELL NO. 14H

Well Pad Name: ERP

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

1) Well Operator: Northeast Natural Energy 494498281 Monongalia Battelle Wadestown
Operator ID County District Quadrangle

2) Operator's Well Number: 14H Well Pad Name: ERP

3) Farm Name/Surface Owner: Phoenix Energy Resources LLC Public Road Access: Route 17/Miracle Run Rd

4) Elevation, current ground: 1,350' Elevation, proposed post-construction: 1,338'

5) Well Type (a) Gas Oil Underground Storage

Other

(b) If Gas Shallow Deep

Horizontal

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6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 8,141', 99', 5200 psi

8) Proposed Total Vertical Depth: 8,141'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 21,168'

11) Proposed Horizontal Leg Length: 11,965'

12) Approximate Fresh Water Strata Depths: 50', 1,242'

13) Method to Determine Fresh Water Depths: Drillers Log from Offset Wells

14) Approximate Saltwater Depths: 2,050', 2,500'

15) Approximate Coal Seam Depths: 500', 1,240'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes active/non-producing No

(a) If Yes, provide Mine Info: Name: Federal #2

Depth: 1,230'

Seam: Pittsburgh

Owner: Phoenix Federal No 2 Mining, LLC

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24	New	NA	NA	100'	100'	GTS
Fresh Water	13-3/8	New	J-55	54.5	1,340'	1,310'	960/CTS
Coal							
Intermediate	9-5/8	New	J-55	36	2,630'	2,600'	900/CTS
Production	5-1/2	New	P-110	20	21,168'	21,138'	502/VED
Tubing	2-7/8	New	P-110	6.5	NA	8000	NA 30-2021
Liners							

Bryan Harris 7/27/21
 Department of Environmental Protection

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24	28	0.375	NA	NA	Type 1	1.18
Fresh Water	13-3/8	17-1/2	0.380	2730	500	Class A	1.19
Coal							
Intermediate	9-5/8	12-3/8	0.395	3520	2800	Class A	1.19
Production	5-1/2	8-3/4	0.361	14,360	11,400	50:50 POZ	1.07
Tubing	2-7/5	NA	0.217	13,870	NA	NA	NA
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Utilize auger rig to set cellar & conductor. The conductor will be grouted with cement to surface. Mobilize top hole drilling rig. Drill surface section on air. Run surface (freshwater & coal string) casing to desired depth. The surface section will not penetrate sea level. Surface casing will be cemented to surface. Drill intermediate section on air. Run intermediate casing to desired depth. Intermediate casing will be cemented to surface. Drill on air the production section to the start of the curve (KOP). The well will be loaded with synthetic oil base drilling mud (SOBM). Demobilize top hole rig. Mobilize horizontal drilling rig. Finish drilling the production section utilizing MWD surveys and geosteering practices to maintain the wellbore in the Marcellus shale and prevent anti-collision. Production casing will be ran to TD and cement top will be inside the intermediate casing.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

A cement bond log will determine the top of production casing cement. The production casing will be pressure tested. The hydraulic fracturing equipment will then open the toe sleeves and begin pumping the first stage. The plug-and-perf method will be used for the remaining stages. The max anticipated pressure during frac is 11,200psi and a max rate of 90bpm. After frac, the drillout rig will drill all plugs out of the well. Land production tubing at desired depth. Then flowback well until ready to turn in line to production facilities.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 51.23

22) Area to be disturbed for well pad only, less access road (acres): 29.70

23) Describe centralizer placement for each casing string:

Surface: shoe track & every 3rd joint to surface
Intermediate: shoe track & every 3rd joint to surface
Production: Rigid bow centralizers at shoe track & every other joint in the lateral to Bow springs from KOP to surface every third joint.

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24) Describe all cement additives associated with each cement type:

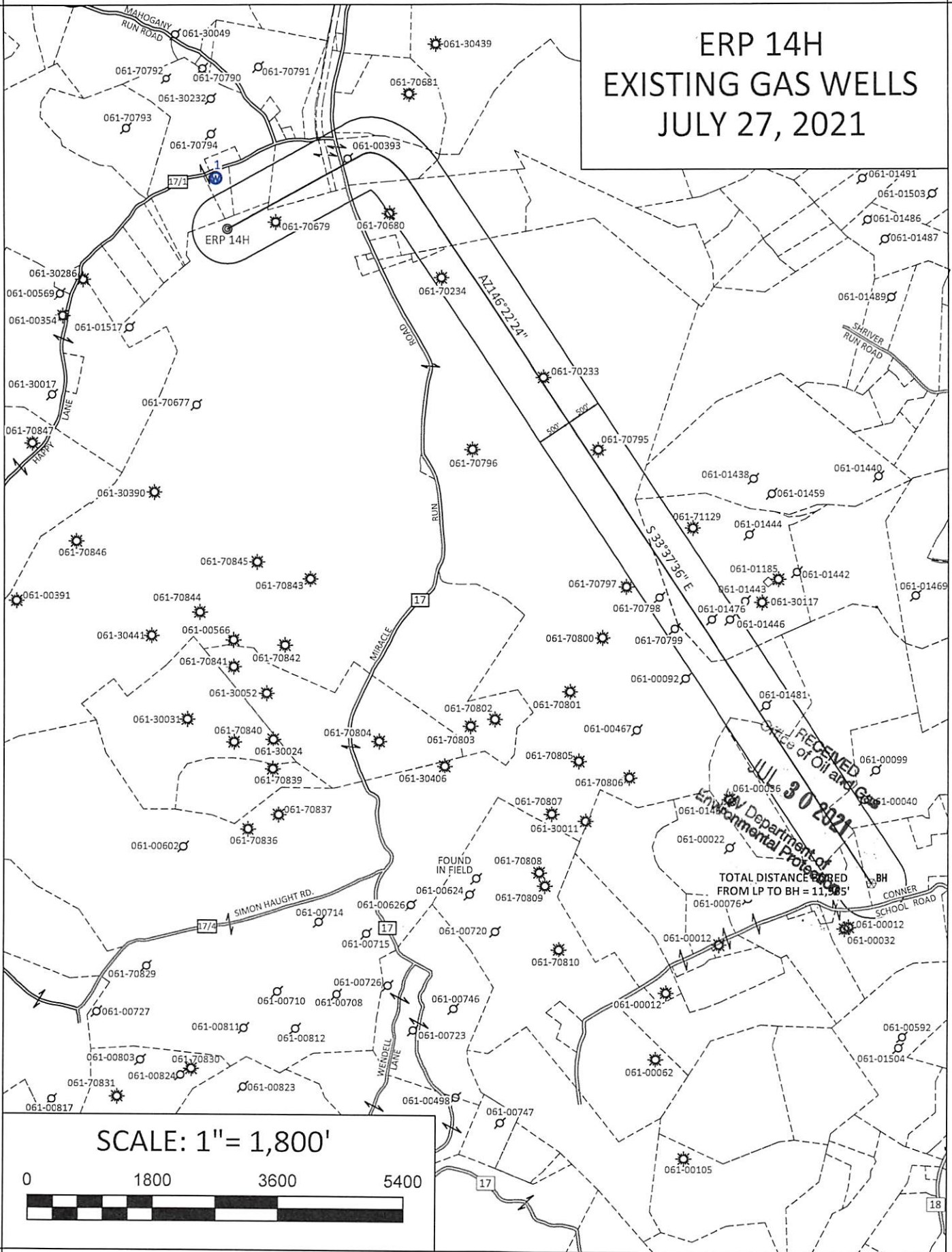
Surface string cement will be a Type 1 + Max 3% bwoc Calcium Chloride Fresh Water blend.
Intermediate string cement will be a Type 1 Cement + Max 3% bwoc Calcium Chloride + Fresh Water.
Production string cement will be (50:50) Poz (Fly Ash):Type I Cement with a gas migration additive.

