



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

Monday, July 9, 2018
WELL WORK PERMIT
Horizontal 6A / New Drill

ARSENAL RESOURCES LLC
6031 WALLACE ROAD EXTENSION SUITE 603

WEXFORD, PA 15090

Re: Permit approval for GRIFFIN HC 214
47-033-05921-00-00

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

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

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

James A. Martin
Chief

Operator's Well Number: GRIFFIN HC 214
Farm Name: BRADLEY A. & VICKY L. GRI
U.S. WELL NUMBER: 47-033-05921-00-00
Horizontal 6A New Drill
Date Issued: 7/9/2018

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.

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

4703305921

1) Well Operator: Arsenal Resources 494519412 Harrison Clay Clarksburg
Operator ID County District Quadrangle

2) Operator's Well Number: Griffin HC 214 Well Pad Name: Griffin HC

3) Farm Name/Surface Owner: Bradley A. & Vicky L. Griffin Public Road Access: SR 131

4) Elevation, current ground: 1243.41' Elevation, proposed post-construction: 1243.5'

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal _____

*SDew
4/3/2018*

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus Shale, Top-7447, Bottom- 7547, Anticipated Thickness- 100ft, Associated Pressure- 0.5 psi/ft

8) Proposed Total Vertical Depth: 7535.5ft

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 14980.7ft

11) Proposed Horizontal Leg Length: 7003.2ft

12) Approximate Fresh Water Strata Depths: 181ft, 221ft, 285ft, 357ft, 401ft, 468ft, 511ft

13) Method to Determine Fresh Water Depths: Offsetting wells reported water depths (033-02903, 033-02918, 033-09250, 033-30590, 033-02913)

14) Approximate Saltwater Depths: 771ft, 952ft

15) Approximate Coal Seam Depths: Redstone Coal- 286ft, Pittsburgh Coal- 316ft

16) Approximate Depth to Possible Void (coal mine, karst, other): Open mine void possible at 316ft

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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WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47-033 -

OPERATOR WELL NO. Griffin HC 214

Well Pad Name: Griffin HC

47 03 3 05 9 2 1

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	26	Used		102.7	80	80 ✓	CTS
Fresh Water	13.375	New	J-55	54.5	600	600 ✓	CTS
Coal							
Intermediate	9.625	New	J-55	40	2,000	2,000 ✓	CTS
Production	5.5	New	P-110	20	14,981	14,981	TOC @ 1,850
Tubing							
Liners							

SOW
4/3/2018

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	26	36			0	Class A, 3% CaCl ₂	1.2
Fresh Water	13.375	17.5	0.38	2,730	900	Class A, 3% CaCl ₂	1.2
Coal							
Intermediate	9.625	12.25	0.395	3,950	1,500	Class A, 3% CaCl ₂	1.29
Production	5.5	8.5-8.75	0.361	12,640	9,500	Class A/50.60 Poz	1.29/1.34
Tubing					5,000		
Liners					N/A		

PACKERS

Kind:				
Sizes:				
Depths Set:				

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Environmental Protection

47 03 3 05 9 2 1

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

The well will be started with a conductor rig drilling a 36" hole to Conductor programmed depth then running 26" casing and circulate cement back to surface. The conductor rig will move out and the drilling rig will move in and rig up. The drilling rig will then spud a 17 1/2" hole and drill to fresh water casing (Surface) to the programmed depth, Run 13- 3/8" casing and cement to surface. The rig will continue drilling a 12- 1/4" intermediate hole to the programmed depth, run 9- 5/8" casing and cement to surface. The rig will then continue to drill an 8- 3/4" hole to a designed KOP. We will then start drilling the curve and lateral section to the programmed total measured depth, run 5 1/2" casing and cement according to the program.

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

The well will be completed using a plug and perforation method and stimulated with a slickwater and sand slurry. The anticipated maximum rate will be 90 bpm and the maximum pressure will be 9,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 44.270

22) Area to be disturbed for well pad only, less access road (acres): 19.167

23) Describe centralizer placement for each casing string:

26"- No centralizers 13 3/8" – one bow spring centralizer on every other joint 9 5/8" – one bow spring centralizer every third joint from TD to surface 5 1/2" – one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to 2,100'; there will be no centralizers from 2,100 to surface.

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

26" will be circulated to surface. The 13 3/8" casing will be cemented to surface with Class A cement and no greater than 3% CaCl (calcium chloride). The 9 5/8" casing will be cemented to surface with Class A cement, & no greater than 3% calcium chloride. The 5 1/2" production string will be cemented back to 1,850' (+/- 150' above the casing shoe for the 9 5/8") with Class A and 50/50 Poz cement retarded (to extend pumpability) cellophane flaked for fluid loss, Bentonite gel as an extender (increased pumpability and fluid loss), a defoaming agent to decrease cement foaming during mixing to insure the cement is of proper weight to placement and possibly gypsum gas blocking additive to aid in blocking/gas migration (in combination with other additive mentioned here, helps cement achieve a "right angle" set) during the plastic phase of the cement set-up.

25) Proposed borehole conditioning procedures:

Top holes will be drilled with fresh water KOP. At KOP, the wellbore will be loaded with synthetic oil based mud, barite-weighted mud system with such properties as to build a filter-cake on the face of the bore-hole. This will provide lubricity as well as stabilizing the well bore. We will begin rotating the drill string and mud will be circulated upon reaching TD until no further cuttings are observed coming across the shaker screens. Once clean mud is circulated back to surface, we will pull three stands of drill pipe, load the hole, pull three strands and load the hole. The weight indicator on the rig will be monitored for any occurrences of drag and if any are noticed, we will re-run the previous stand of pipe pulled across and circulate 2x bottoms up while watching shakers for signs of cuttings. Once at the base curve, the string will be continuously rotated while pumping 2x bottoms up. We will pull three stands and fill the hole until we reach the vertical section of the well.

*Note: Attach additional sheets as needed.

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June 6, 2018
WV Department of
Environmental Protection

4703305921

Area of Review Report - **Griffin HC** Pad, **214** Lateral, **Harrison** County, WV

Well Name	API Number	Operator Name / Address	Well Type	Latitude	Longitude	Total Depth	Perforated Formation(s)	Producing Zones not Perforated
4491	033-01670	Equitable Production Company	Unknown	39.370157	-80.284932	1768	Big Injun (undiff)	NA
Shinn 3	033-02594	Doran & Associates, Inc.	Plugged - 05/31/1981	39.372765	-80.289383	2835	NA	NA
K222 8	033-02711	Enervest Operating, LLC	Active - vertical	39.373636	-80.288823	2725	Fifth	NA
KR-27 7	033-02637	Enervest Operating, LLC	Unknown	39.373474	-80.286263	2800	Fifth	NA
K-L-185 2	033-02523	Bayer Brokerage Company, Inc.	Active - vertical	39.375389	-80.289641	2950	Fifth	NA
K-L-122	033-02361	Bayer Brokerage Company, Inc.	Active - vertical	39.378258	-80.290762	2812	Fifth	NA
K-L-116 3	033-02363	Bayer Brokerage Company, Inc.	Active - vertical	39.379966	-80.289876	2675	Fifth	NA
K-Y-2 3	033-02596	Pillar Energy, LLC	Active - vertical	39.385548	-80.294094	2650	Fifth	NA

7535.5

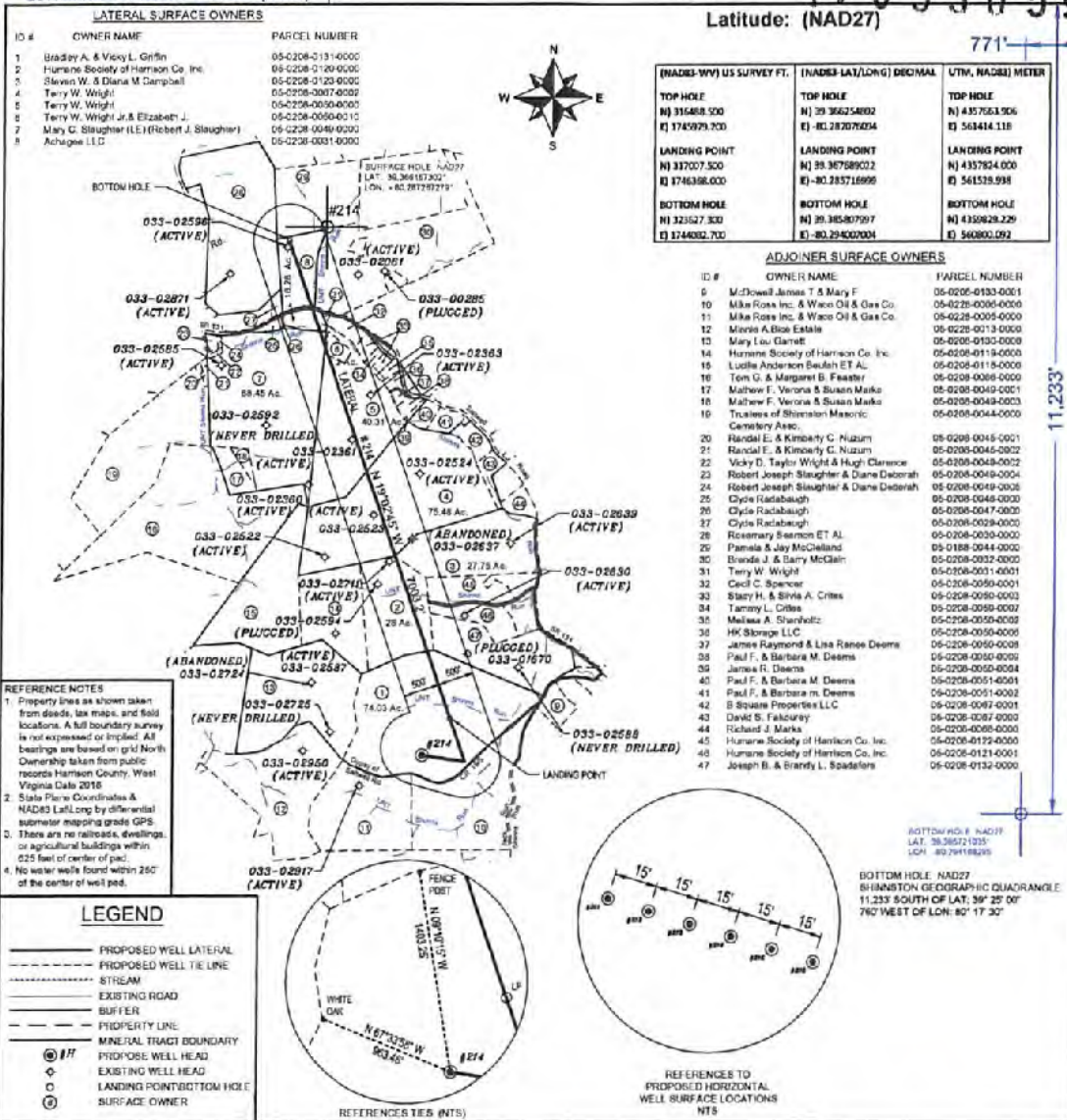
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AOR - ATTACHMENT "A"

SURFACE HOLE SURVEYED 39° 21' 58" (NAD27)
 BOTTOM HOLE SURVEYED 39° 23' 08" (NAD27)

10,508'

Latitude: (NAD27) 47033059.21



(NAD83-WV) US SURVEY FT.	(NAD83-LAT/LONG) DECIMAL	UTM, NAD83) METERS
TOP HOLE	TOP HOLE	TOP HOLE
N) 315488.500	N) 39.366254802	N) 435763.506
E) 1747979.700	E) -80.282076034	E) 563414.118
LANDING POINT	LANDING POINT	LANDING POINT
N) 317007.300	N) 39.367589032	N) 435764.000
E) 1746398.000	E) -80.283716999	E) 563519.998
BOTTOM HOLE	BOTTOM HOLE	BOTTOM HOLE
N) 312627.300	N) 39.365807997	N) 435828.229
E) 1744602.700	E) -80.294007004	E) 560800.092

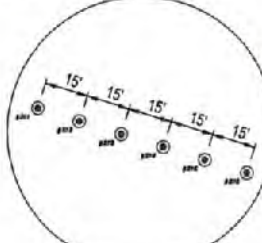
ID #	OWNER NAME	PARCEL NUMBER
9	M. Powell, Anne T & Mary F	05-0205-0130-0001
10	Mike Ross Inc. & Waco Oil & Gas Co.	05-0225-0005-0000
11	Mike Ross Inc. & Waco Oil & Gas Co.	05-0225-0005-0000
12	Minnie A. Bloe Estate	05-0225-0013-0000
13	Mary Lou Garrett	05-0205-0130-0000
14	Humane Society of Harrison Co. Inc.	05-0205-0011-0000
15	Ludie Anderson Beulah ET AL.	05-0205-0118-0000
16	Tom G. & Margaret B. Feaster	05-0209-0086-0000
17	Mathew F. Verona & Susan Marko	05-0205-0040-0001
18	Mathew F. Verona & Susan Marko	05-0205-0048-0003
19	Trustees of Sherraton Masonic Cemetery Assoc.	05-0205-0044-0000
20	Randal E. & Kimberly C. Nuzum	05-0205-0045-0001
21	Randal E. & Kimberly C. Nuzum	05-0205-0045-0002
22	Vicky D. Taylor Wright & Hugh Clarence	05-0205-0049-0002
23	Robert Joseph Slaughter & Diane Deterah	05-0205-0049-0004
24	Robert Joseph Slaughter & Diane Deterah	05-0205-0049-0005
25	Clyde Ractabaugh	05-0205-0048-0000
26	Clyde Ractabaugh	05-0205-0047-0000
27	Clyde Ractabaugh	05-0205-0050-0000
28	Rosemary Seamon ET AL.	05-0205-0050-0000
29	Pamela & Jay McClelland	05-0188-0044-0000
30	Branda J. & Barry McClain	05-0205-0052-0000
31	Terry W. Wright	05-0205-0051-0001
32	Cecil C. Spencer	05-0205-0050-0001
33	Stacy H. & Sirlie A. Critts	05-0205-0050-0003
34	Tammy L. Critts	05-0205-0050-0002
35	Melissa A. Sherrill	05-0205-0050-0008
36	HK Storage LLC	05-0205-0050-0009
37	James Raymond & Lisa Renee Deems	05-0205-0050-0008
38	Paul F. & Barbara M. Deems	05-0205-0050-0000
39	James R. Deems	05-0205-0050-0004
40	Paul F. & Barbara M. Deems	05-0205-0051-0001
41	Paul F. & Barbara M. Deems	05-0205-0051-0002
42	B Square Properties LLC	05-0205-0067-0001
43	David S. Falcoury	05-0205-0067-0000
44	Richard J. Marks	05-0205-0068-0000
45	Humane Society of Harrison Co. Inc.	05-0205-0112-0000
46	Humane Society of Harrison Co. Inc.	05-0205-0121-0001
47	Joseph B. & Brandy L. Spadefors	05-0205-0132-0000

REFERENCE NOTES

- Property lines as shown taken from deeds, tax maps, and field locations. A full boundary survey is not expressed or implied. All bearings are based on grid North. Ownership taken from public records Harrison County, West Virginia Data 2016.
- State Plane Coordinates & NAD83 Lxll, cop by differential stationing using grade GPS.
- There are no railroads, dwellings, or agricultural buildings within 025 feet of center of pad.
- No water wells found within 250' of the center of well pad.

LEGEND

- PROPOSED WELL LATERAL
- PROPOSED WELL TIE LINE
- STREAM
- EXISTING ROAD
- BUFFER
- PROPERTY LINE
- MINERAL TRACT BOUNDARY
- PROPOSED WELL HEAD
- EXISTING WELL HEAD
- LANDING POINT/BOTTOM HOLE
- SURFACE OWNER



BOTTOM HOLE NAD27
 LAT. 39.36521235
 LONG. -80.29118829

BOTTOM HOLE NAD27
 SHANNON GEODESIC QUADRANGLE
 11.233' SOUTH OF LAT. 39° 25' 00"
 760' WEST OF LONG. 80° 17' 30"

FILE#: 17078-006
 SHEET#: 1 of 1
 SCALE: 1" = 2000'
 TICK SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200
 PROVEN SOURCE OF ELEVATION: WV-RTN CORS STATION

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: *Gary W. Kuroski* 03-07-2018
 P.S. #2069: Gary W. Kuroski, P.S.



(+) 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: WEST FORK
 COUNTY / DISTRICT: HARRISON COUNTY CLAY-OUTSIDE DISTRICT
 SURFACE OWNER: BRADLEY A. & VICKY L. GRIFFIN
 OIL & GAS ROYALTY OWNER: SQUIRES, ALICE J. ROBERT, AROL C. VANCE L. LARRY & GARY, BERTSCHY BERYLDENE, GARRETT MARY LOU & WEST MONNA JO

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: ARSENAL RESOURCES
 ADDRESS: 8031 WALLACE ROAD EXTENSION # 300
 CITY: WEXFORD STATE: PA ZIP: 15090



DATE: MARCH 7, 2018

GRIFFIN HC
 OPERATOR'S WELL #: # 214

API WELL #: 47 033 TBD
 STATE COUNTY PERMIT

ELEVATION: 1243.5'
 QUADRANGLE: CLARKSBURG, WV
 ACREAGE: 74
 ACREAGE: 332 ±

ESTIMATED DEPTH: TVD: 7535.5' TMD: 14980.7'
 DESIGNATED AGENT: WILLIAM VEIGEL
 ADDRESS: 65 PROFESSIONAL PLACE SUITE 200
 CITY: BRIDGEPORT STATE: WV ZIP: 26330

Longitude: (NAD27) 11.233'

SURFACE HOLE SURVEYED 80° 17' 14" (NAD27)
 BOTTOM HOLE SURVEYED 80° 17' 30" (NAD27)

AOR - ATTACHMENT "A"

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47 03 3 059 2 1

Griffin HC #214		
CEMENT ADDITIVES		
	Name	Purpose
Additive #1:	Bentonite	Helping fluid loss, reducing free water
Additive #2:	Calcium Chloride	Accelerator for low temp application
Additive #3:	Celloflake	Loss circulation additive
Additive #4:	Gypsum	Used for thixotropic properties
Additive #5:	Lignosulfonate	Low temp cement retarder
Additive #6:	Naphthalene Based Dispersant	Used to improve rheological properties of cement
Additive #7:	Cellulose	Help with fluid loss

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WV Department of
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WW-9
(4/16)

API Number 47 - 033 -

Operator's Well No. Griffin HC 214

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

47 03 30 59 21

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Arsenal Resources OP Code 494519412

Watershed (HUC 10) West Fork (Shinns Run) Quadrangle Clarksburg

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number Various) ✓
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*SDW
4/3/2018*

Will closed loop system be used? If so, describe: Yes, the closed loop system will contain all of the drilling medium and drill cuttings on location and then be taken to a landfill. ✓

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical: Freshwater, Horizontal: Oil Based Mud

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

Additives to be used in drilling medium? Bentonite, Soap & Polymer Sicks, Soda Ash, Sodium Bicarbonate, Defoamer, Base Oil, Emulsifiers, Lime Barite

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

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

-Landfill or offsite name/permit number? Meadowfill Landfill/Waste Management, Westmoreland Sanitary Landfill, and Apex Landfill ✓

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature *William Veigel*

Company Official (Typed Name) William Veigel

Company Official Title Designated Agent

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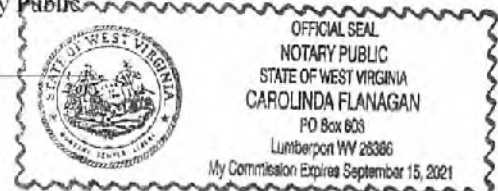
APR 6 2018

WV Department of
Environmental Protection

Subscribed and sworn before me this 3RD day of MARCH, 20 18

Carolinda Flanagan
My commission expires 9/15/2021

Notary Public



Arsenal Resources

4703305921

Proposed Revegetation Treatment: Acres Disturbed 44.270 Prevegetation pH 6.8 Average

Lime 2.67 Tons/acre or to correct to pH 6.4

Fertilizer type 10-20-20

Fertilizer amount 1000 lbs/acre

Mulch 3-4 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	129	Orchard Grass	129
Rye	93	Rye	93
Clover	24	Clover	24
Timothy	45	Timothy	45

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. P. Ward

Comments: Re-seed and mulch all disturbed areas as soon as reasonably possible per regulation. Upgrade erosion and sediment control measures where needed per the West Virginia Erosion and Sediment Control Field Manual.

