

09/21/2018



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Tuesday, September 18, 2018
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

AMERICAN PETROLEUM PARTNERS OPERATING, LLC
4600 J. BARRY COURT SUITE 310

CANONSBURG, PA 15317

Re: Permit Modification Approval for CASTERLY ROCK-2UH
47-051-02018-00-00

Lateral Extension with Deep Well Approval

AMERICAN PETROLEUM PARTNERS OPERATING, 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: CASTERLY ROCK-2UH
Farm Name: LESLIE B. & LORI D. SCHABER
U.S. WELL NUMBER: 47-051-02018-00-00
Horizontal 6A New Drill
Date Modification Issued: September 18, 2018

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. 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 § 22-6A-5a (12), 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 one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street SE, Charleston, WV 25304
304-926-0499 Ext 1274

Barry K. Lay, Chairman
dep.wv.gov

August 30, 2018

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-051-02018

COMPANY: American Petroleum Partners Operating, LLC

FARM: Casterly Rock-2UH

COUNTY: Marshall DISTRICT: Union QUAD: Moundsville

The deep well review of the application for the above company is Approved to drill to the Trenton for Point Pleasant completion. Pooling Docket No. 266-256

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? None
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: *yes, Docket 266-256 Exception Location Hearing, 47-051-02047, 47-051-02046, 47-051-02071, 47-051-02072, and 47-051-02073.
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

A handwritten signature in blue ink that reads "Susan Rose".

Susan Rose
Administrator

WW-6B
(04/15)

API NO. 47-051 - 02018 MOE
 OPERATOR WELL NO. Casterly Rock-2UH (CRN2-UH)
 Well Pad Name: Casterly Rock

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

1) Well Operator: American Petroleum Partners 494521257 Marshall Union Moundsville
 Operator ID County District Quadrangle

2) Operator's Well Number: Casterly Rock-2UH (CRN2-UH) Well Pad Name: Casterly Rock

3) Farm Name/Surface Owner: Leslie B. & Lori D. Schaber Public Road Access: State Route 88

4) Elevation, current ground: 1,337.89' Elevation, proposed post-construction: 1311.38

5) Well Type (a) Gas Oil _____ Underground Storage _____
 Other _____
 (b) If Gas Shallow _____ Deep
 Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant Formation 11,395' / 130' thick 10,141 or .89 psi per foot / Utica Formation 11,212 150' thick / 10,000 psi or .89 psi per foot.

8) Proposed Total Vertical Depth: 11,595' pilot hole into the Trenton-Plug back, land and TD lateral in Point Pleasant.

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 21,549'

11) Proposed Horizontal Leg Length: 9,613'

12) Approximate Fresh Water Strata Depths: 130', 850'

13) Method to Determine Fresh Water Depths: Nearest offset well

14) Approximate Saltwater Depths: Na

15) Approximate Coal Seam Depths: 625', 825'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated. Mine maps attached.

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

(a) If Yes, provide Mine Info: Name: The Ohio County Mine
 Depth: 625' - 825'
 Seam: Sewickley and Pittsburgh
 Owner: Murray American Energy & Consolidation Coal Company

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	30"	New	LS	81.3#	60'	60'	CTS
Fresh Water	20"	New	J-55	94#	900'	900'	ur 521 sx w/30' CTS
Coal	13 3/8"	New	J-55	54.5#	2111"	2111'	r 556 sx W/30' CTS
Intermediate	9 5/8"	New	CP-110	40#	9712'	9712'	rf 936 sx w/30' CTS
Production	5 1/2"	New	CP-110	23#	21,549'	21,549'	C >=200' above
Tubing	2 7/8"	New	J-55	6.5#	11,400	11,400'	
Liners							

for 6/5/18

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	30"	36"		300		Type 1	2.38 tail 521 s
Fresh Water	20"	24"	.438	2110	400	Class A	.38 Tail 556 s
Coal	13 3/8"	17.5"	.380	2730	688	Class A	2.38 Tail 556 s
Intermediate	9 5/8"	12.38"	.395	7870	3166	Class A	1.28 Tail 936 s
Production	5 1/2"	8.75"	.415	16,510	13000	Class H	.27 Tail 4714 s
Tubing	2 7/8"	5.14"	.217	10570	8000		
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED
Office of Oil and Gas
JUN 15 2018
WV Department of
Environmental Protection

WW-6B
(10/14)

API NO. 47- 051 - 02018 MWD
OPERATOR WELL NO. Casterly Rock-2,1H (CR10-11)
Well Pad Name: Casterly Rock

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

Drill the vertical depth (Pilot Hole) into the Trenton at an estimated Total vertical depth of approximately 11,595', plug back above the Point Pleasant by placing two 800' cement plugs to KOP. Drill and land well in the Point Pleasant to drill horizontal leg and TD in the same Point Pleasant formation. Should we encounter a unanticipated void we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface.

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

The stimulation will be in multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. Our maximum pressure is not to exceed 10,000 lbs.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.5 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.9 acres

23) Describe centralizer placement for each casing string:

Conductor- No centralizers used. Freshwater/Surface- Bow Spring centralizers every 3 joints to 100' from surface. 1st Intermediate - Bow Spring centralizers every 3 joints to 100' from surface. 2nd Intermediate - Bow Spring centralizers every 3 joints to 100' from surface. Production - Rigid bow springs every third joint from KOP to TOC. Rigid every joint to KOP.

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

Type 1 to Surface. Surface/Freshwater - 15.6 Class A +2% CaCl, 30% OH Excess Yield =1.18. 1st Intermediate - 15.6 ppg Class A +2% CaCl, 0.25 Lost Circ. 30% Yield =1.27. 2nd Intermediate- 2 Stage cement job with 15.4 ppg Class A lead + additives (antisetting, antifoam, fluid loss retarder, salt, dispersant) & 15.4 Class A tail with additives (antisetting, antifoam, fluid loss retarder, salt, dispersant or 12.0 Class A lead + additives (+/-5% dispersant, 10% light weight additive, 75% fluid loss additive, and 1.15% fluid loss additive, Yield=1.28) 15.4 ppg Class A Tail + additives (+/- fluid loss additive, & .5% light weight additive, Yield 1.28), 0.125#/SK lost circ 30% excess to Surface. Production- 12.5ppg Class H Lead +additives and 14.8 ppg Class H Tail + additives (antifoam, antisetting, extender,dispersant) 15%excess TOC>=200' above 9.825" shoe.

25) Proposed borehole conditioning procedures:

Conductor - The hole is drilled w/ air and casing is run on air. Apart from insuring hole is clean via air circulation at TD, there are no other conditioning procedures. Freshwater/Surface- The hole is drilled w/air or Freshwater based mud and casing is run on air. Once casing is at setting depth, fill with KCl water circulate a minimum of one hole volume prior to pumping cement. First Intermediate- Drilled on Air. Once casing is at a setting depth, circulate a minimum of one hole volume prior to pumping cement. Second Intermediate - Drilled on air. Fill with salt saturated water once drilled to TD. Once casing is at setting depth, circulate a minimum of one hole volume prior to pumping cement. Production- drilled on +/- 14.8ppg SOBMs. Once at TD, circulate at max allowable pump rate for at least 6x bottoms up. Once on bottom with casing, circulate minimum of one hole volume prior to pumping cement.

*Note: Attach additional sheets as needed.



DRILLING WELL PLAN

**Casterly Rock-2UH
Vertical Pilot, Utica HZ
Marshall Co, WV**

Horizontal Well Plan with Cemented Long String Completion

HOLE	RIG	CASING	GEOLOGY	Top TVD	MD	MUD	CEMENT	DIRECTIONAL	LOGS	BITS	COMMENTS
36"	Conductor Rig	30" 81.3# LS				AIR	To Surface	N/A	N/A		Stabilize surface fill/soil
			Conductor	60	60						
24"	Top-Hole	20" 94# J-55 BTC	Sewickley Coal	625		AIR	15.6ppg to surface 521ax w/ 30% OH excess	20" Air Hammer Totco at TD	CBL Log Cased hole NPHI, GR at Pilot TD in Pilot Well only	Carbide hammer bit	Protect fresh groundwater
			Pittsburgh Coal	825							
			Surf. Casing	960	960						
17.5"	Top-Hole	13-3/8" 54.5# J-55 BTC	Big Lime	1695	1811	AIR	15.2ppg to surface 556sx w/ 30% OH excess	Center Rock 15" Air Hammer Gyro above Coal, (Mine Approval) Totco at TD		Hammer bit w/ diamond gage Test casing to 800psi	
			Greenbrier Group	1762							
			Big Injun	1811							
			Int. Casing	2111	2111						
			Tully LS	6386							
12.375" 12.25"	Horizontal Rig	9-5/8" 43# P110-IC BTC	Hamilton	6415		AIR	15.4ppg to surface 938sx w/ 30% OH excess	12" Air Hammer Totco every 400ft	MWD surveys Mud Logger - 90 ft samples	Hammer bit w/ full face diamond Test casing to 1000psi	PU cleanout assembly, dress plug, displace to 12.0ppg SOBM, PU Curve BHA, time drill / KO cement plug. Expect Seepage in curve
			Cherry Valley	6524							
			Marcellus Shale	6526							
			Onondaga Ls	6560							
			Oriskany Sandstone	6759							
			Salina Group	7373							
			Vernon Shale	8128							
			Lockport Dolomite	8345							
			Clinton Group	9060							
			Medina Group	9132							
			Queenston Shale	9312	10112						
			Int. Casing	9712							
			Utica Shale	11212							
8.5" Curve/Lateral	Horizontal Rig	5-1/2" 23# Wedge 563 P111 Surface to LP	Point Pleasant Formation	11395		+/- 14.5 ppg SOB	14.8ppg TOC >= 200' Above 9.625 shoe 4106sx w/ 15% OH excess	6.75" PDM & MWD 2.38" ADJ Bend (10" Build DLS)	MWD Surveys Mud Logger - 30 ft samples (Curve) 90 ft samples (Lateral)	PDC 5 - 25 WOB 100 - 120 RPM 450 - 500 GPM	Geosteering
			Curve LP								
			TARGET								
			Production Casing								
8.5 Hole - Cemented Long String 5-1/2" 23# Wedge XP P110 LP to TD											
8.5" Pilot	H2T Rig	Isolation/Sidetrack Cement Plugs	Trenton Limestone			+/- 14.5 ppg SOB	17.5ppg Class H from TD to 200' above KOP (2) 800' balanced plugs w/ 2.375" tubing	8" Air Hammer Totco every 400ft	OH logs, as directed by APP Operations Dir. Surveys TD to shoe	Hammer bit w/ full face diamond	
			Pilot Hole TD	11595							
Lateral Targets	Landing Point 11395 TVD 11938 MD		90.5 degrees			9609 ft Lateral Length		90.5 Inc 325 Az		Total Depth 11395 TVD 21549 TD	