25) Proposed borehole conditioning procedures:

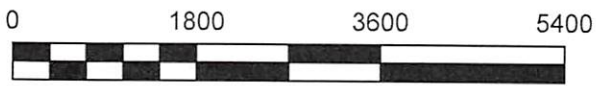
Surface & intermediate on air will utilize high volumetric flow rates of air to ensure the wellbore is clean prior to TOH.
Production section will utilize synthetic oil based drilling mud to properly clean the wellbore. At TD, pump rate and rotation will be maximized and tripping will not begin until shakers flow clean.
Production casing will be circulated prior to cementing to ensure a prepared wellbore for cement.

*Note: Attach additional sheets as needed.

ERP 14H EXISTING GAS WELLS JULY 27, 2021



SCALE: 1" = 1,800'



08/06/2021

ERP 14H AREA OF REVIEW

API Number	Well Name	Well Number	Operator	Latitude (NAD 83)	Longitude (NAD 83)	TMP	TVD	Comments
061-70233	Jos & W L Parks	1	South Penn Oil (S. Penn Nat. Gas)	39.668246	-80.256552	1-17-14	NA	Pre 1929 farm well
061-70795	Ora Masters	NA	NA	39.665585	-80.253927	1-17-14	NA	Pre 1929 farm well
061-01476	Norman Brookover	F2-514B	Eastern Associated / Peabody Coal Company	39.658771	-80.248277	4-18-04	NA	Plugged 9/12/03
061-01446	Norman Brookover	F2-514	Eastern Associated / Peabody Coal Company	39.658771	-80.247339	4-18-04	NA	Plugged 6/4/03
061-01481	Eastern Associated Coal	F2-517	Eastern Associated / Peabody Coal Company	39.655426	-80.245478	1-17-14	NA	Plugged 10/3/03
061-70799	Conway Tennant	2	NA	39.658687	-80.25024	1-17-14	NA	Pre 1929 farm well
061-70798	Conway Tennant	NA	NA	39.65949	-80.250737	1-17-14	NA	Pre 1929 farm well
061-70234	Jas Fox	1	South Penn Oil (S. Penn Nat. Gas)	39.672162	-80.262369	1-17-14	NA	Pre 1929 farm well
061-70680	Phoebe Steele	3325	Hope Natural Gas Company	39.674596	-80.264248	1-14-34	NA	Pre 1929 farm well
061-00393	W Tuttle	4820	Hope Natural Gas Company	39.676657	-80.267061	1-14-33	2147'	Big Injun (Price&eq)
061-70679	L M Foster	5122	Hope Natural Gas Company	39.674161	-80.270442	1-17-14	NA	Pre 1929 farm well

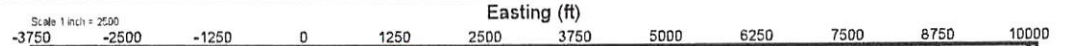
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NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: ERP Pad

