



west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

PERMIT MODIFICATION APPROVAL

April 22, 2016

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

Re: Permit Modification Approval for API Number 6101694, Well #: KASSAY 5H

Horizontal Well Bore Adjustment

Oil and Gas Operator:

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.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Gene Smith", written over the word "Sincerely,".

For

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

Promoting a healthy environment.

04/22/2016



February 16, 2016

WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Kassay 5H Permit Modification
API # 061-01694

4706101694 MOD

Dear Permit Reviewer,

Northeast Natural Energy LLC ("NNE") would like to request modifications to its existing Kassay 5H Permit (061-01694). NNE has adjusted the horizontal well bore to allow for more efficient development of the permitted Kassay Well Pad.

Please find enclosed with this request revised WW-6B Form, WW-6A1 Form and Attachment, Revised Safety Factor Map, Well Bore Schematic and Mylar Plat for the 5H well.

Should you have any questions please contact me at 304.241.5752 Ext. 7108 or by email at hmedley@nne-llc.com.

Sincerely,

A handwritten signature in blue ink that reads 'Hollie M. Medley'.

Hollie M. Medley
Regulatory Coordinator

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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 Clay Blacksville
Operator ID County District Quadrangle

2) Operator's Well Number: Kassay 5H Well Pad Name: Kassay

3) Farm Name/Surface Owner: Nehemiah and Patty A. Kassay Public Road Access: County Route 25/3 (Yank Hollow Road)

4) Elevation, current ground: 1,534' Elevation, proposed post-construction: 1534'

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No Yes *MGK 2/12/2016*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 8,289' , 103' , 3,600 psi

8) Proposed Total Vertical Depth: 8,289'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,164.73'

11) Proposed Horizontal Leg Length: 9,448'

12) Approximate Fresh Water Strata Depths: 50' , 1,248'

13) Method to Determine Fresh Water Depths: Driller's Log from Offset Wells

14) Approximate Saltwater Depths: 1,946' , 2,696'

15) Approximate Coal Seam Depths: 316' , 1,246'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

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: _____
Depth: _____
Seam: _____
Owner: _____

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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	94.71	40'	40'	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,330'	1,300'	CTS
Coal							
Intermediate	9-5/8"	New	J-55	40	2,780'	2,750'	CTS
Production	5-1/2"	New	P-110	20	18,165'	18,135'	4,272 Cu. Ft.
Tubing	2-7/8"	New	N-80	6.5	NA	8,500'	NA
Liners							

MGK 2/12/2016

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"	30"	.375	415		4,500 psi Grout	NA
Fresh Water	13-3/8"	17 1/2"	.38"	2,760	2,000	Class A	1.23
Coal							
Intermediate	9-5/8"	12 1/4"	.395"	3,950	3,000	Class A	1.3
Production	5-1/2"	8 3/4"	.361"	12,530	9,700	50:50 Poz	1.21
Tubing	2-7/8"	NA	.217"	10,570	3,600	NA	NA
Liners							

PACKERS 4706101694 MOD

Kind:				
Sizes:				
Depths Set:				

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

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,913' TVD/MD. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,289' TVD / 18,164.73' MD along a combination of a 323 degree azimuth and a 312 degree azimuth.

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

Multi-stage / high-rate slickwater fracture treatment using various size sands as proppant. First stage will be initiated via pressurization against a burst disc ran in the production casing string or perforated with coiled tubing. Subsequent stages will be perforated with pumped down guns ran on wireline. Individual stages will be isolated with composite frac plugs. Maximum pump rate during any stage will be 110 BPM with a maximum allowable surface pressure of 9,500 PSI. Composite bridge plugs will be set at the end of the last stage to isolate the treated formation.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.85

22) Area to be disturbed for well pad only, less access road (acres): 13.00
~~4706101694 MoP~~

23) Describe centralizer placement for each casing string:

Surface and intermediate casing strings will have bow spring centralizers placed every third joint (~120') from the shoe joint to surface. Production casing will have rigid body centralizers placed at a minimum of every fourth joint (~160') from TD to surface.

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

Surface string cement will be a Class A + Max 3% bwoc Calcium Chloride Fresh Water blend. Intermediate string cement will be a Class A 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 string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Intermediate string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Production string will use a 50.0 bbls SealBond 25 + 1 gal/bbl US-40 + 275 lbs/bbl Barite + 1 gal/bbl SS-2 Spacer @ 13.5 ppg prior to cement.

*Note: Attach additional sheets as needed.

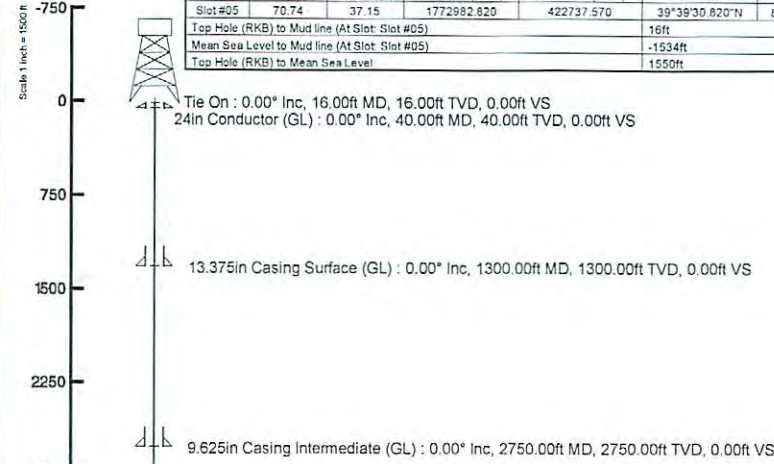
WV Department of
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NORTHEAST NATURAL ENERGY, LLC

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

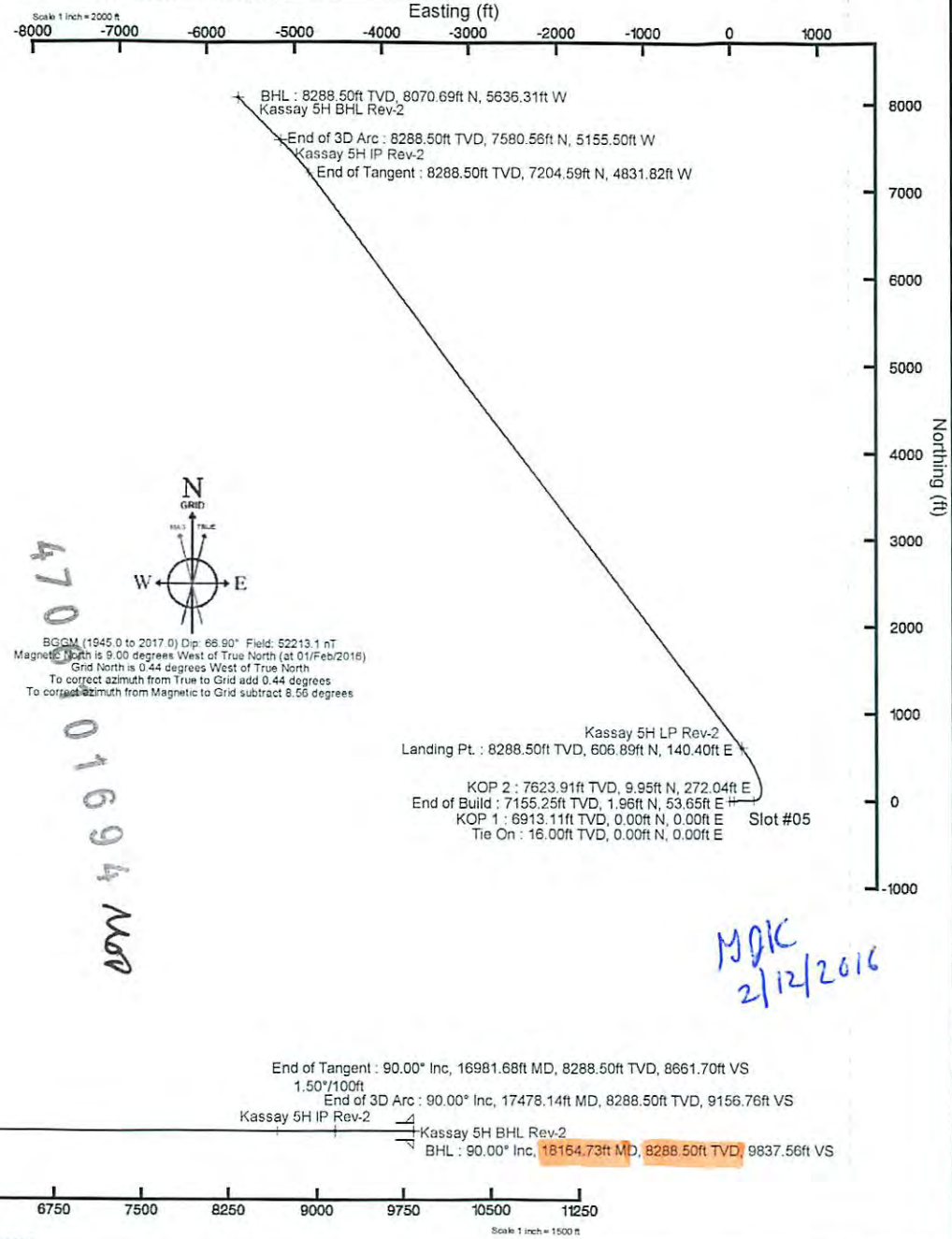
Slot: Slot #05
Well: Kassay 5H
Wellbore: Kassay 5H PWB

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Kassay Pad	1772945.670	422866.830	39°39'30.116"N	80°11'40.584"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Longitude
Slot #05	70.74	37.15	1772982.820	422737.570
Top Hole (RKB) to Mud line (At Slot: Slot #05)			16ft	
Mean Sea Level to Mud line (At Slot: Slot #05)			-1534ft	
Top Hole (RKB) to Mean Sea Level			1550ft	



Formation	Depth (KBTVD)
Tully	8040'
Hamilton	8090'
Upper Marcellus	8198'
Lower Marcellus	8246'
Onondaga	8301'

Type	Hole Size	Casing Size	Grade	GL Depth (Csg)
Conductor	28"	24"	NA	40'
Surface	17-1/2"	13-3/8"	J-55	54.5
Intermediate	12-1/4"	9-5/8"	J-55	40



Environmental Protection
Department of
MVA
Office of Oil and Gas
B-177207

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MVA

MOK
2/12/2016

KOP 1: 0.00° Inc, 6913.11ft MD, 6913.11ft TVD, 0.00ft VS
10.00°/100ft
End of Build: 25.00° Inc, 7163.11ft MD, 7155.25ft TVD, -30.72ft VS

KOP 2: 25.00° Inc, 7680.22ft MD, 7623.91ft TVD, -155.77ft VS
10.00°/100ft

Landing Pt.: 90.00° Inc, 8720.17ft MD, 8288.50ft TVD, 400.19ft VS
Kassay 5H LP Rev-2

End of Tangent: 90.00° Inc, 16981.68ft MD, 8288.50ft TVD, 8661.70ft VS
1.50°/100ft
End of 3D Arc: 90.00° Inc, 17478.14ft MD, 8288.50ft TVD, 9156.76ft VS
Kassay 5H IP Rev-2

Kassay 5H BHL Rev-2
BHL: 90.00° Inc, 18154.73ft MD, 8288.50ft TVD, 9837.56ft VS

**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
See Attachment	See Attachment	See Attachment	See Attachment	See Attachment

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**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.

