



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

Thursday, September 8, 2022
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 MCCLELLAN 1H
47-061-01882-00-00

Emergency Sidetrack with updated plat and casing plan. Approved prior in the field.

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: MCCLELLAN 1H
Farm Name: KLONDIKE REAL ESTATE PARTNERSHIP
U.S. WELL NUMBER: 47-061-01882-00-00
Horizontal 6A New Drill
Date Modification Issued: 09/08/2022

Promoting a healthy environment.

09/09/2022



northeast
NATURAL ENERGY

August 26, 2022

Attn: Mr. Taylor Brewer, Assistant Chief-Permitting
WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: McClellan 1H (061-01882) Sidetrack

Dear Mr. Brewer,

Northeast Natural Energy LLC ("NNE") has encountered an issue while drilling the McClellan 1H (061-01882) well. While drilling the lateral the wellbore became unstable at 23,386' or about 678' from reaching bottom hole. NNE backreamed to 15,224' and became stuck with no rotation or circulation. Fishing efforts and multiple attempts to back off pipe and jar free have been unsuccessful.

NNE now wishes to expedite a sidetrack lateral one-hundred and fifty (150') from the original permitted and abandoned well bore. A plug will be set at 9,000' and the drilled lateral will be plugged back with solid cement to 7,501'. NNE will re-pressure test BOP's prior to drilling the proposed sidetrack lateral.

Please find attached a revised WW-6B and Well Plat showing the plugged back and proposed sidetracked laterals. An Expedited Permit Modification Fee will also be submitted.

Should you have any questions please contact me at 304-543-8932 or by email at hmedley@nne-llc.com.

Sincerely,

Hollie M. Medley
Regulatory Manager

CHK#
82371
\$5000.00
8/30/22

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

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

2) Operator's Well Number: 1H Well Pad Name: McClellan

3) Farm Name/Surface Owner: McClellan Public Road Access: SR 15/7 (Harvey Run Road)

4) Elevation, current ground: 1,412' Elevation, proposed post-construction: Existing

5) Well Type (a) Gas X Oil NA Underground Storage NA
Other NA

(b) If Gas Shallow X Deep NA
Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 8,056', 103', 3600 PSI

8) Proposed Total Vertical Depth: 8,056'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 24,172'

11) Proposed Horizontal Leg Length: 15,425'

12) Approximate Fresh Water Strata Depths: 50'; 1,122'

13) Method to Determine Fresh Water Depths: Drillers log from offset wells

14) Approximate Saltwater Depths: 1,820'; 2,570'

15) Approximate Coal Seam Depths: 1,107'

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 X No _____

(a) If Yes, provide Mine Info: Name: Marion County Coal Company Mine
Depth: 1,107'
Seam: Pittsburgh
Owner: American Consolidated Natural Resources

18) **CASING AND TUBING PROGRAM**

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	24"	New	NA	94.71	100'	100'	CTS
Fresh Water	13-3/8"	New	J-55	54.5	1,440'	1,410'	CTS
Coal					NA	NA	
Intermediate	9-5/8"	New	J-55	36	2,710'	2,680'	CTS
Production	5-1/2"	New	P-110	20	24,172'	24,142'	5752
Tubing	2-7/8"	New	P-110	6.5	NA	8,500'	NA
Liners							

*To cover Red Rock

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	24"	32"	.375"	NA	NA	Class A	1.19
Fresh Water	13-3/8"	17 1/2"	.38"	2,730	500	Class A	1.19
Coal							
Intermediate	9-5/8"	12 3/8"	.395"	3,520	2,800	Class A	1.19
Production	5-1/2"	8 3/4"	.361"	14,360	11,500	50:50 Poz	1.16
Tubing	2-7/8"	NA	.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 set 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 casing 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): N/A

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

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 KOP. Bow springs from KOP to surface every third joint.

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.