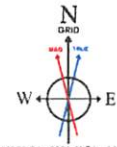
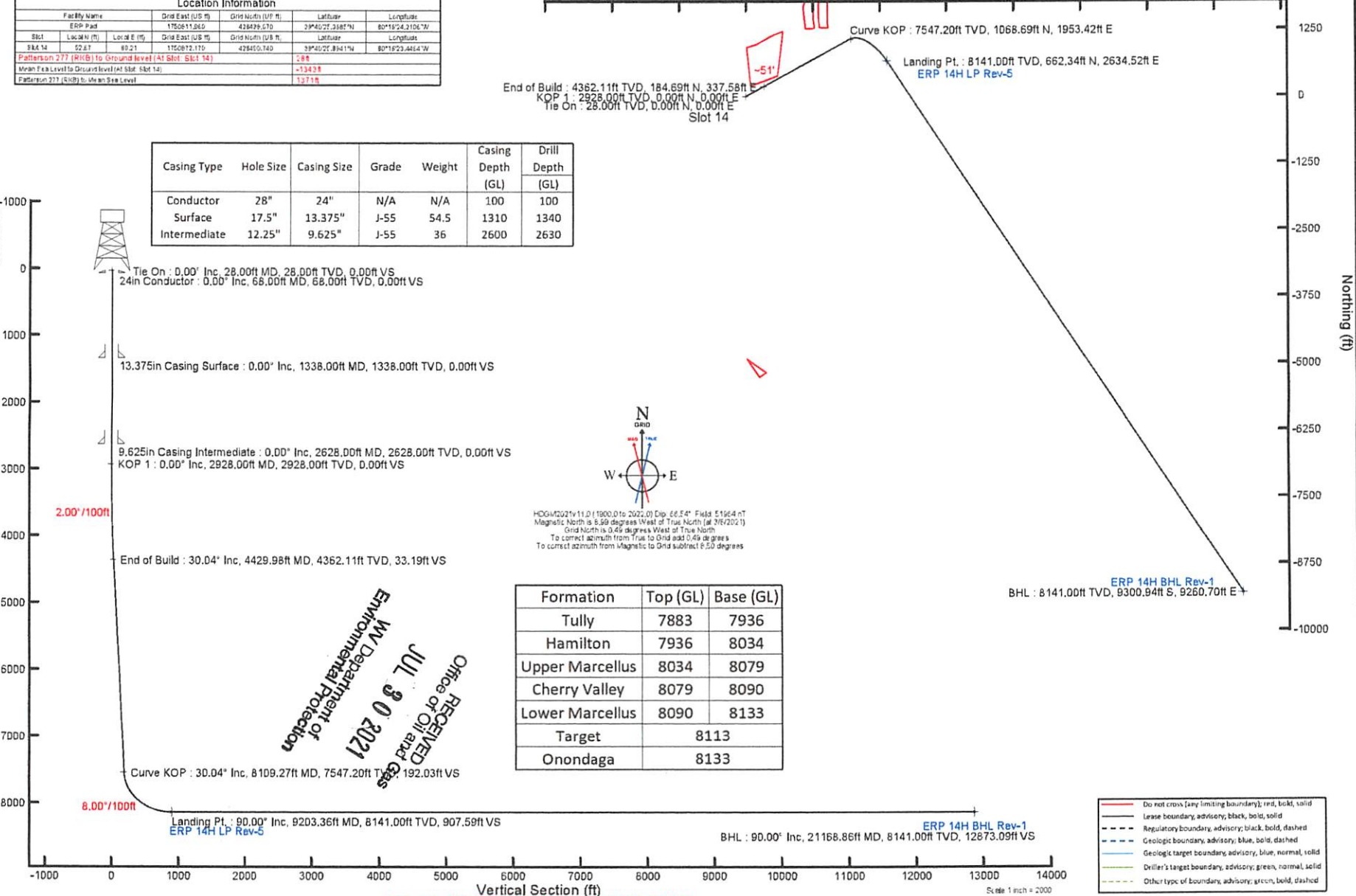
Slot: Slot 14
 Well: ERP 14H
 Wellbore: ERP 14H PWB

Location Information				
Facility Name	Grid East (US M)	Grid North (US M)	Latitude	Longitude
ERP Pad	175211.965	42849.070	39°40'27.318"N	80°19'24.2106"W
Slot	Loc East (ft)	Loc North (ft)	Latitude	Longitude
Slot 14	89.21	1752972.170	39°40'27.814"N	80°19'23.4814"W
Patterson 277 (RKB) to Ground level (At Slot Slot 14)			5.88	
Mean Fea Level to Ground level (At Slot Slot 14)			-1343.8	
Patterson 277 (RKB) to Mean Fea Level			1371.8	



Casing Type	Hole Size	Casing Size	Grade	Weight	Casing Depth (GL)	Drill Depth (GL)
Conductor	28"	24"	N/A	N/A	100	100
Surface	17.5"	13.375"	J-55	54.5	1310	1340
Intermediate	12.25"	9.625"	J-55	36	2600	2630

Scale 1 inch = 2000
 True Vertical Depth (ft)



HOGM021v11.0 (1900.0 to 2022.0) Dip: 66.54° Field: 5164 nT
 Magnetic North is 8.59 degrees West of True North (at 2/6/2021)
 Grid North is 0.46 degrees West of True North
 To correct azimuth from True to Grid add 0.46 degrees
 To correct azimuth from Magnetic to Grid subtract 8.59 degrees

Formation	Top (GL)	Base (GL)
Tully	7883	7936
Hamilton	7936	8034
Upper Marcellus	8034	8079
Cherry Valley	8079	8090
Lower Marcellus	8090	8133
Target	8113	
Onondaga	8133	

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- Do not cross (any limiting boundary), red, bold, solid
- Lease boundary, advisory, black, bold, solid
- Regulatory boundary, advisory, black, bold, dashed
- Geologic boundary, advisory, blue, bold, dashed
- Geologic target boundary, advisory, blue, normal, solid
- Driller's target boundary, advisory, green, normal, solid
- Other type of boundary, advisory, green, bold, dashed

Azimuth 146.37° with reference 0.00 N, 0.00 E

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
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:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See attached

**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

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

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Division of Oil and Gas

Well Operator: Northeast Natural Energy LLC
 By: Hollie Medley
 Its: Regulatory Manager