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Well Operator: Northeast Natural Energy, LLC
By: Hollie Medley *Hollie Medley*
Its: Regulatory Coordinator

Operator's Well No. Kassay 5H

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
					10-10.1 10-12 10-13 10-14 10-80 10-82 10-82.1 10-82.2 10-82.3
WV-061-002534-001	SHUMAN, INC.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1429/366	
					10-15.9 10-P/O 15.11 10-31.1 17-47 17-47.1
WV-061-003378-001	STRICKLER, PAUL T. AND SHARON	NORTHEAST NATURAL ENERGY, LLC	DEED	1530/128	
					10-15.9 10-P/O 15.11 10-31.1 17-47 17-47.1
WV-061-003378-003	BUTLER, MARY ROSE	NORTHEAST NATURAL ENERGY, LLC	DEED	1530/132	
					10-15.9 10-P/O 15.11 10-31.1 17-47 17-47.1
WV-061-003378-004	STRICKLER, WILBUR RANDOLPH AND DEBORAH	NORTHEAST NATURAL ENERGY, LLC	DEED	1530/140	
					10-15.9 10-P/O 15.11 10-31.1 17-47 17-47.1
WV-061-003378-005	STRICKLER, DORSEY NEIL AND NANCY E.	NORTHEAST NATURAL ENERGY, LLC	DEED	1530/136	
					10-15.9 10-P/O 15.11 10-31.1 17-47 17-47.1
WV-061-003396-001	HORMELL, RONALD RAYMOND AND REBECCA LYNN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1506/270	10-15.9
WV-061-003396-002	MICHAEL, EMMA REGINA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1512/523	10-15.9
					10-15.9 17-47 17-47.1
WV-061-003639-001	MOORE, TED K.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/693	17-47.1
WV-061-001234-001	MOORE, L. GAYLE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1370/508	10-P/O 15.11
WV-061-001334-001	THOMAS, CHARLES L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1378/404	10-P/O 15.11
WV-061-001334-005	HORMELL, RONALD RAYMOND, JR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1492/45	10-P/O 15.11
WV-061-003507-001	THE CHARLES LEE THOMAS TRUST	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/734	10-P/O 15.11
WV-061-003647-001	TAYLOR, EMOGENE FORTNEY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/687	10-P/O 15.11
WV-061-003647-002	FORTNEY, EARL DWAIN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/265	10-P/O 15.11
WV-061-003647-003	FORTNEY, JAMES DANIEL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/529	10-P/O 15.11
WV-061-003647-004	STRIMEL, BETTY ANN AND DONALD LEE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/233	10-P/O 15.11
WV-061-003647-005	NUTTER, CONNIE JEAN AND GARY LEE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/237	10-P/O 15.11
WV-061-003647-006	ROBERTS, MARSHA ANN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/526	10-P/O 15.11
WV-061-003647-007	LAMB, MARY K. AND MICHAEL W.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1539/41	10-P/O 15.11
WV-061-003647-008	GRALEY, CONNIE C.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/235	10-P/O 15.11
WV-061-003647-009	DUFF, BRENDA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/58	10-P/O 15.11
WV-061-003647-010	WEST, DIANA AND EMMITT	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/56	10-P/O 15.11
WV-061-003647-011	GIBSON, VIVIAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/239	10-P/O 15.11
WV-061-003647-013	COBB, WANDA SUE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/54	10-P/O 15.11
WV-061-003647-016	WEST, LINNA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1539/18	10-P/O 15.11
WV-061-003647-020	FORTNEY, TIMOTHY RAY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1539/429	10-P/O 15.11
WV-061-003647-023	HODGSON III, RUSSELL EDWARD	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1539/645	10-P/O 15.11
WV-061-001370-001	KASSAY, NEHEMIAH & PATTY ANN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1374/202	10-26
WV-061-001371-003	WV MINERALS, INC.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1509/773	10-26.18
WV-061-003441-001	KASSAY, NEHEMIAH AND PATTY A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1517/109	10-26.18
					10-26.2 10-27.4
WV-061-003193-001	BARR, EVERETT R. AND DOROTHY L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1449/371	10-27.4
					10-27 10-27.2 10-27.4
WV-061-003190-001	CURFMAN, CECIL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1447/274	10-27.4
WV-061-003190-002	CURFMAN, KENNETH	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1447/270	10-27.4
WV-061-003190-003	CURFMAN, HAROLD EUGENE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/359	10-27.4
WV-061-003190-004	HUMMEL, DEBORAH S. AND RICHARD P.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/142	10-27.4
WV-061-003190-005	TEDROW, CINDY L	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/138	10-27.4
WV-061-003190-006	TEDROW, BURCE A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/134	10-27.4
WV-061-003190-007	MUTSCHLER, BRENDA D. AND RONALD	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/130	10-27.4
WV-061-003190-008	LUTZ, LINDA D. AND TERRY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/126	10-27.4
WV-061-003190-009	TEDROW, RALPH R. AND GEORGEANN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1449/432	10-27.4

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Operator's Well No. Kassay 5H

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-003190-010	COSTELLO, HELEN E., ET AL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1453/592	10-27.4
WV-061-003190-011	EDGELL, ALYSHA A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/767	10-27.4
WV-061-003190-012	STUCKEY, MARY A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1517/847	10-27.4
WV-061-003190-013	SNYDER, DONNA J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1520/680	10-27.4
WV-061-003190-014	TENNANT, RONNIE E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/690	10-27.4
WV-061-003190-015	WHIPKEY, FAYE K.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/718	10-27.4
WV-061-003190-016	TENNANT, DAVE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/600	10-27.4
WV-061-003190-017	EVANOFF, BONNIE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/720	10-27.4
WV-061-003190-018	ROE, KIMBERLY K. AND FREDERICK W.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/355	10-27.4
WV-061-003190-019	FOX, DAVID A. AND BONNIE L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/285	10-27.4
WV-061-003190-020	WILLIAMS, REBECCA L. AND EDWARD W.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/244	10-27.4
WV-061-003190-021	PHILLIPS, KEVIN G. AND LYNN M.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/86	10-27.4
WV-061-003190-022	JERNIGAN, CAROLYN S. AND TEDDY D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/120	10-27.4
WV-061-003190-023	WILLIS, SANDRA S. AND IRVIN S.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/78	10-27.4
WV-061-003190-024	BOSWELL, DONNA I.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1525/252	10-27.4
WV-061-003190-025	CURFMAN, LINDA C.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1525/232	10-27.4
WV-061-003190-026	HILLBERRY, ALPHEUS BERL, JR. AND DONNA Z.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/64	10-27.4
WV-061-003190-027	HOWELL, BRYAN SEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/88	10-27.4
WV-061-003190-028	HILLBERRY LARRY LEE AND LINDA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/122	10-27.4
WV-061-003190-029	TEDROW, GARY L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/145	10-27.4
WV-061-003190-030	RIGGLE, MICHAEL A. AND JEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/155	10-27.4
WV-061-003190-031	DYER, TAMMY L. AND DANIEL K. SR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/112	10-27.4
WV-061-003190-032	WAYT, KATHY C.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/11	10-27.4
WV-061-003190-033	JOHN, CHARLES D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/48	10-27.4
WV-061-003190-034	JOHN, ALTON A. JR. AND PEGGY M.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/728	10-27.4
WV-061-003190-035	KEYS, BARBARA JO	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/3	10-27.4
WV-061-003190-036	LIPSCOMB, KAYDA AND MICHAEL LEE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1527/848	10-27.4
WV-061-003190-037	CRADDOCK, MEGAN S. AND EDWARD M.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/7	10-27.4
WV-061-003190-038	TENNANT, FRED W.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/22	10-27.4
WV-061-003190-039	YAWORSKI, BARBARA J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1527/844	10-27.4
WV-061-003190-040	BRLETICH, KIMBERLY A. AND MARK P.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/68	10-27.4
WV-061-003190-041	BROWN, MARY E. AND JAMES E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/60	10-27.4
WV-061-003190-042	TENNANT, DOROTHY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/40	10-27.4
WV-061-003190-043	JOHN, CHEYENNE NICOLE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/38	10-27.4
WV-061-003190-044	TENNANT, BETTY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/66	10-27.4
WV-061-003190-045	JOHN, ASHLEY MARIE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/9	10-27.4
WV-061-003190-046	RUSH, VELMA L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/6	10-27.4
WV-061-003190-047	JOHN, JUSTINA JOY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/34	10-27.4
WV-061-003190-048	BENSON, DANA RENEE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1528/151	10-27.4
WV-061-003190-049	HULL, RUTH MAE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/168	10-27.4
WV-061-003190-050	MICHAEL, HELEN D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/91	10-27.4
WV-061-003190-051	HULL, KENNETH E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/185	10-27.4
WV-061-003190-052	HULL, DWIGHT W. AND CRISTINA RICO	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/20	10-27.4
WV-061-003190-053	COLE, EUGENE E. AND CORA L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/770	10-27.4
WV-061-003190-054	WALTERS, FRED S. JR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/116	10-27.4
WV-061-003190-055	JOHN, DAVID D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/550	10-27.4
WV-061-003190-056	HARDESTY, SANDRA S. AND MARC E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/554	10-27.4
WV-061-003190-057	MORRIS, APRIL AND JOSHUA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/574	10-27.4
WV-061-003190-058	SENSKY, KORY M. AND ELIZABETH H.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/61	10-27.4
WV-061-003190-059	DIBIASE, LORETTA AND STEVE A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/540	10-27.4
WV-061-003190-060	HILLBERRY, JAMES JOSEPH	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/222	10-27.4
WV-061-003190-061	HILLBERRY, JOHN EDGAR AND RUTH	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/363	10-27.4
WV-061-003190-062	HILLBERRY, RICHARD ALLEN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/144	10-27.4
WV-061-003190-063	HILLBERRY, MICHAEL EDGAR	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/841	10-27.4
WV-061-003190-064	HILLBERRY, KENNETH LEE AND ARRISSA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/228	10-27.4
WV-061-003190-065	BOWMAN, DARCENE LYNN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/365	10-27.4
WV-061-003190-066	HILLBERRY, RONALD KEITH	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/361	10-27.4
WV-061-003190-067	MELTON, LAURA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/76	10-27.4
WV-061-003190-068	LOGSDON, VICKIE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/11	10-27.4
WV-061-003190-069	SEVERS, EILEEN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/584	10-27.4
WV-061-003190-070	HOWELL, STEVEN MICHAEL AND LISA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/292	10-27.4
WV-061-003190-071	MCCLOSKEY, THOMAS AND CHRISTINE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/294	10-27.4
WV-061-003190-072	HOUGHTON, TERRI KATHERINE AND JACK KR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/151	10-27.4
WV-061-003190-073	NOLA, LINDA AND MICHAEL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/157	10-27.4
WV-061-003190-074	MCCLOSKEY, WILLIAM PERRY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/155	10-27.4
WV-061-003190-075	MCCANDLESS, PATRICIA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/546	10-27.4
WV-061-003190-076	CUNNINGHAM, DENISE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/548	10-27.4