WV 51-02018



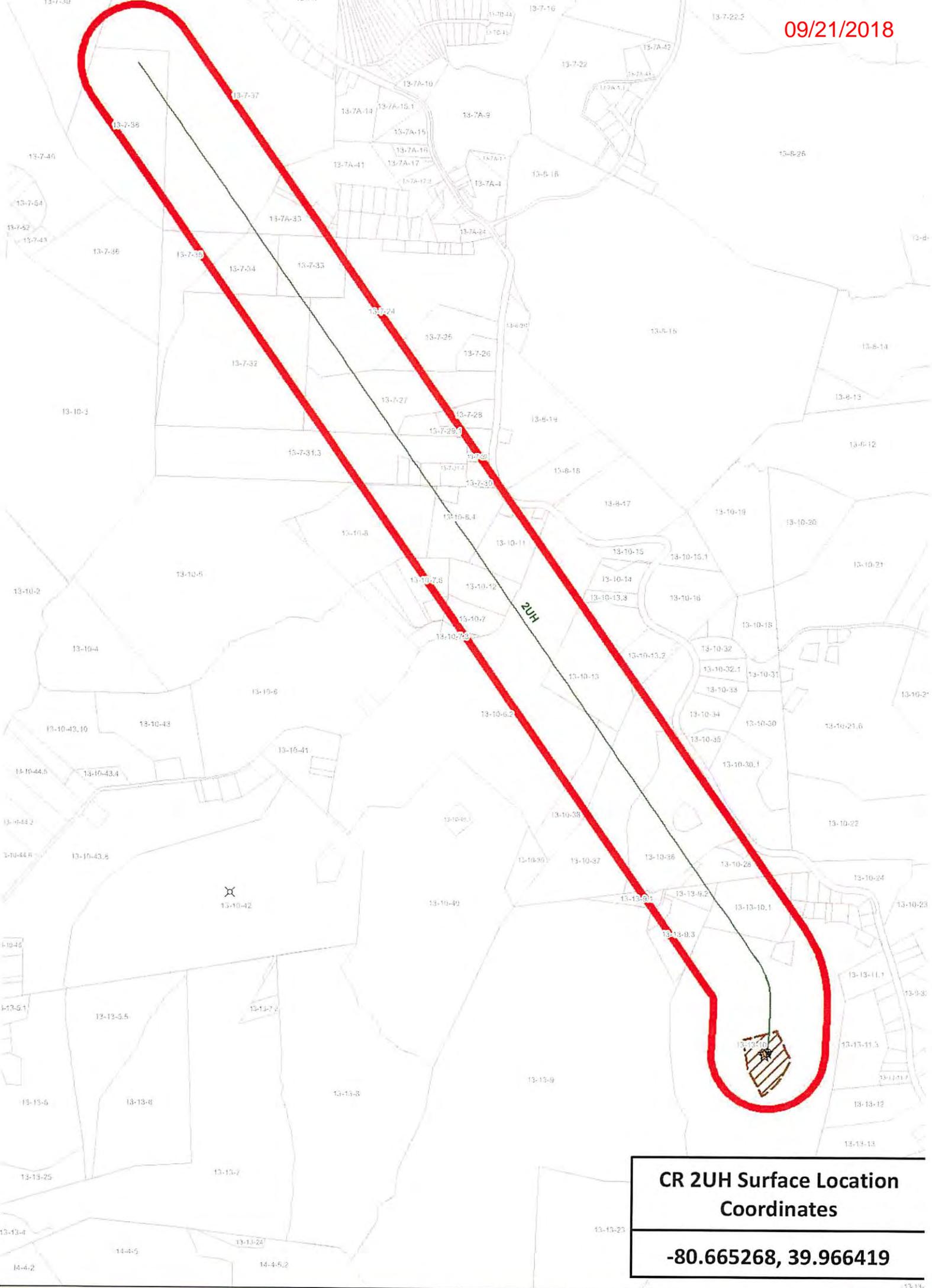
2 AREA WELLS WITHIN 500'

Both are APP wells

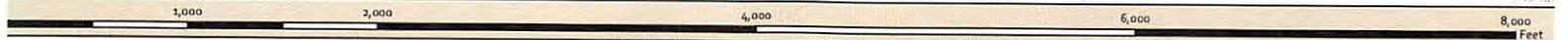
4705102018

mod

09/21/2018



CR 2UH Surface Location Coordinates
-80.665268, 39.966419



CR 2UH - All Area Wells

<p>Marshall County West Virginia</p>	<p>Coordinate System: Coordinate System: NAD 1983 UTM Zone 17N Projection: Transverse Mercator Datum: North American 1983</p>	<p>Map Scale Units: 1:12,000</p>	<p>Map Author: JKS Map Date: 5/2/2018</p>	<p>Well SHL Well Pad Laterals</p>	<p>500' buffer Parcels</p>	<p>Other Abandoned Well Active Well Marcellus Permit</p>	<p>Marcellus Well Permit / Future Use Plugged</p>	<p>Shutin Utica Permit Utica Well</p>	
---	---	--	--	--	---	---	--	--	--



51-02018
MOJ

09/21/2018

795'

**CR 2UH Surface Location
Coordinates**

-80.665268, 39.966419

Credit:
- Mine data courtesy of WV Department of Environmental Protection and Murray Energy Corporation

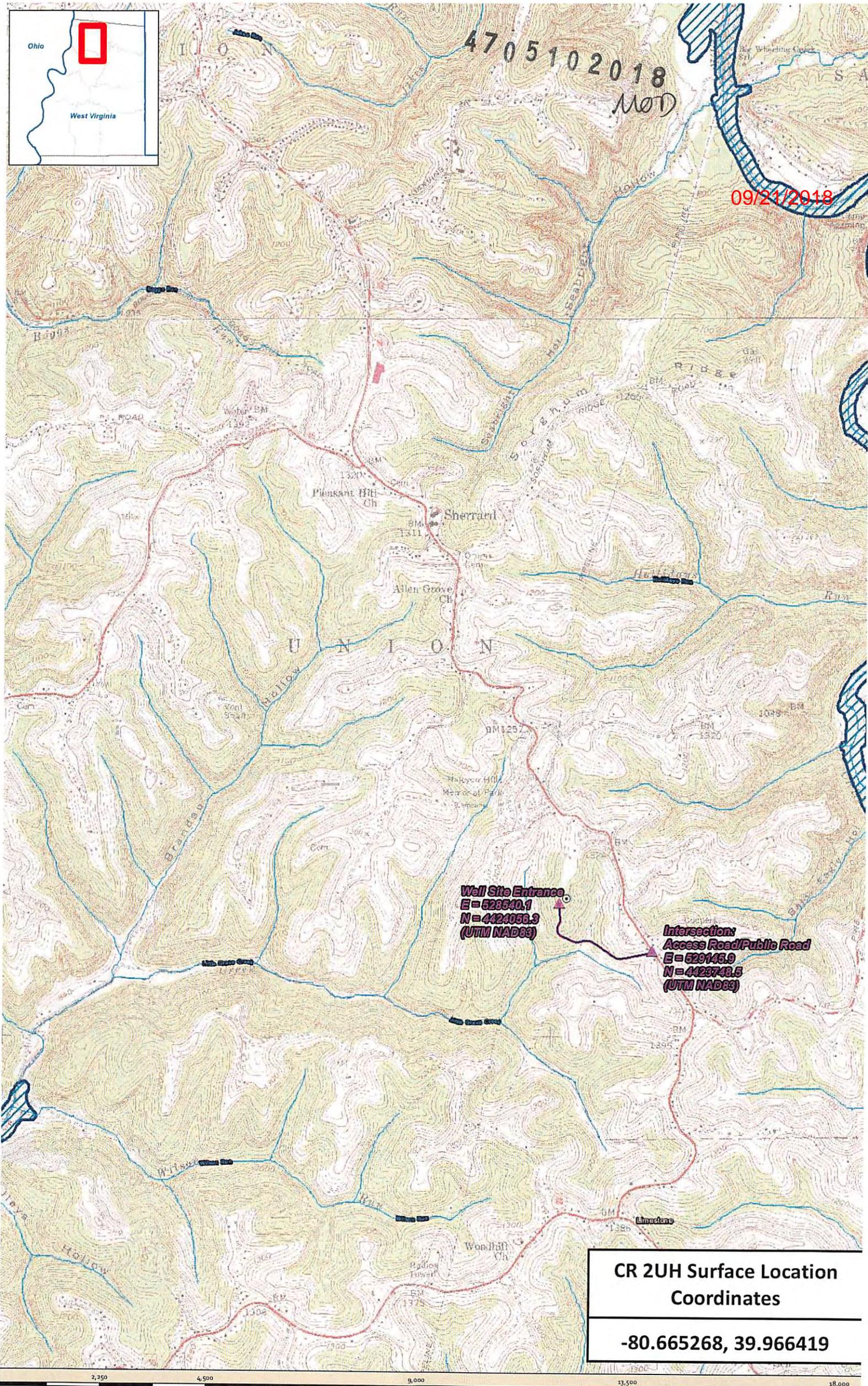


CR 2UH - Coal Areas

Marshall County West Virginia
Coordinate System: Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Map Scale Units: 1:3,600
Map Author: JKS
Map Date: 02/2018