* Added Lease

WW-6A1

Operators Well No.ERP 14H

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
A	WV-061-005667-001	Phoenix Energy Resources, LLC (formerly ERP Mining Complex, LLC)	Northeast Natural Energy LLC	12.5% or Greater	1710	737
B	WV-061-005782-001	EQT	Northeast Natural Energy LLC	12.5% or Greater	1743	512
C	WV-061-005667-001	Phoenix Energy Resources, LLC (formerly ERP Mining Complex, LLC)	Northeast Natural Energy LLC	12.5% or Greater	1710	737
D	WV-061-003767-004	Phoenix Energy Resources, LLC (formerly ERP Mining Complex, LLC)	Northeast Natural Energy LLC	12.5% or Greater	1571	611
E	WV-061-005329-001	Nola Jean Park Chisler	Northeast Natural Energy LLC	12.5% or Greater	1635	494
	WV-061-005148-018	Clarence Earl Park	Northeast Natural Energy LLC	12.5% or Greater	1636	263
	WV-061-005329-002	Freddie Carl Park	Northeast Natural Energy LLC	12.5% or Greater	1635	496
	WV-061-005329-003	Jay W. Park	Northeast Natural Energy LLC	12.5% or Greater	1635	498
	WV-061-005329-004	John A. Hart	Northeast Natural Energy LLC	12.5% or Greater	1637	487
	WV-061-005148-005	Charlene Smith	Northeast Natural Energy LLC	12.5% or Greater	1620	104
	WV-061-005148-009	Charles W. Patterson Jr.	Northeast Natural Energy LLC	12.5% or Greater	1628	523
	WV-061-005148-010	Robert L. Henderson	Northeast Natural Energy LLC	12.5% or Greater	1630	205
	WV-061-005148-002	Roberta Sprows	Northeast Natural Energy LLC	12.5% or Greater	1620	98
	WV-061-005148-001	Agnes M. Ritz	Northeast Natural Energy LLC	12.5% or Greater	1620	96
	WV-061-005329-024	Joann P. Golembiewski	Northeast Natural Energy LLC	12.5% or Greater	1690	284
	WV-061-005329-001	Rita Gudz f/k/a Rita Golembiewski	Northeast Natural Energy LLC	12.5% or Greater	1687	582
	WV-061-005329-018	Phyllis E. Clark	Northeast Natural Energy LLC	12.5% or Greater	1643	320
	WV-061-005329-014	Carl E. Peterson	Northeast Natural Energy LLC	12.5% or Greater	1643	312
	WV-061-005329-011	Veronica Milczewski, f/k/a Vicki Golembiewski	Northeast Natural Energy LLC	12.5% or Greater	1643	306
	WV-061-005329-023	Karen K. Jennings, f/k/a Karen K. King	Northeast Natural Energy LLC	12.5% or Greater	1688	579
	WV-061-005329-005	David Bradley Barker	Northeast Natural Energy LLC	12.5% or Greater	1638	644
	WV-061-005148-006	Debra Lynn Lundgren	Northeast Natural Energy LLC	12.5% or Greater	1620	106
	WV-061-005329-008	Mary L. Weaver, f/k/a Mary L. Hodge	Northeast Natural Energy LLC	12.5% or Greater	1642	303
	WV-061-005148-004	Nancy Griffith	Northeast Natural Energy LLC	12.5% or Greater	1620	102
	WV-061-005329-015	Patty Amos	Northeast Natural Energy LLC	12.5% or Greater	1643	314
	WV-061-005148-003	Sherry Jean Harker	Northeast Natural Energy LLC	12.5% or Greater	1620	100
	WV-061-005329-006	David G. Owens	Northeast Natural Energy LLC	12.5% or Greater	1638	646
	WV-061-005329-017	John West	Northeast Natural Energy LLC	12.5% or Greater	1643	318
	WV-061-005329-013	Janet Brach	Northeast Natural Energy LLC	12.5% or Greater	1643	310
	WV-061-005329-012	Joyce E. Skeens f/k/a Joyce Ellen Tennant and W. Michael Skeens	Northeast Natural Energy LLC	12.5% or Greater	1643	308
	WV-061-005329-007	Linda Jane Walters	Northeast Natural Energy LLC	12.5% or Greater	1638	648
	WV-061-005329-016	Malinda Ross f/k/a Malinda Sue Tennant	Northeast Natural Energy LLC	12.5% or Greater	1643	316
	WV-061-005329-010	Three Rivers Royalty, LLC	Northeast Natural Energy LLC	12.5% or Greater	1649	300
	WV-061-005329-009	Three Rivers Royalty, LLC	Northeast Natural Energy LLC	12.5% or Greater	1642	837
	WV-061-005329-025	Robert L. Park	Northeast Natural Energy LLC	12.5% or Greater	1698	332
	WV-061-005329-027	Deborah L. Plummer	Northeast Natural Energy LLC	12.5% or Greater	1699	423
	WV-061-005329-026	Patricia Paetzold	Northeast Natural Energy LLC	12.5% or Greater	1698	334
F	WV-061-005142-001	Anna Maria Simpson	Northeast Natural Energy LLC	12.5% or Greater	1620	78
	WV-061-005142-004	Mary Jane Kiger	Northeast Natural Energy LLC	12.5% or Greater	1621	228
	WV-061-005142-001	Anna Maria Simpson	Northeast Natural Energy LLC	12.5% or Greater	1620	78
	WV-061-005142-002	Leona M. Wolfe	Northeast Natural Energy LLC	12.5% or Greater	1620	80
	WV-061-005142-003	Stephen Edward White	Northeast Natural Energy LLC	12.5% or Greater	1620	82
	WV-061-005405-002	H3 LLC	Northeast Natural Energy LLC	12.5% or Greater	1661	731