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NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-003190-077	HILLBERRY, HAZEL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/3	10-27.4
WV-061-003190-078	TIDERMAN, ROSE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/56	10-27.4
WV-061-003190-079	KERNAICH, JAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/54	10-27.4
WV-061-003190-080	HAMMETT, ROBERT EUGENE AND CAROLYN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/359	10-27.4
WV-061-003190-081	CARROLL, RANDY L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/98	10-27.4
WV-061-003190-082	LINK, SCOTT	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater		10-27.4
WV-061-003190-083	HAMMETT, TIMOTHY J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/21	10-27.4
WV-061-003190-084	HUPP, SUSAN RENEA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/61	10-27.4
WV-061-003190-085	KNIZNER, JOYCE AND JOHN F.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/25	10-27.4
WV-061-003190-086	ALOIA, LINDA D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/17	10-27.4
WV-061-003190-087	THORTON, LEANN MARIE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/19	10-27.4
WV-061-003190-088	FOUTZ, CAROLYN JUNE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/23	10-27.4
WV-061-003190-089	MCCLOSKEY, WILLIAM RONALD AND LAURE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/48	10-27.4
WV-061-003190-090	KEEP, DONNA JEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/119	10-27.4
WV-061-003190-091	WHEAT, CHERYL H. AND DAVID HENRY CUNNINGHAM, ROBERT LANE AND JANET	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/107	10-27.4
WV-061-003190-092	JANET	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/74	10-27.4
WV-061-003190-094	HEWITT, DIANA L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/726	10-27.4
WV-061-003190-095	OLIVERA, VAUNDA KAY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1534/76	10-27.4
WV-061-003190-096	BLOUIR, RICHARD L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/70	10-27.4
WV-061-003190-097	WISE, BARBARA A. AND ALBERT JACK	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/84	10-27.4
WV-061-003190-098	KELLER, JOHN AND PAMELA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1534/657	10-27.4
WV-061-003190-099	KELLER, NAOMIA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/570	10-27.4
WV-061-003190-100	BRAUN, DORIS JEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/84	10-27.4
WV-061-003190-101	KELLER, JAMES PAUL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/720	10-27.4
WV-061-003190-102	RIDER, RUBY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/618	10-27.4
WV-061-003190-103	KELLER, RONALD	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1534/82	10-27.4
WV-061-003190-104	ROGERS, PATRICIA AND DAVID	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/62	10-27.4
WV-061-003190-105	KELLER, THOMAS EDWARD	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/563	10-27.4
WV-061-003190-106	KELLER, RICHARD AND LINDA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/82	10-27.4
WV-061-003190-107	HILLBERRY, DAVID D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1537/379	10-27.4
WV-061-003190-108	KELLER, ROBERT EARL, JR. AND CONNIE PHILLIPS, CLEO MARLENE AND DONALD W.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/117	10-27.4
WV-061-003190-109	HILLBERRY, WILLIAM LAFAYETTE JR. AND GALE D.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/219	10-27.4
WV-061-003190-110	BARTHOLOMEW, FRANCES SUSAN AND RICHARD SCOTT	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/191	10-27.4
WV-061-003190-111	WRIGHT, SANDY AND TERRY L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/78	10-27.4
WV-061-003190-112	MOLINARO, PETE A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/76	10-27.4
WV-061-003190-113	KELLER, DONALD AND KAREN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/586	10-27.4
WV-061-003190-114	WILSON, ANN YVONNE AND JAMES	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/828	10-27.4
WV-061-003190-115	KELLER, WILLIAM AND BARBARA JEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/588	10-27.4
WV-061-003190-116	BLOOM, ELIZABETH DEBRA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/580	10-27.4
WV-061-003190-117	HILLBERRY, JOHN MATTHEW AND ROBIN R.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/80	10-27.4
WV-061-003190-118	MILLER, WILMA JANE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/308	10-27.4
WV-061-003190-119	EVANS, BRUCE AND KATHY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1540/478	10-27.4
WV-061-003190-120	LAVELLE, RICHARD R.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/559	10-27.4
WV-061-003190-121	BOLAND, P. MATTHEW AND MARGARET BOLAND, CHARLES AND BRENDA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/105	10-27.4
WV-061-003190-122	CARPENTER, ALMA JOANN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/111	10-27.4
WV-061-003190-123	WRIGHT, CINDY SUE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/710	10-27.4
WV-061-003190-124	SWANSON, TIMOTHY JACK AND PATRICIA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1534/90	10-27.4
WV-061-003190-125	THEISS, DAVID C.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/149	10-27.4
WV-061-003190-126	BARRY, VICKI SUE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/103	10-27.4
WV-061-003190-127	BEAM, SALLY JUNE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/87	10-27.4
WV-061-003190-128	SENSKY, ROBERT S. AND SUSAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/557	10-27.4
WV-061-003190-129	SNYDER, LILLIAN GAYLE AND DENNY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/610	10-27.4
WV-061-003190-130	BEDDOW, JOAN DONNA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/64	10-27.4
WV-061-003190-131	KOZY, LORI	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/267	10-27.4
WV-061-003190-132	SLOANE, BEVERLY J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/110	10-27.4
WV-061-003190-133	MARKLEY, MICHAEL AND REBECCA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/62	10-27.4
WV-061-003190-134	BREEDLOVE, JUDITH AND MARTIN E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/558	10-27.4
WV-061-003190-135	KUHN, FRED RICHARD, JR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/106	10-27.4
WV-061-003190-136	BOLAND, WILLIAM AND MARJORIE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/80	10-27.4
WV-061-003190-137	WAGENKNECHT, D. MATTHEW AND KATHERINE R.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/522	10-27.4
WV-061-003190-138				1540/476	10-27.4
WV-061-003190-139					
WV-061-003190-140					
WV-061-003190-141					

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NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-003190-144	THEISS, RONALD FRED, JR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/52	10-27.4
WV-061-003190-145	HITCHINS, TERRY LEE AND TENATE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1538/96	10-27.4
WV-061-001232-009	MICHAEL, EMMA REGINA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/66	10-31.1
WV-061-001105-001	LEMLEY, LAURA E.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1382/818	10-43
WV-061-001105-002	MCCORD, KENNETH JAS	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1379/162	10-43
WV-061-001105-003	MINOR, JUNE LEMELEY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1379/159	10-43
WV-061-001105-004	SANDERS, BETTY JANE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1490/751	10-43
WV-061-001105-005	HOWARD, WILLA R. AND DAVID	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/250	10-43
WV-061-001105-006	MCCORD, RONNIE L. AND SHARON	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/293	10-43
WV-061-001105-007	MCCORD, LAWERANCE L. AND JANET	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1523/494	10-43
WV-061-001105-008	FLUHARTY, TINA L. AND RICHARD	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/267	10-43
WV-061-001105-009	ESTLE, GINGER K.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/236	10-43
WV-061-001105-010	TENNANT, RICHARD AND ONEIDA P.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/271	10-43
WV-061-001105-012	LARRY BLAINE TENNANT ESTATE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/772	10-43
WV-061-001105-013	BONNELL, DIANA LYNN AND ORVAL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/752	10-43
WV-061-001105-014	BRUMMAGE, E. JACK AND JANET D.	NORTHEAST NATURAL ENERGY, LLC	DEED	1533/681	10-43
WV-061-001105-015	BRUMMAGE, TIMOTHY L.	NORTHEAST NATURAL ENERGY, LLC	DEED	1533/677	10-43
WV-061-001105-016	SILVA, MARY A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/178	10-43
WV-061-001105-017	MOORE, BONNIE JEAN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/63	10-43
WV-061-001105-018	KRAUS, RHONDA B.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/236	10-43
WV-061-001105-019	BROOKOVER, CARMEL G., SR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/230	10-43
WV-061-001105-020	PRICE, CHRISTOPHER C.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/328	10-43
WV-061-001105-021	PRICE, JOSHUA J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/324	10-43
WV-061-001105-022	ROGERS, ALBERT LEE AND KRISTEN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/47	10-43
WV-061-001105-023	ALLEN, APRIL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1529/849	10-43
WV-061-001105-024	FLOWERS, PAULETTE H.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/342	10-43
WV-061-001105-025	ROGERS, ALAN J. AND MELISSA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1531/45	10-43
WV-061-001105-026	NICHOLS, PATRICIA AND BILL F. SR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/86	10-43
WV-061-001105-027	JOHNSON, GLENDORA F.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/355	10-43
WV-061-001105-028	ASKEW, CELIA P. AND ROBERT L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/52	10-43
WV-061-001105-029	PRICE, GARY MICHAEL SR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/146	10-43
WV-061-001105-030	BRUMMAGE, JAMIE A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/96	10-43
WV-061-001105-031	RUSH, RUBY AND RONALD	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1532/68	10-43
WV-061-001105-032	TENNANT, BRENDA K. AND BILLY RAY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/148	10-43
WV-061-001105-033	MILLIRON, ETTA L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/353	10-43
WV-061-001105-034	LEWIS, PEARL G. AND CLYDE H.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/537	10-43
WV-061-001105-035	TENNANT, JUDY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/105	10-43
WV-061-001105-036	BRUMMAGE, BRITTANY M.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/195	10-43
WV-061-001105-037	ROGERS, ALVIN L.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/619	10-43
WV-061-001105-038	NEYLON, MYRA J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1533/88	10-43
WV-061-001105-039	BURKE, LARRY E. AND JANIS P.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/621	10-43
WV-061-001105-040	CHILTON, J. MICHELLE AND CHARLES J. JR.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1534/80	10-43
WV-061-001105-041	ROGERS, CHARLES H.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/94	10-43
WV-061-001105-042	EDDY, STANLEY ROSS	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1535/706	10-43
WV-061-001105-045	LEMLEY, DAN G. AND NAOMI E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1542/1	10-43
WV-061-001105-052	SANDERS, BETTY JANE MCCORD	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1379/165	10-43
WV-061-001105-053	SIMPSON, VERNON L.	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1379/168	10-43
WV-061-001105-054	SIMPSON, DAVID C.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1379/171	10-43
WV-061-001105-055	SIMPSON, ALLEN L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1383/491	10-43
WV-061-001105-056	SIMPSON, IRA J. JR.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1383/494	10-43
WV-061-001105-057	TENNANT, TROY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1407/201	10-43
WV-061-002389-001	JOSEPH, ALMA M.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1435/165	17-62
WV-061-002800-001	WHARTON, JOSPEH THOMAS	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1434/228	10-43
WV-061-002800-002	LEMLEY, KYLE AND PAULA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1431/436	10-43
WV-061-002800-003	CALVERT, CHARLES W.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1431/800	10-43
WV-061-002840-001	VEDIS, KRISTIE VIRGIE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/359	10-43
WV-061-002840-002	CAIN, KAREN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/215	10-43
WV-061-002840-003	TENNANT, LARRY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1424/813	10-43
WV-061-002840-004	FLUHARTY, LORETTA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1424/813	10-43
WV-061-002840-005	LEMLEY, DENZIL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/399	10-43
WV-061-002840-006	TENNANT, RICHARD	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1424/825	10-43
WV-061-002840-007	CHASE, DONNA LYNN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/303	10-43
WV-061-002840-008	FLUHARTY, TINA L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/323	10-43
WV-061-002840-009	DAVIS, SONYA R. AND MIKE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/319	10-43
WV-061-002840-010	ESTLE, GINGER KAY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/315	10-43
WV-061-002840-011	TROUTMAN, LYDIA L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1437/071	10-43
WV-061-002840-012	SNOPPS, TWYLA HINDS	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1427/587	10-43
WV-061-002840-013	GEE, PAULINE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1426/126	10-43
WV-061-002840-014	MERRIFIELD, ALBERTA AND THORNTON	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1427/625	10-43
WV-061-002840-015	FLUHARTY, LORETTA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1524/295	10-43

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Operator's Well No. **Kassay 5H**