- Well SHL
- Approximate Well to Coal length
- Coal Pillars





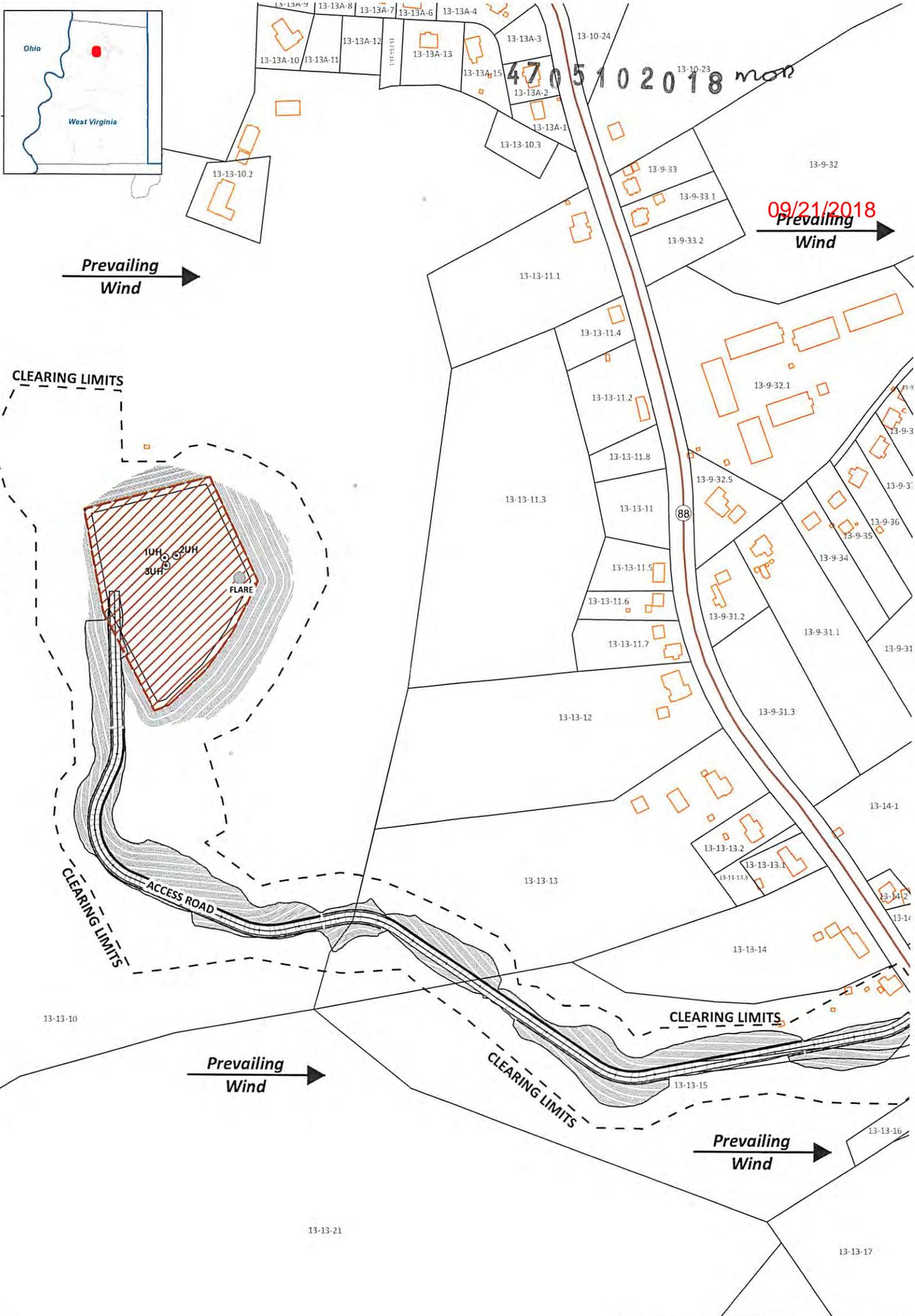
CR 2UH Surface Location Coordinates

-80.665268, 39.966419

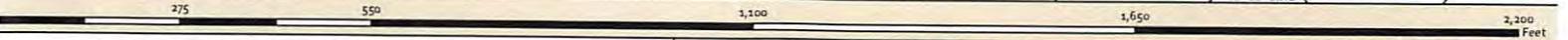
CR 2UH - Floodplain

Marshall County West Virginia
 Coordinate System: NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983
 Map Scale Units: 1:27,000
 Map Author: JKS
 Map Date: 5/20/2018

Well SHL	Access Rd Intersection	Streams
Unit	Access Road	Floodplain



CR 2UH Surface Location Coordinates
-80.665268, 39.966419



CR 2UH - Plan View

Marshall County West Virginia
 Coordinate System: NAD 1983 UTM Zone 17N
 Projection: Transverse Mercator
 Datum: North American 1983
 Map Scale Units: 1:3,300
 Map Author: JKS
 Map Date: 5/20/2018

- Well SHL
- Well Pad
- State Route
- Building





- ▲ Church
- Ⓜ Hospital
- ▣ Public Building
- 🎓 School

CR 2UH Surface Location Coordinates

-80.665268, 39.966419



CR 2UH - Site Evacuation Plan

Marshall County West Virginia	Coordinate System: Coordinate System: NAD 1983 UTM Zone 17N Projection: Transverse Mercator Datum: North American 1983	Map Scale Units: 1:18,000 1 inch = 150 feet	Map Author: JKS Map Date: 5/20/2018	Well SHL Well Pad 1 mile buffer Access Road	Interstate US Route State Route County Road
----------------------------------	---	---	--	--	--

SITE EVACUATION ROUTE DIRECTIONS
Casterly Rock North Well Pad

Exit the Pad Site heading South via the Access Road. Travel 0.54 Miles down Access Road to Intersection of Access Road and WV Highway 88



WW-6A1
(5/13)

Operator's Well No. Casterly Rock-2UH (CRN2-UH)

**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 09/21/2018

- (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
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

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: American Petroleum Partners Operating, LLC
 By: Braulio Silva 
 Its: Vice President-Drilling

Well is located on topo map 12,233 feet south of Latitude: 40° 00' 00"



1712 Mount Nebo Road Phone: 412-219-4509
Sewickley, PA 15143 Email: Info@shefflerCo.com

Well is located on topo map 11,287

feet west of Longitude: 80° 37' 30"

DETAIL 3

BOTTOM HOLE LOCATION

PROPOSED LATERAL LENGTH = 9,613' ±

DETAIL 2

LEGEND

- TOPO MAP POINT
- PROPOSED WELL
- PRIVATE WATER WELL
- SPRING LOCATION
- LEASED NUMBER BASED ON ATTACHED WMAA1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- UNIT BOUNDARY
- PARCEL LINES
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM/POND/WATERWAY
- ROAD
- FORCE PULLED PARCELS

WELLS WITHIN 3000'
NO WELLS WITHIN 3000 FEET

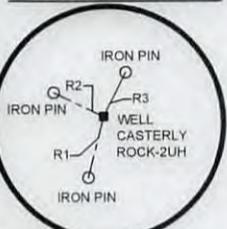
09/21/2018

NOTES

- 1 There are no water wells or developed springs within 250' of proposed well
- 2 There are no existing buildings within 625' of proposed well
- 3 Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake
- 4 There are no native trout streams within 300' of proposed well
- 5 Proposed well is greater than 1000' from surface/groundwater intake or public water supply
- 6 It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted
- 7 Mineral and Surface parcel lines are the same

TOTAL UNIT
219.29 ACRES

REFERENCE DETAIL



LINE	BEARING	DISTANCE
R1	N14°15'54"E	407.06'
R2	S84°34'35"E	362.45'
R3	S26°41'35"W	321.87'
R4	S19°25'31"W	1248.90'
R5	S86°23'01"W	1047.89'

SURFACE HOLE LOCATION (SHL)
UTM 17 - NAD83
N: 4424083.647(m)
E: 528586.605(m)
NAD27, WV NORTH
N: 536202.032(ft)
E: 1673333.321(ft)
LAT: N39.9664185
LON: W80.6652685

APPROXIMATE LANDING POINT
UTM 17 - NAD83
N: 4424326.266(m)
E: 528559.808(m)
NAD27, WV NORTH
N: 536999.666(ft)
E: 1673258.691(ft)
LAT: N39.9686053
LON: W80.6655716

BOTTOM HOLE LOCATION (BHL)
UTM 17 - NAD83
N: 4426725.580(m)
E: 526879.790(m)
NAD27, WV NORTH
N: 544965.377(ft)
E: 1667877.387(ft)
LAT: N39.9902775
LON: W80.6851447

FILE #: CASTERLY ROCK-2UH
DRAWING #: CRN-2UH_REV3.DWG
SCALE: 1"=2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: USGS MONUMENT JX0787: 1319.9'

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]
R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

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

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'
COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75
OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010 AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

DATE: May 22, 2018 --- REV --- June 15, 2018
OPERATOR'S WELL #: CASTERLY ROCK-2UH MOD
API WELL # 47 051 02018H6A
STATE COUNTY PERMIT

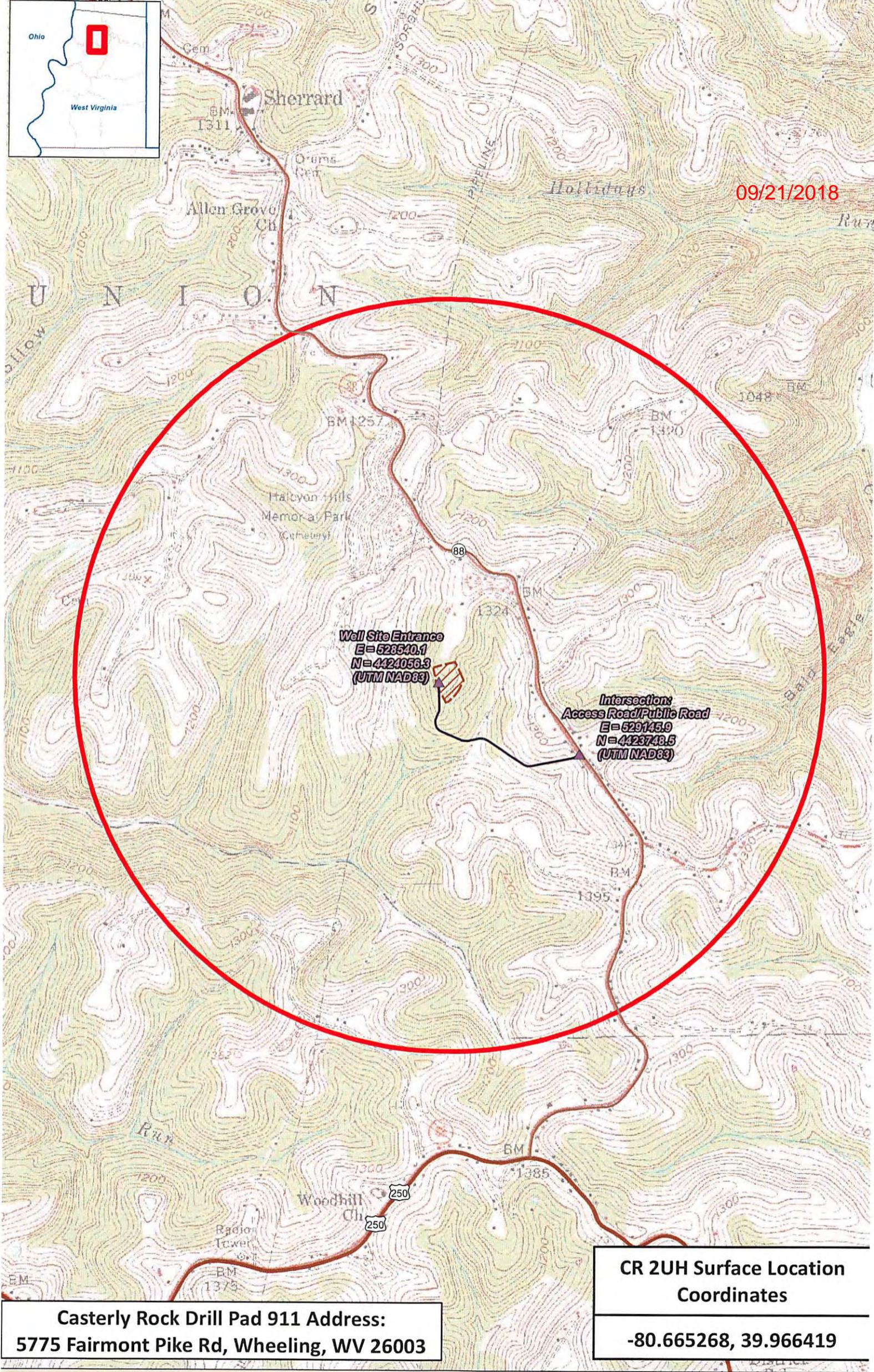


DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±
WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN
Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