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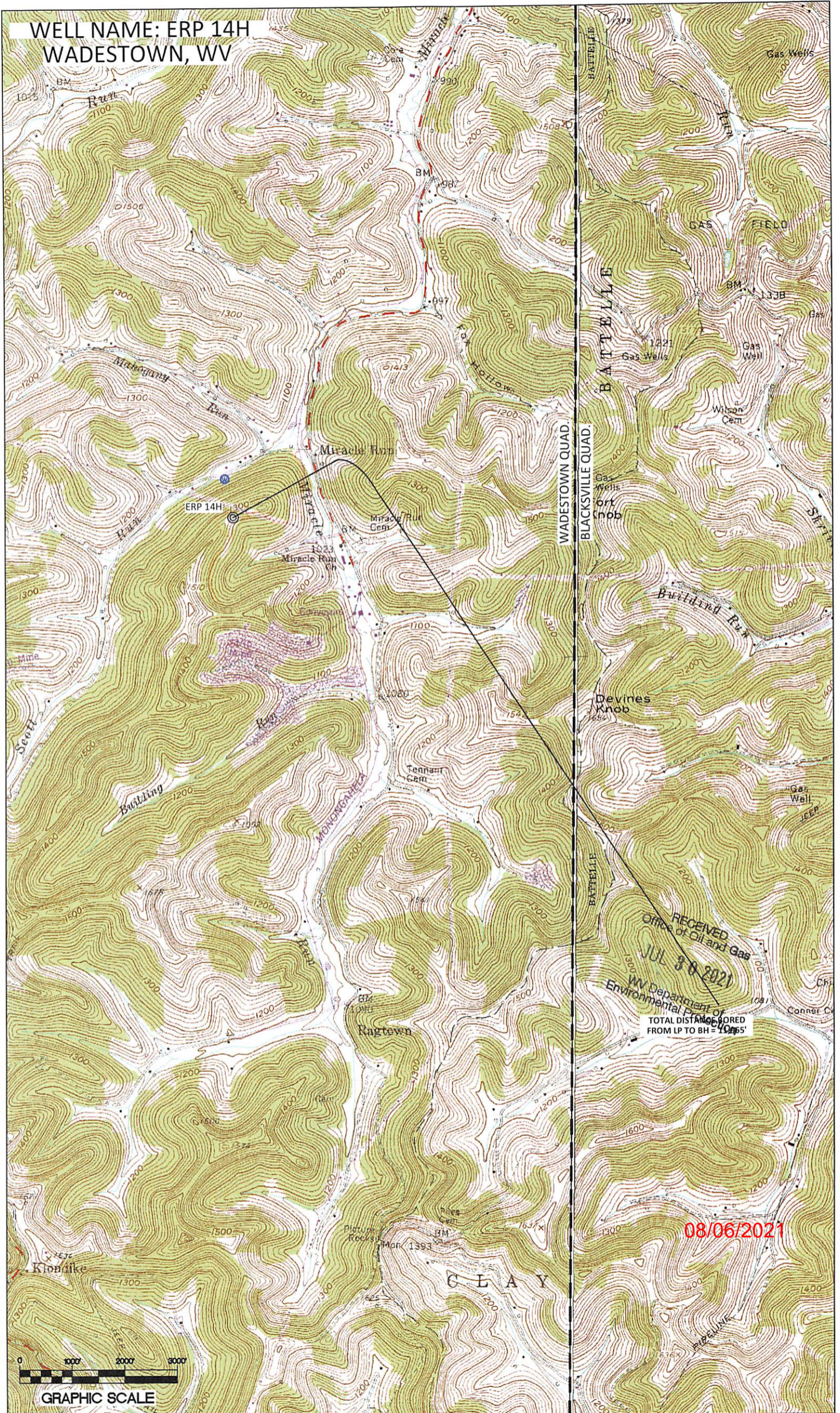
Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-005142-009	Sheila J. Ridge	Northeast Natural Energy LLC	12.5% or Greater	1628	525
	WV-061-005142-007	Marcella E. Drahos	Northeast Natural Energy LLC	12.5% or Greater	1627	424
	WV-061-005724-002	Carolyn S. Cambria	Northeast Natural Energy LLC	12.5% or Greater	1725	849
	WV-061-005724-001	Amanda R. Wright	Northeast Natural Energy LLC	12.5% or Greater	1725	847
	WV-061-005142-005	Michell Murphy	Northeast Natural Energy LLC	12.5% or Greater	1623	133
	WV-061-005142-010	Tina Daniels	Northeast Natural Energy LLC	12.5% or Greater	1629	188
	WV-061-005142-006	Greg Morgan	Northeast Natural Energy LLC	12.5% or Greater	1623	135
	WV-061-005405-003	Kimberlee Mellinger and Kevin Mellinger	Northeast Natural Energy LLC	12.5% or Greater	1643	44
	WV-061-005142-011	Kayla Daniels	Northeast Natural Energy LLC	12.5% or Greater	1629	190
G	WV-061-004975-002	Loretta K. Tennant, a/k/a Loretta K. Fordyce	Northeast Natural Energy LLC	12.5% or Greater	1615	591
	WV-061-004975-001	Byron D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1615	589
	WV-061-004975-003	David K. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1615	593
	WV-061-005153-004	Sammie D. Broadwater, a/k/a Sammie D. Riggs	Northeast Natural Energy LLC	12.5% or Greater	1620	116
	WV-061-005153-006	Cloman P. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1620	118
	WV-061-005153-007	Richard A. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1623	499
	WV-061-005153-023	Della Mae Tennant (Life Estate)	Northeast Natural Energy LLC	12.5% or Greater	1708	181
	WV-061-005153-017	Charles Allen Tennant	Northeast Natural Energy LLC	12.5% or Greater	1696	106
	WV-061-005153-018	Sheila Marie Lawson	Northeast Natural Energy LLC	12.5% or Greater	1709	633
	WV-061-005153-018	Sheila Marie Lawson and Gordon Lawson	Northeast Natural Energy LLC	12.5% or Greater	1709	633
	WV-061-005153-026	Marvin Lee Tennant	Northeast Natural Energy LLC	12.5% or Greater	1709	309
	WV-061-005153-024	Jennifer Sue McCardle, f/k/a Jennifer Sue Tennant	Northeast Natural Energy LLC	12.5% or Greater	1708	187
	WV-061-005153-025	James Arnold Tennant	Northeast Natural Energy LLC	12.5% or Greater	1708	189
	WV-061-005153-003	Mary Evelyn Tennant	Northeast Natural Energy LLC	12.5% or Greater	1622	274
	WV-061-005153-014	Eugonda L. McKitrick	Northeast Natural Energy LLC	12.5% or Greater	1696	78
	WV-061-005153-012	Jerry D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1694	605
	WV-061-005153-011	Vonda Joyce Charlton	Northeast Natural Energy LLC	12.5% or Greater	1694	603
	WV-061-005153-015	Donald C. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1696	819
	WV-061-005153-008	Jeffrey Cole Bell	Northeast Natural Energy LLC	12.5% or Greater	1647	145
	WV-061-005153-022	Julia Ann Minervino, f/k/a Julie Ann Freeman	Northeast Natural Energy LLC	12.5% or Greater	1708	179
	WV-061-005153-020	Mary E. Chapman, f/k/a Mary Ann Freeman	Northeast Natural Energy LLC	12.5% or Greater	1708	175
	WV-061-005153-010	Julie Ann Miller Plummer	Northeast Natural Energy LLC	12.5% or Greater	1694	601
	WV-061-005153-009	Richard Miller, a/k/a Richard A. Miller	Northeast Natural Energy LLC	12.5% or Greater	1696	74
	WV-061-005153-013	Robert L. Miller	Northeast Natural Energy LLC	12.5% or Greater	1696	76
	WV-061-005153-005	Richard E. Miller	Northeast Natural Energy LLC	12.5% or Greater	1622	276
	WV-061-005153-016	Jimmie Joe Tennant	Northeast Natural Energy LLC	12.5% or Greater	1696	104
	WV-061-005153-021	Ladonna Patrice Tennant Bosse	Northeast Natural Energy LLC	12.5% or Greater	1708	177
	WV-061-005153-019	John E. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1709	307
H	WV-061-005272-001	Shuman, Inc.	Northeast Natural Energy LLC	12.5% or Greater	1625	598
	WV-061-005272-002	W. W. Sutherland, Jr.	Northeast Natural Energy LLC	12.5% or Greater	1637	217
I	WV-061-005666-001	Phoenix Energy Resources, LLC (formerly ERP Mining Complex, LLC)	Northeast Natural Energy LLC	12.5% or Greater	1710	739
J	WV-061-003461-001	Rhonda Haught	Northeast Natural Energy LLC	12.5% or Greater	1513	625
	WV-061-003461-005	Becky L. Hawkins, f/k/a Becky Bortnik	Northeast Natural Energy LLC	12.5% or Greater	1530	182
	WV-061-003461-007	Tonya Chersin	Northeast Natural Energy LLC	12.5% or Greater	1530	1
	WV-061-004455-003	Richard R. Curtis and Bonnie J. Curtis	Northeast Natural Energy LLC	12.5% or Greater	1584	827
	WV-061-004455-005	Phoenix Energy Resources, LLC (former interest of ERP Federal Mining Complex,	Northeast Natural Energy LLC	12.5% or Greater	1605	471
	WV-061-003461-002	The Aldean Haught Irrevocable Trust, Donald J. Haught, Trustee	Northeast Natural Energy LLC	12.5% or Greater	1524	319