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-003302-002	KASSAY, NEHEMIAH AND PATTY A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1506/143	17-48
WV-061-003654-003	STRICKLER, PAUL T. AND SHARON	NORTHEAST NATURAL ENERGY, LLC	DEED	1537/194	17-48
WV-061-003654-004	BUTLER, MARY ROSE	NORTHEAST NATURAL ENERGY, LLC	DEED	1537/198	17-48
WV-061-001109-000	SHUMAN, INC.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1439/243	17-48
WV-061-002006-005	TENNANT, RAYMER	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1396/635	17-62
WV-061-002006-006	WILLIAMS, FREDDY W.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1398/282	17-62
WV-061-002006-007	SINE, EVERETT A., JR.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1398/285	17-62
WV-061-002006-008	SINE, LYALL A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/599	17-62
WV-061-002006-009	WILLIAMS, NOLA M.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/602	17-62
WV-061-002006-010	GALLAGHER, CHERYL LISABETH	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1398/519	17-62
WV-061-002006-011	WILLIAMS, W. RICHARD	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1398/522	17-62
WV-061-002006-012	SINE, BETTY L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/605	17-62
WV-061-002006-013	BRUMMAGE, KIMBERLY SUE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/608	17-62
WV-061-002006-014	SINE, DORIS L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/286	17-62
WV-061-002006-015	MCAFFEE, MABEL L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/611	17-62
WV-061-002006-016	VAN TASSAELL, PATRICIA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1418/729	17-62
WV-061-002006-017	FRICKLETO, CELESTE M.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1399/614	17-62
WV-061-002006-018	MOORE, VARNER L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1401/082	17-62
WV-061-002006-019	TANNER, RITA J.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/289	17-62
WV-061-002006-020	WILSON, DELILAH M.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/292	17-62
WV-061-002006-021	WOODRUFF, ELLEN J.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/295	17-62
WV-061-002006-022	CHURCH, GAIL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1401/085	17-62
WV-061-002006-023	SINE, LARRY K.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/298	17-62
WV-061-002006-024	STRICKLAND, SUE ANN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/301	17-62
WV-061-002006-025	WILLIAMS, DONALD REX	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1401/090	17-62
WV-061-002006-026	WISE, CAROL I.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1403/127	17-62
WV-061-002006-027	MOORE, LEONARD D.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1403/130	17-62
WV-061-002006-028	WILSON, SANDRA FAYE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1405/232	17-62
WV-061-002006-029	HOSTUTLER, PATRICIA ANN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1404/304	17-62
WV-061-002006-030	HALL, PAMELA RENA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1405/877	17-62
WV-061-002006-031	TENNANT, LEONARD	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1405/880	17-62
WV-061-002006-032	SINE, DONALD R.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1410/572	17-62
WV-061-002038-001	MORRIS, PEGGY A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1410/569	17-62
WV-061-002371-001	MCCULLOUGH, MARY R.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1421/402	17-62
WV-061-002371-002	LIMING, MARY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1421/373	17-62
WV-061-002371-003	BUCHANAN, RICKEY JANE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/367	17-62
WV-061-002371-004	VEDIS, KRISTIE VIRGIE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/327	17-62

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Operator's Well No. Kassay 5H

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-002371-005	CAIN, KAREN M.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/283	17-62
WV-061-002371-006	CHASE, DONNA L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1425/200	17-62
WV-061-002371-007	TENNANT, RICHARD	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1425/462	17-62
WV-061-002371-008	TENNANT, LARRY	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1425/421	17-62
WV-061-002371-009	FLUHARTY, LORETTA	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1425/408	17-62
WV-061-002371-010	PARSONS, EMZA M.	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1426/130	17-62
WV-061-002371-011	YURISKO, PAMELA J.	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1427/121	17-62
WV-061-002371-012	SINE, MYRTLE L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1426/122	17-62
WV-061-002371-013	COOK, WALDEN J., JR.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1427/591	17-62
WV-061-002371-014	WISE, ALICE	CHESAPEAKE APPALACHIA, LLC	EXPIRED	1427/171	17-62
WV-061-002371-015	SNOPPS, TWYLA HINDS	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1428/185	17-62
WV-061-002371-016	FOLEY, REBECCA GAIL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1427/186	17-62
WV-061-002371-017	SINE, C.W.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1427/369	17-62
WV-061-002371-018	WILSON, SANDRA FAYE AND WAYNE L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1428/740	17-62
WV-061-002371-019	ESTLE, GINGER K.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1438/661	17-62
WV-061-002371-020	FLUHARTY, TINA L. AND RICHARD A.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1438/627	17-62
WV-061-002371-021	TROUTMAN, LYDIA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1438/643	17-62
WV-061-002371-022	JOHNSON, MICHELLE DAWN AND ERIC B.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1439/180	17-62
WV-061-002371-023	SINE, DONALD R. AND IRMA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1438/671	17-62
WV-061-002371-024	THOMAS, DIANE BETH AND CURTIS L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1442/573	17-62
WV-061-002371-025	TENNANT, TROY L. AND ANNA L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1442/541	17-62
WV-061-002371-026	EDDY, DARLENE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1445/158	17-62
WV-061-002371-027	VARNER, PAUL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/100	17-62
WV-061-002371-028	VARNER, STEVEN, SR. AND TINA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/285	17-62
WV-061-002371-029	VARNER, LOUISE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/095	17-62
WV-061-002371-030	VARNER, MARK	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/090	17-62
WV-061-002371-031	BARBER, ALMEADA J.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/085	17-62
WV-061-002371-032	VARNER, JODY L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/338	17-62
WV-061-002371-033	FOSSEN, RUBY E.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/080	17-62
WV-061-002371-034	BROWN, PAMELA AND CARL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/075	17-62
WV-061-002371-035	SIMERAL, TAMELA R. AND JERRY, JR.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/070	17-62
WV-061-002371-036	WILLIAMS, JARROD	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/66	17-62
WV-061-002371-037	SUDDUTH, DEBORAH AND SAMUEL	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/343	17-62
WV-061-002371-038	VARNER, JAMES	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/370	17-62
WV-061-002371-039	VARNER, JANET	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/365	17-62
WV-061-002371-040	VARNER, CONNIE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/784	17-62
WV-061-002371-041	VARNER, ROBERT	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/779	17-62

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Operator's Well No. Kassay 5H

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-002371-042	MCCAMMON, LISA AND WILLIAM	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1454/821	17-62
WV-061-002371-043	LYONS, BETTY C.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1462/541	17-62
WV-061-002371-044	EDDY, TOMMY J., SR. AND CAROL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1517/96	17-62
WV-061-002371-045	YURISKO, PAMELA J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1521/732	17-62
WV-061-002371-046	TENNANT, RICHARD AND ONEIDA P.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/265	17-62
WV-061-002371-047	LARRY BLAINE TENNANT ESTATE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/774	17-62
WV-061-002371-048	FLUHARTY, LORETTA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1524/780	17-62
WV-061-002371-049	BUCHANAN, RICKEY JANE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/132	17-62
WV-061-002371-050	WISE, ALICE	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/134	17-62
WV-061-002371-051	PARSONS, EMZA M.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/21	17-62
WV-061-002392-001	CLEVENGER, ARDELLA J. AND FRED	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1435/178	17-62
WV-061-002392-002	CUMMINGS, HELEN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1435/156	17-62
WV-061-002392-003	CLEVENGER, KENNETH F.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1536/517	17-62
WV-061-002392-004	CUMMINGS, HELEN AND DAVID CUMMINGS	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1537/377	17-62
WV-061-002401-001	PEMBERTON, MARY	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1441/724	17-62
WV-061-002401-002	WHEELER, ROBERT ORA AND PAULA K.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1441/14	17-62
WV-061-002401-003	STAHLER, REBECCA LYNNE AND RODNEY R.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1441/008	17-62
WV-061-002401-004	WILLIAMS, JAMES EVERETT, II AND LISA W.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1441/020	17-62
WV-061-002401-005	TAYLOR, KAREN J. AND KENNETH	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1440/691	17-62
WV-061-002401-006	BERGA, JOYCE ANN	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1440/686	17-62
WV-061-002401-007	WILLIAMS, DENNIS KEITH AND SHERYL L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1443/436	17-62
WV-061-002401-008	MICHAEL, SUSAN L AND CHESTER L.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1440/680	17-62
WV-061-003542-001	MOORE, VELDA E.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1526/104	17-62
WV-061-003542-002	BAILEY, REBECCA H. HAUGHT	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1523/694	17-62
WV-061-003542-003	ROBERTSON, LOIS R. AND KENNETH A.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/224	17-62
WV-061-003542-004	EARL, SHARON G. AN D MICHAEL P	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1530/756	17-62
WV-061-003681-001	JOSEPH, JAMES AND RITA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1539/423	17-62
WV-061-002873-002	SEYMOUR S. BAILES ESTATE	NORTHEAST NATURAL ENERGY, LLC	DEED	1529/833	17-47.1
WV-061-001403-001	JOHN, LOIS MARIE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1375/889	17-47.1
WV-061-001403-005	STRICKLER, WILBUR RANDOLPH	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1375/841	17-47.1
WV-061-001403-006	MICHAEL, EMMA REGINA	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1377/791	17-47.1
WV-061-001403-008	MOORE, L. GAYLE	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1377/762	17-47.1
WV-061-001639-002	HAMILTON, FRANCES H.	CHESAPEAKE APPALACHIA, LLC	0.125 or greater	1387/266	17-52
WV-061-001639-006	HAMILTON, JOHNNY HERBERT AND CRYSTAL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1516/783	17-52
WV-061-001639-007	PUHALLA, FRANCES CAROL AND STEVEN J.	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1513/840	17-52
WV-061-003414-001	BRITVEC, STEVEN BURL	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1513/844	17-52
WV-061-003414-002	BROOKOVER, BARBARA KAY	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1513/842	17-52
WV-061-003414-003	BURKE, KRISTA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1512/592	17-52
WV-061-003414-004	MARKO, DAVID AND AMANDA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1517/030	17-52

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Operator's Well No. Kassay 5H

NNE Lease No.	Grantor, Lessor, etc.	Grantee	Royalty	Book/ Page	Tax Map & Parcel
WV-061-003414-005	RALEY, MARY ANN	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1513/828	17-52
WV-061-001932-001	EDDY-BARR, BARBARA	NORTHEAST NATURAL ENERGY, LLC	0.125 or greater	1506/141	17-65

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04/22/2016

Chesapeake Appalachia, LLC.



Northeast Natural Energy
Assignment
BK 120/769

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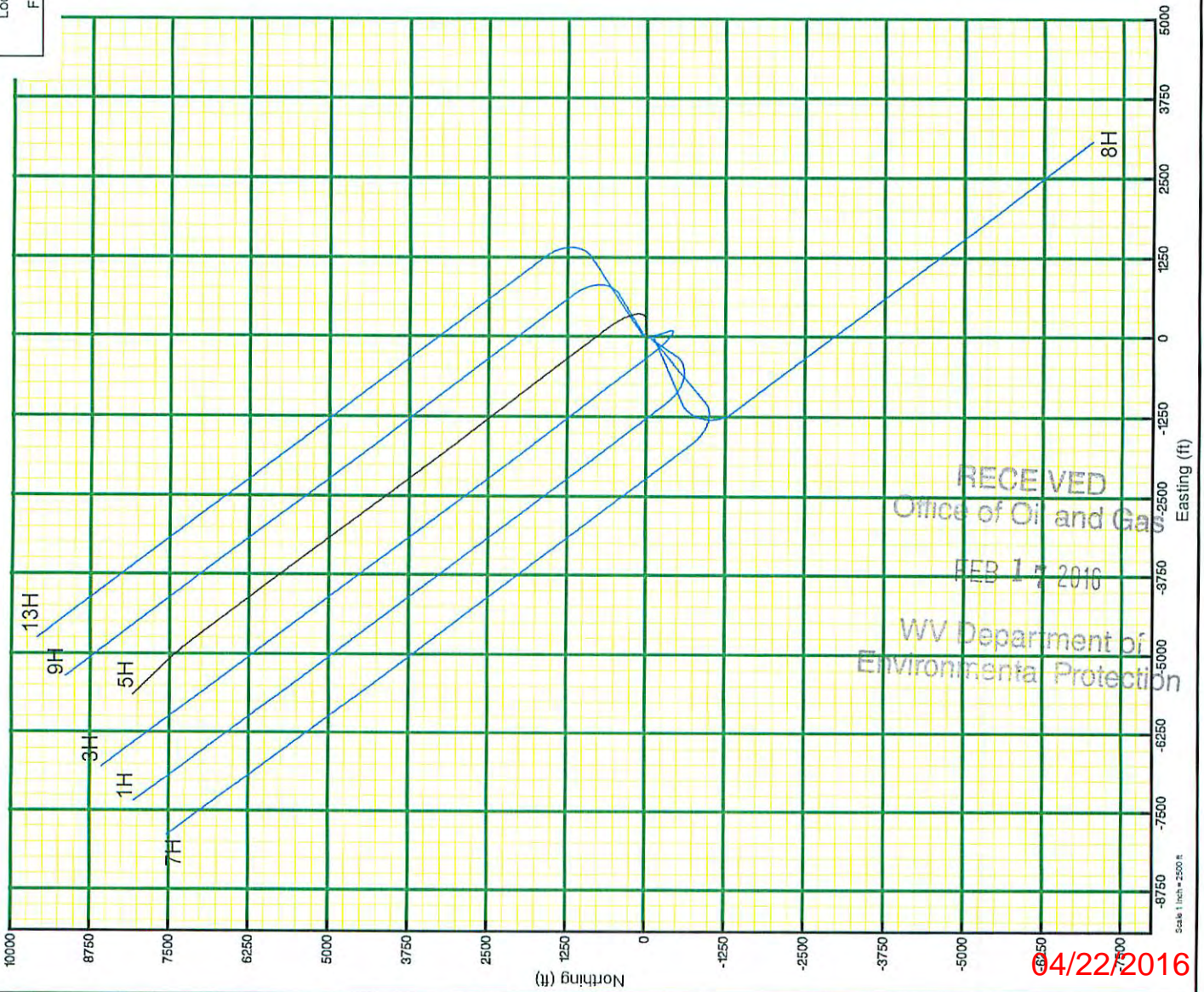
04/22/2016