09/21/2018

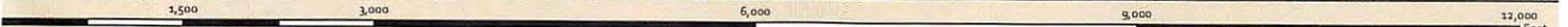


Well Site Entrance
E = 528540.1
N = 4424056.3
(UTM NAD83)

**Intersection:
Access Road/Public Road**
E = 529145.9
N = 4423748.5
(UTM NAD83)

Casterly Rock Drill Pad 911 Address:
5775 Fairmont Pike Rd, Wheeling, WV 26003

**CR 2UH Surface Location
Coordinates**
-80.665268, 39.966419



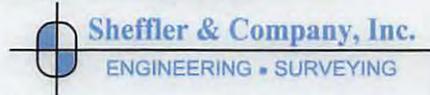
CR 2UH - Well Site

Marshall County West Virginia
Coordinate System: Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Map Scale Units: 1:18,000
Map Author: JKS
Map Date: 9/21/2018

- Well SHL
- Well Pad
- 1 mile Buffer
- Access Rd Intersection
- Access Road
- US Route
- State Route



Well is located on topo map 3.542 feet south of Latitude: 40° 00' 00"



1712 Mount Nebo Road Phone: 412-219-4509
Sewickley, PA 15143 Email: Info@shefflerCo.com

Well is located on topo map 5.177 feet west of Longitude: 80° 40' 00"

09/21/2018



FILE #: CASTERLY ROCK-2UH
DRAWING #: CRN-2UH_REV3.DWG
SCALE: 1"=2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: USGS MONUMENT JX0787 - 1319.9'

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]
R.P.E.: 21452 L.L.S.: P.S. NO. _____



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018
OPERATOR'S WELL #: CASTERLY ROCK-2UH M017
API WELL # 47 051 02018H6A
STATE COUNTY PERMIT

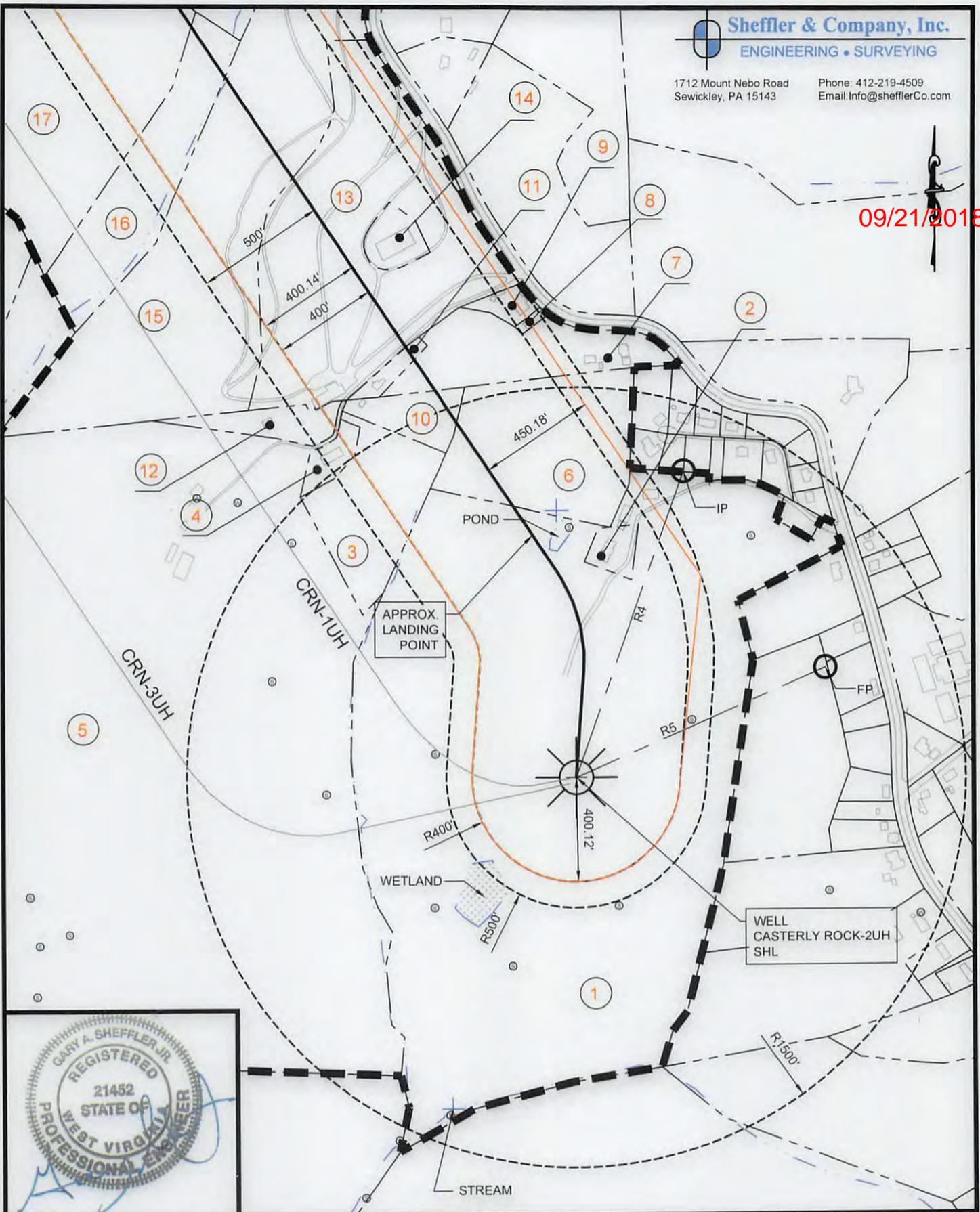
Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'
COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75
OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010 AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±
WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN
Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

09/21/2018



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304
Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

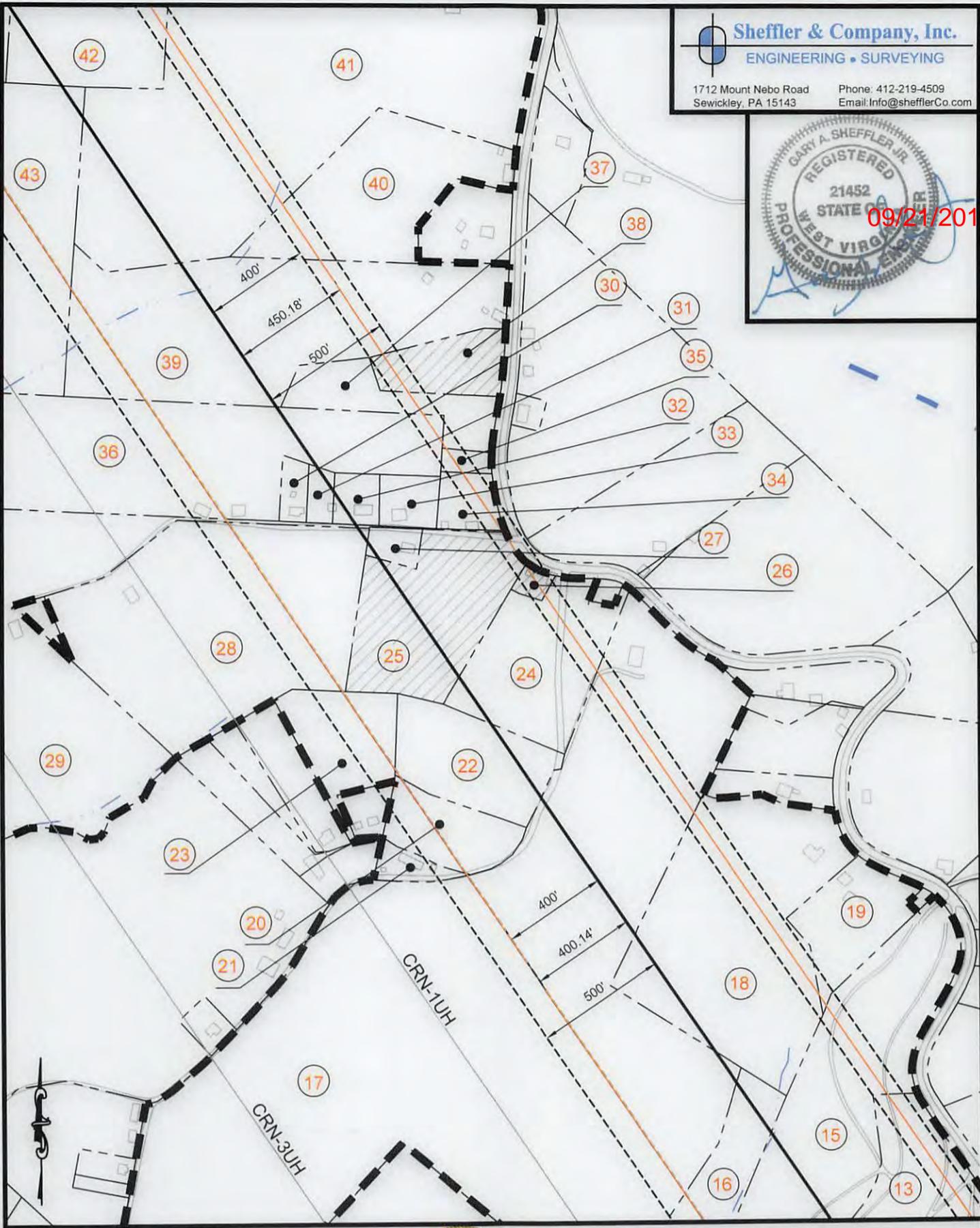


DATE: May 22, 2018 --- REV --- June 15, 2018
OPERATOR'S WELL #: CASTERLY ROCK-2UH **17150**
API WELL # 47 051 **02018 H6A**
STATE COUNTY PERMIT

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'
COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDVILLE, WV
SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75
OIL & GAS ROYALTY OWNER: CAROLA A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010
AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±
WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN
Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018
 OPERATOR'S WELL #: CASTERLY ROCK-2UH MOD
 API WELL # 47 051 020184A
 STATE COUNTY PERMIT