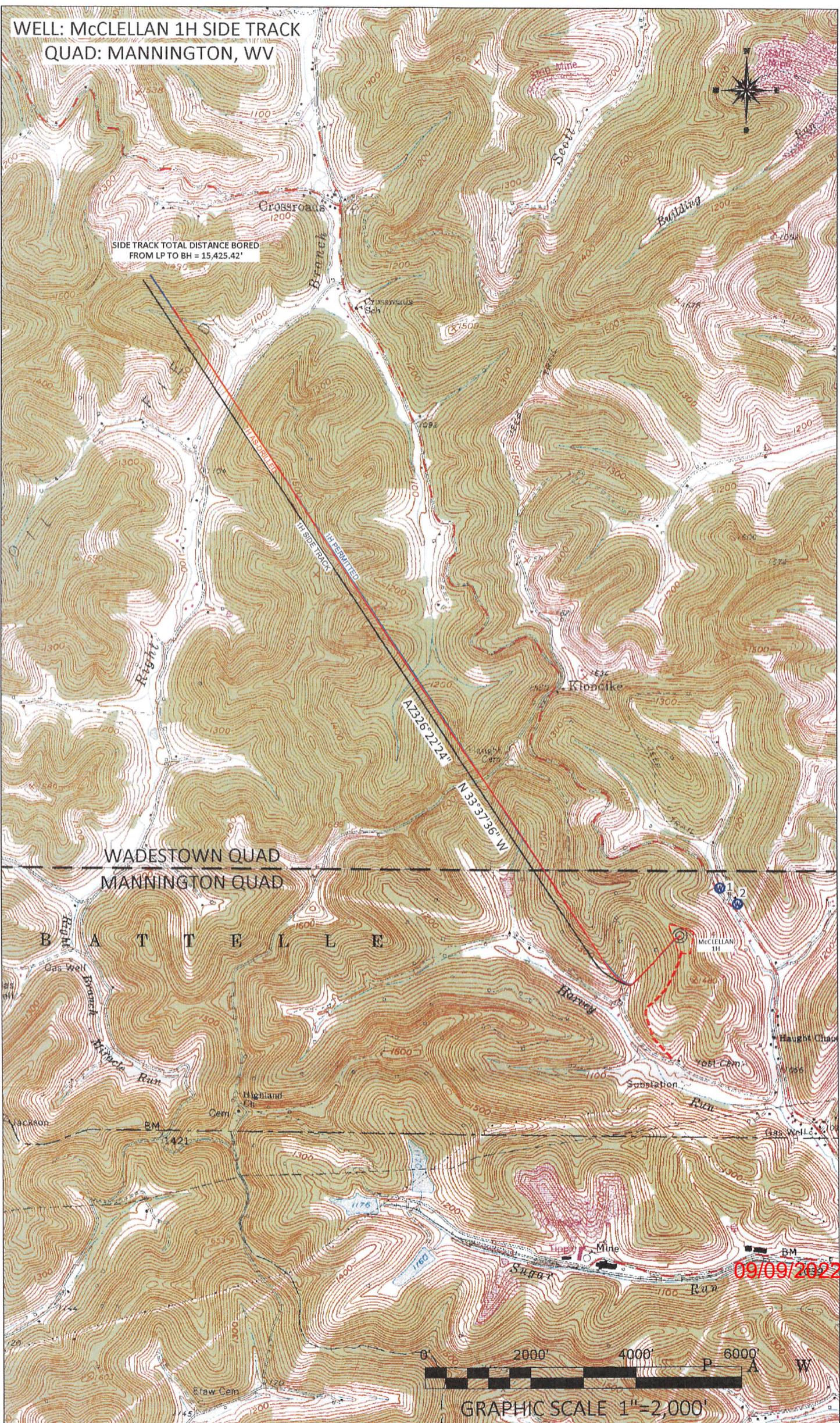
25) Proposed borehole conditioning procedures:

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.

WELL: McCLELLAN 1H SIDE TRACK
QUAD: MANNINGTON, WV

SIDE TRACK TOTAL DISTANCE BORED
FROM LP TO BH = 15,425.42'