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV

Facility: Kassay Pad

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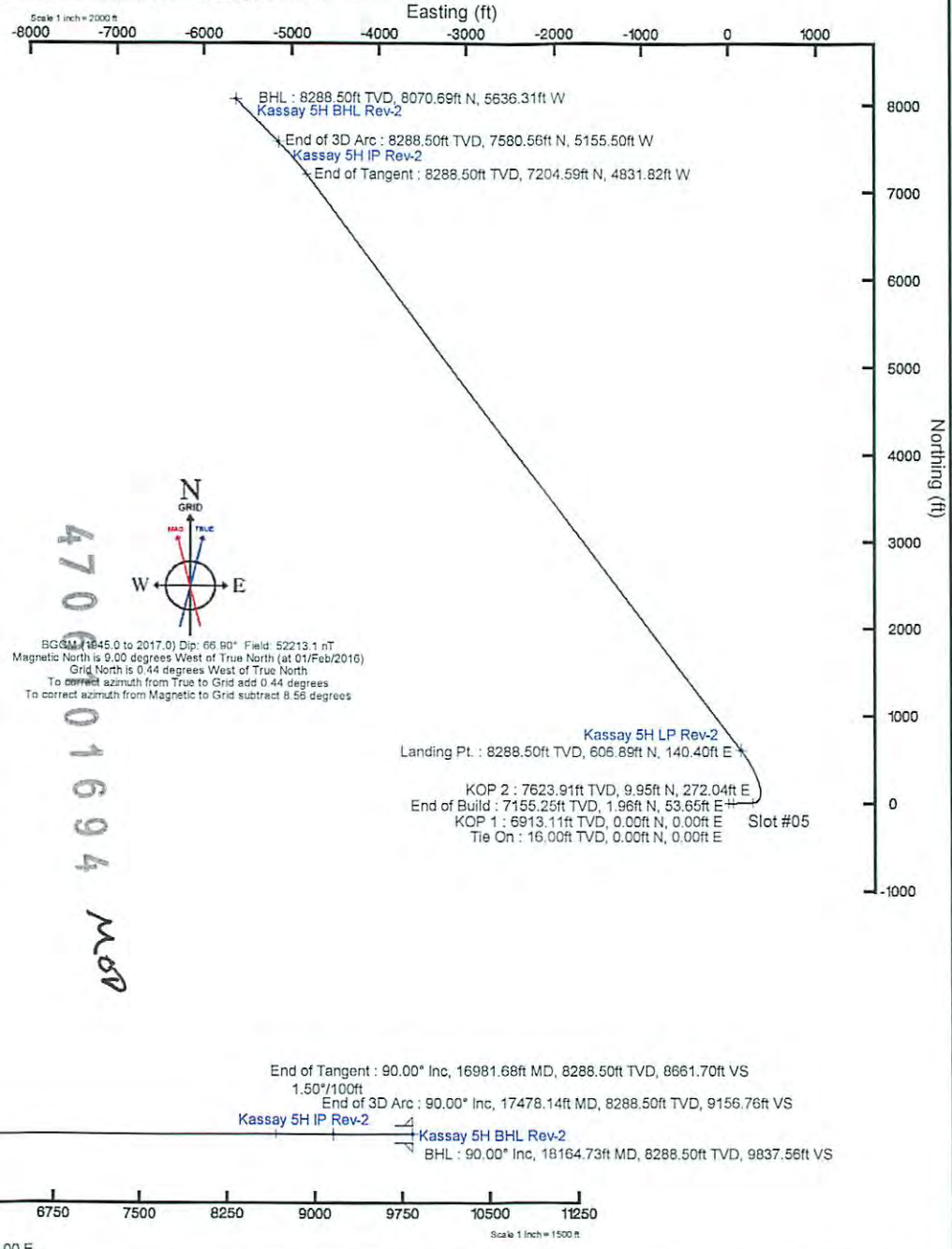
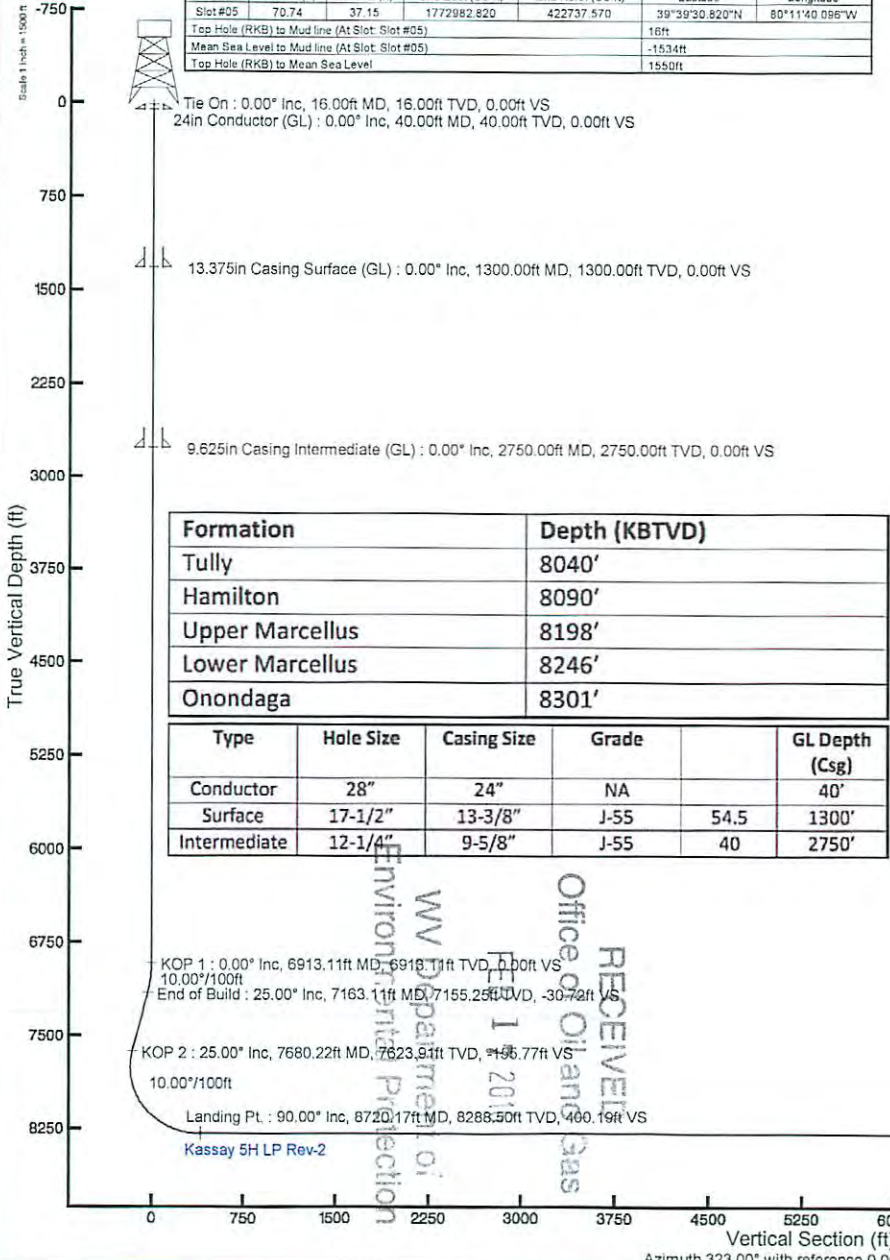
04/22/2016

NORTHEAST NATURAL ENERGY, LLC

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

Slot: Slot #05
 Well: Kassay 5H
 Wellbore: Kassay 5H PWB

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Kassay Pad	1772945.670	422668.830	39°39'30.118"N	80°11'40.564"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Grid East (US ft)
Slot #05	70.74	37.15	1772982.820	422737.570
Top Hole (RKB) to Mud line (At Slot: Slot #05)			16ft	
Mean Sea Level to Mud line (At Slot: Slot #05)			-15.34ft	
Top Hole (RKB) to Mean Sea Level			1550ft	