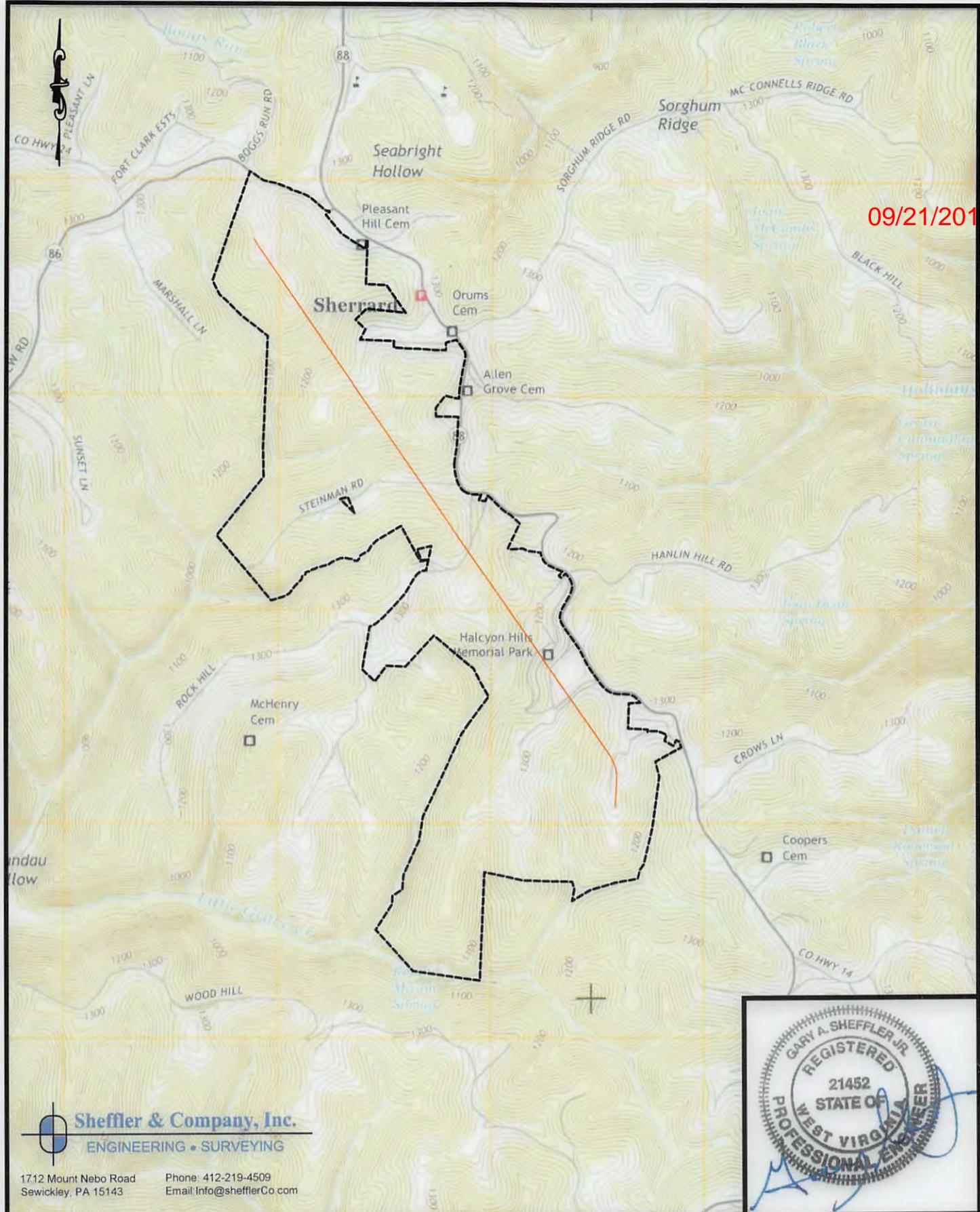
Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'
 COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV
 SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75
 OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010 AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±
 WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN
 Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
 City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

09/21/2018



Sheffler & Company, Inc.
ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509
Sewickley, PA 15143 Email: info@shefflerco.com



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018

OPERATOR'S WELL #: CASTERLY ROCK-2UH 1000

API WELL # 47 051 02018 H6A
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'

COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDVILLE, WV

SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75

OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010 AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

09/21/2018

- | | | |
|---|--|---|
| <p>① TAX MAP NO.
13-0013-0010-0000-0000
ASSESSED ACREAGE = 73.79</p> <p><u>SURFACE OWNER:</u>
SCHABER, LESLIE B. & LORI D.</p> <p><u>MINERAL OWNER:</u>
CAROL A. WENSYEL A/K/A CAROL A. MILLER,
ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL
IRREVOCABLE TRUST DATED OCTOBER 28, 2010</p> <p>JOHN F. MILLER, SR. TRUSTEE OF THE
JOHN F. MILLER, SR. IRREVOCABLE
TRUST, DATED OCTOBER 28, 2010</p> | <p>② TAX MAP NO.
13-0010-0028-0001-0000
ASSESSED ACREAGE = 0.17</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CHRISTOPHER B. WEBER, CINDY A. DAYTON,
LOIS A. WEBER, ROBERT W. WEBER II</p> | <p>③ TAX MAP NO.
13-0010-0013-0000-0000
ASSESSED ACREAGE = 14.54</p> <p><u>SURFACE & MINERAL OWNERS:</u>
JEFFERY J. & STACIE L. KOONTZ</p> |
| <p>④ TAX MAP NO.
13-0013-0010-0002-0000
ASSESSED ACREAGE = 0.68</p> <p><u>SURFACE OWNER:</u>
SCHABER, LESLIE B. & LORI D.</p> <p><u>MINERAL OWNER:</u>
CAROL A. WENSYEL A/K/A CAROL A. MILLER,
ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL
IRREVOCABLE TRUST DATED OCTOBER 28, 2010</p> <p>JOHN F. MILLER, SR. TRUSTEE OF THE
JOHN F. MILLER, SR. IRREVOCABLE
TRUST, DATED OCTOBER 28, 2010</p> | <p>⑤ TAX MAP NO.
13-0010-0029-0000-0000
ASSESSED ACREAGE = 0.57</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CHRISTOPHER B. WEBER, CINDY A. DAYTON,
LOIS A. WEBER, ROBERT W. WEBER II</p> | <p>⑥ TAX MAP NO.
13-0010-0013-0002-0000
ASSESSED ACREAGE = 3.5</p> <p><u>SURFACE OWNER:</u>
DUKE, JAMES W., ET UX.</p> <p><u>MINERAL OWNERS:</u>
JEFFERY J. KOONTZ</p> |
| <p>⑦ TAX MAP NO.
13-0013-0009-0003-0000
ASSESSED ACREAGE = 4.76</p> <p><u>SURFACE & MINERAL OWNERS:</u>
JOHN E. KOCH AND
BARBARA A. KOCH</p> | <p>⑧ TAX MAP NO.
13-0013-0009-0002-0000
ASSESSED ACREAGE = 1.50</p> <p><u>SURFACE & MINERAL OWNERS:</u>
KOCH, JOHN E. & BARBARA A.</p> | <p>⑨ TAX MAP NO.
13-0010-0007-0000-0000
ASSESSED ACREAGE = 4.12</p> <p><u>SURFACE & MINERAL OWNERS:</u>
DREW S. & REBECCA A. BECKETT</p> |
| <p>⑩ TAX MAP NO.
13-0013-0009-0004-0000
ASSESSED ACREAGE = 0.66</p> <p><u>SURFACE & MINERAL OWNERS:</u>
JOHN E. KOCH AND
BARBARA A. KOCH</p> | <p>⑪ TAX MAP NO.
13-0010-0027-0000-0000
ASSESSED ACREAGE = 0.47</p> <p><u>SURFACE & MINERAL OWNERS:</u>
BLATT FAMILY, LLC.</p> | <p>⑫ TAX MAP NO.
13-0010-0007-0003-0000
ASSESSED ACREAGE = 0.49</p> <p><u>SURFACE OWNERS:</u>
DEREK M. & ANGELA M. SALATINO</p> <p><u>MINERAL OWNERS:</u>
ROBERT LEROY STRAIT JR. AND
DIANE MARY STRAIT</p> |
| <p>⑬ TAX MAP NO.
13-0013-0009-0000-0000
ASSESSED ACREAGE = 156.14</p> <p><u>SURFACE & MINERAL OWNERS:</u>
HELLER, EDGAR</p> | <p>⑭ TAX MAP NO.
13-0013-0009-0001-0000
ASSESSED ACREAGE = 1.40</p> <p><u>SURFACE & MINERAL OWNERS:</u>
ALTMeyer FUNERAL HOMES, INC.</p> | <p>⑬ TAX MAP NO.
13-0010-0012-0000-0000
ASSESSED ACREAGE = 4.41</p> <p><u>SURFACE & MINERAL OWNER:</u>
RANDOLPH, PEARLY D.</p> |
| <p>⑮ TAX MAP NO.
13-0013-0010-0001-0000
ASSESSED ACREAGE = 8.70</p> <p><u>SURFACE OWNER:</u>
SCHABER, LESLIE B. & LORI D.</p> <p><u>MINERAL OWNER:</u>
CAROL A. WENSYEL A/K/A CAROL A. MILLER,
ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL
IRREVOCABLE TRUST DATED OCTOBER 28, 2010</p> <p>JOHN F. MILLER, SR. TRUSTEE OF THE
JOHN F. MILLER, SR. IRREVOCABLE
TRUST, DATED OCTOBER 28, 2010</p> | <p>⑯ TAX MAP NO.
13-0010-0036-0000-0000
ASSESSED ACREAGE = 19.28</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CORNERSTONE FAMILY SERVICES
OF WEST VIRGINIA, LLC.</p> | <p>⑭ TAX MAP NO.
13-0010-0007-0006-0000
ASSESSED ACREAGE = 3.37</p> <p><u>SURFACE OWNERS:</u>
PEGG, RICHARD, ET UX.</p> <p><u>MINERAL OWNERS:</u>
JUDITH EVELYN PEGG</p> |
| <p>⑰ TAX MAP NO.
13-0013-0010-0001-0000
ASSESSED ACREAGE = 5.14</p> <p><u>SURFACE & MINERAL OWNERS:</u>
DAVID A. MARSH AND JANE ELLEN
MARSH</p> | <p>⑰ TAX MAP NO.
13-0010-0036-0001-0000
ASSESSED ACREAGE = 0.91</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CORNERSTONE FAMILY SERVICES
OF WEST VIRGINIA, LLC.</p> | <p>⑮ TAX MAP NO.
13-0010-0011-0000-0000
ASSESSED ACREAGE = 5.35</p> <p><u>SURFACE & MINERAL OWNERS:</u>
PAULOVICKS, JAY EDWARD, ET UX.</p> |
| <p>⑱ TAX MAP NO.
13-0010-0037-0000-0000
ASSESSED ACREAGE = 25.00</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CORNERSTONE FAMILY SERVICES
OF WEST VIRGINIA, LLC.</p> | <p>⑱ TAX MAP NO.
13-0010-0038-0000-0000
ASSESSED ACREAGE = 6.40</p> <p><u>SURFACE & MINERAL OWNERS:</u>
CORNERSTONE FAMILY SERVICES
OF WEST VIRGINIA, LLC.</p> | <p>⑯ TAX MAP NO.
13-0010-0008-0004-0000
ASSESSED ACREAGE = 7.04</p> <p><u>SURFACE OWNERS:</u>
CLARK, RYAN M.</p> <p><u>MINERAL OWNERS:</u>
ANA S. GILMORE, CHARLES C. GILMORE,
DAVID L. GILMORE, DONALD W. GILMORE,
LARSON CRANE GILMORE, MARIANNE PHILLIPS,
MARK C. WILSON, RONALD C. WILSON,
SHARON E. GILMORE, SYLVIA M. JEFFERIES</p> |
| <p>⑲ TAX MAP NO.
13-0010-0028-0000-0000
ASSESSED ACREAGE = 5.14</p> <p><u>SURFACE & MINERAL OWNERS:</u>
DAVID A. MARSH AND JANE ELLEN
MARSH</p> | <p>⑲ TAX MAP NO.
13-0010-0008-0002-0000
ASSESSED ACREAGE = 72.18</p> <p><u>SURFACE & MINERAL OWNERS:</u>
RANDOLPH, ROBERT A.</p> | <p>⑰ TAX MAP NO.
13-0010-0009-0000-0000
ASSESSED ACREAGE = 0.39</p> <p><u>SURFACE OWNERS:</u>
CLARK, RYAN M.</p> <p><u>MINERAL OWNERS:</u>
ANA S. GILMORE, CHARLES C. GILMORE,
DAVID L. GILMORE, DONALD W. GILMORE,
LARSON CRANE GILMORE, MARIANNE PHILLIPS,
MARK C. WILSON, RONALD C. WILSON,
SHARON E. GILMORE, SYLVIA M. JEFFERIES</p> |