Title: BOG Inspector

Date: 4/3/2018

Field Reviewed? Yes No

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Environmental Protection

47 03 305921



ARSENAL

R E S O U R C E S

SITE SAFETY PLAN

GRIFFIN HC #214 WELL PAD

SDW
4/3/2018

RECEIVED
Office of Oil and Gas
APR 6 2018
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Environmental Protection

SURFACE HOLE SURVEYED 39° 22' 30" (NAD27)
 BOTTOM HOLE SURVEYED 39° 25' 00" (NAD27)

10,508'

Latitude: (NAD27)

760'

3,095'

Longitude: (NAD27)

SURFACE HOLE SURVEYED 80° 15' 00" (NAD27)
 BOTTOM HOLE SURVEYED 80° 17' 30" (NAD27)

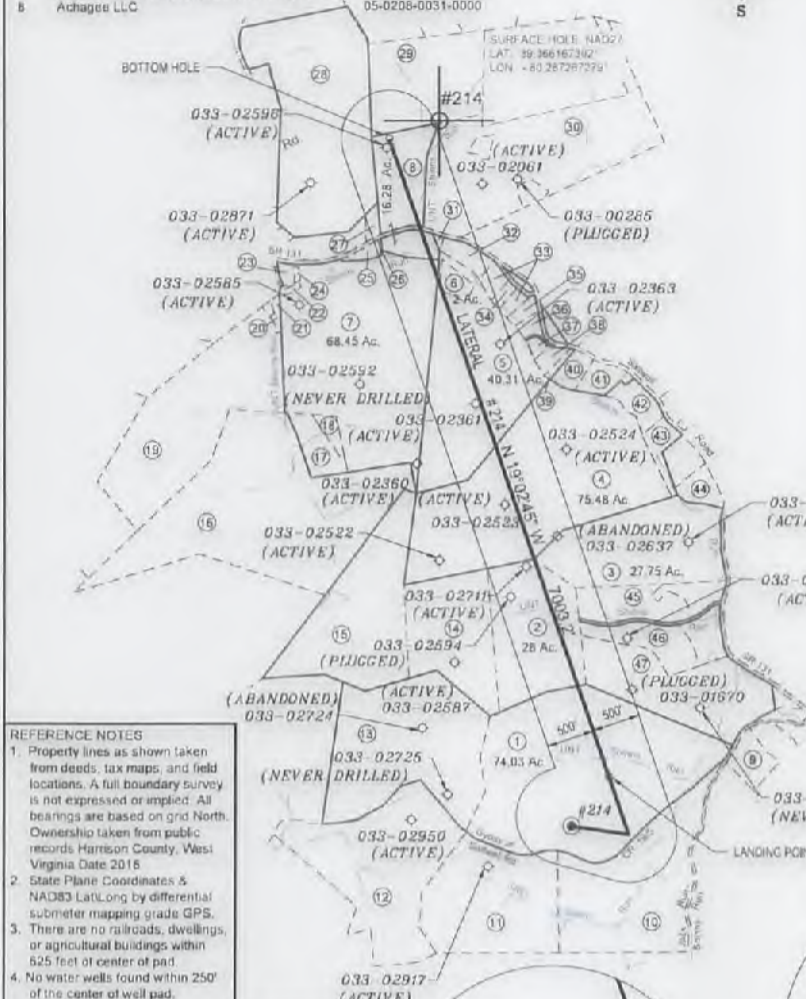
ID #	OWNER NAME	PARCEL NUMBER
1	Bradley A. & Vicky L. Griffin	05-0208-0131-0000
2	Humane Society of Harrison Co. Inc.	05-0208-0120-0000
3	Steven W. & Diana M. Campbell	05-0208-0123-0000
4	Terry W. Wright	05-0208-0067-0002
5	Terry W. Wright	05-0208-0050-0000
6	Terry W. Wright Jr. & Elizabeth J.	05-0208-0050-0010
7	Mary C. Slaughter (LE) (Robert J. Slaughter)	05-0208-0049-0000
8	Achages LLC	05-0208-0031-0000



(NAD83-WV) US SURVEY FT.	(NAD83-LAT/LONG) DECIMAL	UTM, (NAD83) METER
TOP HOLE	TOP HOLE	TOP HOLE
N) 316488.500	N) 39.366254802	N) 4357663.906
E) 1745979.200	E) -80.287076094	E) 561414.118
LANDING POINT	LANDING POINT	LANDING POINT
N) 317007.500	N) 39.367689022	N) 4357834.000
E) 1746368.000	E) -80.285716999	E) 561529.938
BOTTOM HOLE	BOTTOM HOLE	BOTTOM HOLE
N) 323627.300	N) 39.385807997	N) 4359829.229
E) 1744082.700	E) -80.294007004	E) 560800.092

ADJACENT SURFACE OWNERS

ID #	OWNER NAME	PARCEL NUMBER
9	McDowell James T & Mary F.	05-0208-0133-0001
10	Mike Ross Inc. & Waco Oil & Gas Co.	05-0208-0006-0000
11	Mike Ross Inc. & Waco Oil & Gas Co.	05-0208-0005-0000
12	Minnie A. Bice Estate	05-0208-0013-0000
13	Mary Lou Garrett	05-0208-0130-0000
14	Humane Society of Harrison Co. Inc.	05-0208-0119-0000
15	Lucille Anderson Beulah ET AL	05-0208-0118-0000
16	Tom G. & Margaret B. Feaster	05-0208-0066-0000
17	Mathew F. Verona & Susan Marko	05-0208-0049-0001
18	Mathew F. Verona & Susan Marko	05-0208-0049-0003
19	Trustees of Shinnston Masonic Cemetery Assn.	05-0208-0044-0000
20	Randal E. & Kimberly C. Nazum	05-0208-0045-0001
21	Randal E. & Kimberly C. Nazum	05-0208-0045-0002
22	Vicky D. Taylor Wright & Hugh Clarence	05-0208-0049-0002
23	Robert Joseph Slaughter & Diane Deborah	05-0208-0049-0004
24	Robert Joseph Slaughter & Diane Deborah	05-0208-0049-0005
25	Clyde Radabaugh	05-0208-0046-0000
26	Clyde Radabaugh	05-0208-0047-0000
27	Clyde Radabaugh	05-0208-0029-0000
28	Rosemary Seamon ET AL	05-0208-0030-0000
29	Pamela & Jay McClelland	05-0188-0044-0000
30	Brenda J. & Barry McClain	05-0208-0032-0000
31	Terry W. Wright	05-0208-0031-0001
32	Cecil C. Spenser	05-0208-0050-0001
33	Stacy H. & Silvia A. Crites	05-0208-0050-0003
34	Tammy L. Crites	05-0208-0050-0007
35	Melissa A. Shanholz	05-0208-0050-0002
36	HK Storage LLC	05-0208-0050-0006
37	James Raymond & Lisa Renee Deems	05-0208-0050-0008
38	Paul F. & Barbara M. Deems	05-0208-0050-0009
39	James R. Deems	05-0208-0050-0004
40	Paul F. & Barbara M. Deems	05-0208-0051-0001
41	Paul F. & Barbara M. Deems	05-0208-0051-0002
42	B Square Properties LLC	05-0208-0067-0001
43	David S. Fakourey	05-0208-0067-0000
44	Richard J. Marks	05-0208-0068-0000
45	Humane Society of Harrison Co. Inc.	05-0208-0122-0000
46	Humane Society of Harrison Co. Inc.	05-0208-0121-0001
47	Joseph B. & Brandy L. Spadafora	05-0208-0132-0000

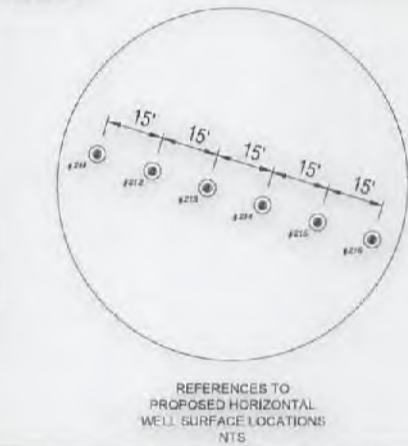
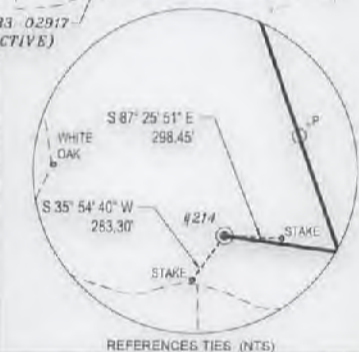


REFERENCE NOTES

- Property lines as shown taken from deeds, tax maps, and field locations. A full boundary survey is not expressed or implied. All bearings are based on grid North. Ownership taken from public records Harrison County, West Virginia Date 2015
- State Plane Coordinates & NAD83 Lat/Long by differential submeter mapping grade GPS.
- There are no railroads, dwellings, or agricultural buildings within 625 feet of center of pad.
- No water wells found within 250' of the center of well pad.

LEGEND

- PROPOSED WELL LATERAL
- PROPOSED WELL TIE LINE
- STREAM
- EXISTING ROAD
- BUFFER
- PROPERTY LINE
- MINERAL TRACT BOUNDARY
- PROPOSE WELL HEAD
- EXISTING WELL HEAD
- LANDING POINT/BOTTOM HOLE
- SURFACE OWNER



BOTTOM HOLE: NAD27
 LAT. 39.385807997
 LONG. -80.294007004

BOTTOM HOLE: NAD27
 SHINNSTON GEOGRAPHIC QUADRANGLE
 11,233' SOUTH OF LAT. 39° 25' 00"
 760' WEST OF LONG. 80° 17' 30"

FILE#: 17078-006
 SHEET#: 1 of 1
 SCALE: 1" = 2000'
 TICK SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SOURCE OF ELEVATION: WV-RTN CORS STATION

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: *Herbert L. Parsons* 7-3-18
 P.S. #2361: Herbert L. Parsons, III P.S.



(+) 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: WEST FORK
 COUNTY / DISTRICT: HARRISON COUNTY CLAY-OUTSIDE DISTRICT
 SURFACE OWNER: BRADLEY A. & VICKY L. GRIFFIN
 OIL & GAS ROYALTY OWNER: SQUIRES, ALICE J., ROBERT, AROL C., VANCE L., LARRY & GARY, BERTSCHY BERYLDENE, GARRETT MARY LOU & WEST MONNA JO

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: ARSENAL RESOURCES
 ADDRESS: 6031 WALLACE ROAD EXTENSION # 300
 CITY: WEXFORD STATE: PA ZIP: 15090

DATE: JULY 3, 2018
 OPERATOR'S WELL #: GRIFFIN HC # 214
 API WELL #: 47 033 05921 H6A
 STATE COUNTY PERMIT

ELEVATION: 1243.5'
 QUADRANGLE: CLARKSBURG, WV
 ACREAGE: 74
 ACREAGE: 332 ±

ESTIMATED DEPTH: TVD: 7535.5' TMD: 14980.7'
 DESIGNATED AGENT: WILLIAM VEIGEL
 ADDRESS: 65 PROFESSIONAL PLACE SUITE 200
 CITY: BRIDGEPORT STATE: WV ZIP: 26330



WW-6A1
(5/13)

Operator's Well No. Griffin HC 214

**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 Attached				

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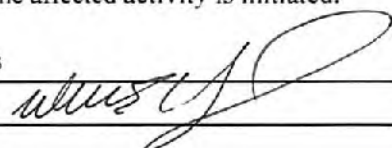
**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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.

Well Operator: Arsenal Resources

By: William Veigel 

Its: Designated Agent

Attachment to WW-6A1, Griffin HC 214

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/692	
8 (00007361)	Ross Vincent and Judith Vincent, wife, et al	Doran & Associates, Inc.	12.5	DB 1090/700	16
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/692	

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Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
1 (00008026)	Larry Squires and Kimberly Squires, his wife	Mar Key, LLC	15	DB 1603/472	118.2
1 (00008093)	Garry Squires	Mar Key, LLC	15	DB 1607/513	118.2
1 (00008106)	Robin L. Squires and Della Squires, his wife	Mar Key, LLC	15	DB 1607/515	118.2
1 (00008094)	Vance L. Squires	Mar Key, LLC	15	DB 1605/517	118.2
1 (00007789)	Mary Lou Garrett, widow	Mar Key, LLC	15	DB 1595/1296	118.2
1 (00008025)	Beryldene Bertschy	Mar Key, LLC	15	DB 1603/474	118.2
1 (00007790)	Monna Jo West, widow	Mar Key, LLC	15	DB 1595/1302	118.2
1 (00008117)	Arol C. Squires and Rosella A. Squires, husband and wife	Mar Key, LLC	15	DB 1609/123	118.2
2 and 3 (00007308)	Albert A. Shinn and Savalia J. Shinn, his wife - Heirs	Doran & Associates, Inc.	12.5	DB 1091/571	169.54
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
2 and 3 (No lease no	Beatrice Cooke, widow; and Garnett Currey and John Currey, her husband	Doran & Associates, Inc.	12.5	DB 1091/567	169.54

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	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
4 (00007402)	Huntington National Bank of Columbus Ohio (David S. Lowe Trust) by Aileen M. Clover (Trustee)	Doran & Associates, Inc.	12.5	DB 1097/120	82.45
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
(00007403)	Marjorie Anne S. Lowe, Trustee	Doran & Associates, Inc.	12.5	DB 1098/127	82.45
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	

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	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
5 (00007627)	Guy Corporation	Doran & Associates, Inc.	12.5	DB 1090/569	54.5
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
5 (00007626)	Jessie H. Bowman, attorney in fact for A.M. and Sallie M. Hess Heirs	Doran & Associates, Inc.	12.5	DB 1090/565	54.5
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	

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	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
6 (00007627)	Guy Corporation	Doran & Associates, Inc.	12.5	DB 1090/569	54.5
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/629	
6 (00007626)	Jessie H. Bowman, attorney in fact for A.M. and Sallie M. Hess Heirs	Doran & Associates, Inc.	12.5	DB 1090/565	54.5
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	

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Attachment to WW-6A1, Griffin HC 214

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/692	
7 (00007321)	Ross Vincent and Judith Vincent, wife, et al	Doran & Associates, Inc.	12.5	DB 1090/704	77
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/692	
7 (No lease no.)	Mary Ann Williams, et al.	Doran & Associates, Inc.	12.5	DB 1102/844	77
	Doran & Associates, Inc.	Cabot Oil & Gas Corporation		DB 1193/361	
	Cabot Oil & Gas Corporation	Enervest Appalachia, L.P.		DB 1314/1012	
	Enervest Appalachia, L.P.	CGAS Properties, L.P.		DB 1412/421	
	EnerVest Holding, L.P. and CGAS Properties, L.P.	Statoil USA Onshore Properties, Inc		DB 1541/523	
	Statoil USA Onshore Properties, Inc.	Alliance Petroleum Corporation		DB 1559/261	
	Alliance Petroleum Corporation	Mar Key, LLC		DB 1579/692	
7 (No lease no.)	George A. Ferguson and Miriam N. Ferguson, his wife	Doran & Associates, Inc.	12.5	DB 1100/10	77

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CONVEYANCE

EnerVest Appalachia, L.P., a Texas limited partnership (herein called "Grantor"), for Ten Dollars and other good and valuable consideration (the receipt and sufficiency of which are hereby acknowledged), does hereby GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER, and DELIVER unto CGAS Properties, L.P., a Delaware limited partnership (herein called "Grantee"), whose address is 1001 Fannin, Suite 800, Houston, Texas 77010, the following described properties, rights and interests:

(a) The specific interests of Grantor set forth on **Schedule I** hereto in and to Wells and Units set forth in **Schedule I** hereto and all right, title and interest of Grantor in and to the oil and gas leases described on **Exhibit A** hereto; and

(b) Without limitation of the foregoing, all other right, title and interest (of whatever kind or character, whether legal or equitable, and whether vested or contingent) of Grantor in and to the oil, gas and other minerals in and under or that may be produced from the lands described on **Exhibit A** hereto (including, without limitation, interests in oil, gas and/or mineral leases, overriding royalties, production payments, net profits interests, fee mineral interests, fee royalty interests and other interests insofar as they cover such lands), even though Grantor's interest therein may be incorrectly described in, or omitted from, such **Exhibit A**; and

(c) All rights, titles and interests of Grantor in and to, or otherwise derived from, all presently existing and valid oil, gas and/or mineral unitization, pooling, and/or communitization agreements, declarations and/or orders (including, without limitation, all units formed under orders, rules, regulations, or other official acts of any federal, state, or other authority having jurisdiction, and voluntary unitization agreements, designations and/or declarations) relating to the properties described in subsection (a) and (b) above; and

(d) All rights, titles and interests of Grantor in and to all presently existing and valid production sales contracts, operating agreements, and other agreements and contracts which relate to any of the properties described in subsections (a), (b) and (c) above and are set forth on **Exhibit A-1**; and

(e) All rights, titles and interests of Grantor in and to all materials, supplies, machinery, equipment, improvements and other personal property and fixtures (including, but not by way of limitation, all wells, wellhead equipment, pumping units, flowlines, tanks, buildings, injection facilities, saltwater disposal facilities, compression facilities, gathering systems, and other equipment) located on the properties described in subsections (a), (b) and (c) above and used in connection with the exploration, development, operation or maintenance thereof.