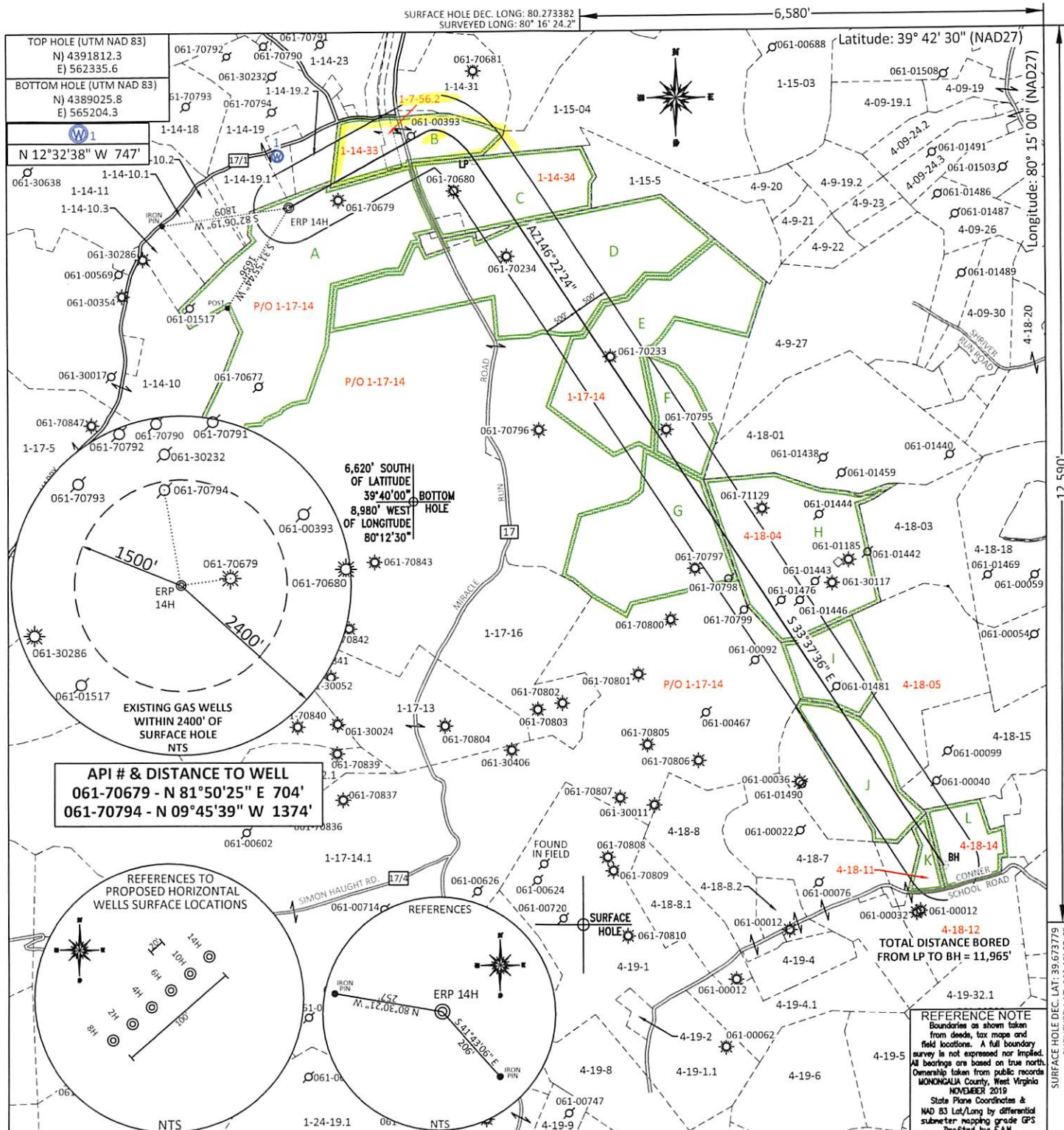
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 Office of Oil and Gas
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 Department of Environmental Protection