(+) DENOTES LOCATION OF
WELL ON UNITED STATES
TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018

OPERATOR'S WELL #: CASTERLY ROCK-2UH *M01*

API WELL # 47 051 *D2018H6A*
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'

COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75

OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010
AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010, TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

37 TAX MAP NO.
13-0010-0008-0003-0000
ASSESSED ACREAGE = 0.60
SURFACE & MINERAL OWNERS:
ANDENORO, JOHN J. JR., ET UX.

38 TAX MAP NO.
13-0007-0031-0003-0000
ASSESSED ACREAGE = 24.56
SURFACE & MINERAL OWNERS
PARSONS, CLARENCE E., ET UX.

43 TAX MAP NO.
13-0007-0032-0000-0000
ASSESSED ACREAGE = 32.90
SURFACE OWNERS:
MERINAR & KOONTZ CO.

09/21/2018

39 TAX MAP NO.
13-0010-0008-0000-0000
ASSESSED ACREAGE = 17.05
SURFACE & MINERAL OWNERS:
KUDLAK, JAMES K. & LORI.

37 TAX MAP NO.
13-0007-0029-0001-0000
ASSESSED ACREAGE = 2.79

SURFACE OWNERS:
PRETTYMAN, MARY ELIZABETH EST.

MINERAL OWNERS:
KAREN G. RUNKLE
TEXANNA G. NICKERSON

MINERAL OWNERS:
MERINER & KOONTZ CO. D/B/A
A-1 AUTO PARTS

32 TAX MAP NO.
13-0010-0005-0000-0000
ASSESSED ACREAGE = 66.00

SURFACE OWNERS:
MCCABE FAMILY TRUST

MINERAL OWNERS:
RESOURCE MINERALS
HEADWATER I, LP
DOGWOOD ACRES, LLC.

44 TAX MAP NO.
13-0007-0034-0000-0000
ASSESSED ACREAGE = 6.87

SURFACE & MINERAL OWNERS:
KAHLBAUGH, DAVID W. & DELORES

30 TAX MAP NO.
13-0007-0031-0001-0000
ASSESSED ACREAGE = 0.54

SURFACE & MINERAL OWNERS:
PEGG, JUDITH ANN

38 TAX MAP NO.
13-0007-0028-0000-0000
ASSESSED ACREAGE = 2.43

SURFACE & MINERAL OWNERS:
WILSON, SAMUEL HEIRS

31 TAX MAP NO.
13-0007-0031-0002-0000
ASSESSED ACREAGE = 0.47

SURFACE OWNERS:
PEGG, LARRY THOMAS & VICKIE LOUISE

MINERAL OWNERS:
JUDITH A. PEGG (ESTATE)
LARRY THOMAS & VICKIE LOUISE PEGG
(REMAINDERMAN)

39 TAX MAP NO.
13-0007-0027-0000-0000
ASSESSED ACREAGE = 16.93

SURFACE OWNERS:
BLACK, ERNEST E. - LIFE

MINERAL OWNERS:
ERNEST ELLSWORTH BLACK (LIFE ESTATE)
SCOTT A. BLACK (REMAINDERMAN)
TIMOTHY JON BLACK (REMAINDERMAN)

45 TAX MAP NO.
13-0007-0035-0000-0000
ASSESSED ACREAGE = 9.06

SURFACE & MINERAL OWNERS:
GAMBLE, ESTHER M.

32 TAX MAP NO.
13-0007-0031-0000-0000
ASSESSED ACREAGE = 0.79

SURFACE OWNERS:
PEGG, LARRY THOMAS & VICKIE LOUISE

MINERAL OWNERS:
JUDITH A. PEGG (ESTATE)
LARRY THOMAS & VICKIE LOUISE PEGG
(REMAINDERMAN)

40 TAX MAP NO.
13-0007-0025-0000-0000
ASSESSED ACREAGE = 8.14

SURFACE & MINERAL OWNERS:
KAHLBAUGH, DAVID W.

46 TAX MAP NO.
13-0007A-0034-0000-0000
ASSESSED ACREAGE = 0.77

SURFACE OWNERS:
RAMSER FAMILY IRREVOCABLE TRUST

MINERAL OWNERS:
ANDREA L. CAMPIONE, TRUSTEE,
OR HER SUCCESSOR IN TRUST UNDER
RAMSER FAMILY IRREVOCABLE TRUST
DATED DECEMBER 18, 2002

35 TAX MAP NO.
13-0007-0031-0004-0000
ASSESSED ACREAGE = 1.02

SURFACE OWNERS:
BORAM, BRENT A., ET UX.

MINERAL OWNERS:
AMY S. BORAM

41 TAX MAP NO.
13-0007-0024-0000-0000
ASSESSED ACREAGE = 30.29

SURFACE & MINERAL OWNERS:
KAHLBAUGH, DAVID W. & DELORES

34 TAX MAP NO.
13-0007-0030-0000-0000
ASSESSED ACREAGE = 1.14

SURFACE & MINERAL OWNERS:
EDISON, MARK C. & LOIS ANN

36 TAX MAP NO.
13-0007-0029-0000-0000
ASSESSED ACREAGE = 0.39

SURFACE & MINERAL OWNERS:
ESTEP, MARK & TANITA

42 TAX MAP NO.
13-0007-0033-0000-0000
ASSESSED ACREAGE = 6.87

SURFACE OWNERS:
MERINAR & KOONTZ CO.

MINERAL OWNERS:
MERINER & KOONTZ CO. D/B/A
A-1 AUTO PARTS

(+) DENOTES LOCATION OF
WELL ON UNITED STATES
TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018

OPERATOR'S WELL #: CASTERLY ROCK-2UH MOD

API WELL # 47 051 02018 H6A
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER

ELEVATION: 1,337.89'

COUNTY/DISTRICT: MARSHALL / UNION

QUADRANGLE: MOUNDVILLE, WV

SURFACE OWNER: LESLIE B. & LORI D. SCHABER

ACREAGE: 71.75

OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010
AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010. TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT

ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC

DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310

Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317

City CHARLESTON State WV Zip Code 25301

09/21/2018

47 TAX MAP NO.
13-0007A-0041-0000-0000
ASSESSED ACREAGE = 14.00

SURFACE OWNERS:
GAMBLE, REBECCA C. EST.

MINERAL OWNERS:
SHELLEY L. TUSKEY
CHARLES RAY MEREDITH
AMY J. GAMBLE
DOUGLAS I. GAMBLE
SHERRY L. GAMBLE
DONNA S. KIRCH
KATHRYN J. MERCURIO
MARTHA ANN MIGLIORINI
CYNTHIA M. GAMBLE

48 TAX MAP NO.
13-0007A-0033-0000-0000
ASSESSED ACREAGE = 4.00

SURFACE & MINERAL OWNERS:
ARCHBOLD, JAMES W., ET UX.

49 TAX MAP NO.
13-0007-0037-0000-0000
ASSESSED ACREAGE = 67.28

SURFACE OWNERS:
CALDWELL, JANICE ANN - LIFE

MINERAL OWNERS:
CHARLES W. CALDWELL
RICHARD J. CALDWELL
CHRISTIAN A. CALDWELL

50 TAX MAP NO.
13-0007-0038-0000-0000
ASSESSED ACREAGE = 20.00

SURFACE OWNERS:
CALDWELL, JANICE ANN - LIFE

MINERAL OWNERS:
CHARLES W. CALDWELL
RICHARD J. CALDWELL
CHRISTIAN A. CALDWELL

(+) DENOTES LOCATION OF
WELL ON UNITED STATES
TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: May 22, 2018 --- REV --- June 15, 2018
OPERATOR'S WELL #: CASTERLY ROCK-2UH MOD
API WELL # 47 051 02D18H6A
STATE COUNTY PERMIT

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

WATERSHED: SHORT CREEK - OHIO RIVER ELEVATION: 1,337.89'
COUNTY/DISTRICT: MARSHALL / UNION QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER: LESLIE B. & LORI D. SCHABER ACREAGE: 71.75
OIL & GAS ROYALTY OWNER: CAROL A. WENSYEL A/K/A CAROL A. MILLER, ACTING AS TRUSTEE FOR THE CAROL A. WENSYEL IRREVOCABLE TRUST DATED OCTOBER 28, 2010
AND JOHN F. MILLER, SR. TRUSTEE OF THE JOHN F. MILLER, SR. IRREVOCABLE TRUST, DATED OCTOBER 28, 2010, TRUST ACREAGE: 73.74

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

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 21,549.28' ±
WELL OPERATOR: AMERICAN PETROLEUM PARTNERS, LLC DESIGNATED AGENT: STEVEN GREEN
Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

CRN 2UH - Wellbore Tracts

	LEASE #	LESSOR	CURRENT LESSEE	ROYALTY	MOL RECORDING INFORMATION	TAX PARCEL
1 ✓	WV-MAR-0685	Carol A. Wensyel a/k/a Carol A. Miller, acting as Trustee for the Carol A. Wensyel Irrevocable Trust dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	773/596; 777/21	13-13-10
1 ✓	WV-MAR-0686	John F. Miller, Sr. Trustee of the John F. Miller, Sr. Irrevocable Trust, dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	777/30	13-13-10
6 ✓	WV-MAR-0685	Carol A. Wensyel a/k/a Carol A. Miller, acting as Trustee for the Carol A. Wensyel Irrevocable Trust dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	773/596; 777/21	13-13-10.1
6 ✓	WV-MAR-0686	John F. Miller, Sr. Trustee of the John F. Miller, Sr. Irrevocable Trust, dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	777/30	13-13-10.1
7 ↓	WV-MAR-0178	David A. Marsh and Jane Ellen Marsh	American Petroleum Partners Operating, LLC	Not less than 1/8	862/463	13-10-28
10 ↓	WV-MAR-0723	John E. Koch and Barbara A. Koch	American Petroleum Partners Operating, LLC	Not less than 1/8	835/232	13-13-9.2
11 ↓	Pending	Blatt Family LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	865/400	13-10-27
13 ↓	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-36