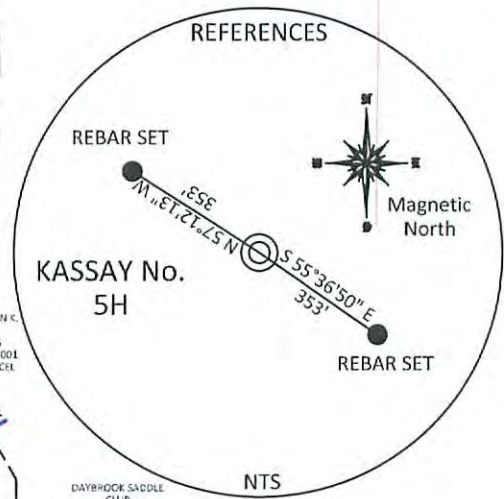
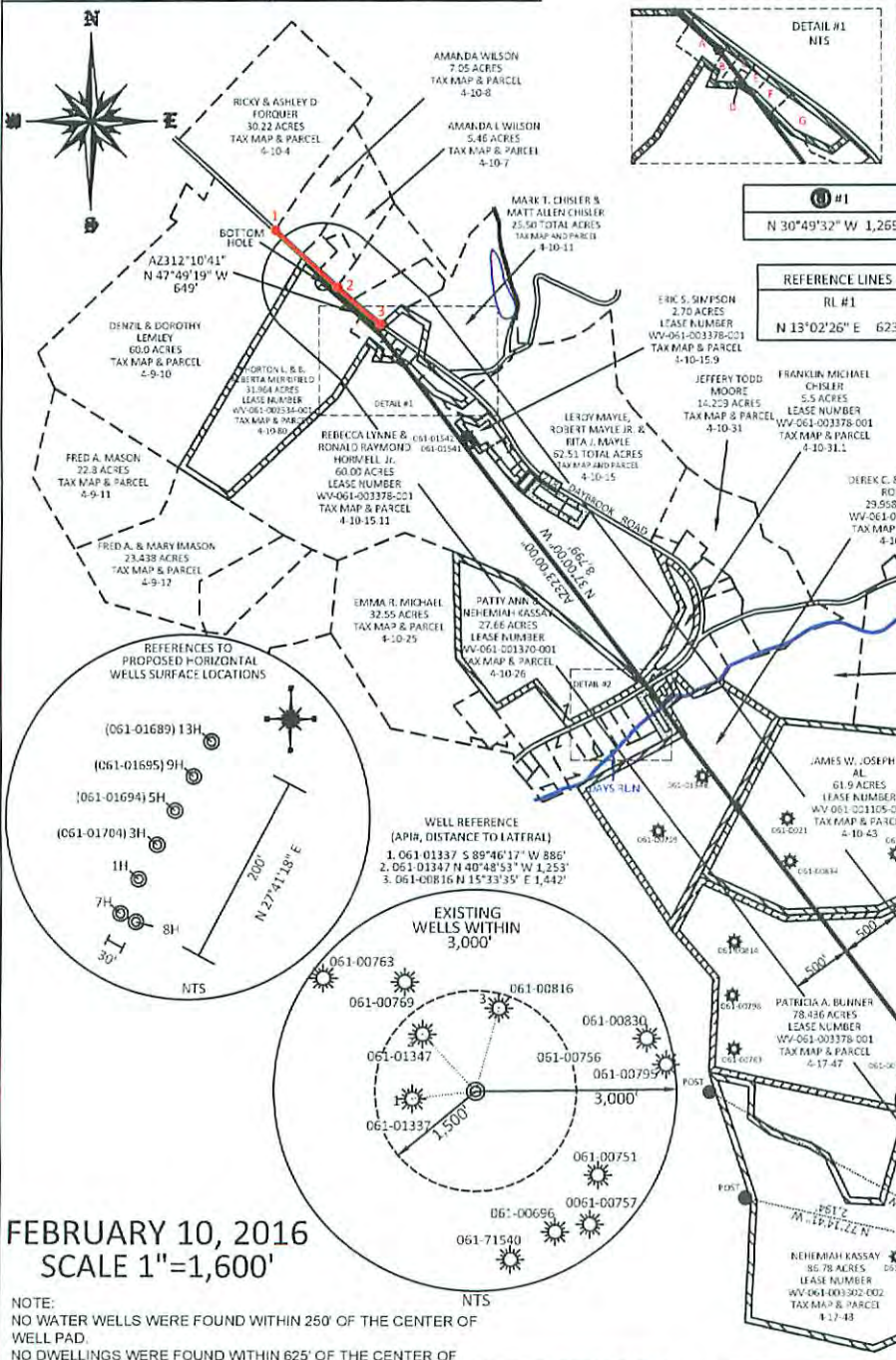
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Northeast Natural Energy LLC

Proposed Kassay No. 5H Clay District Monongalia County, WV

TOP HOLE (NAD 83) N) 422737.7 E) 1772982.8 LAT.) 39°39'30.8" LONG.) 80°11'40.1" DEC. LAT.) 39.658561 DEC. LONG.) 80.194471	LP (NAD 83) N) 423344.5 E) 1773123.2 LAT.) 39°39'36.8" LONG.) 80°11'38.4" DEC. LAT.) 39.660230 DEC. LONG.) 80.193989	INFLECTION POINT (NAD 83) N) 430371.8 E) 1767827.8 LAT.) 39°40'45.3" LONG.) 80°12'46.9" DEC. LAT.) 39.679409 DEC. LONG.) 80.212996	BOTTOM HOLE (NAD 83) N) 430807.6 E) 1767346.8 LAT.) 39°40'50.1" LONG.) 80°12'53.0" DEC. LAT.) 39.680595 DEC. LONG.) 80.214717
TOP HOLE (NAD 27) N) 422700.7 E) 1804419.9 LAT.) 39°39'30.5" LONG.) 80°11'40.8" DEC. LAT.) 39.658481 DEC. LONG.) 80.194676	LP (NAD 27) N) 423307.5 E) 1804560.3 LAT.) 39°39'36.5" LONG.) 80°11'39.1" DEC. LAT.) 39.660150 DEC. LONG.) 80.194194	INFLECTION POINT (NAD 27) N) 430334.9 E) 1799264.7 LAT.) 39°40'45.6" LONG.) 80°12'47.5" DEC. LAT.) 39.679329 DEC. LONG.) 80.213201	BOTTOM HOLE (NAD 27) N) 430770.7 E) 1798783.7 LAT.) 39°40'49.9" LONG.) 80°12'53.3" DEC. LAT.) 39.680515 DEC. LONG.) 80.214922
TOP HOLE (UTM NAD 83) N) 4390172.0 E) 569101.4	BOTTOM HOLE (UTM NAD 83) N) 4392602.0 E) 567343.2	470610	

PROPERTY OWNER	TAX MAP & PARCEL	LEASE NUMBER	ACRES
A THORNTON L. MERRIFIELD	10-0082-0000	WV-061-002534-001	1.18
B ALAN HENRY & HELEN DIAN OSER	10-0082-0003	WV-061-002534-001	0.4874
C DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0002	WV-061-002534-001	0.465
D DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0001	WV-061-002534-001	0.11
E DAVEY KYLE & PAULA ANN LEMLEY	10-0010-0001	WV-061-002534-001	0.5714
F DAVEY KYLE & PAULA ANN LEMLEY	10-0013-0000	WV-061-002534-001	0.70
G MARK T CHISLER & MATT ALLAN	10-0014-0000	WV-061-002534-001	1.835



FEBRUARY 10, 2016
SCALE 1"=1,600'

NOTE:
 NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD.
 NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD.

BOORD, BENCHEK and ASSOC., INC.
 EngiNNEring, Surveying, Construction, and Mining Services
 Southpointe, PA 15317 Phone: 724-746-1055



UNIT BOUNDARY LINE COORDINATES (NAD83)				
	NORTHING	EASTING	LATITUDE	LONGITUDE
1	430998.12	1767622.18	39.681124	80.213744
2	430774.61	1767463.81	39.680507	80.214301
3	431044.68	1767168.26	39.681241	80.215358

4	DOROTHY R. & EVERETT BARR	10-0026-0002	WV-061-003235-001	0.96
5	EVERETT R. & DOROTHY BARR	10-0027-0004	WV-061-003193-001	0.54
6	FRANKLIN MICHAEL CHISLER	10-0027-0002	WV-061-003190-001	0.012

04/22/2016

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

4706101694 MDP

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.

VOLUNTARY STATEMENT OF NO OBJECTION

I, Casey Saunders, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>West Virginia</u>	WVSPN NAD 27	Easting:	<u>1,804,419.959</u>
County:	<u>Monongalia</u>		Northing:	<u>422,700.659</u>
District:	<u>Clay</u>	Public Road Access:		
Quadrangle:	<u>BLACKSVILLE</u>	Generally used farm name:		
Watershed:				

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials, **provided that Northeast Natural Energy LLC drills the well on WV North NAD27 coordinates of North 422,700.659, East 1,804,419.959. This statement does not serve as notice that CONSOL Mining Company LLC has waived its rights to mine all the coal or accept any responsibility for any damage to the well or surface facilities associated with the well by CONSOL Mining Company LLC mining activity. This Voluntary Statement of No Objection does not waive CONSOL Mining Company LLC's Common Law Property Rights in the State of West Virginia.**

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input checked="" type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input checked="" type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p align="center">FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p>
	<p align="center">FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>CONSOL Mining Company LLC</u></p> <p>By: <u>Casey V. Saunders</u></p> <p>Its: <u>Senior Project Engineer</u></p> <p>Signature: <u>Casey V. Saunders</u></p> <p>Date: <u>4/18/2016</u></p>

Oil and Gas Privacy Notice:

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

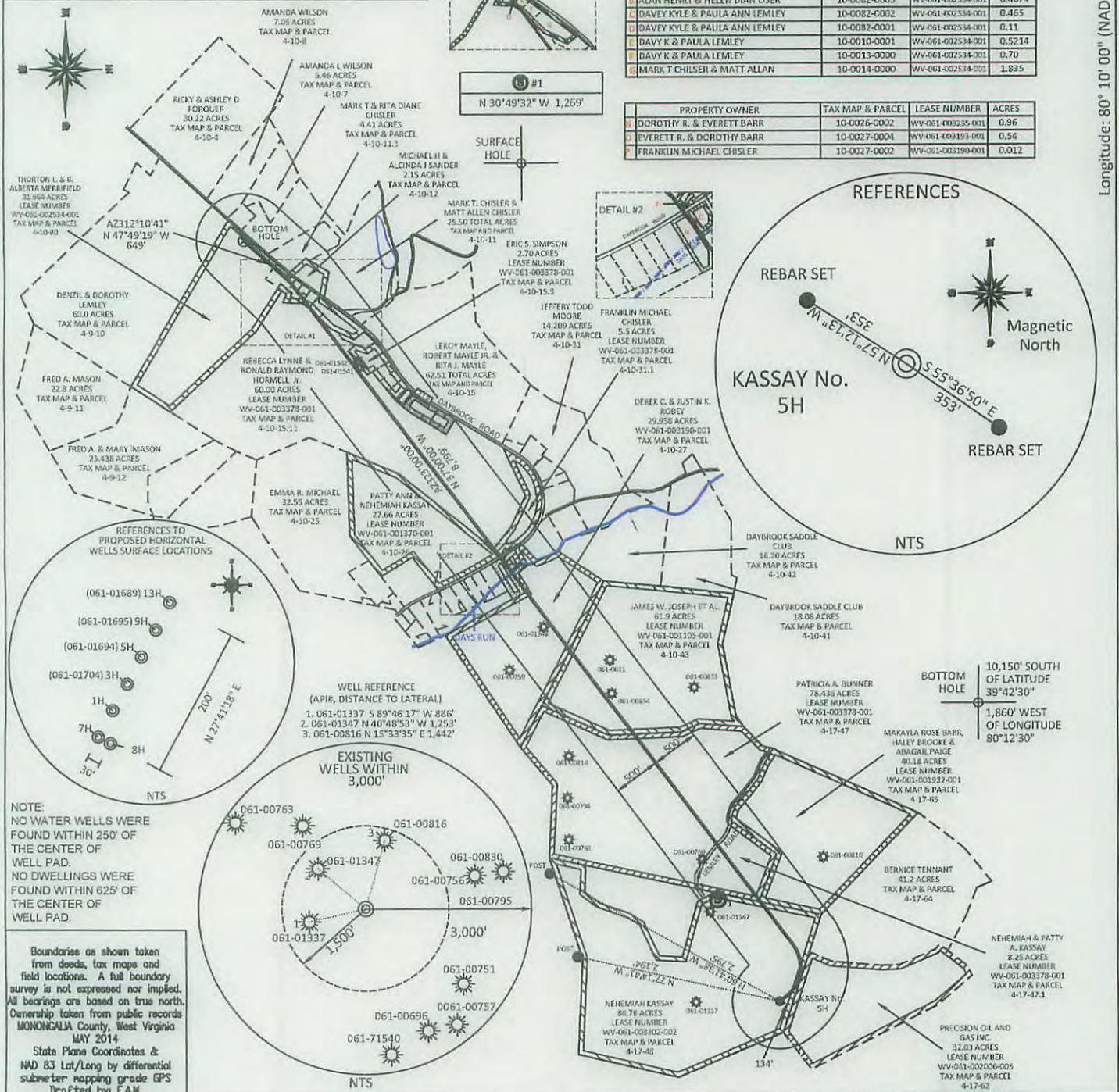
SURFACE HOLE DEC. LONG: 80.194576
SURVEYED LONG: 80° 11' 40.8"

7,890'

Latitude: 39° 40' 00" (NAD27)

Longitude: 80° 10' 00" (NAD27)

TOP HOLE (UTM NAD 83) N) 4390172.0 E) 569101.4	BOTTOM HOLE (UTM NAD 83) N) 4392602.0 E) 567343.2
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NOTE:
NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD.
NO DWELLINGS WERE FOUND WITHIN 825' OF THE CENTER OF WELL PAD.