The properties, rights and interests specified in the foregoing subsections (a), (b), (c), (d) and (e), except for the Excluded Properties excepted and reserved below, are herein sometimes collectively called the "**Properties**".

The Properties do not include, and there is hereby expressly excepted and reserved therefrom and reserved to Grantor the following:

(i) all rights and chooses in action, arising, occurring or existing in favor of Grantor prior to the Effective Date or arising out of the operation of or production from the Oil and

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Gas Properties prior to the Effective Date (including, but not limited to, any and all contract rights, claims, receivables, revenues, recoupment rights, recovery rights, accounting adjustments, mispayments, erroneous payments or other claims of any nature in favor of Grantor and relating and accruing to any time period prior to the Effective Date);

- (ii) any accounts payable accruing before the Effective Date;
- (iii) all corporate, financial, tax and legal (other than title) records of Grantor;
- (iv) all contracts of insurance or indemnity;
- (v) all hydrocarbon production from or attributable to the Properties with respect to all periods prior to the Effective Date and all proceeds attributable thereto;
- (vi) any refund of costs, taxes or expenses borne by Grantor attributable to the period prior to the Effective Date;
- (vii) Properties excluded from the purchase and sale contemplated by this Agreement under the Purchase Agreement;
- (viii) any other right or interest in and to the Properties to the extent attributable to the period prior to the Effective Date;
- (ix) copies (but not the originals) of all files (described in Section 11(b)(i) of the Purchase Agreement);
- (x) except to the extent constituting suspended royalties, all deposits, cash, checks, funds and accounts receivable or received attributable to Grantor's interests in the Properties with respect to any period of time prior to the Effective Date;
- (xi) all computer or communications software or intellectual property (including tapes, data and program documentation and all tangible manifestations and technical information relating thereto) owned, licensed or used by Grantor; and
- (xii) any logo, service mark, copyright, trade name or trademark of or associated with Grantor or any affiliate of Grantor or any business of Grantor or of any affiliate of Grantor.

The excluded properties, rights and interests specified in the foregoing subsections (i) through (xii), inclusive, are collectively referred to as the "Excluded Properties." Grantee shall not be responsible for, and Grantor expressly retains, all liabilities related to the Excluded Properties, whether such liabilities arise before or after the Effective Date. It is understood that certain of the Excluded Properties may not be embraced by the term "Properties". The fact that certain assets have been expressly excluded is not intended to suggest that had they not been excluded they would have constituted Properties and shall be not used to interpret the meaning of any word or phrase used in describing the Properties.

TO HAVE AND TO HOLD the Properties unto Grantee, its successors and assigns, forever.

GRANTOR AGREES TO WARRANT AND DEFEND TITLE TO THE PROPERTIES UNTO GRANTEE AGAINST THE CLAIMS AND DEMANDS OF ALL PERSONS CLAIMING, OR TO CLAIM THE SAME, OR ANY PART THEREOF, BY, THROUGH OR UNDER GRANTOR, BUT NOT OTHERWISE. EXCEPT FOR THE SPECIAL WARRANTY OF TITLE SET FORTH ABOVE, THIS CONVEYANCE IS

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MADE WITHOUT ANY WARRANTIES OR REPRESENTATIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE AND GRANTOR EXPRESSLY DISCLAIMS ANY AND ALL OTHER REPRESENTATIONS AND WARRANTIES. WITHOUT LIMITATION OF THE FOREGOING, EXCEPT FOR THE SPECIAL WARRANTY OF TITLE SET FORTH ABOVE, THE PROPERTIES ARE CONVEYED PURSUANT HERETO WITHOUT ANY WARRANTY OR REPRESENTATION WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, RELATING TO TITLE TO THE PROPERTIES OR RELATING TO THE CONDITION, QUANTITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, CONFORMITY TO THE MODELS OR SAMPLES OF MATERIALS OR MERCHANTABILITY OF ANY EQUIPMENT OR ITS FITNESS FOR ANY PURPOSE. WITHOUT LIMITATION OF THE FOREGOING, IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT THE DOCTRINE OF AFTER ACQUIRED TITLE SHALL NOT APPLY TO THIS CONVEYANCE AND THAT THE GRANTOR SHALL NOT BE ESTOPPED FROM ASSERTING ANY AFTER ACQUIRED RIGHT, TITLE OR INTEREST. GRANTEE HAS INSPECTED, OR WAIVED ITS RIGHT TO INSPECT, THE PROPERTIES FOR ALL PURPOSES AND SATISFIED ITSELF AS TO THEIR PHYSICAL AND ENVIRONMENTAL CONDITION, BOTH SURFACE AND SUBSURFACE, INCLUDING BUT NOT LIMITED TO CONDITIONS SPECIFICALLY RELATED TO THE PRESENCE, RELEASE OR DISPOSAL OF HAZARDOUS SUBSTANCES, SOLID WASTES, ASBESTOS AND OTHER MAN MADE FIBERS, OR NATURALLY OCCURRING RADIOACTIVE MATERIALS ("NORM"). GRANTEE IS RELYING SOLELY UPON ITS OWN INSPECTION OF THE PROPERTIES, AND GRANTEE ACCEPTS ALL OF THE SAME IN THEIR "AS IS," WHERE IS" CONDITION. ALSO WITHOUT LIMITATION OF THE FOREGOING, GRANTOR MAKES NO WARRANTY OR REPRESENTATION, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, AS TO THE ACCURACY OR COMPLETENESS OF ANY DATA, REPORTS, RECORDS, PROJECTIONS, INFORMATION OR MATERIALS NOW, HERETOFORE OR HEREAFTER FURNISHED OR MADE AVAILABLE TO GRANTEE IN CONNECTION WITH THIS CONVEYANCE OR ANY OTHER MATTERS CONTAINED IN ANY MATERIALS FURNISHED OR MADE AVAILABLE TO GRANTEE BY GRANTOR OR BY GRANTOR'S AGENTS OR REPRESENTATIVES. ANY AND ALL SUCH DATA, RECORDS, REPORTS, PROJECTIONS, INFORMATION AND OTHER MATERIALS (WRITTEN OR ORAL) FURNISHED BY GRANTOR OR OTHERWISE MADE AVAILABLE OR DISCLOSED TO GRANTEE ARE PROVIDED GRANTEE AS A CONVENIENCE AND SHALL NOT CREATE OR GIVE RISE TO ANY LIABILITY OF OR AGAINST GRANTOR AND ANY RELIANCE ON OR USE OF THE SAME SHALL BE AT GRANTEE'S SOLE RISK TO THE MAXIMUM EXTENT PERMITTED BY LAW.

This Conveyance is made subject to that certain Agreement of Sale and Purchase between Grantor and Grantee dated November 16, 2007. Such Agreement contains certain representations, warranties and agreements between the parties, some of which may survive the delivery of this Conveyance, as provided for therein.

Grantor agrees to execute and deliver to Grantee, from time to time, such other and additional instruments, notices, division orders, transfer orders and other documents, and to do

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all such other and further acts and things as may be necessary to more fully and effectively grant, convey and assign to Grantee the Properties.

This Conveyance is being executed in several counterparts all of which are identical except that, to facilitate recordation, certain counterparts hereof may contain only that portion of Exhibit A and Exhibit A-1 which contains specific descriptions of properties located in the recording jurisdiction in which the particular counterpart is to be recorded, with other portions of Exhibit A and Exhibit A-1 being included in such counterparts by reference only. All of such counterparts together shall constitute one and the same instrument.


IN WITNESS WHEREOF this Conveyance has been executed by Grantor on the date of its acknowledgment effective as to runs of oil and deliveries of gas, and for all other purposes, as of 7:00 a.m. local time at the locations of the Properties, on October 1, 2007 (the "Effective Date").

GRANTOR

ENERVEST APPALACHIA, L.P.
a Texas limited partnership

By: EnerVest, Ltd.,
a Texas limited partnership
its general partner

By: EnerVest Management GP, L.C.,
a Texas limited liability company
its general partner

By: 

Mark A. Houser, Executive Vice President,
Chief Operating Officer,
EnerVest Management GP, L.C.

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ACKNOWLEDGEMENT

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

The foregoing instrument was acknowledged before me by Mark A. Houser, Executive Vice President and Chief Operating Officer of EnerVest Management GP, L.C., a Texas limited liability partnership and general partner of EnerVest, Ltd., a Texas limited partnership and general partner of EnerVest Appalachia, L.P., a Texas limited partnership, this 21st day of December, 2007, on behalf of said limited partnership.

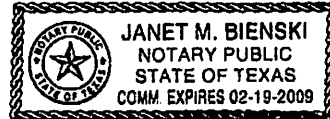
WITNESS my hand and official seal.

Janet M Bienski

NOTARY PUBLIC IN AND FOR
THE STATE OF TEXAS

[seal]

My Commission Expires:



OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	Schedule I - Well Schedule					DIVISION
				API #	WI %	NRI %	ORRI		
47D0000078		470283001	ADAMS, ELIZA #1	4703302235	0.0000000	0.0000000	0.0351600	CLARKSBURG	
470009813 (A-L)		471250001	ALDERSON BROADDUS #1	4700102619	1.0000000	0.8750000	0.0000000	CLARKSBURG	
470009878 (A-B)		472116001	ALFRED, MARGARET #1	4703301129	1.0000000	0.8750000	0.0000000	CLARKSBURG	
470009878 (A-B)		472116002	ALFRED, MARGARET #2	4703301123	1.0000000	0.8750000	0.0000000	CLARKSBURG	
470010030, 470009984 (A-E) & 470009985 (A-C)		472144001	ALLEN HEIRS #1	4701703119	0.9663090	0.8505750	0.0000000	CLARKSBURG	
470010030, 470009984 (A-E) & 470009985 (A-C)		472144002	ALLEN HEIRS #2	4701703118	0.9663090	0.8505750	0.0000000	CLARKSBURG	
47D0000071		470302001	ALLEN, J #1	4703302005	0.0000000	0.0000000	0.0625000	CLARKSBURG	
47D0000071		470303001	ALLEN, J #2	4703302007	0.0000000	0.0000000	0.0625000	CLARKSBURG	
470010135		471957001	ALLMAN, S C #1 (EMAX)	4704104220	1.0000000	0.7950000	0.0000000	CLARKSBURG	
470010135		471957002	ALLMAN, S C #2 (EMAX)	4704104221	1.0000000	0.7950000	0.0000000	CLARKSBURG	
470005720	2	470197005	AMES TIMBER & LUMBER CO #13	4701900545	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197009	AMES TIMBER & LUMBER CO #18	4701900560	1.0000000	0.8749999	0.0000000	EASTERN	
470005720, 470008211 & 470008246 / WVU165	2	470197004	AMES TIMBER & LUMBER CO #24	4701900546	1.0000000	0.8613281	0.0000000	EASTERN	
470005720 & 470006035/2	2	470244001	AMES TIMBER & LUMBER CO #26	4701900655	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197010	AMES TIMBER & LUMBER CO #28	4701900767	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197008	AMES TIMBER & LUMBER CO #2R	4701900566	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197001	AMES TIMBER & LUMBER CO #3	4701900522	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197006	AMES TIMBER & LUMBER CO #6R	4701900563	1.0000000	0.8750000	0.0000000	EASTERN	
470005720	2	470197002	AMES TIMBER & LUMBER CO #7	4701900544	1.0000000	0.8750000	0.0000000	EASTERN	
470009818		471253001	ANDREWS, CHARLES #1	4703303918	1.0000000	0.8200000	0.0000000	CLARKSBURG	
470009818		471253002	ANDREWS, CHARLES #2 (EMAX)	4703304015	1.0000000	0.8200000	0.0000000	CLARKSBURG	
470009818		471253003	ANDREWS, CHARLES #3 (EMAX)	4703304012	1.0000000	0.8200000	0.0000000	CLARKSBURG	
470008309, JO-137	2	470505000	APPALACHIAN LAND CO #1	4703904857	0.5000000	0.4375000	0.0000000	EASTERN	
470008309ADD	2	470505011	APPALACHIAN LAND CO #11	4703904878	0.5000000	0.4375000	0.0000000	EASTERN	
470008309ADD	2	470505003	APPALACHIAN LAND CO #3	4703904861	0.5000000	0.4375000	0.0000000	EASTERN	
470008309ADD	2	470505005	APPALACHIAN LAND CO #5	4703904879	0.5000000	0.4375000	0.0000000	EASTERN	
470008309ADD	2	470505007	APPALACHIAN LAND CO #7	4703904870	0.5000000	0.4375000	0.0000000	EASTERN	
470008309ADD	2	470505008	APPALACHIAN LAND CO #8	4703904880	0.5000000	0.4375000	0.0000000	EASTERN	
470010377	4	472151001	ARCHER, LLOYD #1	4703502381	0.0000000	0.0000000	0.0000000	EASTERN	
470008309ADD, 470009989, 470009970 & 470009971 / WV-U-221		472143001	AREY, ED #1	4709702888	1.0000000	0.8750000	0.0000000	CLARKSBURG	
470009861		471255901	ARNOLD, JACKSON #1	4703303767	1.0000000	0.8203125	0.0000000	CLARKSBURG	
470009925		472127001	ARTERS, VELMA #2	4703302655	0.9812310	0.8468920	0.0000000	CLARKSBURG	
470009925		472127002	ARTERS, VELMA #3	4703303240	0.9812310	0.8468920	0.0000000	CLARKSBURG	
470002856	2	470947001	ASBURY, B "C" #1	4709901454	1.0000000	0.8750000	0.0000000	EASTERN	
47D0000026		470305001	ASH, OPAL #1	4703302090	0.0000000	0.0000000	0.0351600	CLARKSBURG	
470005881	2	470198001	ATKINS, M #1	4701900305	1.0000000	0.8437500	0.0000000	EASTERN	
470005690	2	470721001	BAILES, CLYDE #1	4706700426	1.0000000	0.8476563	0.0000000	EASTERN	

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470005926, 470005927, 470006066, 470006067, 470006068, 470006087, 470006097, 470006103, 470006104, 470006105, 470006106, 470006107, 470006108 & 470006197 / AEDU-099 (VARIOUS)	2	470728001	BAILES, VIRGINIA #1	4706700502	1.0000000	0.8750000	0.0000000	EASTERN
470009839 & 470009839MIN		471259001	BAILEY, J H #1	4704102566	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009848		472109001	BAILEY, S H #1 (4 1/2)	4704104022	0.7795400	0.6807819	0.0000000	CLARKSBURG
470009848		472109002	BAILEY, S H #1 (8 5/8)	4704104022	0.7692871	0.2629699	0.0000000	CLARKSBURG
470009848		472109003	BAILEY, S H #2 (4 1/2)	4704104047	0.7795401	0.6807819	0.0000000	CLARKSBURG
470009848		472109004	BAILEY, S H #2 (8 5/8)	4704104047	0.7692871	0.2629770	0.0000000	CLARKSBURG
470005479	2	470194002	BANKS, F F #2	4701900309	1.0000000	0.8750000	0.0000000	EASTERN
470005478	2	470194001	BANKS, F F #4	4708100450	1.0000000	0.8750000	0.0000000	EASTERN
470005478	2	470194003	BANKS, F F #5	4708100464	1.0000000	0.8750000	0.0000000	EASTERN
47D0000066		470279001	BARTLETT, J #2	4703301699	0.0000000	0.0000000	0.0312500	CLARKSBURG
470009868		471262001	BATES, ELLEN #1	4703301054	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010004		471263001	BATES, NOTLEY #1	4703301707	1.0000000	1.0000000	0.0000000	CLARKSBURG
470009937		471264001	BATES, WILLIAM #1	4701703116	0.9663090	0.8505750	0.0000000	CLARKSBURG
47D0000044		470320001	BELL MINING CO #1	4703302843	0.0000000	0.0000000	0.0476600	CLARKSBURG
470005693	2	470722001	BELL, DAVID #1	4706700445	1.0000000	0.8476563	0.0000000	EASTERN
470005692	2	470726001	BELL, EDITH #1	4706700446	1.0000000	0.8476563	0.0000000	EASTERN
470010139		471687001	BENNETT, HERBERT #1 (EMAX)	4700102663	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010025		471265001	BENNETT, HUNTER #2	4704102562	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000003		470005001	BENNETT, T #1	4700101198	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000077 / JO-D-089		470268001	BICE-CARR #1	4703302724	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009914		471266001	BOGGESS, SARAH #1	4703301143	1.0000000	1.0000000	0.0000000	CLARKSBURG
470009909 (A-Z)		472120001	BONNELL, RUTH HEIRS #1	4701703386	0.9255649	0.8214820	0.0447000	CLARKSBURG
470009909 (A-Z)		472120002	BONNELL, RUTH HEIRS #2	4701703385	0.9255650	0.8214820	0.0477000	CLARKSBURG
470004696	2	470951001	BOOTH, FLEM #1	4709900258	1.0000000	0.8750000	0.0000000	EASTERN
470001278	2	470905001	BOOTH, FLOYD #1	4709900257	1.0000000	0.8750000	0.0000000	EASTERN
470010111		471582001	BOWERS, E #1 (EMAX)	4700102851	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010129 (A, C & D) / WV-U- 247		471984001	BOWERS-SWICK #1 (EMAX)	4700102693	1.0000000	0.7950000	0.0000000	CLARKSBURG
47D0000031 (A-B)		470319001	BOWMAN, J #1	4703302160	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000031 (A-B)		470282001	BOWMAN, J #3	4703302363	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000031 (A-B)		470284001	BOWMAN, J #4	4703302360	0.0000000	0.0000000	0.0351600	CLARKSBURG
470005656	2	470224001	BRADLEY, HARRY #1	4701900371	1.0000000	0.8750000	0.0000000	EASTERN
470010406, 470010409, 470010424	1	472152001	BRAHAM, JOHN "F" #1	4710701585	1.0000000	0.9058132	0.0000000	EASTERN
470009817		471269001	BRAKE, THOMAS #1	4709702893	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009817			BRAKE, THOMAS #2 PDP	N/A	1.0000000	0.8750000	0.0000000	