4705102018
 WVD

15 ✓	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-37
16 ✓	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-38
17 ✓	Pending	Robert A. Randolph	American Petroleum Partners Operating, LLC	Not less than 1/8	721/219	13-10-6.2
18 ✓	Pending	Jeffery J. Koontz and Stacie L. Koontz	American Petroleum Partners Operating, LLC	Not less than 1/8	702/456	13-10-13
22 ✓	WV-MAR-0329	Pearly D. Randolph	American Petroleum Partners Operating, LLC	Not less than 1/8	919/391	13-10-12
24 ✓	WV-MAR-1043	Jay Edward Paulovicks and Nancy K. Paulovicks	American Petroleum Partners Operating, LLC	Not less than 1/8	969/551	13-10-11
25 ✓	Pending	Ana S. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	881/136	13-10-8.4
25 ✓	Pending	Charles C. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/210	13-10-8.4
25 ✓	Pending	David L. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/204	13-10-8.4
25 ✓	Pending	Donald W. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	873/68	13-10-8.4
25 ✓		Larson Crane Gilmore	Larson Crane Gilmore	Not less than 1/8		13-10-8.4
25 ✓	Pending	Marianne Philipps	American Petroleum Partners Operating, LLC	Not less than 1/8	877/213	13-10-8.4
25 ✓	Pending	Mark C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	879/311	13-10-8.4
25 ✓	Pending	Ronald C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	873/510	13-10-8.4
25 ✓	Pending	Sharon E. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/207	13-10-8.4
25 ✓		Sylvia M. Jefferies	Sylvia M. Jefferies	Not less than 1/8		13-10-8.4
27 ✓	Pending	John J. Andenoro Jr. and Janice K. Andenoro	American Petroleum Partners Operating, LLC	Not less than 1/8	725/226	13-10-8.3
31 ✓	Pending	Judith A. Pegg (Life Estate)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31.2

4705102018
mop

31 ✓	Pending	Larry Thomas Pegg and Vickie Louise Pegg (Remainderman)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31.2
32 /	Pending	Judith A. Pegg (Life Estate)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31
32 ✓	Pending	Larry Thomas Pegg and Vickie Louise Pegg (Remainderman)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31
36 ✓	WV-MAR-0147	Clarence Edward Parsons and Deanna Kay Parsons	American Petroleum Partners Operating, LLC	Not less than 1/8	827/136	13-7-31.3
39 ✓	WV-MAR-0327	Ernest Ellsworth Black, life estate; Scott A. Black, remainderman; Timothy Jon Black, remainderman	American Petroleum Partners Operating, LLC	Not less than 1/8	917/24	13-7-27
41 ✓	WV-MAR-0197	David W. Kahlbaugh and Delores J. Kahlbaugh	American Petroleum Partners Operating, LLC	Not less than 1/8	911/511	13-7-24
42 ✓	WV-MAR-0033	Merinar and Koontz Co. d/b/a A-1 Auto Parts	American Petroleum Partners Operating, LLC	Not less than 1/8	822/198	13-7-33
43 ✓	WV-MAR-0033	Merinar and Koontz Co. d/b/a A-1 Auto Parts	American Petroleum Partners Operating, LLC	Not less than 1/8	822/198	13-7-32
44 ✓	WV-MAR-0197	David W. Kahlbaugh and Delores J. Kahlbaugh	American Petroleum Partners Operating, LLC	Not less than 1/8	911/511	13-7-34
48 ✓	Pending	James Archbold and Denise Archbold	American Petroleum Partners Operating, LLC	Not less than 1/8	720/580	13-7A-33
49 ✓	WV-MAR-0646	Charles W. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/58	13-7-37
49 ✓	WV-MAR-0647	Richard J. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/63	13-7-37
49 ✓	WV-MAR-0648	Christian A. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/68	13-7-37
50 ✓	WV-MAR-0646	Charles W. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/58	13-7-38
50 ✓	WV-MAR-0647	Richard J. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/63	13-7-38

4705102018
 mad

50 ✓	WV-MAR-0648	Christian A. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/68	13-7-38
------	-------------	-----------------------	---	-------------------	--------	---------

Note: The parcels that say pending were acquired in trades from other operators (the assignments are recorded in Marshall County Courthouse). Internally they haven't been assigned a Lease No. yet is why they are listed as pending.

Note: The parcels that have no lease number or recording information we will be pursuing force pooling procedures. Attempts were made on 13-10-8.4 to contact the owners to sign leases.

4705102018
WV

CRN 2UH - 400' Buffer Tracts

	LEASE #	LESSOR	CURRENT LESSEE	ROYALTY	MOL RECORDING INFORMATION	TAX PARCEL
1	WV-MAR-0685	Carol A. Wensyel a/k/a Carol A. Miller, acting as Trustee for the Carol A. Wensyel Irrevocable Trust dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	773/596; 777/21	13-13-10
1	WV-MAR-0686	John F. Miller, Sr. Trustee of the John F. Miller, Sr. Irrevocable Trust, dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	777/30	13-13-10
2	WV-MAR-0685	Carol A. Wensyel a/k/a Carol A. Miller, acting as Trustee for the Carol A. Wensyel Irrevocable Trust dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	773/596; 777/21	13-13-10.2
2	WV-MAR-0686	John F. Miller, Sr. Trustee of the John F. Miller, Sr. Irrevocable Trust, dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	777/30	13-13-10.2
3	WV-MAR-0723	John E. Koch and Barbara A. Koch	American Petroleum Partners Operating, LLC	Not less than 1/8	835/232	13-13-9.3
4	WV-MAR-0723	John E. Koch and Barbara A. Koch	American Petroleum Partners Operating, LLC	Not less than 1/8	835/232	13-13-9.4
5	Pending	Edgar Heller	American Petroleum Partners Operating, LLC	Not less than 1/8	879/272	13-13-9

4705102018
M&D

6	WV-MAR-0685	Carol A. Wensyel a/k/a Carol A. Miller, acting as Trustee for the Carol A. Wensyel Irrevocable Trust dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	773/596; 777/21	13-13-10.1
6	WV-MAR-0686	John F. Miller, Sr. Trustee of the John F. Miller, Sr. Irrevocable Trust, dated October 28, 2010	American Petroleum Partners Operating, LLC	Not less than 1/8	777/30	13-13-10.1
7	WV-MAR-0178	David A. Marsh and Jane Ellen Marsh	American Petroleum Partners Operating, LLC	Not less than 1/8	862/463	13-10-28
8	Pending	Christopher B. Weber	American Petroleum Partners Operating, LLC	Not less than 1/8	692/48	13-10-28.1
8	Pending	Cindy A. Dayton	American Petroleum Partners Operating, LLC	Not less than 1/8	692/42	13-10-28.1
8	Pending	Lois A. Weber	American Petroleum Partners Operating, LLC	Not less than 1/8	692/39	13-10-28.1
8	Pending	Robert W. Weber, II	American Petroleum Partners Operating, LLC	Not less than 1/8	692/45	13-10-28.1
9	Pending	Christpher B. Weber	American Petroleum Partners Operating, LLC	Not less than 1/8	692/48	13-10-29
9	Pending	Cindy A. Dayton	American Petroleum Partners Operating, LLC	Not less than 1/8	692/42	13-10-29
9	Pending	Lois A. Weber	American Petroleum Partners Operating, LLC	Not less than 1/8	692/39	13-10-29
9	Pending	Robert W. Weber, II	American Petroleum Partners Operating, LLC	Not less than 1/8	692/45	13-10-29
10	WV-MAR-0723	John E. Koch and Barbara A. Koch	American Petroleum Partners Operating, LLC	Not less than 1/8	835/232	13-13-9.2
11	Pending	Blatt Family LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	865/400	13-10-27
12	WV-MAR-0524	Altmeyer Funeral Homes, Inc.	American Petroleum Partners Operating, LLC	Not less than 1/8	938/70	13-13-9.1

4705102018
 (MOT)

13	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-36
14	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-36.1
15	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-37
16	WV-MAR-0342	Cornerstone Family Services of West Virginia LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	920/120	13-10-38
17	Pending	Robert A. Randolph	American Petroleum Partners Operating, LLC	Not less than 1/8	721/219	13-10-6.2
18	Pending	Jeffery J. Koontz and Stacie L. Koontz	American Petroleum Partners Operating, LLC	Not less than 1/8	702/456	13-10-13
20	Pending	Drew S. Beckett and Rebecca A. Beckett	American Petroleum Partners Operating, LLC	Not less than 1/8	888/605	13-10-7
22	WV-MAR-0329	Pearly D. Randolph	American Petroleum Partners Operating, LLC	Not less than 1/8	919/391	13-10-12
23	Pending	Judith Evelyn Pegg	American Petroleum Partners Operating, LLC	Not less than 1/8	709/604	13-10-7.6
24	WV-MAR-1043	Jay Edward Paulovicks and Nancy K. Paulovicks	American Petroleum Partners Operating, LLC	Not less than 1/8	969/551	13-10-11
25	Pending	Ana S. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	881/136	13-10-8.4
25	Pending	Charles C. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/210	13-10-8.4
25	Pending	David L. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/204	13-10-8.4
25	Pending	Donald W. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	873/68	13-10-8.4
25		Larson Crane Gilmore	Larson Crane Gilmore	Not less than 1/8		13-10-8.4
25	Pending	Marianne Philipps	American Petroleum Partners Operating, LLC	Not less than 1/8	877/213	13-10-8.4
25	Pending	Mark C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	879/311	13-10-8.4

4705102018
 (over)

25	Pending	Ronald C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	873/510	13-10-8.4
25	Pending	Sharon E. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/207	13-10-8.4
25		Sylvia M. Jefferies	Sylvia M. Jefferies	Not less than 1/8		13-10-8.4
26	Pending	Ana S. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	881/136	13-10-9
26	Pending	Charles C. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/210	13-10-9
26	Pending	David L. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/204	13-10-9
26	Pending	Donald W. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	873/68	13-10-9
26		Larson Crane Gilmore	Larson Crane Gilmore	Not less than 1/8		13-10-9
26	Pending	Marianne Philipps	American Petroleum Partners Operating, LLC	Not less than 1/8	877/213	13-10-9
26	Pending	Mark C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	879/311	13-10-9
26	Pending	Ronald C. Wilson	American Petroleum Partners Operating, LLC	Not less than 1/8	873/510	13-10-9
26	Pending	Sharon E. Gilmore	American Petroleum Partners Operating, LLC	Not less than 1/8	877/207	13-10-9
26		Sylvia M. Jefferies	Sylvia M. Jefferies	Not less than 1/8		13-10-9
27	Pending	John J. Andenoro Jr. and Janice K. Andenoro	American Petroleum Partners Operating, LLC	Not less than 1/8	725/226	13-10-8.3
28	WV-MAR-0138	James K. Kudlak and Lori A. Kudlak	American Petroleum Partners Operating, LLC	Not less than 1/8	838/525	13-10-8
29	Pending	Resource Minerals Headwater I, LP	American Petroleum Partners Operating, LLC	Not less than 1/8	940/448	13-10-5
29	WV-MAR-0801	Dogwood Acres, LLC	American Petroleum Partners Operating, LLC	Not less than 1/8	949/383	13-10-5
30	Pending	Judith A. Pegg	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31.1