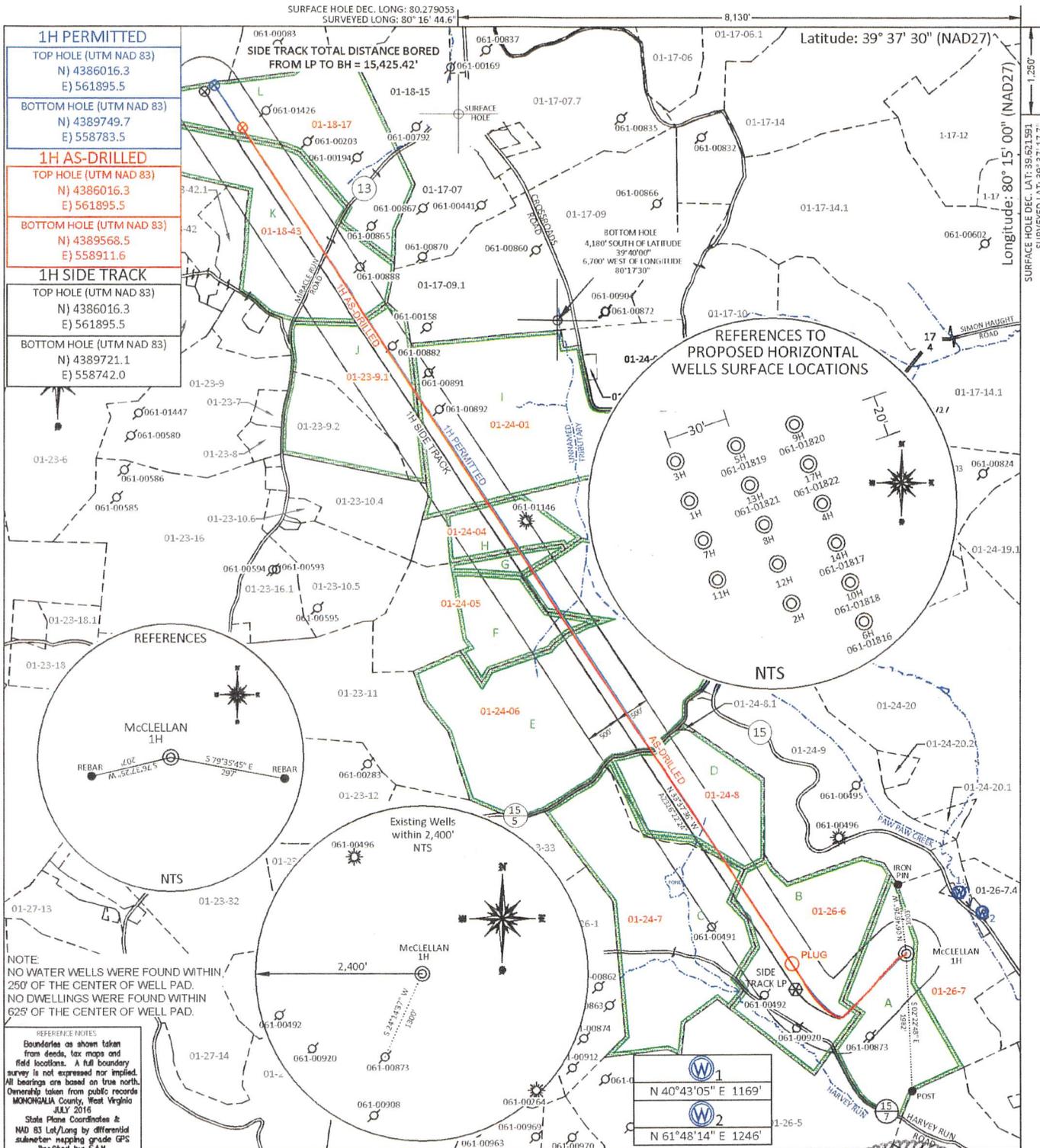
WADESTOWN QUAD
MANNINGTON QUAD

B A T T L E

09/09/2022



GRAPHIC SCALE 1"=2,000'



FILE #: NNE14

DRAWING #: 2995

SCALE: 1" = 2000'
TICK: 1" = 2000'

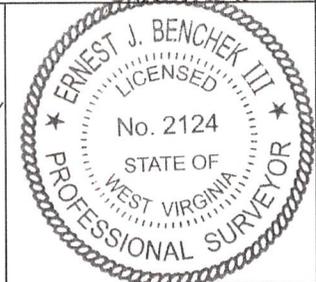
MINIMUM DEGREE OF ACCURACY: 1/200

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: 

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

DATE: AUGUST 26, 2022

OPERATOR'S WELL #: McCLELLAN 1H SIDE TRACK

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

API WELL #: 47 61 01882
STATE COUNTY PERMIT

WATERSHED: UPPER MONONGAHELA AS-BUILT ELEVATION: 1,411.7'

COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: MANNINGTON

SURFACE OWNER: KLONDIKE REAL ESTATE PARTNERSHIP ACREAGE: 1,143.1 +/-

OIL & GAS ROYALTY OWNER: Barbara June Sutton, et al ACREAGE: 129.4 +/-

LEASE NUMBERS: _____

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: SIDE TRACK TVD: 8,056' TMD: 24,172'

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

09/09/2022

PROPERTY OWNER INDEX	
1-26-7	KLONDIKE REAL ESTATE PARTNERSHIP
1-26-6	ROBERT G SANTEE ESTATE
1-24-7	CNX LAND LLC
1-24-8	NIFTY-FIFTY LLC
1-24-6	ALLEGHENY FORESTLANDS LLC
1-24-5	FRANCIS G SWISHER & THERESA TUTTLE
1-24-4	FRANCIS G SWISHER & THERESA TUTTLE
1-24-1	NELSON DALE & CHERYL LISBETH GALLAGHER
1-24-9.1	MARY C WALLS
1-18-43	BETTY J MARTINO
1-18-17	ERP FEDERAL MINING COMPLEX LLC

LEASE INDEX			
A	WV-061-004172-011	G	WV-061-004860-020
B	WV-061-004173-066	H	WV-061-004227-002
C	WV-061-004002-005	I	WV-061-700075-001
D	WV-061-004287-038	J	WV-061-005769-001
E	WV-061-005933-001	K	WV-061-003729-001
F	WV-061-004332-001	L	WV-061-003767-004

09/09/2022

FILE #: NEE14

DATE: AUGUST 26, 2022

DRAWING #: 2995

OPERATOR'S WELL #: McCLELLAN 1H SIDE TRACK

SCALE: N/A

API WELL #: 47 61 01882
STATE COUNTY PERMIT