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
47D0000017		470290001	BRAMER, WADE #1	4703302002	0.0000000	0.0000000	0.0625000	CLARKSBURG
47D0000017		470291001	BRAMER, WADE #2	4703302007	0.0000000	0.0000000	0.0625000	CLARKSBURG
470010178		471965001	BRANNON, MARGARET #1 (EMAX)	4700102684	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010178		471965002	BRANNON, MARGARET #2 (EMAX)	4700102685	1.0000000	0.7950000	0.0000000	CLARKSBURG
47D0000019		470309001	BRENNAN, J #1 (KL258)	4703302060	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000027		470311001	BRENNAN, J #1 (KL260)	4703302208	0.0000000	0.0000000	0.0351600	CLARKSBURG
470010017	2	471249001	BROWN, ALVA #1	4708700587	0.9663090	0.8505750	0.0000000	EASTERN
470009852		471270001	BROWN, B #1	4703301085	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010432, 470010434, 470010467, 470010581 & 4700010585 / WVU291	1	472154001	BRYANT, GARY #1	4710701586	1.0000000	0.9246046	0.0000000	EASTERN
470005996 & 470010345 / WVU269	4	470981001	BUFFINGTON, FREDERICK #1 (OR)	4710701188	1.0000000	0.8750000	0.0000000	EASTERN
470005996, 4700082033A, 4700082033B, 470010393 (A- F), 470019474 (A-M) / WVU269	4	470981002	BUFFINGTON, FREDERICK #2	4710701584	1.0000000	0.8750000	0.0000000	EASTERN
47000997	1	470757001	BURGESS, LLOYD "A" #1	4706700327	0.4000000	0.3300000	0.0500000	EASTERN
470002394	2	470924001	BURGESS, MARION "B" #1	4709900874	1.0000000	0.8750000	0.0000000	EASTERN
470010115		471942001	BURNSIDE, ISAAC #1 (EMAX)	4703304019	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010115		471942002	BURNSIDE, ISAAC #2 (EMAX)	4703304028	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009961		471271001	BUTCHER, AMANDA #1	4704102684	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010016		471272001	BUTCHER, E D #1	4704102690	1.0000000	0.8750000	0.0000000	CLARKSBURG
470008309 / WVJO-81	2	470143001	CARBIDE #1	4701502305	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143002	CARBIDE #2	4701502306	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143003	CARBIDE #3	4701502304	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143004	CARBIDE #4	4701502398	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-82	2	470143010	CARBIDE #5	4701502399	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143009	CARBIDE #6	4701502400	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143005	CARBIDE #7	4701502444	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143006	CARBIDE #8	4701502433	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143007	CARBIDE #9	4701502455	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143012	CARBIDE #12	4701502638	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143013	CARBIDE #13	4701502639	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143014	CARBIDE #14	4701502664	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143015	CARBIDE #16	4701502689	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143016	CARBIDE #17	4701502670	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143018	CARBIDE #18	4701502710	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143019	CARBIDE #19	4701502711	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143020	CARBIDE #20	4701502712	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143021	CARBIDE #21 PDP	4701502724	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143022	CARBIDE #22 PDP	4701502725	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143023	CARBIDE #23 PDP	4701502726	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143025	CARBIDE #25 PDP	4701502744	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143026	CARBIDE #26 PDP	4701502745	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143027	CARBIDE #27	4701502784	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143028	CARBIDE #28	4701502785	0.4000000	0.3500000	0.0000000	EASTERN

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470008309 / WVJO-81	2	470143029	CARBIDE #29	4701502786	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-81	2	470143030	CARBIDE #30	4701502781	0.4000000	0.3500000	0.0000000	EASTERN
470008309 / WVJO-82	2		CARBIDE UND PROPOSED LOC. (4)		0.4000000	0.3500000	0.0000000	EASTERN
470009940 (A-C) & 470009941 (A-D) / WV-U-218		472141001	CARDER, REX #1	4701703511	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009940 (A-C) & 470009941 (A-D) / WV-U-218		472141002	CARDER, REX #2	4701703540	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010010		472132001	CARTER, TILTON #1	4703301074	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010010		472132002	CARTER, TILTON #2	4703301075	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010116, 470010117, 470010118, 470010119 & 470010120 / WV-U-240		471921001	CASTO, JAMES #1 (EMAX)	4709702921	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009921 (A-D)		472125001	CASWELL, EVA #1	4701702862	0.9612310	0.8195480	0.0000000	CLARKSBURG
470009921 (A-D)		472125002	CASWELL, EVA #2	4701703028	0.9612310	0.8195480	0.0000000	CLARKSBURG
470009921 (A-D)		472125003	CASWELL, EVA #3	4701703652	0.9612310	0.8195480	0.0000000	CLARKSBURG
470009862		472112001	CATHERS, CARL #1	4703303652	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009862		472112002	CATHERS, CARL #2	4703303632	1.0000000	0.8203125	0.0000000	CLARKSBURG
470005877, 470005878, 470005883 & 470005971 / AEDU-079	2	470204001	CHAMPE, W W #1	4701900330	1.0000000	0.8439816	0.0000000	EASTERN
470009801		471282001	CHAPPELL, MARIE #1	4703303828	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009836		471283001	CLARK, HARRIETT #1	4703303682	1.0000000	0.8203100	0.0000000	CLARKSBURG
47D0000007 (A-B)		470165001	CLARK, OKEY #1	4701702357	0.0000000	0.0000000	0.0625000	CLARKSBURG
47D0000007 (A-B) / JO-D-101		470170001	CLARK, OKEY #2	4701702358	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010161 (A-AD)		472052001	COFFINDAFFER, A B #1	4703304114	1.0000000	0.8437783	0.0000000	CLARKSBURG
47D0000028		470304001	COFFINDAFFER, ROBERT #1	4703302150	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000028		470336001	COFFINDAFFER, ROBERT #2	4703302391	0.0000000	0.0000000	0.0351600	CLARKSBURG
470010024 (A-B)		472134001	COFFMAN, BROOKS HEIRS #1	4701703145	0.9863000	0.8444100	0.0000000	CLARKSBURG
470010024 (A-B)		472134002	COFFMAN, BROOKS HEIRS #2	4701703254	0.9663000	0.8444100	0.0000000	CLARKSBURG
470009991		471286001	COFFMAN, FRANCES #1	4703301687	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010163		471967001	COFFMAN, G B #2 (EMAX)	4703304039	1.0000000	0.7950000	0.0000000	CLARKSBURG
470002474 / 470002554	2	470457001	COLL-CARPENTER #1	4703901734	1.0000000	0.8750000	0.0000000	EASTERN
470002474 / 470002554	2	470457002	COLL-CARPENTER #2	4703901777	1.0000000	0.8750000	0.0000000	EASTERN
470009824		472138001	COLLEGE, A B #1	4700102586	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009824		472138002	COLLEGE, A B #2	4700102607	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005879 / WVU-170	2	470205001	CONLEY, ANNA #1	4701900347	1.0000000	0.8125000	0.0000000	EASTERN
470005880 & 470005888 / AEDU-086	2	470214001	CONLEY, ANNA #2	4701900390	0.6926450	0.5935000	0.0000000	EASTERN
470005884, 470005884A, 470005884B, 470005887, 470005887A, 470005887B, 470005887C & 470005890 / AEDU-108 / JO-74	2	470220001	CONLEY, ANNA #3	4701900396	0.6806080	0.5861860	0.0000000	EASTERN
470009923		471289001	CONRAD, BILLIE #1	4703303738	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009978		472130001	CONSOLIDATION COAL "A" #1	4703303087	0.9255650	0.7585350	0.0000000	CLARKSBURG
470009978		472130002	CONSOLIDATION COAL "A" #2	4703303100	0.9255650	0.7585350	0.0000000	CLARKSBURG

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470009978		472130003	CONSOLIDATION COAL "A" #3	4703303102	0.9255650	0.7585350	0.0000000	CLARKSBURG
470009978		472130004	CONSOLIDATION COAL "A" #4	4703303111	0.9255650	0.7585350	0.0000000	CLARKSBURG
470009982		472130005	CONSOLIDATION COAL "A" #5	4703303556	0.9255650	0.7585350	0.0000000	CLARKSBURG
470009860		471295001	CONSOLIDATION COAL "C" #1	4703303626	1.0000000	0.8125000	0.0000000	CLARKSBURG
470009900		471296001	CONSOLIDATION COAL "D" #1	4703303659	1.0000000	0.8125000	0.0000000	CLARKSBURG
470009900		471297001	CONSOLIDATION COAL "F" #1	4703303659	1.0000000	0.8125000	0.0000000	CLARKSBURG
470006709 / JO-72	2	471298001	CONSOLIDATION COAL #1	4703303635	1.0000000	0.7578100	0.0000000	CLARKSBURG
47D0000058 (A-B)		470733001	CRAWFORD, LEWIS #1	4703301154	1.0000000	1.0000000	0.0000000	CLARKSBURG
47D0000057 (A-B)		470276001	CREWS, MARGARET #1	4708700461	0.9880000	0.8088281	0.0246090	EASTERN
470002801	2	470275001	CREWS, MARY #1	4703302640	0.0000000	0.0104200	0.0488300	CLARKSBURG
470009919		470468001	CUMBERLAND #1	4703302638	0.0000000	0.0000000	0.0488300	CLARKSBURG
470009883		471299001	CUNNINGHAM, ROGER #1	4703901660	1.0000000	0.8750000	0.0000000	EASTERN
470010008 & 470010009 / WV-U-223		471300001	CUTLIP, JUNIE #1	4704900739	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009954 (A-C)		471300001	CUTLIP-LAYFIELD #1	4703303716	1.0000000	0.8750000	0.0000000	CLARKSBURG
965	1	471302001	DAVIS, JOE #1	4703302324	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009934MIN		470395003	DAVISON FUEL & DOCK CO #16	4701702857	0.9812000	0.8195500	0.0000000	CLARKSBURG
470010020		471389001	DAWSON MINES #2	4703902319	0.5747000	0.4714065	0.0000000	EASTERN
470005895, 470006707 & 470006797 / AEDU-106	2	471303001	DAY, J A L "B" #1	4703303371	1.0000000	1.0000000	0.0000000	CLARKSBURG
470006491, 470006491A, 470006706, 470006720, 470006725 thru 470006729, 470006729 (A-D), 470006730 & 470006759 / AEDU-109	2	470219001	DEITZ, ELIZABETH #1	4703303806	1.0000000	0.8583600	0.0000000	CLARKSBURG
47D0000047		470225001	DEITZ, H R #2	4701900366	1.0000000	0.8509834	0.0000000	EASTERN
470009825 (A-J)		470277001	DEMARCO, JOE #1	4701900408	1.0000000	0.8744992	0.0000000	EASTERN
47D0000053		471304001	DENNISON, C O #1	4703302641	0.0000000	0.0000000	0.3516000	CLARKSBURG
470010158		470300001	DENNISON, J #2	4704103727	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000089		471988001	DICKENSON, DEMETRIUS #1 (EMAX)	4703301984	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000089		470270001	DOLAN, JOHN #3	4700102688	1.0000000	0.7950000	0.0000000	CLARKSBURG
AEDU-080 / JO-65	2	470271001	DOLAN, JOHN #4	4703301928	0.0000000	0.0000000	0.0000000	CLARKSBURG
470009910 (A-B)		470730001	DOTSON GAS UNIT #1	4703301929	0.0000000	0.0000000	0.0156250	CLARKSBURG
470009910 (A-B)		472121001	DOUGLAS, ROBERT #1	4706700460	0.5000000	0.4238000	0.0000000	EASTERN
47D0000037		472121002	DOUGLAS, ROBERT #2	4703302486	0.9612310	0.8468920	0.0000000	CLARKSBURG
470006731	2	470285001	DYE, JOHN #1	4703303586	0.9612310	0.8468920	0.0000000	CLARKSBURG
470010105 & 470010159		470226001	EAGAN, JESSIE #1	4703302241	0.0000000	0.0000000	0.0351600	CLARKSBURG
470010105 & 470010159		471685001	EASTERN GAS & FUEL #1 (EMAX)	4701900416	1.0000000	0.7600000	0.0000000	EASTERN
470005737	2	471686002	EASTERN GAS & FUEL #2 (EMAX)	4700102666	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009869		470215001	ECHOLS, VIRGINIA #1	4700102881	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009869		472113001	EDMINSTON, ANNA #1	4701900350	1.0000000	0.8750000	0.0000000	EASTERN
470009869		472113002	EDMINSTON, ANNA #2	4704104001	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009802		472113003	EDMINSTON, ANNA #3	4704104004	1.0000000	0.8203125	0.0000000	CLARKSBURG
470000630	1	471310001	EIB, KATHRYN #1	4704104021	1.0000000	0.8203125	0.0000000	CLARKSBURG
470000630	1	470232001	ELKHORN PINEY #1	4703303902	1.0000000	0.8476600	0.0000000	CLARKSBURG
470000630	1	470232002	ELKHORN PINEY #2	4701900024	1.0000000	1.0000000	0.0000000	EASTERN
470000630	1	470232003	ELKHORN PINEY #3	4701900025	1.0000000	1.0000000	0.0000000	EASTERN
				4701900822	0.7970000	0.6973800	0.0000000	EASTERN

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
47000630	1	470232005	ELKHORN PINEY #5	4701900849	1.000000	0.8750000	0.0000000	EASTERN
470009995		471311001	FAIR, ELEANOR #1	4700102593	1.000000	0.8750000	0.0000000	CLARKSBURG
470005888, 470005888 (A, D & E), 470006092A1, 470006289, 470006289A, 470006339, 470006401, 470006401A & 4700060921 / AEDU-110	2	470210002	FARR, FAYE #10	4701900412	1.000000	0.8656367	0.0000000	EASTERN
470005888 & 470005888A	2	470210001	FARR, FAYE #3	4701900346	1.000000	0.8472223	0.0000000	EASTERN
	1	470754001	FEDERAL COAL Co. #1	4706700350	0.400000	0.3300000	0.0500000	EASTERN
470009814		472105001	FITTRO, IRA #1	4703301101	1.000000	0.8828120	0.0000000	CLARKSBURG
470009814		472105002	FITTRO, IRA #2	4703301100	1.000000	0.8828120	0.0000000	CLARKSBURG
470009913 (B-I) & 470009914		471315001	FLANGAN, E H #1	4703303723	1.000000	0.8750000	0.0000000	CLARKSBURG
470009814, 47000986SUR & 47000985 / WV-U-216		471316001	FLANIGAN, ALVIN #1	4703303657	1.000000	0.8750000	0.0000000	CLARKSBURG
470010251		472061001	FLEMING, FRANK #1	4704901051	1.000000	0.8575000		CLARKSBURG
470009929 (A-B)		471317001	FLOWERS-LINDSEY #1	4703301155	1.000000	0.8750000	0.0000000	CLARKSBURG
470005745, 470005745 (A-B) & 470009591C / AEDU-084	2	470724001	FLYNN COAL & LUMBER #1	4706700452	1.000000	0.8613300	0.0000000	EASTERN
470005746, 470005748A & 470008591C / AEDU-078	2	470724002	FLYNN COAL & LUMBER #2S	4706700462	1.000000	0.8699400	0.0000000	EASTERN
470010174, 470010175 & 470010176 / WV-U-253		471682001	FRAZEE-MARTENEY #1 (EMAX)	4700102687	1.000000	0.7950000	0.0000000	CLARKSBURG
470009931 (A-C)		471318001	FREEMAN, HOMER #1	4701703166	0.9663000	0.8505800	0.0000000	CLARKSBURG
470009932		471319001	GALL, RUBY #1	4700102599	1.000000	0.8750000	0.0000000	CLARKSBURG
470009853 (A-E) & 470009854 / WV-U-214		472140001	GALLO, CARL #1	4703303633	1.000000	0.8203125	0.0000000	CLARKSBURG
470009853 (A-E) & 470009854 / WV-U-214		472140002	GALLO, CARL #2	4703303677	1.000000	0.8293125	0.0000000	CLARKSBURG
470008563M	1	470073001	GARRETSON, ARDELIA #2	4701302927	1.000000	1.0000000	0.0000000	EASTERN
470008563M	1	470073002	GARRETSON, ARDELIA #3	4701302640	1.000000	1.0000000	0.0000000	EASTERN
470008563M	1	470073003	GARRETSON, ARDELIA #4	4701302641	1.000000	1.0000000	0.0000000	EASTERN
470009904 (A-Y)		472138001	GARRETT, A M #1	4703302145	1.000000	0.8750000	0.0000000	CLARKSBURG
470009904 (A-Y)		472138002	GARRETT, A M #2	4703301976	1.000000	0.8750000	0.0000000	CLARKSBURG
470009904 (A-Y)		472138003	GARRETT, A M #3	4703303646	1.000000	0.8750000	0.0000000	CLARKSBURG
470009904 (A-Y)		472138004	GARRETT, A M #4	4703303641	1.000000	0.8750000	0.0000000	CLARKSBURG
470009904 (A-Y)		472138005	GARRETT, A M #5	4703303642	1.000000	0.8750000	0.0000000	CLARKSBURG
470008895 (A-E)		471327001	GARVIN, GEORGE #1	4704103712	1.000000	0.8750000	0.0000000	CLARKSBURG
470009946		471328001	GASKINS, JOSEPH #1	4701701828	0.5713000	0.6300300	0.0000000	CLARKSBURG
470000068		470297001	GAWTHROP, EDNA #1	4703302003	0.000000	0.0000000	0.0312500	CLARKSBURG
470010158, 470010184 & 470010185		471976001	GEORGE, WILLIAM #1 (EMAX)	4700102690	1.000000	0.7950000	0.0000000	CLARKSBURG
470009882		471329001	GERRARD #1	4703301096	1.000000	0.8750000	0.0000000	CLARKSBURG
470009866		471333001	GOFF, A B #1	4703303855	1.000000	0.8476600	0.0000000	CLARKSBURG
470009899		472118001	GOFF, ANITA #1	4703303636	1.000000	0.8203125	0.0000000	CLARKSBURG
470009899		472118002	GOFF, ANITA #2	4703303637	1.000000	0.8203125	0.0000000	CLARKSBURG