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 MAY 2014
State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
Drafted by: EAJ

FILE #: NNE15
DRAWING #: 2535
SCALE: PLAT: 1" = 1600'
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 / CLAY
SURFACE OWNER: NEHEMIAH KASSAY
OIL & GAS ROYALTY OWNER: NEHEMIAH & PATTY A. KASSAY
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
WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301
DATE: FEBRUARY 9, 2016
OPERATOR'S WELL #: KASSAY NO. 5H
API WELL #: 47 61 1694 H6A
STATE COUNTY PERMIT
PROPOSED ELEVATION: 1,534'
CURRENT ELEVATION: 1,560'
QUADRANGLE: BLACKSVILLE
ACREAGE: 86.78 +/-
ACREAGE: 532.2108 +/- 04/22/2016
ESTIMATED DEPTH: TVD: 8,288.50' TMD: 18,164.73'
DESIGNATED AGENT: JOHN ADAMS
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301

SURFACE HOLE DEC. LONG: 80.194676
SURVEYED LONG: 80° 11' 40.8"

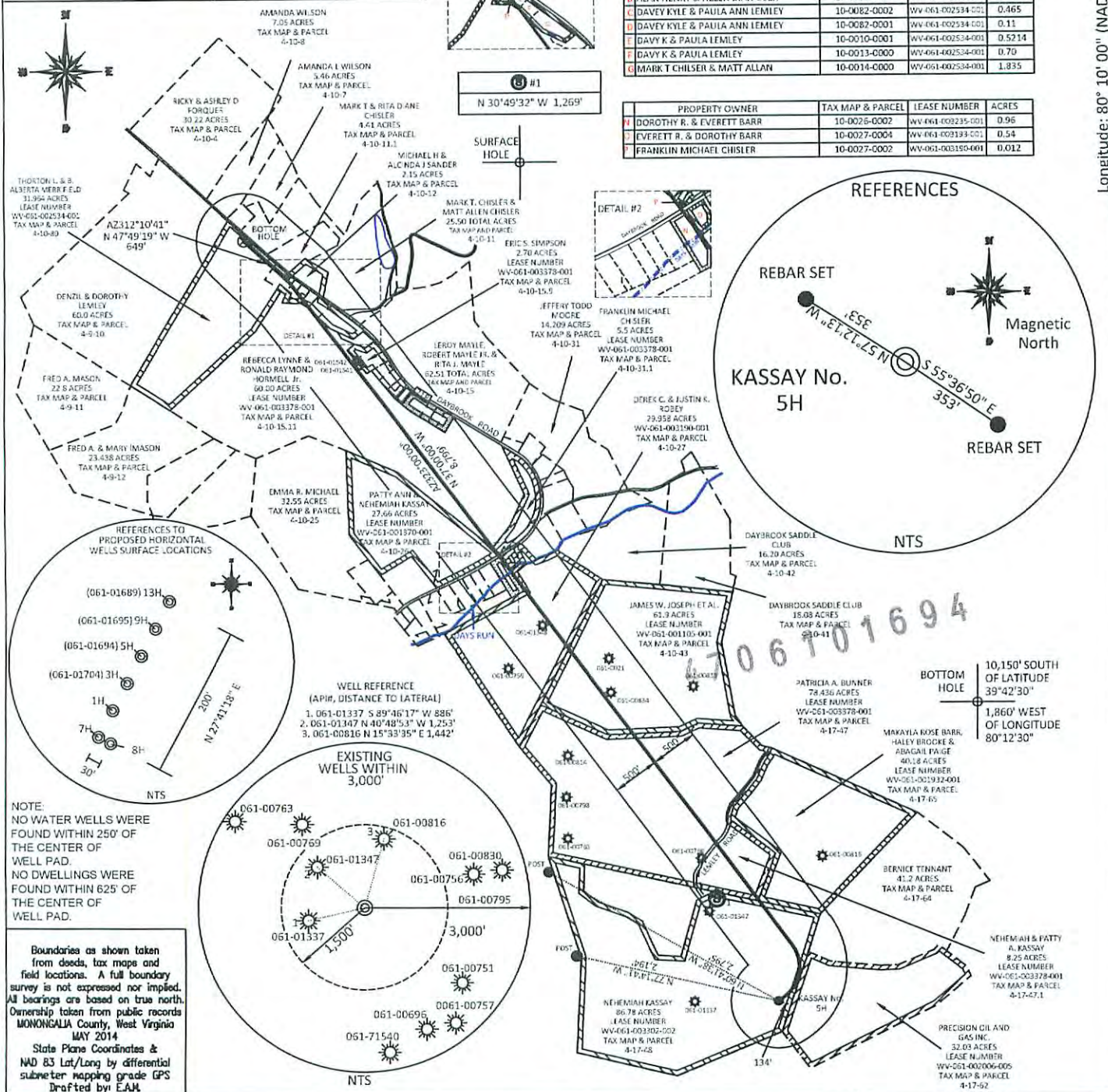
7.890'

Latitude: 39° 40' 00" (NAD27)

TOP HOLE (UTM NAD 83) N) 4390172.0 E) 569101.4	BOTTOM HOLE (UTM NAD 83) N) 4392602.0 E) 567343.2
--	---

PROPERTY OWNER	TAX MAP & PARCEL	LEASE NUMBER	ACRES
A THORNTON L. MERRIFIELD	10-0082-0000	WV-061-002534-001	1.18
B ALAN HENRY & HELEN DIAN OSER	10-0082-0003	WV-061-002534-001	0.4874
C DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0002	WV-061-002534-001	0.465
D DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0001	WV-061-002534-001	0.11
E DAVEY KYLE & PAULA ANN LEMLEY	10-0010-0001	WV-061-002534-001	0.5214
F DAVEY KYLE & PAULA ANN LEMLEY	10-0013-0000	WV-061-002534-001	0.70
G MARK T CHILSER & MATT ALLAN	10-0014-0000	WV-061-003150-001	1.835

PROPERTY OWNER	TAX MAP & PARCEL	LEASE NUMBER	ACRES
H DOROTHY R. & EVERETT BARR	10-0026-0002	WV-061-003235-001	0.96
I EVERETT R. & DOROTHY BARR	10-0027-0004	WV-061-003235-001	0.54
J FRANKLIN MICHAEL CHISLER	10-0027-0002	WV-061-003150-001	0.012



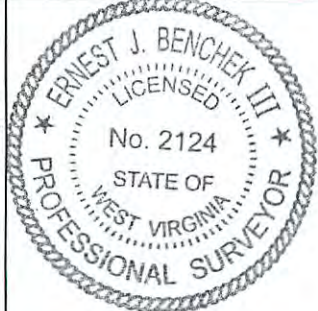
Longitude: 80° 10' 00" (NAD27)

SURFACE HOLE DEC. LAT: 39.668481
SURVEYED LAT: 39° 39' 30.5"

FILE #: NNE15
DRAWING #: 2535
SCALE: PLAT: 1" = 1600'
TRK: 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

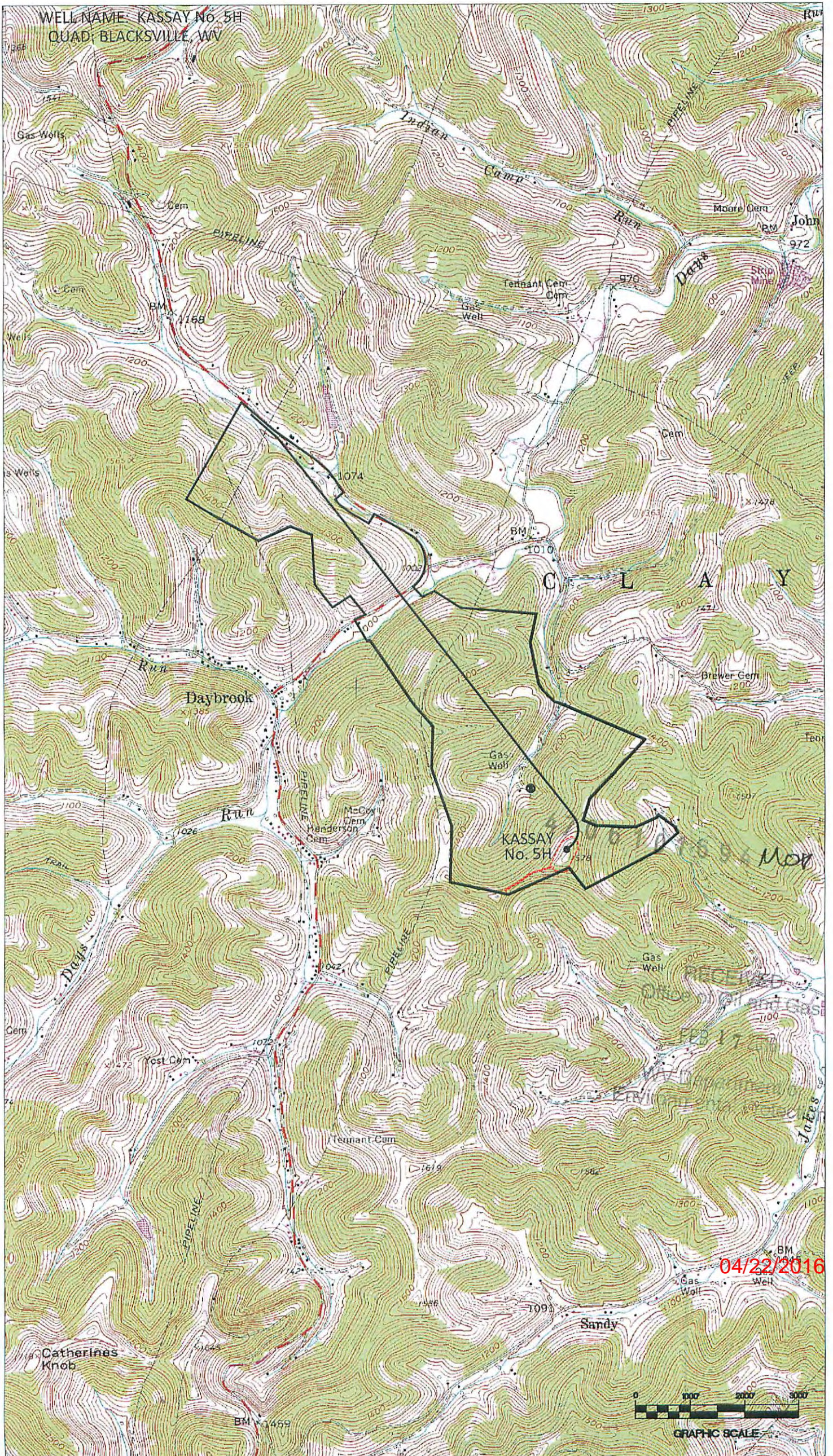
WATERSHED: DUNKARD CREEK
COUNTY/DISTRICT: MONONGALIA / CLAY
SURFACE OWNER: NEHEMIAH KASSAY
OIL & GAS ROYALTY OWNER: NEHEMIAH & PATTY A. KASSAY
LEASE NUMBERS: _____

DATE: FEBRUARY 9, 2016
OPERATOR'S WELL #: KASSAY NO. 5H
API WELL #: 47 61 STATE COUNTY PERMIT
PROPOSED ELEVATION: 1,534'
CURRENT ELEVATION: 1,560'
QUADRANGLE: BLACKSVILLE
ACREAGE: 86.78 +/-
ACREAGE: 532.2108 +/-