4705102018
MWD

31	Pending	Judith A. Pegg (Life Estate)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31.2
31	Pending	Larry Thomas Pegg and Vickie Louise Pegg (Remainderman)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31.2
32	Pending	Judith A. Pegg (Life Estate)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31
32	Pending	Larry Thomas Pegg and Vickie Louise Pegg (Remainderman)	American Petroleum Partners Operating, LLC	Not less than 1/8	709/602	13-7-31
33	Pending	Amy S. Boram	American Petroleum Partners Operating, LLC	Not less than 1/8	709/63	13-7-31.4
34	WV-MAR-0674	Mark C. Edison and Lois Ann Edison	American Petroleum Partners Operating, LLC	Not less than 1/8	945/49	13-7-30
35	WV-MAR-0815	Mark Estep and Tanita Estep	American Petroleum Partners Operating, LLC	Not less than 1/8	951/498	13-7-29
36	WV-MAR-0147	Clarence Edward Parsons and Deanna Kay Parsons	American Petroleum Partners Operating, LLC	Not less than 1/8	827/136	13-7-31.3
37	WV-MAR-0232	Karen G. Runkle	American Petroleum Partners Operating, LLC	Not less than 1/8	910/639	13-7-29.1
37	WV-MAR-0233	Texanna G. Nickerson	American Petroleum Partners Operating, LLC	Not less than 1/8	910/642	13-7-29.1
38		Heirs of Samuel Wilson	Heirs of Samuel Wilson	Not less than 1/8		13-7-28
39	WV-MAR-0327	Ernest Ellsworth Black, life estate; Scott A. Black, remainderman; Timothy Jon Black, remainderman	American Petroleum Partners Operating, LLC	Not less than 1/8	917/24	13-7-27
40	WV-MAR-0197	David W. Kahlbaugh	American Petroleum Partners Operating, LLC	Not less than 1/8	911/511	13-7-25
41	WV-MAR-0197	David W. Kahlbaugh and Delores J. Kahlbaugh	American Petroleum Partners Operating, LLC	Not less than 1/8	911/511	13-7-24
42	WV-MAR-0033	Merinar and Koontz Co. d/b/a A-1 Auto Parts	American Petroleum Partners Operating, LLC	Not less than 1/8	822/198	13-7-33

4705102018 mws

43	WV-MAR-0033	Merinar and Koontz Co. d/b/a A-1 Auto Parts	American Petroleum Partners Operating, LLC	Not less than 1/8	822/198	13-7-32
44	WV-MAR-0197	David W. Kahlbaugh and Delores J. Kahlbaugh	American Petroleum Partners Operating, LLC	Not less than 1/8	911/511	13-7-34
45	WV-MAR-0547	Esther M. Gamble	American Petroleum Partners Operating, LLC	Not less than 1/8	939/635	13-7-35
46	WV-MAR-0413	Andrea L. Campione, Trustee, or her Successor in Trust under Ramser Family Irrevocable Trust dated December 18, 2002	American Petroleum Partners Operating, LLC	Not less than 1/8	930/198	13-7A-34
47	WV-MAR-0510	Shelley L. Tuskey	American Petroleum Partners Operating, LLC	Not less than 1/8	935/385	13-7A-41
47	WV-MAR-0511	Charles Ray Meredith	American Petroleum Partners Operating, LLC	Not less than 1/8	935/381	13-7A-41
47	WV-MAR-0513	Amy J. Gamble	American Petroleum Partners Operating, LLC	Not less than 1/8	935/355	13-7A-41
47	WV-MAR-0537	Douglas I. Gamble	American Petroleum Partners Operating, LLC	Not less than 1/8	939/567	13-7A-41
47	WV-MAR-0546	Sherry L. Gamble	American Petroleum Partners Operating, LLC	Not less than 1/8	940/9	13-7A-41
47	WV-MAR-0568	Donna S. Kirch	American Petroleum Partners Operating, LLC	Not less than 1/8	939/605	13-7A-41
47	WV-MAR-0595	Kathryn J. Mercurio	American Petroleum Partners Operating, LLC	Not less than 1/8	940/489	13-7A-41
47	WV-MAR-0602	Martha Ann Migliorini	American Petroleum Partners Operating, LLC	Not less than 1/8	940/467	13-7A-41
47	WV-MAR-0620	Cynthia M. Gamble	American Petroleum Partners Operating, LLC	Not less than 1/8	942/322	13-7A-41
48	Pending	James Archbold and Denise Archbold	American Petroleum Partners Operating, LLC	Not less than 1/8	720/580	13-7A-33
49	WV-MAR-0646	Charles W. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/58	13-7-37

4705102018
MWD

49	WV-MAR-0647	Richard J. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/63	13-7-37
49	WV-MAR-0648	Christian A. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/68	13-7-37
50	WV-MAR-0646	Charles W. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/58	13-7-38
50	WV-MAR-0647	Richard J. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/63	13-7-38
50	WV-MAR-0648	Christian A. Caldwell	American Petroleum Partners Operating, LLC	Not less than 1/8	945/68	13-7-38

Note: The parcels that say pending were acquired in trades from other operators (the assignments are recorded in Marshall County Courthouse). Internally they haven't been assigned a Lease No. yet that is why they are listed as pending.

Note: The parcels that have no lease number or recording information we will be pursuing force pooling procedures. Heirship was run on 13-7-28 to determine ownership. The ones with addresses unknown were searched in the Marshall County Court House, Estate searches were done both locally and out of state. In addition, obituaries were searched, both local and out of state, genealogy websites and multiple search engines were utilized including ancestry.com, white pages, orbit, along with taking to relatives in an attempt to try to locate the unlocatable heirs/unknown addresses. Attempts were made on 13-7-28, 13-10-8.4, 13-10-9 to contact and verify owners to sign leases.

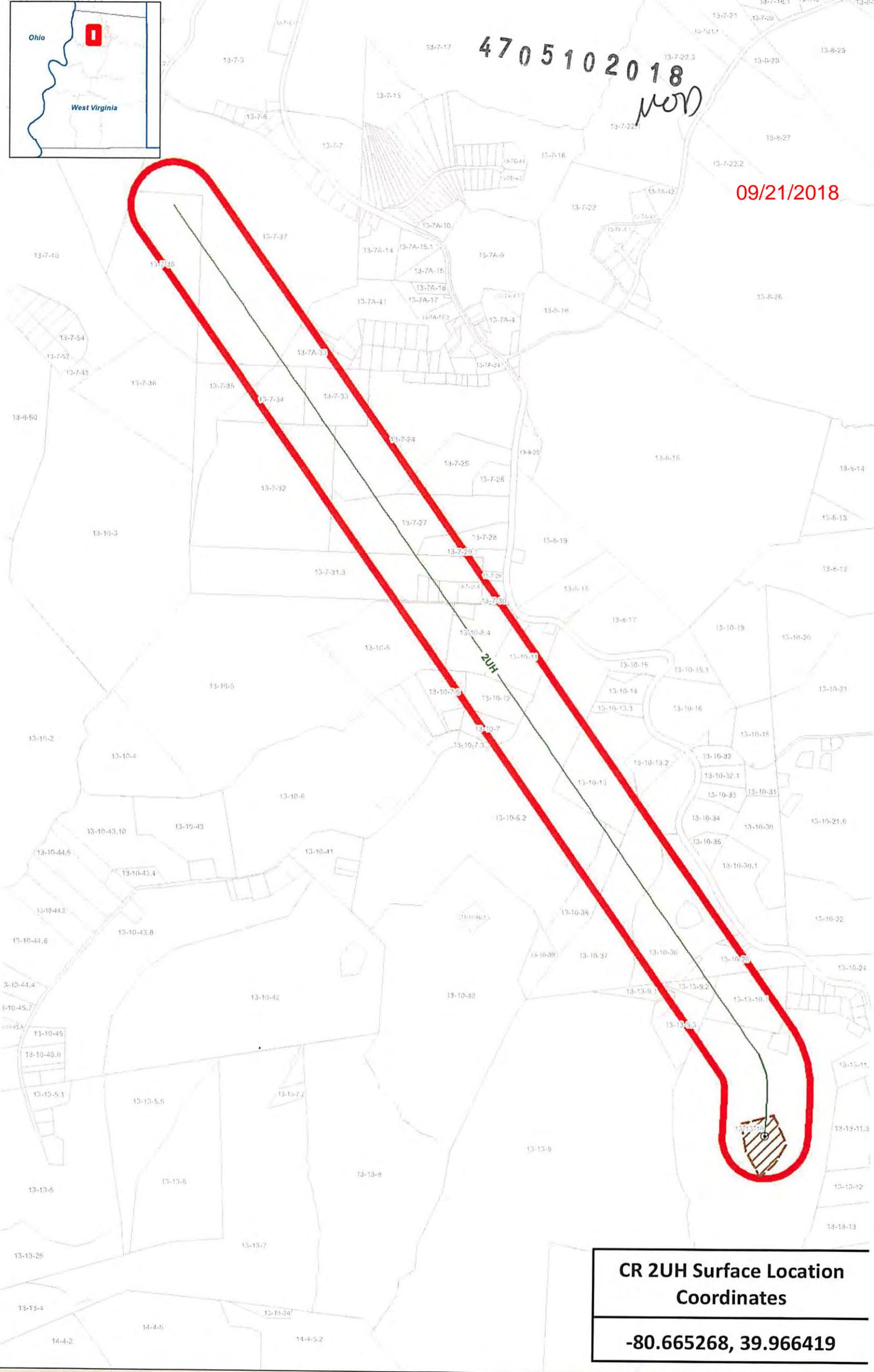
4705102018 may



4705102018

WOD

09/21/2018



CR 2UH Surface Location Coordinates

-80.665268, 39.966419

CR 2UH - 400' Buffer

Marshall County West Virginia	Coordinate System: NAD 1983 UTM Zone 17N Projection: Transverse Mercator Datum: North American 1983	Map Scale Units: 1:12,000	Map Author: JKS Map Date: 5/20/2018	Well SHL	Laterals	Parcels	
				Well Pad	400' buffer		