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470009899		472118003	GOFF, ANITA #3	4703303656	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009893 (A-C)		471338001	GORE CORPORATION #1	4703301130	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009916 (A-B)		472123004	GORE, KATHLEEN #1	4703303690	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009916 (A&B) / WV-U-		472123001	GORE, SOLOMON "A" #1	4703303147	0.9058104	0.7793688	0.0000000	CLARKSBURG
470009916 (A&B) / WV-U-		472123002	GORE, SOLOMON "A" #2	4703303146	0.9058104	0.7793688	0.0000000	CLARKSBURG
470009916 (A&B) / WV-U-		472123003	GORE, SOLOMON "A" #3	4703303145	0.9058104	0.7793688	0.0000000	CLARKSBURG
470009987 (A-C)		471338001	GORE, TRUMAN #1	4703302461	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000004		470001001	GORE, TRUMAN #1	4700101269	0.0000000	0.0000000	0.0782000	CLARKSBURG
47D0000004		470002001	GORE, TRUMAN #2	4700101377	0.0000000	0.0000000	0.0782000	CLARKSBURG
47D0000004		470003001	GORE, TRUMAN #3	4700101270	0.0000000	0.0000000	0.0782000	CLARKSBURG
47D0000004		470004001	GORE, TRUMAN #4	4700101378	0.0000000	0.0000000	0.0782000	CLARKSBURG
47D0000004		470006001	GORE, TRUMAN #5	4700101379	0.0000000	0.0000000	0.0782000	CLARKSBURG
47D0000004 / JO-D-129		470007001	GORE, TRUMAN #6	4700102005	0.9639500	0.7907400	0.0000000	CLARKSBURG
47D0000004 / JO-D-129		470008001	GORE, TRUMAN #8	4700102006	0.9639500	0.7907400	0.0000000	CLARKSBURG
470006095, 470006096, 470006098, 470006099, 470006101, 470006102, 470006108, 470006157 & 470008173 / AEDU-083 / JO-67	2	470727001	GRAY, RAYMOND #1	4706700465	0.4051000	0.3544422	0.0000000	EASTERN
470009938		471340001	GUM, JOSEPH #1	4704104048	1.0000000	0.8476600	0.0000000	CLARKSBURG
470009988		471342001	HALL HEIRS #1	4703301168	1.0000000	1.0000000	0.0000000	CLARKSBURG
470010171, 470010172 & 470010173 / WV-U-252		471961001	HALL, J V #1 (EMAX)	4709702923	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010137		471579001	HALL, LOT #1 (EMAX)	4704104223	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009808		471341001	HALL, STEVE #1	4704103923	1.0000000	0.8203100	0.0000000	CLARKSBURG
470010083, 470010112 & 470010113		471580001	HALL, ZURAH #1 (EMAX)	4709702916	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009877		471343001	HAMMOND, A J #1	4703301094	1.0000000	0.8888890	0.0000000	CLARKSBURG
470009924		472126001	HAMMOND, JOSEPH #1	4703301141	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009924		472126002	HAMMOND, JOSEPH #2	4703301153	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009949		471346001	HANLON, DAVID #1	4701703426	0.9058000	0.8223400	0.0000000	CLARKSBURG
47D0000042 / JO-D-128		470349001	HARBERT, EDWARD #1	4703302456	0.9023000	0.7331200	0.0351600	CLARKSBURG
47D0000034		470312001	HARBERT, M #1 (KL261)	4703302220	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000033		470314001	HARBERT, M #1 (KL269)	4703302351	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000032		470315001	HARBERT, M #2	4703302151	0.0000000	0.0000000	0.0351600	CLARKSBURG
			HARBERT, M #1-34 (NON-OP)	N/A	0.0000000	0.0000000	0.0351600	
47D0000012		470260001	HARDESTY, SAMANTHA #1	4703302357	0.9000000	0.7875000	0.0000000	CLARKSBURG
470010140 (A, B1 & C)		472053001	HARDIN, N C HEIRS #1	4700102715	1.0000000	0.8750000	0.0000000	CLARKSBURG
			HARDIN, N C HEIRS #2 (OPER)	4700102780	1.0000000	0.8750000	0.0000000	
470010142 (A & B1)		472054002	HARDIN, N C HEIRS #3	4700102717	1.0000000	0.8750000	0.0000000	CLARKSBURG
470008553 (MIN)	1	470074003	HARDMAN, ALLEN #10	4701300408	1.0000000	1.0000000	0.0000000	EASTERN
470008553 (MIN)	1	470074004	HARDMAN, ALLEN #11	4701300639	1.0000000	1.0000000	0.0000000	EASTERN

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470008553 (MIN)	1	470074005	HARDMAN, ALLEN #12	4701300640	1.0000000	1.0000000	0.0000000	EASTERN
470008553 (MIN)	1	470074006	HARDMAN, ALLEN #13	4701300652	1.0000000	1.0000000	0.0000000	EASTERN
470008553 (MIN)	1	470074007	HARDMAN, ALLEN #14	4701301243	1.0000000	1.0000000	0.0000000	EASTERN
470008553 (MIN)	1	470074001	HARDMAN, ALLEN #3	4701302642	1.0000000	1.0000000	0.0000000	EASTERN
470008553 (MIN)	1	470074002	HARDMAN, ALLEN #4	4701302643	1.0000000	1.0000000	0.0000000	EASTERN
470010108		471945001	HARDMAN, BRYAN #1 (EMAX)	4704104215	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010094, 470010095 & 470010096 / WV-U-235 470009968, 470009969, 470009970 & 470009971 / WV- U-221		471589001	HARDMAN, N L #1 (EMAX)	4704104190	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010106 & 470010107 470010104		472143002	HARPER, RALPH #1	4709702889	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010090, 470010132, 470010133 & 470010134 / WV- U-233		471683001	HARRISON, RITCHIE O&G #1 (EMAX)	4700102665	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010090, 470010132, 470010133 & 470010134 / WV- U-233		471928001	HARRISON, S R #1 (EMAX)	4709702918	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010090, 470010132, 470010133 & 470010134 / WV- U-233		471577001	HARVEY, L M #1 (EMAX)	4709702914	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009996 (A-B) & 4700000558 / WV-U- 470009823 (A-B)		471577002	HARVEY, L M #2 (EMAX)	4709702915	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009894		471348001	HAYHURST, JEWELL #1	4703302444	1.0000000	0.8750000	0.0000000	CLARKSBURG
47000538	1	471349001	HAYS HEIRS #1	4704104087	1.0000000	0.8750000	0.0000000	CLARKSBURG
47000538	1	471352001	HIGHLAND-DENHAM #1	4703303685	1.0000000	0.8203100	0.0000000	CLARKSBURG
47000538	1	470158002	HILL & LONG "B" #10	4701501131	0.0000000	0.0000000	0.1227375	EASTERN
47000538	1	471131036	HILL & LONG "B" #2	4701500979	0.0000000	0.0000000	0.2500000	EASTERN
47000538	1	470159001	HILL & LONG "B" #7	4706700358	0.0000000	0.0000000	0.0987000	EASTERN
47000538	1	470758001	HILL & LONG "B" #8	4706700325	0.4000000	0.3300000	0.0755850	EASTERN
47000538	1	470158001	HILL & LONG "B" #9	4706700383	0.0000000	0.0000000	0.1252375	EASTERN
470010243		471966001	HODGES, R R #1	4709700572	1.0000000	1.0000000	0.0000000	CLARKSBURG
470005893 & 470005893 (A-E) 470005876, 470005893 & 470005893 (A-E) / WV-U-168	2	470208001	HOFMIER #3S	4701900353	1.0000000	0.8437500	0.0000000	EASTERN
470005885, 470005886, 470005893 & 470005893 (A-E) 470010164, 470010165 & 470010166	2	470208002	HOFMIER #4	4701900567	1.0000000	0.8125000	0.0000000	EASTERN
470009945		470206001	HOFMIER, D E #1	4701900364	0.6837900	0.5745560	0.0000000	EASTERN
470009836		471982001	HOPE NATURAL GAS CO #1 (EMAX)	4700102691	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010014		471353001	HORNBECK, C L #1	4704102526	1.0000000	0.9375000	0.0000000	CLARKSBURG
470010014		471354001	HORNER, P #1	4703301080	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010157		472133001	HOSKINSON, WILLIAM #1	4701701827	0.5713000	0.4300299	0.0200000	CLARKSBURG
470006766	2	472133002	HOSKINSON, WILLIAM #2	4701701831	0.5713000	0.4300299	0.0200000	CLARKSBURG
470006644	1	471983001	HUDKINS, D #1 (EMAX)	4700102892	1.0000000	0.7950000	0.0000000	CLARKSBURG
		470743001	HUGHES, PRUCCIA #1	4706700516	1.0000000	0.8750000	0.0000000	EASTERN
		470558001	HUNTINGTON, ARABELLA "B" #1	4703902688	0.0000000	0.0000000	0.1750000	EASTERN

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470009911		471357001	HUPP, WILLIAM #1	4709702897	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010089 & 470010093		471581001	IRELAND, LENA #1 (EMAX)	4709702917	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009915		472122001	JACKSON MILL S C #1	4704103953	1.0000000	1.0000000	0.0000000	CLARKSBURG
470009915		472122002	JACKSON MILL S C #2	4704103954	1.0000000	1.0000000	0.0000000	CLARKSBURG
470009828		471362001	JARVIS, HARRIET #1	4703303903	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009828		471363001	JARVIS, HARRIET #2	4703303926	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010192 (A&B) & 470010328		472062001	JARVIS, WERNINGER #1	4703304113	1.0000000	0.8750000		CLARKSBURG
47D0000039		470299001	JETT, E #1	4703302232	0.0000000	0.0000000	0.0351600	CLARKSBURG
470010099 & 470010131 / WV-U-242		471899001	JOHNSON, R W #1 (EMAX)	4709702920	1.0000000	0.7950000	0.0000000	CLARKSBURG
470005874 & 470005879 / AEDU-086	2	470193001	JONES, DON UNIT #1	4701900304	1.0000000	0.8437500	0.0000000	EASTERN
47D0000035		470318001	KEINER, E #1	4703302224	0.0000000	0.0000000	0.0351600	CLARKSBURG
470009134M	1	470231001	KINCAID, SUSAN #1	4701900054	1.0000000	1.0000000	0.0000000	EASTERN
470009947		471366001	KOLB, JOHN #1	4704103643	0.9058104	0.8067126	0.0000000	CLARKSBURG
47D0000051 (A-H) / JO-D-128		470347001	KOON, G #1	4703302885	0.9521000	0.8200700	0.0000000	CLARKSBURG
470006710 / JO-72	2	470731001	KOONTZ, A B #1 (OIL)	4706700459	0.9860000	0.8088281	0.0246090	EASTERN
47D0000072		470289001	LANHAM, H #1	4703301936	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000081		470698001	LAUGHLIN, B #1	4704900653	0.0000000	0.0000000	0.0625000	CLARKSBURG
470010085		471588001	LAW, W O #1 (EMAX)	4704104189	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009979		471367001	LAWSON, ROSALIE #1	4700102584	1.0000000	0.8613300	0.0000000	CLARKSBURG
47D0000030		470030001	LEGGETT S-9 (NON-OP)	4703302149	0.0000000	0.0000000	0.0273400	
470009863 (A-H) & 470009864 (A-B)		471368001	LIVELY, CHARLES #1	4703301203	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010023		471369001	LONG, A S #1	4703302209	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009912 (A-C)		471370001	LOUCHERY, DAN #1	4701702858	0.9612000	0.8468900	0.0000000	CLARKSBURG
47D000008A		470166001	LOUCHERY, DANIEL #1	4701702516	0.9612310	0.8468920	0.0625000	CLARKSBURG
47D000008A		470167001	LOUCHERY, DANIEL #3	4701702518	0.0000000	0.0000000	0.0625000	CLARKSBURG
47D0000006		470172001	LOUCHERY, DANIEL #4	4701702799	0.0000000	0.0000000	0.0625000	CLARKSBURG
47D0000025		470025002	LOWE E-239 (NON-OP)	4703304304	0.0000000	0.0000000	0.0273400	
47D0000025		470025001	LOWE S-10 (NON-OP)	4703302195	0.0000000	0.0000000	0.0273400	
47D0000054 (A-B) / JO-D-096		470321001	LOWE, D #1 (KR030)	4703302597	1.0000000	0.8613300	0.0000000	CLARKSBURG
47D0000014B / JO-D-094		470338001	LOWE, D #1 (KY001)	4703302713	0.0000000	0.0000000	0.0488300	CLARKSBURG
47D0000054 (A-B) / JO-D-096		470263001	LOWE, D #2	4703302598	1.0000000	0.8000000	0.0613000	CLARKSBURG
47D0000054 (A-B) / JO-D-096		470322001	LOWE, MARJORIE #3	4703302599	1.0000000	0.8613300	0.0000000	CLARKSBURG
47D0000054 (A-B) / JO-D-128		470344001	LOWE, MARJORIE #4	4703302608	0.9533000	0.8211100	0.0000000	CLARKSBURG
47D0000054 (A-B) / JO-D-096		470323001	LOWE, MARJORIE #5	4703302609	1.0000000	0.8613300	0.0000000	CLARKSBURG
47D0000029 / JO-D-097		470325001	LOWTHER, A B #1	4703302130	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000029		470313001	LOWTHER, A B #2	4703302276	0.0000000	0.0000000	0.0351600	CLARKSBURG
470009999 (A-B)		471371001	LOWTHER, DON #1	4703303355	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009829		471372001	LUNSFORD, ANDREW #1	4704104132	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009829		471373001	LUNSFORD, ANDREW #2	4704104142	1.0000000	0.8203125	0.0000000	CLARKSBURG
470005799 / AED JO-59	2	470745001	MANN, DONNA #1	4706700483	0.1588000	0.1389500	0.0000000	EASTERN
470000965 & 470000965A	1	470758001	MARTIN & TRAIL #1	4708700351	0.4000000	0.3300000	0.0500000	EASTERN

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
47D0000081		470298001	MASON, REBECCA #1	4703302006	0.000000	0.000000	0.0312500	CLARKSBURG
470005897 / AEDU072	2	470199001	MASSEY, OPAL #1	4701900319	1.000000	0.8633500	0.000000	EASTERN
470010003 (A-C)		471374001	MATKO ED #1	4703303400	1.000000	0.8476600	0.000000	CLARKSBURG
470009844 & 470010050		471375001	MAXWELL, L C #1	4703303907	1.000000	0.8437500	0.000000	CLARKSBURG
470010128		471956001	MAXWELL, PORTER #1 (EMAX)	4703304022	1.000000	0.7950000	0.000000	CLARKSBURG
470010128		471956002	MAXWELL, PORTER #2 (EMAX)	4703304023	1.000000	0.7950000	0.000000	CLARKSBURG
470010128		471956003	MAXWELL, PORTER #3 (EMAX)	4703304024	1.000000	0.7950000	0.000000	CLARKSBURG
470010129 (A-C) / WVU-241		471930001	MAYLE, DENZIL #1 (EMAX)	4700102677	1.000000	0.7950000	0.000000	CLARKSBURG
47D0000052 / JO-D-126		470350001	MCCARTY, WILLIS #1	4703302493	0.9023000	0.7331200	0.0351600	CLARKSBURG
470009856 & 470009888 (A-F)		471377001	MCCOY, COOPER "A" #1	4700102587	1.000000	0.8750000	0.000000	CLARKSBURG
470009867 (A-G)		471376001	MCCOY, COOPER #1	4700102583	1.000000	0.8750000	0.000000	CLARKSBURG
470010177		471922001	MCDERMOTT, P B #1 (EMAX)	4709702919	1.000000	0.7950000	0.000000	CLARKSBURG
47D0000022		470287001	MCDONALD, JOHN #1 (KL142)	4703302062	0.000000	0.000000	0.0351600	CLARKSBURG
47D0000020		470324000	MCDONALD, JOHN #1 (KL218-KR074)	4703302063	1.000000	0.8476600	0.000000	CLARKSBURG
47D0000020		470267001	MCDONALD, JOHN #6	4703302373	0.000000	0.000000	0.0351600	CLARKSBURG
47D0000020 / JO-D-129		470348001	MCDONALD, JOHN #7	4703302374	0.9698100	0.8485800	0.000000	CLARKSBURG
47D0000024		470288001	MCDONALD-DEEMS #1	4703302239	0.000000	0.000000	0.3516000	CLARKSBURG
47D0000024 / JO-D-127		470343001	MCDONALD-DEEMS #3	4703302366	0.7746000	0.6566000	0.000000	CLARKSBURG
47D0000024		470266001	MCDONALD-DEEMS #5	4703302455	0.000000	0.000000	0.0351600	CLARKSBURG
470005551 & 470005641 / COGCU-130	2	470834001	MCKINLEY LAND CO #1	4708100536	1.000000	0.8750000	0.000000	EASTERN
470005641 / COGCU-132	2	470834002	MCKINLEY LAND CO #4	4708100541	1.000000	0.8750000	0.000000	EASTERN
470005551 & 470005641 / COGCU-131	2	470834003	MCKINLEY LAND CO #5	4708100537	1.000000	0.8750000	0.000000	EASTERN
470009935		471378001	MCKINLEY, FRANKLIN #1	4704103988	1.000000	0.8203125	0.000000	CLARKSBURG
470009865		471379001	MCKINNEY, PAUL #1	4703303703	1.000000	0.8750000	0.000000	CLARKSBURG
470009977		472129001	MCMILLAN, JOHN #1	4701703345	0.9255650	0.8210350	0.000000	CLARKSBURG
470009977		472129002	MCMILLAN, JOHN #2	4701703355	0.9255650	0.8210350	0.000000	CLARKSBURG
470009850		472110001	MCMILLAN, S B "A" #1	4701701826	0.5713000	0.5712886	0.0587413	CLARKSBURG
470009850		472110002	MCMILLAN, S B "A" #2	4701701824	0.5713000	0.5712886	0.0587413	CLARKSBURG
470009850		472110003	MCMILLAN, S B "A" #3	4701701834	0.5713000	0.5712886	0.0587413	CLARKSBURG
470009850		472110004	MCMILLAN, S B "A" #4	4701701852	0.5705000	0.5043788	0.000000	CLARKSBURG
470009850		472110005	MCMILLAN, S B "A" #5	4701701854	0.5705000	0.5043788	0.000000	CLARKSBURG
470010005		471387001	MCMILLAN, S B #4	4701701825	0.5713000	0.6300300	0.000000	CLARKSBURG
470010123		471931001	MCREYNOLDS, R L #1 (EMAX)	4703304016	1.000000	0.7950000	0.000000	CLARKSBURG
470010123		471931002	MCREYNOLDS, R L #2 (EMAX)	4703304036	1.000000	0.7950000	0.000000	CLARKSBURG
470010123		471931003	MCREYNOLDS, R L #3 (EMAX)	4703304037	1.000000	0.7950000	0.000000	CLARKSBURG
470010123		471931004	MCREYNOLDS, R L #4 (EMAX)	4703304038	1.000000	0.7950000	0.000000	CLARKSBURG
470008961 (MIN)	1	470982001	MEADE #1	4710501173	1.000000	1.000000	0.000000	EASTERN
470009837 (A-D)		471388001	MESSENGER, RUSSELL #1	4703303832	1.000000	0.8750000	0.000000	CLARKSBURG
470010138		471948001	MIDLAND ENTERPRISES #1 (EMAX)	4708301128	1.000000	0.8750000	0.000000	CLARKSBURG
470010138		471948002	MIDLAND ENTERPRISES #2 (EMAX)	4708301129	1.000000	0.8750000	0.000000	CLARKSBURG
470009980 (A-B) / WV-U		471393001	MINES "A" #1	4703301185	1.000000	1.000000	0.000000	CLARKSBURG
470009920A / WV-U		472124001	MINES, J H #1	4703301175	1.000000	1.000000	0.000000	CLARKSBURG
470009920A / WV-U		472124002	MINES, J H #2	4703301174	1.000000	1.000000	0.000000	CLARKSBURG
470009920A / WV-U		472124003	MINES, J H #3	4703301177	1.000000	1.000000	0.000000	CLARKSBURG