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: 8,288.50' TMD: 18,164.73'
WELL OPERATOR: NORTHEAST NATURAL ENERGY LLC
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301
DESIGNATED AGENT: JOHN ADAMS
ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200
CITY: CHARLESTON STATE: WV ZIP CODE: 25301

WELL NAME: KASSAY No. 5H
QUAD: BLACKSVILLE, WV

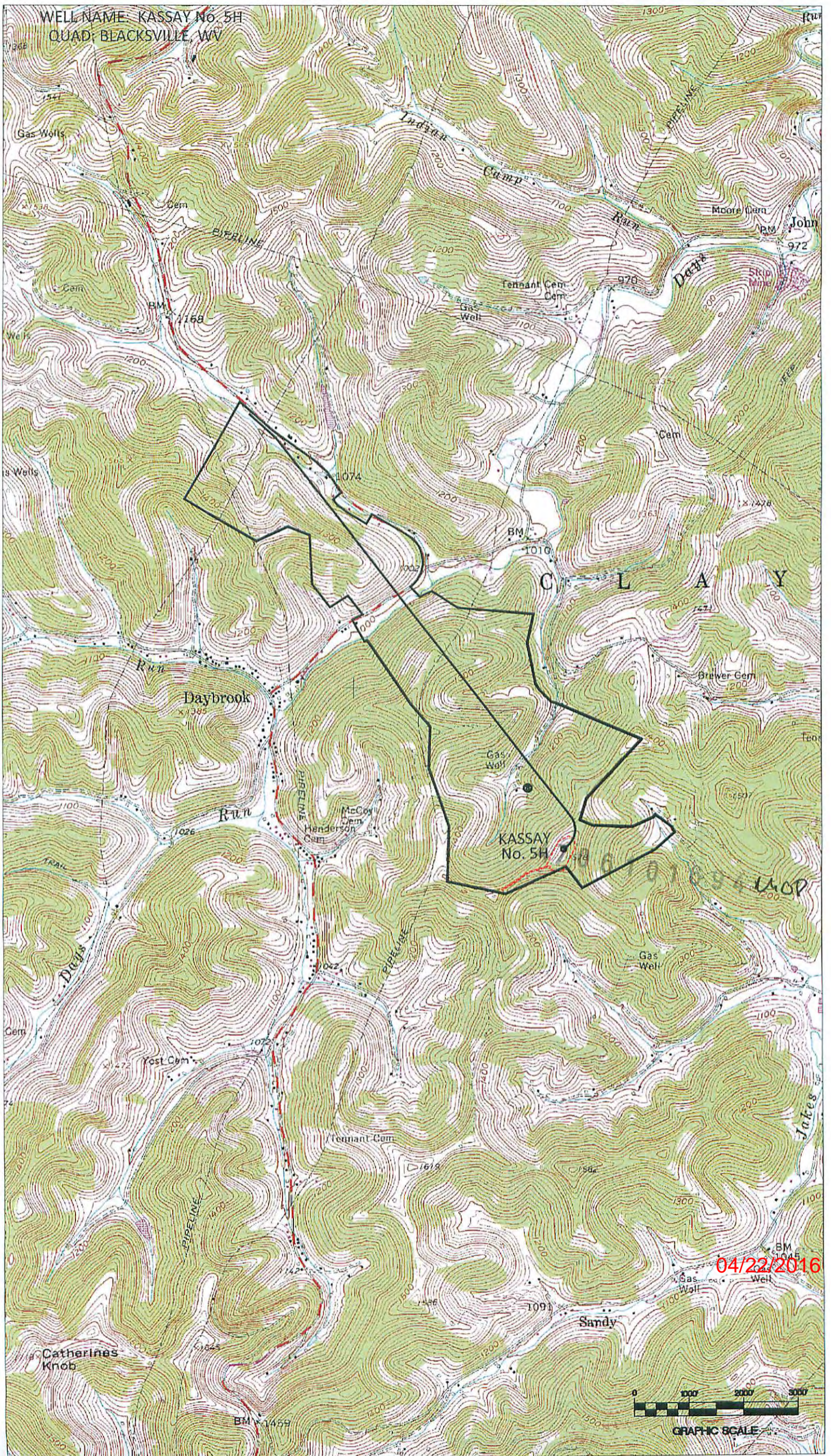


04/22/2016



GRAPHIC SCALE

WELL NAME: KASSAY No. 5H
QUAD: BLACKSVILLE, WV

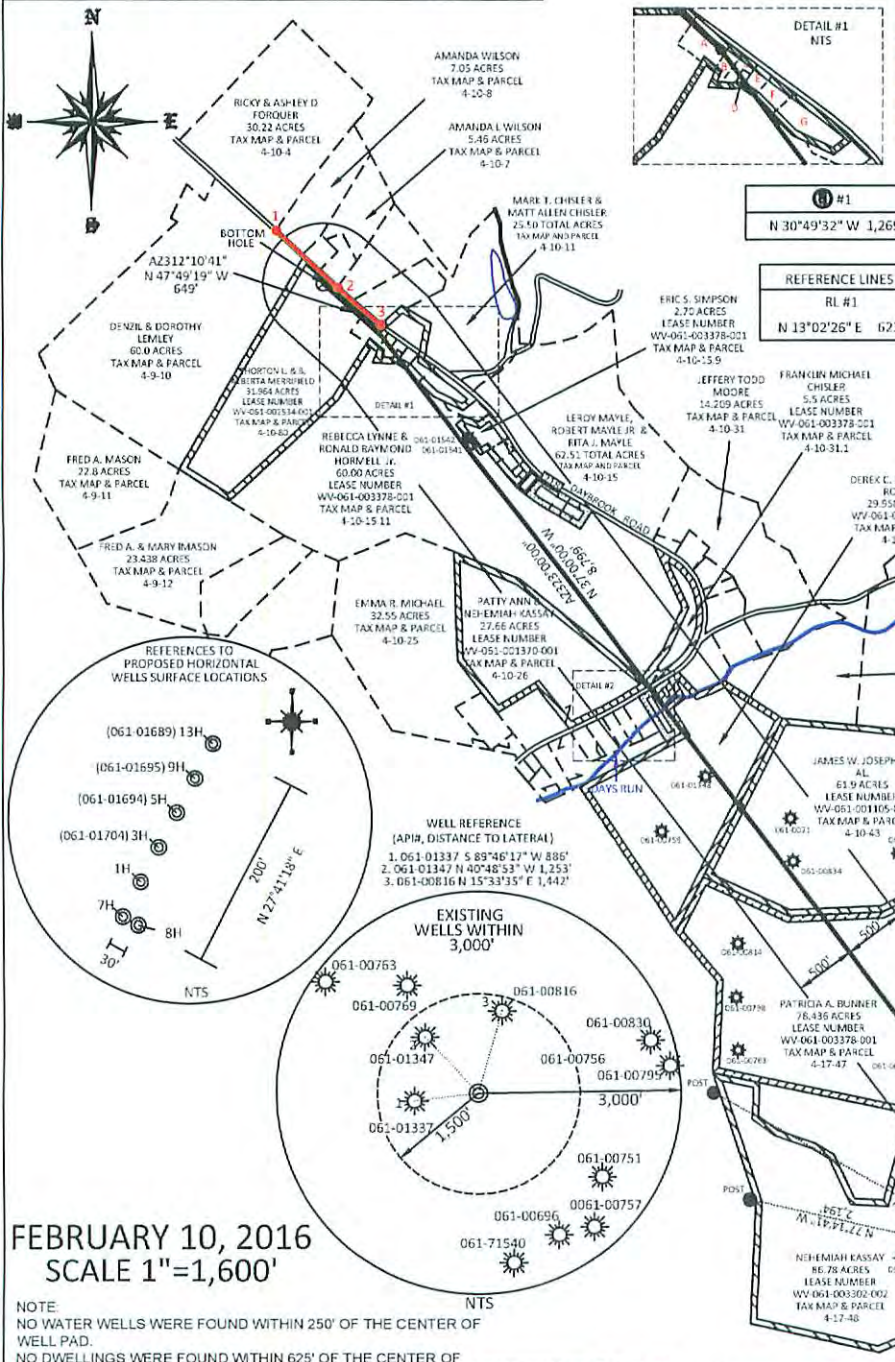


Northeast Natural Energy LLC

Proposed Kassay No. 5H Clay District

Monongalia County, WV

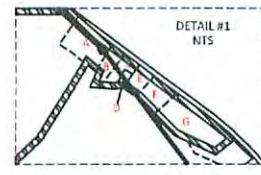
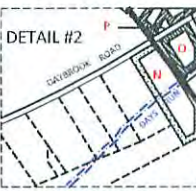
TOP HOLE (NAD 83) N) 422737.7 E) 1772982.8 LAT.) 39°39'30.8" LONG.) 80°11'40.1" DEC. LAT.) 39.658561 DEC. LONG.) 80.194471	LP (NAD 83) N) 423344.5 E) 1773123.2 LAT.) 39°39'36.8" LONG.) 80°11'38.4" DEC. LAT.) 39.660230 DEC. LONG.) 80.193999	INFLECTION POINT (NAD 83) N) 430371.8 E) 1767827.8 LAT.) 39°40'45.3" LONG.) 80°12'46.9" DEC. LAT.) 39.679409 DEC. LONG.) 80.212996	BOTTOM HOLE (NAD 83) N) 430807.6 E) 1767346.8 LAT.) 39°40'50.1" LONG.) 80°12'53.0" DEC. LAT.) 39.680595 DEC. LONG.) 80.214717
TOP HOLE (NAD 27) N) 422700.7 E) 1804419.9 LAT.) 39°39'30.5" LONG.) 80°11'40.8" DEC. LAT.) 39.658481 DEC. LONG.) 80.194676	LP (NAD 27) N) 423307.5 E) 1804560.3 LAT.) 39°39'36.5" LONG.) 80°11'39.1" DEC. LAT.) 39.660150 DEC. LONG.) 80.194194	INFLECTION POINT (NAD 27) N) 430334.9 E) 1799264.7 LAT.) 39°40'45.6" LONG.) 80°12'47.5" DEC. LAT.) 39.679329 DEC. LONG.) 80.213201	BOTTOM HOLE (NAD 27) N) 430770.7 E) 1798783.7 LAT.) 39°40'49.9" LONG.) 80°12'53.7" DEC. LAT.) 39.680515 DEC. LONG.) 80.214922
TOP HOLE (UTM NAD 83) N) 4390172.0 E) 569101.4		BOTTOM HOLE (UTM NAD 83) N) 4392602.0 E) 567343.2	



FEBRUARY 10, 2016
SCALE 1"=1,600'

NOTE:
NO WATER WELLS WERE FOUND WITHIN 250' OF THE CENTER OF WELL PAD.
NO DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF WELL PAD.

BOORD, BENCHEK and ASSOC., INC.
EngiNNEring, Surveying, Construction, and Mining Services
Southpointe, PA 15317 Phone: 724-746-1055



PROPERTY OWNER	TAX MAP & PARCEL	LEASE NUMBER	ACRES
THORNTON L. MERRFIELD	10-0082-0000	WV-061-002534-001	1.18
ALAN HENRY & HELEN DIAN OSER	10-0082-0003	WV-061-002534-001	0.4874
DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0002	WV-061-002534-001	0.455
DAVEY KYLE & PAULA ANN LEMLEY	10-0082-0001	WV-061-002534-001	0.11
DAVEY K & PAULA LEMLEY	10-0010-0001	WV-061-002534-001	0.5714
DAVEY K & PAULA LEMLEY	10-0013-0000	WV-061-002534-001	0.70
MARK T CHISLER & MATT ALLAN	10-0014-0000	WV-061-002534-001	1.835