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-003461-001	Rhonda Haught	Northeast Natural Energy LLC	12.5% or Greater	1513	625
	WV-061-003461-008	Boyd Hawkins	Northeast Natural Energy LLC	12.5% or Greater	1530	348
	WV-061-004699-002	Linda W. Eisinger	Northeast Natural Energy LLC	12.5% or Greater	1608	840
	WV-061-003461-009	James Francis Lloyd Jr.	Northeast Natural Energy LLC	12.5% or Greater	1535	668
	WV-061-003461-004	John Michael Lloyd	Northeast Natural Energy LLC	12.5% or Greater	1530	764
	WV-061-003461-006	Robert Lee Lloyd	Northeast Natural Energy LLC	12.5% or Greater	1529	558
	WV-061-004455-001	Mary Elizabeth Masters and Robert G. Masters	Northeast Natural Energy LLC	12.5% or Greater	1584	823
	WV-061-004455-004	Judith Radcliff	Northeast Natural Energy LLC	12.5% or Greater	1584	849
	WV-061-004455-002	Dollie F. Sumpster	Northeast Natural Energy LLC	12.5% or Greater	1584	825
	WV-061-004706-008	Gary M. Ames	Northeast Natural Energy LLC	12.5% or Greater	1709	625
	WV-061-004706-009	Dawn Renee Stitt	Northeast Natural Energy LLC	12.5% or Greater	1636	787
	WV-061-004706-004	Darcie Lynn Blalock	Northeast Natural Energy LLC	12.5% or Greater	1604	444
	WV-061-004706-003	Kevin Wayne Tennant	Northeast Natural Energy LLC	12.5% or Greater	1604	442
	WV-061-004706-002	Mark Bradley Tennant	Northeast Natural Energy LLC	12.5% or Greater	1604	440
	WV-061-004706-010	Michael Wayne Tennant	Northeast Natural Energy LLC	12.5% or Greater	1717	335
	WV-061-003461-003	Rosemary Bell Tennant	Northeast Natural Energy LLC	12.5% or Greater	1528	149
	WV-061-003461-011	Mary Ellen Woodfork	Northeast Natural Energy LLC	12.5% or Greater	1547	832
	WV-061-004706-001	Barbara K. Wright	Northeast Natural Energy LLC	12.5% or Greater	1605	712
K	WV-061-005688-001	Dale L. Copeland	Northeast Natural Energy LLC	12.5% or Greater	1719	701
L	WV-061-005486-001	Gary Allen Copeland	Northeast Natural Energy LLC	12.5% or Greater	1564	168
	WV-061-005476-001	Midwest Energy, Inc.	Northeast Natural Energy LLC	12.5% or Greater	1647	173

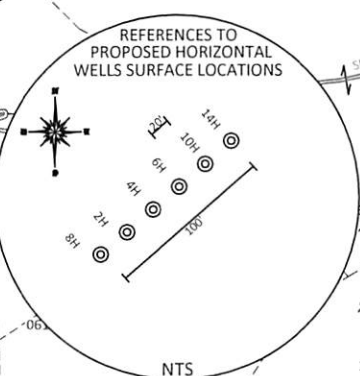
RECEIVED
 Office of Oil and Gas
 JUL 30 2021
 WV Department of
 Environmental Protection

WELL NAME: ERP 14H
WADESTOWN, WV





API # & DISTANCE TO WELL
 061-70679 - N 81°50'25" E 704'
 061-70794 - N 09°45'39" W 1374'



REFERENCE NOTE
 Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records MONONGALIA County, West Virginia NOVEMBER 2019 State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS Drafted by EAM

FILE #: NNE20
 DRAWING #: 2991
 SCALE: PLAT: 1" = 2000'
TICK: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: [Signature]
 L.L.S. #2124: Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304
 Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow
 WATERSHED: DUNKARD CREEK
 COUNTY/DISTRICT: MONONGALIA / BATTELLE
 SURFACE OWNER: Phoenix Energy Resources, LLC
 OIL & GAS ROYALTY OWNER: Phoenix Energy Resources, LLC, et al.
 LEASE NUMBERS: _____

DATE: JULY 27, 2021
 OPERATOR'S WELL #: ERP 14H
 API WELL #: 47 61 01880
 STATE COUNTY PERMIT
 CURRENT ELEVATION: 1,350'
 PROPOSED ELEVATION: 1,338.60'
 QUADRANGLE: WADESTOWN
 ACREAGE: 1510.488 +/-
 ACREAGE: 773.275 +/-

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____
 TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 8,141' TMD: 21,168'
 WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC DESIGNATED AGENT: JOHN ADAMS
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

08/06/2021

PROPERTY OWNER INDEX	
1-17-14	PHOENIX ENERGY RESOURCES, LLC
1-14-34	EASTERN ASSOCIATED COAL CORP.
4-18-04	NORMAN C. BROOKOVER
4-18-05	EASTERN ROYALTY CORP.
4-18-11	DALE L. COPELAND
1-14-33	GLENN N & ORPHA J REED
4-18-14	GARY ALLEN COPELAND
1-7-56.2	PENNSYLVANIA LINES LLC

LEASE INDEX			
A	WV-061-005667-001	G	WV-061-003767-004
B	WV-061-005782-001	H	WV-061-005272-001
C	WV-061-005667-001	I	WV-061-005666-001
D	WV-061-003767-004	J	WV-061-003461-001
E	WV-061-005329-001	K	WV-061-005688-001
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FILE #: NEE20