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470005567 & 470005849 / AEDU076	2	470203001	MINTER, LOWELL #1	4701900326	1.0000000	0.8750000	0.0000000	EASTERN
470006028 & 470006492 / AEDU118 / JO-70	2	470221001	MINTER, LOWELL #2	4701900403	0.6744320	0.5789569	0.0000000	EASTERN
470009952 & 470009953 / WV-U		471394001	MONKS-FLYNN #1	4703301193	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010292 (A-C)		472051001	MONTGOMERY, SUSAN #1	4704104276	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009838 (A-B)		471396001	MORRIS, JOHN #1	4704104156	1.0000000	0.8476600	0.0000000	CLARKSBURG
470009897 & 470009897RW1		471397001	MORRISON, MATILDA #1	4703301145	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009897		471398001	MORRISON, MATILDA #2	4703301144	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009908		471399001	MORRISON, N R #1	4703301161	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009986		471401001	MORRISON, W C #1	4703301059	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010154 (A-D)		472050001	MORRISON, W L HEIRS #1	4700102711	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009955		471400001	MORRISON, WHEATON #1	4703301954	1.0000000	0.9791670	0.0000000	CLARKSBURG
470009875		472114001	MOSS, L L #1	4704103737	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009875		472114002	MOSS, L L #2	4704103921	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009855		471404001	MOTT, JOHN #1	4701703152	0.9683000	0.8505800	0.0000000	CLARKSBURG
470009882		471405001	MOTT, JOHN #2	4701703437	0.9683000	0.8505800	0.0000000	CLARKSBURG
470005932 / JO-71	2	470838002	NEW RIVER CO #10	4708100428	1.0000000	0.8200000	0.0000000	EASTERN
470005932 / JO-71	2	470838006	NEW RIVER CO #18	4708100527	1.0000000	0.8200000	0.0000000	EASTERN
470005932 / JO-71	2	470838007	NEW RIVER CO #5	4708100427	1.0000000	0.8200000	0.0000000	EASTERN
470005932 / JO-71	2	470838001	NEW RIVER CO #6	4708100437	1.0000000	0.8200000	0.0000000	EASTERN
47D0000041		470310000	NICHOLSON, H #1 (KL259)	4703302233	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000040		470317001	NICHOLSON, H #1 (KL281)	4703302234	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000006		470184001	NICHOLSON, ROSA #1	4701702484	0.0000000	0.0000000	0.0351600	CLARKSBURG
470010015 (A-B)		471407001	NOON, WILLIAM #1	4703303372	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009821		471408001	NORRIS, JOHN #1	4704103961	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009821		471409001	NORRIS, JOHN #2	4704103996	1.0000000	0.8203125	0.0000000	CLARKSBURG
470005828 & 470008026	2	470218001	NUTTALL HEIRS #1	4701900361	1.0000000	0.8437500	0.0000000	EASTERN
470005828 & 470008026	2	470218002	NUTTALL HEIRS #3	4701900399	1.0000000	0.8437500	0.0000000	EASTERN
470005828, 470008026 & 470006389 / AEDU-103	2	470218003	NUTTALL HEIRS #4	4701900362	1.0000000	0.8518700	0.0000000	EASTERN
470010167 & 470010168 (A-B)		471969001	NUTTER, VERA #1 (EMAX)	4700102687	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009827		471412001	ODELL, MAXINE #1	4709702906	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009881		472117001	OHARA, PRUDENCE #1	4704103951	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009881		472117002	OHARA, PRUDENCE #2	4704103944	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009881		472117003	OHARA, PRUDENCE #3	4704103928	1.0000000	0.8203125	0.0000000	CLARKSBURG
470010012 & 470010013		471411001	OLDAKER, NELLIE #1	4703303583	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010136		471958001	ONEAL, BLOOMA #1 (EMAX)	4700102682	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010136		471958002	ONEAL, BLOOMA #2 (EMAX)	4700102683	1.0000000	0.7950000	0.0000000	CLARKSBURG
47D0000045 / JO-D-092		470264001	PALMER, MARY #1	4703302642	1.0000000	0.8000000	0.0476000	CLARKSBURG
470009898		471418001	PALMER, RAY #1	4703303727	1.0000000	0.8750000	0.0000000	CLARKSBURG

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WT %	NRI %	ORRI	DIVISION
470005560, 470005667, 470008068, 470008069, 470008211, 470008267, 470008268, 470008269, 470008270, 470008281 & 470008282 / WV-U-171	2	470239000	PAXTON-DEITZ #1					
470009846 (A-E)		472108001	PAYNE, THOMAS #1	4701900588	1.0000000	0.8402000	0.0000000	EASTERN
470009846 (A-E)		472108002	PAYNE, THOMAS #2	4703303917	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009846B & 47000983A		471419001	PEARCY, JAMES #1	4703303928	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010082		472135001	PECK, CORA #1 (EMAX)	4701702863	0.9612310	0.8468820	0.0000000	CLARKSBURG
470010082		472135002	PECK, CORA #2 (EMAX)	4700102649	1.0000000	0.7950000	0.0000000	CLARKSBURG
470005060 / AED JO-66	2	470740001	PECK, RACHEL #1	4700102650	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009852		471420001	PETREY, ANN #1	4706700484	0.1892172	0.1655700	0.0000000	CLARKSBURG
470009839		471421001	PLANT, WILLIAM #1	4703303834	1.0000000	0.8203125	0.0000000	EASTERN
470010092		471578002	POLING, ALMAN #1 (EMAX)	4703301103	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010121		471578003	POLING, ALMAN #3 (EMAX)	4700102657	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009862		471944001	POLING, BEATRICE #1 (EMAX)	4700102658	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010186		471422001	PORTER, H G #1	4700102678	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010170		471974001	POST, AUSTIN #1 (EMAX)	4703301063	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010170		471975001	POST, G T #1 (EMAX)	4703304042	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010122		471975002	POST, G T #2 (EMAX)	4703304052	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010122		471947001	POST, HIRAM #1 (EMAX)	4703304053	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010086		471947002	POST, HIRAM #2 (EMAX)	4703304020	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009820 (A-B)		471570001	POST, ISAAC #1 (EMAX)	4703304021	1.0000000	0.7950000	0.0000000	CLARKSBURG
470002176	1	471423001	PRATT, RUBLE #1	4703303833	1.0000000	0.7950000	0.0000000	CLARKSBURG
470002176	1	470923004	PRITCHARD, E R #3	4704104160	1.0000000	0.8750000	0.0000000	CLARKSBURG
470002176	1	470923003	PRITCHARD, E R #4	4709900881	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010102, 470010103, 470010109 & 470010110 / WVU 236	1	470923007	PRITCHARD, E R #5	4709900914	1.0000000	0.8750000	0.0000000	EASTERN
				4709900964	1.0000000	0.8750000	0.0000000	EASTERN
470009805		471583001	QUAY, VIRGINIA #1 (EMAX)	4700102656	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009805		472119001	QUEEN, CHESTER #1	4703302275	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009805		472119002	QUEEN, CHESTER #2	4703303215	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010022 (A-B)		472119003	QUEEN, CHESTER #3	4703303239	1.0000000	0.8750000	0.0000000	CLARKSBURG
470002761	2	471427001	QUEEN, GERNA #1	4703303344	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010088		470470001	RABEL, H A #1	4703902059	1.0000000	0.8750000	0.0000000	CLARKSBURG
470008192	2	471573001	RADABAUGH, DORA #1 (EMAX)	4709702913	1.0000000	0.7950000	0.0000000	EASTERN
470010097		470728001	RADER, ANNA #1	4706700457	1.0000000	0.8476600	0.0000000	CLARKSBURG
470005392		471587001	RANDOLPH, LYLE #1 (EMAX)	4704104188	1.0000000	0.7950000	0.0000000	EASTERN
470000515 / WV-U-106	1	475392001	RAYMOND HEINTZMAN #1 (NON-OP)	4709500793	0.0000000	0.0000000	0.0000000	CLARKSBURG
47D0000021		470648001	RED ASH POCAHONTAS "B" #1	4704700632	0.4000000	0.3300000	0.0312500	
47D0000021 / JO-D-128		470307001	REED, MARY #1	4703302061	0.0000000	0.0000000	0.0500000	EASTERN
47D0000079		470345001	REED, MARY #2	4703302534	0.9533000	0.8080800	0.0351600	CLARKSBURG
47D0000079		470562001	REXROAD, U #1	4704102864	0.0000000	0.0000000	0.0000000	CLARKSBURG
47D0000079		470563001	REXROAD, U #2	4704102865	0.0000000	0.0000000	0.0351600	CLARKSBURG
47D0000079		470564001	REXROAD, U #3	4704102866	0.0000000	0.0000000	0.0351600	CLARKSBURG
470009826 (A-B)		471428001	REYNOLDS, ALICE #1	4703303748	1.0000000	0.8339840	0.0000000	CLARKSBURG

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470009870		471429001	REYNOLDS, BILLY #1					
470009849 / WV-U.		472145001	REYNOLDS, THOMAS #1	4703303612	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009849 / WV-U.		472145002	REYNOLDS, THOMAS #2	4703301108	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009845 / WV-U.		472145003	REYNOLDS, THOMAS #3	4703301109	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000048 / JO-D-092		471433001	REYNOLDS, THOMAS #4	4703301110	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009943 & 470009944 / WV-U-219		470265001	RICHARDS, LYDA #1	4703301113	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009943 & 470009944 / WV-U-219		472142001	RICHARDS, STANLEY #1	4703302644	1.0000000	0.8000000	0.0476600	CLARKSBURG
470009943 & 470009944 / WV-U-219		472142002	RICHARDS, STANLEY #2	4701702750	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009943 & 470009944 / WV-U-219		472142003	RICHARDS, STANLEY #3	4701702979	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005744, 470005744 (A-B), 470005833, 470006074, 470006076 & 470006077 / AEDU-088	2	470738001	RIDGEWAY #1	4701703665	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010101		471685001	RILEY, ANNETTE #1 (EMAX)	4708700481	1.0000000	0.8718200	0.0000000	EASTERN
470009974		471437001	ROBEY, MARY #1	4700102681	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010244 (A-O)		472058001	ROBINSON, E B #1	4703301688	1.0000000	1.0000000	0.0000000	CLARKSBURG
470010244 (A-O)		472058002	ROBINSON, E B #2	4701704245	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000063		470278001	ROBINSON, L #2	4701704559	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000063		471438001	ROBINSON, LOUISA #1	4703301918	0.0000000	0.0000000	0.0312500	CLARKSBURG
470005974 & 470005974 (A-B)	2	470723001	ROCKWELL-CARDEN #1	4703301243	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009933 (A-C) & 470009933MIN		472139001	RODEN, HARRY #1	4708700444	1.0000000	0.8476600	0.0000000	EASTERN
470009933 (A-C) & 470009933MIN		472139002	RODEN, HARRY #2	4701703381	0.9255650	.821035	0.0000000	CLARKSBURG
470010169		471970001	ROESSING, GEORGE #1 (EMAX)	4701703440	0.9255650	.821035	0.0000000	CLARKSBURG
47D0000060 / JO-D-109		470306001	ROGERS, B #1 (KL237)	4709702926	1.0000000	0.7950000	0.0000000	CLARKSBURG
47D0000043 / JO-D-125		470340001	ROGERS, DAVE #1	4703301957	1.0000000	0.8437500	0.0000000	CLARKSBURG
470006513 & 470006513 (A-B) / WV-U-161		470771001	ROGERS, DONALD #1	4703302242	0.6842180	0.5559280	0.0351800	CLARKSBURG
470006513 & 470006513A / WV-U-161		470771002	ROGERS, DONALD #2	4707301868	1.0000000	0.8461100	0.0000000	EASTERN
47D0000062		470281001	ROGERS, L H #2	4707301932	1.0000000	0.8461100	0.0000000	EASTERN
47D0000070		470280001	ROGERS, M #1	4703301966	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000015		470332001	ROGERS, MARTHA #1	4703301982	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000055		470335001	ROSENBERGER, EDITH #1	4703301983	0.1950000	0.1584375	0.0625000	CLARKSBURG
470005032, 470005744, 470005744 (A-B), 470005928, 470006331, 470006335 & 470006466 / AEDU-092	2	470735001	RUTLEDGE GAS UNIT #1	4703302463	0.0000000	0.0000000	0.0625000	CLARKSBURG
470010007		471441001	SALERNO, JOSEPH #1	4706700470	1.0000000	0.8389084	0.0000000	EASTERN
470009805 (A-C)		472104001	SAYLER, MARY #1	4703302467	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009805 (A-C)		472104002	SAYLER, MARY #2	4703303851	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009880MIN		471444001	SCOTT OIL "D" #1	4703303852	1.0000000	0.7950000	0.0000000	CLARKSBURG
				4703303605	1.0000000	1.0000000	0.0000000	CLARKSBURG

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
47000967		471445001	SHAFFER, WALTER #1	4704900731	0.9863000	0.8455203	0.0000000	CLARKSBURG
47000963		471445001	SHEETS, A J #1	4703301079	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470327001	SHINN, ALBERT #1	4703302586	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470328001	SHINN, ALBERT #2	4703302587	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470329001	SHINN, ALBERT #4	4703302639	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470330001	SHINN, ALBERT #6	4703302630	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470331001	SHINN, ALBERT #7	4703302711	1.0000000	0.8478600	0.0000000	CLARKSBURG
47D0000046 (A-B) / JO-D-127		470342001	SHINN, ALBERT #8	4703302523	0.7746000	0.6565970	0.0000000	CLARKSBURG
47D0000056		470286001	SHINN, D #1	4703302522	0.0000000	0.0000000	0.0488300	CLARKSBURG
47D0000056		470293001	SHINN, D #2	4703302523	0.0000000	0.0000000	0.0488300	CLARKSBURG
47D0000056		470294001	SHINN, D #3	4703302524	0.0000000	0.0000000	0.0488300	CLARKSBURG
47D0000065 / JO-D-089		470269001	SHINN, HOWARD #1	4703302870	1.0000000	0.8478600	0.0273400	CLARKSBURG
47D0000065 / JO-D-128		470346001	SHINN, HOWARD #2	4703302871	0.9866500	0.8363500	0.0273400	CLARKSBURG
470009871 (A-E)		471447001	SHRADER, DAVID #1	4703303841	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005876, 470005880, 470005885 & 470005886 / AEDU068	2	470195001	SHUMWAY, CLEORA #1					
470005876 & 470005909 / AEDU075	2	470195002	SHUMWAY, CLEORA #2	4701900306	1.0000000	0.8437500	0.0000000	EASTERN
47D0000013		470281001	SHUTTLEWORTH, RALPH #2	4701900314	1.0000000	0.8498000	0.0000000	EASTERN
470009903		471449001	SIMMONS, I P #1	4703302600	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009950		471448001	SIMMONS, ISRAEL #1	4704102529	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010124		471943001	SIMPSON, HOWARD #1 (EMAX)	4704104068	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009879		471450001	SMITH, CHAPMAN #1	4700102679	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009951		471451001	SMITH, JAMES #1	4703303762	1.0000000	0.8203125	0.0000000	CLARKSBURG
470010001 (A-F)		471452001	SMITH, MORDECIA #1	4709702885	1.0000000	0.8750000	0.0000000	CLARKSBURG
47D0000075		470308001	SMITH-CURRY #1	4703303765	1.0000000	0.8403320	0.0000000	CLARKSBURG
47D0000075		470337001	SMITH-CURRY #2	4703302203	0.0000000	0.0000000	0.0351600	CLARKSBURG
470009889		471453001	SNYDER, EUGENIA #1	4703302392	0.0000000	0.0000000	0.0625000	CLARKSBURG
470010084		471567001	SOMMERVILLE, J H #1 (EMAX)	4703303066	0.9255650	0.8210400	0.0000000	CLARKSBURG
470010098		471588001	SOMMERVILLE, J W #1 (EMAX)	4703303934	1.0000000	0.7950000	0.0000000	CLARKSBURG
470010011		471454001	SOURBORN, THOMAS #1	4703303985	1.0000000	0.7950000	0.0000000	CLARKSBURG
470007934	2	470855001	SOUTHERN LAND CO "A" #1R	4704900736	0.9663080	0.8455203	0.0000000	CLARKSBURG
470009831		472146001	SOUTHERN, EDMOND #1	4708100804	1.0000000	0.8750000	0.0000000	EASTERN
470009831		472146002	SOUTHERN, EDMOND #2	4703301131	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009831		472146003	SOUTHERN, EDMOND #3	4703301150	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005885, 470005886, 470005889 & 470005894 / AEDU-096 / JO-64	2	470200001	STEELE, GRACE #1	4703301234	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005885, 470005886 & 470005894 / AEDU-087 / JO-62	2	470211001	STEELE, GRACE #2	4701900356	0.5843180	0.4922879	0.0000000	EASTERN
470005877	2	470202001	STEELE, MARJORIE #2	4701900357	0.6090800	0.5137895	0.0000000	EASTERN
470005877	2	470202003	STEELE, MARJORIE #3	4701900345	1.0000000	0.8437500	0.0000000	EASTERN
47D0000036 / JO-D-125		470341001	STEPHENSON, B #1	4701900332	1.0000000	0.8437500	0.0000000	EASTERN
				4703302243	0.6842180	0.5559280	0.0351600	CLARKSBURG

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OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
	1	479901370	STONE "B" #1		0.0000000	0.0000000	0.0351600	EASTERN
470010180 (A-C)		472048001	STOUT, BENWOOD #1	4700102712	1.0000000	0.8400000	0.0000000	CLARKSBURG
470009851 (A-B)		472111001	STOUT, CLAYTON #1	4704102537	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009851 (A-B)		472111002	STOUT, CLAYTON #2	4704102658	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009851 (A-B)		472111003	STOUT, CLAYTON #3	4704103827	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009851 (A-B)		472111004	STOUT, CLAYTON #4	4704103854	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009831		472107001	STROTHER, DELMA #1	4703303645	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009831		472107002	STROTHER, DELMA #2	4703303705	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009819 & 470009831		471466001	STROTHER, DELORA #1	4704103952	1.0000000	0.8203125	0.0000000	CLARKSBURG
47D0000076		470272001	STROTHERS, L J #2	4703301055	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000074		470273001	STROTHERS, L J #3	4703301056	0.0000000	0.0000000	0.0312500	CLARKSBURG
47D0000074		470274001	STROTHERS, L J #4	4703301211	0.0000000	0.0000000	0.0625000	CLARKSBURG
470010100		471684001	STUART, H D #1 (EMAX)	4700102660	1.0000000	0.7950000	0.0000000	
470010100		471684002	STUART, H D #2 (EMAX)	4700102662	1.0000000	0.7950000	0.0000000	
470009831 & 470010027		471466001	SWIGER, J A #1	4703301244	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009956		471466001	SWIGER, J N #1	4703301245	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009831 & 470009973 (A-H)		471467001	SWIGER, JOSEPHINE #1	4703302977	0.9255650	0.8210350	0.0000000	CLARKSBURG
470010127		471898001	SWISHER, P G #1 (EMAX)	4704104204	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009815		472137001	TETER, R W #1	4709702902	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009815		472137002	TETER, R W #2	4709702903	1.0000000	0.7950000	0.0000000	CLARKSBURG
470009990		471472001	UNITED NATIONAL BANK #1	4704104113	1.0000000	0.8476562	0.0000000	CLARKSBURG
470009835 (A-D)		471473001	VARNER, HAYWARD #1	4701703088	0.9663000	0.8505750	0.0000000	CLARKSBURG
47D0000049 (A&C)		470262001	VINCENT, ROSS #1 (DA001)	4703302585	1.0000000	0.8000000	0.0476000	CLARKSBURG
47D0000050		470339001	VINCENT, ROSS #1 (KY002)	4703302596	0.0000000	0.0000000	0.0351600	CLARKSBURG
470009810		471474001	WADE, ARLIE #1	4703303859	1.0000000	0.8750000	0.0000000	CLARKSBURG
470005926, 470005927, 470006066, 470006067, 470006068, 470006097, 470006103, 470006104, 470006105, 470006106, 470006107, 470006108 & 470006197 / AEDU-099	2	470741001	WALKER, ROY LEE #1	4706700492	1.0000000	0.8750000	0.0000000	EASTERN
470005888A / AEDU-095	2	470201001	WALKUP, NORA #1	4701900398	1.0000000	0.8445330	0.0000000	EASTERN
470009922		471475001	WALLACE MOTOR SALES #1	4703303631	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009962		472128001	WARNER, CATHERINE #1	4703303325	1.0000000	0.8476600	0.0000000	CLARKSBURG
470009962		472128002	WARNER, CATHERINE #2	4703303324	1.0000000	0.8476600	0.0000000	CLARKSBURG
470009822		472108001	WASHBURN, GEORGE #1	4703303731	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009822		472108002	WASHBURN, GEORGE #2	4703303734	1.0000000	0.8203125	0.0000000	CLARKSBURG
47D0000009		470168001	WEST, HAROLD #1	4701702482	0.0000000	0.0000000	0.0625000	CLARKSBURG
470005893, 470005893 (A-E) & 470006025 / AEDU-077 / JO-68	2	470207001	WESTERN-POCAHONTAS #1	4701900335	0.7882000	0.6534400	0.0000000	EASTERN

OGSYS LEASE/UNIT/JOA #	Note	OGSYS WELL #	WELL NAME	API #	WI %	NRI %	ORRI	DIVISION
470005893, 470005893 (A-E) & 470006025 / AEDU-077 / JO-68	2	470217001	WESTERN-POCAHONTAS #2	4701900385	0.7883600	0.6535815	0.0000000	EASTERN
470007038	2	470837001	WESTMORELAND COAL CO 'C' #2	4708100555	1.0000000	0.8333300	0.0000000	EASTERN
470010006		471480001	WHITE, A P #1	4704102528	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009976		471481001	WHITE, CLARK #1	4704104107	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009976		471482001	WHITE, FORTUNATUS #1	4704104089	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009976		471483001	WHITE, FORTUNATUS #2	4704104097	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009976		471484001	WHITE, FORTUNATUS #3	4704104088	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009927		471485001	WILLIAMS, IVAN #1	4703302857	0.8663090	0.8505750	0.0000000	CLARKSBURG
470009876		472115001	WILLIAMS, JOHN #1	4703301039	0.3634440	0.3307870	0.0000000	CLARKSBURG
470009876		472115002	WILLIAMS, JOHN #2	4703301051	0.3634440	0.3307870	0.0000000	CLARKSBURG
470009876		472115003	WILLIAMS, JOHN #3	4703301136	1.0000000	0.8750000	0.0000000	CLARKSBURG
470010029 (A-B) / WV-U-		471489001	WILSON, BILLY #1	4703303776	1.0000000	0.8203125	0.0000000	CLARKSBURG
470009975		471490001	WILSON, LEON #1	4703303347	1.0000000	0.8750000	0.0000000	CLARKSBURG
470006050	2	470828001	WOOLWINE, T H #1	4708100448	1.0000000	0.8750000	0.0000000	EASTERN
470005487 & 470005172 / AEDU-81	2	470829001	WRISTON HEIRS #1	4708100460	1.0000000	0.8750000	0.0000000	EASTERN
470005779, 470005790, 470006074 & 470006337 / AEDU-091 / JO-66	2	470737001	XYZ CORP UNIT #1	4708700478	0.6245000	0.5464375	0.0000000	EASTERN
470005775, 470006236 & 470006236A / AEDU-082	2	470732001	YOUNG GAS UNIT #1	4706700464	1.0000000	0.8750000	0.0000000	EASTERN
470009873 (A-B)		471491001	YOUNG, STEPHEN #1	4708702884	1.0000000	0.8750000	0.0000000	CLARKSBURG
470009981		471492001	ZIRKLE #1	4703301067	1.0000000	0.8750000	0.0000000	CLARKSBURG
Note:								
1= Wellbore only								
2= Prior Assignor reserved all rights from and below the top of Onondaga								
3=Prior Assignor reserved all rights from and below 100 feet beneath the base of the Maxton								
4= Prior Assignor reserved all rights from and below the base of the Onskany								
updated as of 11/14/07 4:30 p.m.								

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Exhibit A - Lease Description

<u>Lease No.</u>	<u>Lessor Name</u>	<u>Lessee Name</u>	<u>Lease Date</u>	<u>State</u>	<u>County</u>	<u>Book</u>	<u>Page</u>
47D0000078		ADAMS, ELIZA A					
47-0009878	A	ALFRED, MARGARET H, ET AL					
47-0009878	B	ALFRED, MARGARET H., ET AL					
47-0009904	M	ALLEN, ALMA VIRGINIA, ET AL					
47-0009904	K	ALLEN, BESSIE P., ET AL					
47-0009904	U	ALLEN, C. LEONARD, ET UX					
47D0000071		ALLEN, JAMES F ET UX					
47-0009904	J	ALLEN, JAMES F, ET UX					
47-0009904	H	ALLEN, MURIEL B					
47-0009904	I	ALLEN, STEPHEN C, ET UX					
47-0009846	A	ALLMAN, EDWARD L., ET UX					
47-0010003	B	ANDERSON, EDDIE L., ET UX					
47D0000051	F	ANDERSON, MARY JANE					
47-0009818		ANDREWS, CHARLES LEE, TRUSTEE					
47-0009853	B	APPALACHIAN ROYALTIES INC					
47-0009861		ARNOLD, JACKSON					
47-0009825		ARTERS, VELMA L., ET VIR					
47-0009913	A	ARVEY, DIXIE ANN					
47D0000026		ASH, HAZEL D ET UX					
47-0009904	W	ASHCRAFT, WILMA, ET VIR					
47-0009904	L	BAIN, EDNA					
WVRV0018		BALTIMORE & OHIO RAILROAD CO					
47-0009871	B	BARKER, PAMELA J., ET VIR					
47D0000068		BARTLETT, J C ET UX					
47-0010161	M	BARTON, JANE C, ET UX					
47-0010004		BATES, NOTLEY S.					
47D0000051	D	BICE, LOTA FERGUSON ET VIR					
47-0009914		BOGGESS, SARAH					
47-0009904	V	BOREMAN, WILLIAM J, ET UX					
47D0000017		BRAMER, WADE S ET UX					
47-0009863	C	BRANNON, JOHN LINN, ET AL					
47D0000027		BRENNAN, JOHN E ET UX					
47D0000019		BRENNAN, JOHN ET UX					
47-0009904	A	BROWN, BARBARA, ET VIR					
47-0009852		BROWN, JOHN W., ET UX					
47D0000038		BROWN, MARY A ET AL					
47D0000075	D	BULLY, CHARMIAN L ET VIR					
		RESERVE GAS COMPANY	11/25/1908	WEST VIRGINIA	HARRISON	178	418
		HOPE NATURAL GAS COMPANY	10/01/1962	WEST VIRGINIA	HARRISON	870	502
		HOPE NATURAL GAS COMPANY	10/01/1962	WEST VIRGINIA	HARRISON	876	230
		JAMES F SCOTT	08/03/1978	WEST VIRGINIA	HARRISON	1072	602
		JAMES F SCOTT	08/01/1978	WEST VIRGINIA	HARRISON	1072	598
		JAMES F SCOTT	08/17/1978	WEST VIRGINIA	HARRISON	1072	582
		WHITE TOP OIL & GAS COMPANY	11/19/1909	WEST VIRGINIA	HARRISON	185	430
		JAMES F SCOTT	08/01/1978	WEST VIRGINIA	HARRISON	1072	586
		JAMES F SCOTT	07/26/1978	WEST VIRGINIA	HARRISON	1072	590
		JAMES F SCOTT	07/28/1978	WEST VIRGINIA	HARRISON	1072	594
		EMAX OIL COMPANY	04/28/1992	WEST VIRGINIA	HARRISON	1229	1101
		EDMUND J MATKO	04/22/1985	WEST VIRGINIA	HARRISON	1150	686
		DORAN AND ASSOCIATES INC	04/22/1981	WEST VIRGINIA	HARRISON	1109	757
		SOUTHERN OIL COMPANY	07/14/1902	WEST VIRGINIA	HARRISON	137	459
		HOPE NATURAL GAS COMPANY	09/20/1963	WEST VIRGINIA	HARRISON	881	609
		GRASSELLI CHEMICAL COMPANY	02/08/1915	WEST VIRGINIA	HARRISON	242	101
		JAMES F SCOTT	04/02/1980	WEST VIRGINIA	HARRISON	1090	45
		SCOTT OIL COMPANY	03/22/1990	WEST VIRGINIA	HARRISON	1204	554
		DORAN & ASSOCIATES INC	12/21/1978	WEST VIRGINIA	HARRISON	1075	203
		JAMES F SCOTT	09/02/1978	WEST VIRGINIA	HARRISON	1072	606
		JAMES F SCOTT	08/02/1978	WEST VIRGINIA	HARRISON	1072	610
		JAMES F SCOTT OIL & GAS	09/22/1981	WEST VIRGINIA	HARRISON	N/A	N/A
		EMAX OIL COMPANY	12/03/1990	WEST VIRGINIA	HARRISON	1216	780
		HOPE NATURAL GAS COMPANY	06/19/1909	WEST VIRGINIA	HARRISON	184	378
		JACKSON L SMITH ENTERPRISES	08/10/1994	WEST VIRGINIA	HARRISON	1255	1114
		HOPE NATURAL GAS COMPANY	08/21/1903	WEST VIRGINIA	HARRISON	143	356
		DORAN & ASSOCIATES INC	02/03/1983	WEST VIRGINIA	HARRISON	1123	1044
		SOUTH PENN OIL COMPANY	08/24/1899	WEST VIRGINIA	HARRISON	113	412
		JAMES F SCOTT	08/31/1978	WEST VIRGINIA	HARRISON	1072	614
		DORAN & ASSOCIATES INC	08/26/1978	WEST VIRGINIA	HARRISON	1070	975
		JAMES F SCOTT	10/10/1977	WEST VIRGINIA	HARRISON	1063	166
		DORAN & ASSOCIATES INC	12/22/1978	WEST VIRGINIA	HARRISON	1075	211
		DORAN & ASSOCIATES INC	11/04/1979	WEST VIRGINIA	HARRISON	1085	1007
		JAMES F SCOTT	09/08/1978	WEST VIRGINIA	HARRISON	1072	618
		UNION GAS & CARBON COMPANY	06/28/1909	WEST VIRGINIA	HARRISON	176	385
		DORAN & ASSOCIATES INC	08/01/1979	WEST VIRGINIA	HARRISON	1082	383
		CLARENCE W MUTSCHELKNAUS	09/28/1978	WEST VIRGINIA	HARRISON	1074	44

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47-0010115	BURNSIDE, ISAAC N.	RESERVE GAS COMPANY	10/26/1908	WEST VIRGINIA	HARRISON	174	216
47-0009862	CAMDEN, IRA GOFF, ET AL	RESERVE GAS COMPANY	09/12/1931	WEST VIRGINIA	HARRISON	427	36
47-0009904	Q CAMPBELL, GEORGE A	JAMES F SCOTT	08/10/1978	WEST VIRGINIA	HARRISON	1072	622
47-0009846	C CARNEY, DENICE L., ET VIR	EMAX OIL COMPANY	04/21/1992	WEST VIRGINIA	HARRISON	1229	1093
47-0009913	B CHEUVRONT, MILDRED	SCOTT OIL COMPANY	02/26/1990	WEST VIRGINIA	HARRISON	1204	558
47-0010022	B CLARK, CATHERINE PATTON ET VIR	SCOTT OIL COMPANY	04/28/1886	WEST VIRGINIA	HARRISON	1160	653
47-0009860	A CLARKSBURG LIGHT & HEAT CO.	HOPE NATURAL GAS COMPANY	06/10/1929	WEST VIRGINIA	HARRISON	278	71
47-0009863	B CNG TRANSMISSION CORPORATION	CABOT OIL & GAS CORPORATION	09/16/1997	WEST VIRGINIA	HARRISON	1293	930
47-0010010	CNG TRANSMISSION CORPORATION	EMAX OIL COMPANY	11/21/1994	WEST VIRGINIA	HARRISON	1261	983
47-0010161	G COFFINDAFER, MARGARET J	JACKSON L SMITH ENTERPRISES	08/22/1994	WEST VIRGINIA	HARRISON	1255	602
47-0010161	J COFFINDAFER III, WADE H, ETUX	JACKSON L SMITH ENTERPRISES	05/23/1994	WEST VIRGINIA	HARRISON	1255	554
47-0010161	B COFFINDAFER, ASHBY L, ET UX	JACKSON L SMITH ENTERPRISES	05/27/1994	WEST VIRGINIA	HARRISON	1255	538
47-0010161	C COFFINDAFER, C BASIL	JACKSON L SMITH ENTERPRISES	05/18/1994	WEST VIRGINIA	HARRISON	1255	544
47-0010161	AA COFFINDAFER, ROBERT L, ET UX	JACKSON L SMITH ENTERPRISES	05/30/1994	WEST VIRGINIA	HARRISON	1255	568
47D0000028	A COFFINDAFER, ROBERT W ET UX	DORAN & ASSOCIATES INC	11/27/1978	WEST VIRGINIA	HARRISON	1075	215
47-0010161	Q COFFINDAFER, VIRGINIA B.	JACKSON L SMITH ENTERPRISES	05/16/1994	WEST VIRGINIA	HARRISON	1255	550
47-0010161	D COFFINDAFER, WANDA B	JACKSON L SMITH ENTERPRISES	05/25/1994	WEST VIRGINIA	HARRISON	1255	566
47-0010161	A COFFINDAFER, WILLIAM E, ET UX	JACKSON L SMITH ENTERPRISES	05/31/1994	WEST VIRGINIA	HARRISON	1255	570
47-0009991	COFFMAN, FRANCES O., ET AL	DELAWARE GAS COMPANY	11/21/1935	WEST VIRGINIA	HARRISON	466	334
47-0010163	COFFMAN, G.B., ET UX	HOPE NATURAL GAS COMPANY	01/08/1909	WEST VIRGINIA	HARRISON	176	179
47-0009853	D COLERIDER, R R, ET AL	CONSOLIDATED GAS SUPPLY CORP	08/19/1971	WEST VIRGINIA	HARRISON	1001	702
47-0009853	E COLLINS, ROBERT LEWIS, ET UX	CONSOLIDATED GAS SUPPLY CORP	03/09/1976	WEST VIRGINIA	HARRISON	1045	811
47-0009860	CONSOLIDATION COAL COMPANY	SCOTT OIL COMPANY	07/30/1989	WEST VIRGINIA	HARRISON	1197	370
47-0009942	CONSOLIDATION COAL COMPANY	SCOTT OIL COMPANY	02/22/1989	WEST VIRGINIA	HARRISON	1193	1219
47-0009978	CONSOLIDATION COAL COMPANY	JAMES F SCOTT	05/10/1984	WEST VIRGINIA	HARRISON	1139	1078
47-0010115	RW1 CONSOLIDATION COAL COMPANY	CABOT OIL & GAS CORPORATION	04/05/1994	WEST VIRGINIA	HARRISON	N/A	N/A
47D0000046	B COOKE, BEATRICE ET AL	DORAN & ASSOCIATES INC	02/20/1980	WEST VIRGINIA	HARRISON	1091	587
47D0000057	A CREWS, MRS MARGARET J ET VIR	HYDROCARBON ENERGIES INC	12/09/1980	WEST VIRGINIA	HARRISON	1099	971
47D0000058	A CREWS, MRS MARGARET J ET VIR	HYDROCARBON ENERGIES INC	12/09/1980	WEST VIRGINIA	HARRISON	1099	975
47-0009904	O CURME, GEORGIA G	JAMES F SCOTT	08/04/1978	WEST VIRGINIA	HARRISON	1072	626
47-0010161	P CURREY ESTATE, RALPH B.	JACKSON L SMITH ENTERPRISES	07/12/1994	WEST VIRGINIA	HARRISON	1255	536
47D0000075	E CURREY, RALPH B ET AL	CLARENCE W MUTSCHLKAUS	09/09/1978	WEST VIRGINIA	HARRISON	1074	480
47-0010161	R CURREY, VIRGINIA R.	JACKSON L SMITH ENTERPRISES	05/18/1994	WEST VIRGINIA	HARRISON	1255	558
47-0009883	CUTLIP, JUNIE B, ET UX	SCOTT OIL COMPANY	10/30/1989	WEST VIRGINIA	HARRISON	1199	715
47-0010008	CUTLIP, PAUL, ET UX	JAMES F SCOTT	02/21/1980	WEST VIRGINIA	HARRISON	1089	970
47-0009913	C DAVIS, MILDRED I, ET AL	SCOTT OIL COMPANY	03/05/1990	WEST VIRGINIA	HARRISON	1204	556
47-0010020	DAY, J A L, ET UX	R A GARRETT	04/08/1896	WEST VIRGINIA	HARRISON	99	7
47D0000075	H DECK, SHIELA R ET VIR	CLARENCE W MUTSCHLKAUS	09/21/1978	WEST VIRGINIA	HARRISON	1074	482
47D0000024	DEEMS, HAROLD R ET AL	DORAN & ASSOCIATES	10/09/1978	WEST VIRGINIA	HARRISON	1074	698