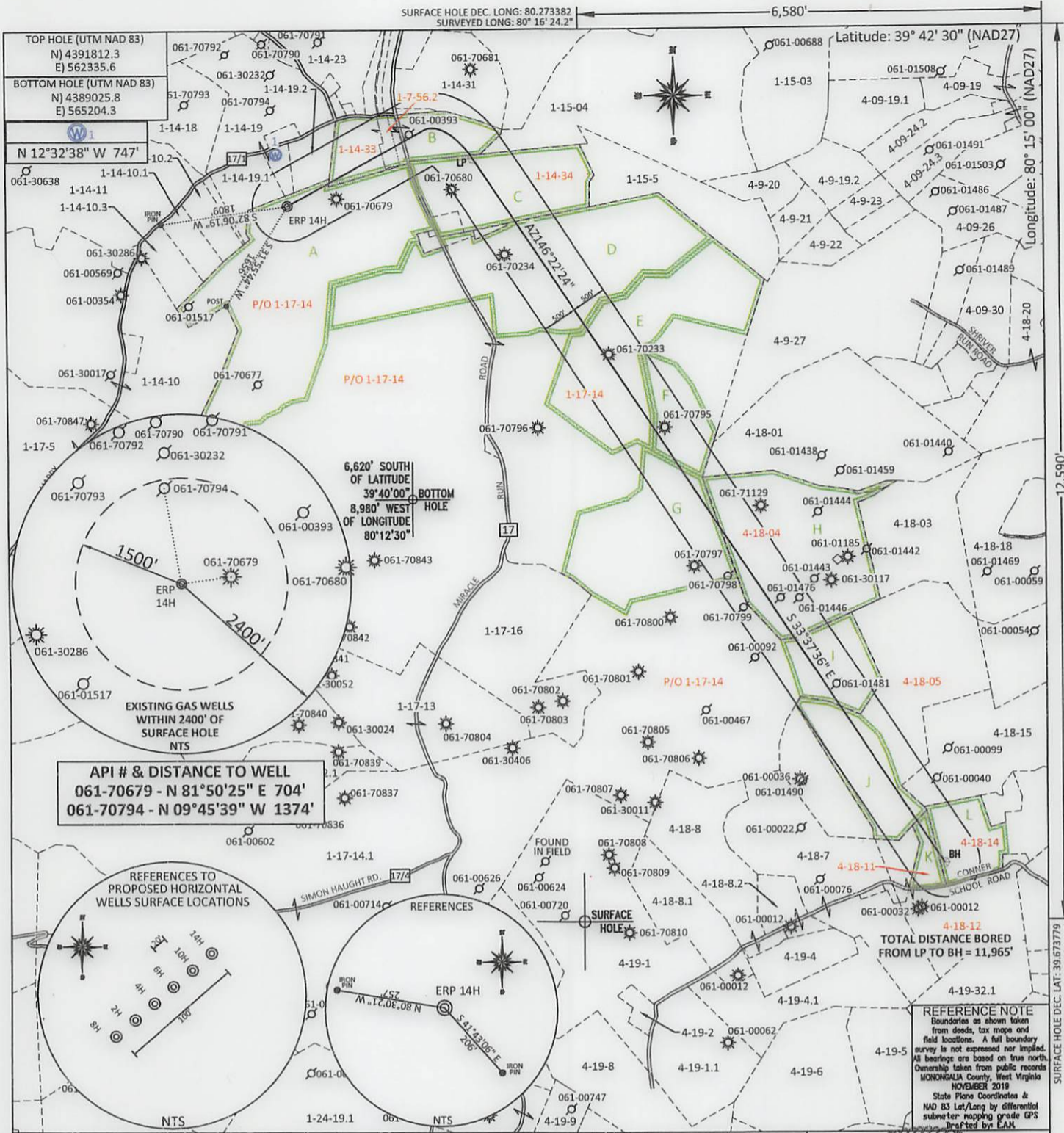
DRAWING #: 2991

SCALE: N/A

DATE: JULY 27, 2021

OPERATOR'S WELL #: ERP 14H

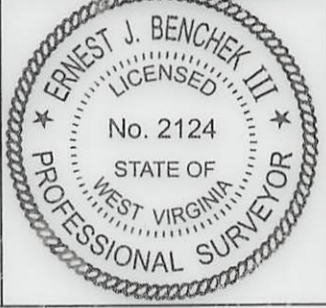
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OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

Well Type: Oil Waste Diposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: DUNKARD CREEK
COUNTY/DISTRICT: MONONGALIA / BATTELLE
SURFACE OWNER: Phoenix Energy Resources, LLC
OIL & GAS ROYALTY OWNER: Phoenix Energy Resources, LLC, et al.
LEASE NUMBERS:

DATE: JULY 27, 2021
OPERATOR'S WELL #: ERP 14H
API WELL #: 47 61 01980
STATE COUNTY PERMIT
CURRENT ELEVATION: 1,350'
PROPOSED ELEVATION: 1,338.60'
QUADRANGLE: WADESTOWN
ACREAGE: 1510.488 +/-
ACREAGE: 773.27 **08/06/2021**

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY):

TARGET FORMATION: MARCELLUS
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08/06/2021

FILE #: NEE20

DRAWING #: 2991

SCALE: N/A

DATE: JULY 27, 2021

OPERATOR'S WELL #: ERP 14H

API WELL #: 47 61 01880
STATE COUNTY PERMIT



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Expedited Modification H6A Horizontal Well Work Permit (API: 47-061-01880)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Tue, Aug 3, 2021 at 10:47 AM

To: Hollie Medley <hmedley@nne-llc.com>, Kristen Brooks <kbrooks@nne-llc.com>, "Harris, Bryan O" <bryan.o.harris@wv.gov>, Mark Musick <mmusick@assessor.org>

I have attached a copy of the newly issued well [permit](#) number "ERP 14H", API (47-061-01880). This will serve as your copy.

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas


601 57th St. SE

Charleston, WV 25304

(304) 926-0499 ext. 41115

(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

 **47-061-01880 - mod.pdf**
6353K

08/06/2021