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47D0000047	A DEMARCO, JOE ET UX	DORAN & ASSOCIATES INC	03/07/1980	WEST VIRGINIA	HARRISON	1090	93
47D0000047	B DEMARCO, JOE ET UX	DORAN & ASSOCIATES INC	03/07/1980	WEST VIRGINIA	HARRISON	1102	847
47D0000053	DENNISON, JOHN W ET UX	SOUTH PENN OIL COMPANY	11/18/1891	WEST VIRGINIA	HARRISON	92	118
47-0010161	F DICKENSON, GERALDINE	JACKSON L SMITH ENTERPRISES	07/20/1994	WEST VIRGINIA	HARRISON	1255	592
47-0010181	AD DICKENSON, JR, PAUL H	CABOT OIL & GAS CORPORATION	01/18/1996	WEST VIRGINIA	HARRISON	143	248
47D0000089	DOLAN, JOHN J ET UX	RESERVE GAS COMPANY	05/22/1999	WEST VIRGINIA	HARRISON	116	427
47D0000059	DUNCAN, ERNEST A. TRUST	J F PHILLIPS	07/04/1979	WEST VIRGINIA	HARRISON	1081	928
47-0009802	DYE, JR, JOHN F	DORAN & ASSOCIATES INC	01/25/1960	WEST VIRGINIA	HARRISON	833	367
47-0009813	F ELDEN C FLANAGAN ET UX	HOPE NATURAL GAS COMPANY	02/26/1990	WEST VIRGINIA	HARRISON	1204	562
47-0010048	SUR EMAX OIL COMPANY (B REYNOLDS)	SCOTT OIL COMPANY	09/30/1993	WEST VIRGINIA	HARRISON	1244	873
47-0009880	MIN EMAX OIL COMPANY (D E HAMRICK)	CABOT OIL & GAS CORPORATION	04/20/1994	WEST VIRGINIA	HARRISON	1251	1230
47-0009934	MIN EMAX OIL COMPANY (E & A MORGAN)	CABOT OIL & GAS CORPORATION	10/05/1993	WEST VIRGINIA	HARRISON	1250	416
47-0010026	MIN EMAX OIL COMPANY (E I MORGAN)	CABOT OIL & GAS CORPORATION	04/20/1994	WEST VIRGINIA	HARRISON	1251	1233
47-0009847	MIN EMAX OIL COMPANY (E. MORGAN)	CABOT OIL AND GAS CORPORATION	03/04/1994	WEST VIRGINIA	HARRISON	1250	417
47-0010047	MIN EMAX OIL COMPANY (M SWIGER)	CABOT OIL & GAS CORPORATION	09/30/1993	WEST VIRGINIA	HARRISON	1244	873
47-0009886	SUR EMAX OIL COMPANY (R MCQUAID)	CABOT OIL & GAS CORPORATION	12/20/1993	WEST VIRGINIA	HARRISON	1247	287
47-0009904	G FEOPPEL, RUTH GARRETT, ET VIR	JAMES F SCOTT	07/25/1978	WEST VIRGINIA	HARRISON	1072	630
47D0000049	C FERGUSON, GEORGE A ET UX	DORAN AND ASSOCIATES INC	12/11/1980	WEST VIRGINIA	HARRISON	1100	10
47D0000051	H FERGUSON, GEORGE A ET UX	DORAN AND ASSOCIATES INC	05/07/1981	WEST VIRGINIA	HARRISON	1109	749
47-0010161	O FERRELL, CONNIE C, ET VIR	JACKSON L SMITH ENTERPRISES	05/25/1994	WEST VIRGINIA	HARRISON	1255	560
47D0000049	B FISH, EMMA LEE ET VIR	DORAN & ASSOCIATES INC	01/13/1981	WEST VIRGINIA	HARRISON	1100	14
47-0009814	FITTRO, IRA, ET AL	HOPE NATURAL GAS COMPANY	05/01/1959	WEST VIRGINIA	HARRISON	826	586
47-0009913	I FLANAGAN, ALMIRA	SCOTT OIL COMPANY	05/14/1990	WEST VIRGINIA	HARRISON	1205	114
47-0009896	A FLANIGAN, ALVIN L., ET UX	SCOTT OIL COMPANY	08/23/1989	WEST VIRGINIA	HARRISON	1196	757
47-0010003	A FLOWERS, AGNES, ET AL	EDMUND J MATKO	04/22/1985	WEST VIRGINIA	HARRISON	1150	688
47-0009929	A FLOWERS, LELIA B., ET VIR	HOPE NATURAL GAS COMPANY	08/15/1903	WEST VIRGINIA	HARRISON	143	346
47-0009953	FLYNN, JOHN T., ET UX	UNION GAS & CARBON COMPANY	07/07/1909	WEST VIRGINIA	HARRISON	176	379
47-0009986	FRANCIS, MICHAEL J	RESERVE GAS COMPANY	10/07/1905	WEST VIRGINIA	HARRISON	151	207
47-0009845	FRANCIS, MICHAEL J.	CONSOLIDATED GAS SUPPLY CORP	01/11/1905	WEST VIRGINIA	HARRISON	148	389
47-0010001	A FRIEND, THELMA G.	SCOTT OIL COMPANY	11/01/1988	WEST VIRGINIA	HARRISON	1191	853
47-0009853	C GALLO, CONSTANZIA, ET AL	CONSOLIDATED GAS SUPPLY CORP	06/14/1976	WEST VIRGINIA	HARRISON	1046	664
47-0009904	T GARRETT, JAMES H	JAMES F SCOTT	08/16/1978	WEST VIRGINIA	HARRISON	1072	634
47-0009863	D GASCON, VIRGINIA BRANNON	JAMES F SCOTT	12/30/1977	WEST VIRGINIA	HARRISON	1083	160
47D0000068	N GAWTHROP, JOHN A ET UX	H H EDINGER	09/12/1988	WEST VIRGINIA	HARRISON	107	34
47-0010161	GERRARD, J.W., ET UX	JACKSON L SMITH ENTERPRISES	08/22/1994	WEST VIRGINIA	HARRISON	1255	598
47-0009882	AB GIBSON, MARY L.	HOPE NATURAL GAS COMPANY	12/17/1903	WEST VIRGINIA	HARRISON	143	416
47-0010161	A GIFFORD, GLENN, ET AL	JACKSON L SMITH ENTERPRISES	05/23/1994	WEST VIRGINIA	HARRISON	1255	552
47-0009864		CONSOLIDATED GAS SUPPLY CORP	08/31/1962	WEST VIRGINIA	HARRISON	867	480

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47-0009866	GOFF, ANITA B, ET AL	DELAWARE GAS COMPANY	07/24/1938	WEST VIRGINIA	HARRISON	468	450
47-0009899	GOFF, GUY D., ET AL	DUDLEY D BRITT TRUSTEE	12/06/1920	WEST VIRGINIA	HARRISON	321	308
47-0009893	A GORE CORPORATION ET AL	CONSOLIDATED GAS SUPPLY CORP	11/21/1969	WEST VIRGINIA	HARRISON	974	35
47-0009916	A GORE, SOLOMON D., ET AL	CECIL B HIGHLAND	05/10/1905	WEST VIRGINIA	HARRISON	149	441
47-0009987	C GORE, TRUMAN E., ET AL	JAMES F SCOTT	05/09/1980	WEST VIRGINIA	HARRISON	1091	848
47-0009987	B GORE, WILLIAM F., ESTATE	JAMES F SCOTT	08/21/1980	WEST VIRGINIA	HARRISON	1095	299
47-0009987	A GORE, WILLIAM L., ET UX	JAMES F SCOTT	05/15/1980	WEST VIRGINIA	HARRISON	1091	850
47-0009837	B GORE-MORRIS TRUST U/A 8/25/68	EMAX OIL COMPANY	05/22/1991	WEST VIRGINIA	HARRISON	1216	768
47-0010115	RW3 GRIFFITH, JAMES R., ET UX	CABOT OIL & GAS CORPORATION	03/21/1994	WEST VIRGINIA	HARRISON	1249	475
47-0009871	D GROVES, MARY ELLEN, ET VIR	EMAX OIL COMPANY	06/01/1990	WEST VIRGINIA	HARRISON	1216	776
47D0000031	B GUY CORPORATION	DORAN & ASSOCIATES INC	02/25/1980	WEST VIRGINIA	HARRISON	1090	569
47-0009998	HALL, AARON C.	SOUTH PENN OIL CO	09/12/1899	WEST VIRGINIA	HARRISON	113	449
47-0009924	HAMMOND, JOSEPH, ET UX	WM MICHEALS	10/31/1898	WEST VIRGINIA	HARRISON	105	91
47-0010115	RW6 HANNER, JOHN G, ET AL	CABOT OIL & GAS CORPORATION	03/28/1994	WEST VIRGINIA	HARRISON	1258	246
47-0010115	RW2 HANNER, JOHN GEORGE, ET AL	CABOT OIL & GAS CORPORATION	03/22/1994	WEST VIRGINIA	HARRISON	N/A	N/A
47D0000042	HARBERT, EDWARD ET AL	DORAN ASSOCIATES INC	12/15/1979	WEST VIRGINIA	HARRISON	1087	264
47D0000033	HARBERT, MARIE S ET AL	DORAN & ASSOCIATES INC	03/16/1979	WEST VIRGINIA	HARRISON	1077	927
47D0000034	HARBERT, MARIE S ET AL	DORAN & ASSOCIATES INC	03/16/1979	WEST VIRGINIA	HARRISON	1077	931
47D0000012	HARDESTY, DAVID C ET AL	APPALACHIAN ENERGY INC	06/01/1979	WEST VIRGINIA	HARRISON	1083	1108
47D0000051	G HARDESTY, GUY A. ESTATE	DORAN AND ASSOCIATES INC	04/27/1981	WEST VIRGINIA	HARRISON	1109	753
47-0010115	RW5 HARDMAN, ROBERT N., ET UX	CABOT OIL & GAS CORPORATION	03/19/1994	WEST VIRGINIA	HARRISON	1249	471
47-0010161	L HARDWAY, SAUNDRA, ET VIR	JACKSON L SMITH ENTERPRISES	08/22/1994	WEST VIRGINIA	HARRISON	1255	594
47-0009801	RW HARRIS, STEPHEN R., ET AL	CNG TRANSMISSION CORPORATION	11/05/1991	WEST VIRGINIA	HARRISON	N/A	N/A
47D0000055	B HAYHURST, JEWELL ET AL	CONSOLIDATED GAS SUPPLY CORP	06/09/1979	WEST VIRGINIA	HARRISON	1081	349
47-0009996	A HAYHURST, JEWELL L., ET AL	DELAWARE GAS COMPANY	11/21/1935	WEST VIRGINIA	HARRISON	1087	55
47-0009913	H HELEN M LEYH ET AL	SCOTT OIL COMPANY	02/26/1990	WEST VIRGINIA	HARRISON	1204	566
47D0000031	A HESS, SALLIE M HEIRS	DORAN & ASSOCIATES INC	03/27/1980	WEST VIRGINIA	HARRISON	1090	565
47-0009894	HIGHLAND, V.L., ET AL	SOUTH PENN OIL COMPANY	05/20/1901	WEST VIRGINIA	HARRISON	121	297
47-0009863	F HOFFMAN, CHARLES C, ET UX	JAMES F SCOTT	01/07/1978	WEST VIRGINIA	HARRISON	1063	168
47-0009863	H HOFFMAN, SUSAN S.	JAMES F SCOTT	01/07/1978	WEST VIRGINIA	HARRISON	1063	398
47-0009863	E HOFFMAN, T SCOTT, ET AL	JAMES F SCOTT	01/07/1978	WEST VIRGINIA	HARRISON	1063	164
47-0009904	C HORNOR, PAUL ALLEN, ET AL	JAMES F SCOTT	01/24/1978	WEST VIRGINIA	HARRISON	1072	638
47-0009836	HORNOR, PAUL S., ET AL	CONSOLIDATED GAS SUPPLY CORP	10/15/1971	WEST VIRGINIA	HARRISON	999	872
WVRW0047	HUMANE SOCIETY OF HARRISON CTY INC	CABOT OIL & GAS CORPORATION	07/09/1998	WEST VIRGINIA	HARRISON	1301	1300
47-0010098	RW HURST, BERNARD W., ET UX	HOPE NATURAL GAS COMPANY	01/14/1994	WEST VIRGINIA	HARRISON	1247	1159
47-0009965	RW HURST, DOULGAS, ET UX	CABOT OIL & GAS CORPORATION	10/12/1994	WEST VIRGINIA	HARRISON	1258	1185
47-0009854	HURST, WM L, ET UX	WM MICHEALS	10/25/1898	WEST VIRGINIA	HARRISON	105	115
47-0010161	S JACKSON LODGE 35-CEMETERY FUND	JACKSON L SMITH ENTERPRISES	05/18/1994	WEST VIRGINIA	HARRISON	1255	533
47-0010161	Y JACKSON, INA C.	JACKSON L SMITH ENTERPRISES	05/19/1994	WEST VIRGINIA	HARRISON	1255	548

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47-0009828	JARVIS, HARRIET M., ET AL	HOPE NATURAL GAS COMPANY	01/12/1960	WEST VIRGINIA	HARRISON	833	431
47-0010192	A JARVIS, WERNINGER, TRUSTEE, ET	CABOT OIL & GAS CORPORATION	01/31/1996	WEST VIRGINIA	HARRISON	1273	841
47-0010192	B JENKINS, DONALD LEE, ET UX	CABOT OIL & GAS CORPORATION	01/31/1996	WEST VIRGINIA	HARRISON	1273	844
47-0010115	RW4 JENKINS, MARGARET J, ET VIR	CABOT OIL & GAS CORPORATION	03/19/1994	WEST VIRGINIA	HARRISON	1249	473
47D0000039	JETT, WILLIAM H ET UX	DORAN & ASSOCIATES INC	07/31/1979	WEST VIRGINIA	HARRISON	1082	387
47-0010009	JOHN J LAYFIELD ET UX	JAMES F SCOTT	02/20/1980	WEST VIRGINIA	HARRISON	1089	974
47-0009923	JOHN L CONRAD ET AL	SCOTT OIL COMPANY	05/01/1990	WEST VIRGINIA	HARRISON	1205	795
47D0000035	KEINER, EMLYN B	DORAN & ASSOCIATES INC	05/30/1979	WEST VIRGINIA	HARRISON	1081	235
47-0009837	D KERNS, JOHN W., HEIRS TRUST	EMAX OIL COMPANY	05/22/1991	WEST VIRGINIA	HARRISON	1216	770
47D0000051	B KINSEY, DONNA K ET VIR	DORAN & ASSOCIATES INC	01/09/1983	WEST VIRGINIA	HARRISON	1123	703
47D0000051	C KOON, JOHN S ET UX	DORAN & ASSOCIATES INC	01/09/1983	WEST VIRGINIA	HARRISON	1123	707
47-0009965	KYLE, IMOGENE, ET VIR	CONSOLIDATED GAS SUPPLY CORP	04/10/1979	WEST VIRGINIA	HARRISON	1081	354
47D0000075	G LAGATTA, EMILOU ET VIR	CLARENCE W MUTSCHELKNAUS	09/26/1978	WEST VIRGINIA	HARRISON	1074	484
47-0010161	T LAGATTA, EMILOU L, ET VIR	JACKSON L SMITH ENTERPRISES	06/08/1994	WEST VIRGINIA	HARRISON	1255	582
47-0010328	LAKE, WILLIS B, ET UX	CABOT OIL & GAS CORPORATION	03/20/1996	WEST VIRGINIA	HARRISON	1274	1150
47D0000072	LANHAM, HAYWARD ET AL	CONSOLIDATED GAS SUPPLY CORP	12/29/1972	WEST VIRGINIA	HARRISON	1009	82
47-0009913	E LATTEA, LINDA M, ET AL	SCOTT OIL COMPANY	10/09/1992	WEST VIRGINIA	HARRISON	1232	123
47-0009846	E LAWMAN, CLARICE J.	EMAX OIL COMPANY	04/16/1992	WEST VIRGINIA	HARRISON	1229	1097
47-0009846	B LAWMAN, JOHN B., ET UX	EMAX OIL COMPANY	05/05/1992	WEST VIRGINIA	HARRISON	1229	1099
47-0010001	E LEE, BETTY JEAN, AS TRUSTEE	SCOTT OIL COMPANY	11/05/1988	WEST VIRGINIA	HARRISON	1190	852
47-0010001	F LEE, MINNIE	CONSOLIDATED GAS SUPPLY	12/15/1978	WEST VIRGINIA	HARRISON	1075	1100
47D0000030	LEGGETT, EDWARD E ET UX	DORAN & ASSOCIATES INC	02/21/1979	WEST VIRGINIA	HARRISON	1076	288
47D0000051	A LEVELLE, MRS MARTHA K ET VIR	DORAN & ASSOCIATES INC	03/17/1980	WEST VIRGINIA	HARRISON	1109	745
47-0009929	B LINDSAY, J.R., ET UX	HOPE NATURAL GAS COMPANY	07/06/1903	WEST VIRGINIA	HARRISON	143	331
47-0009863	A LIVELY, CHARLES T., ET AL	CONSOLIDATED GAS SUPPLY CORP	01/14/1970	WEST VIRGINIA	HARRISON	976	135
47-0009863	G LIVELY, CHARLES T., ET AL	JAMES F SCOTT	10/19/1977	WEST VIRGINIA	HARRISON	1063	172
47D0000014	A LOWE, DAVID S TRUST	DORAN AND ASSOCIATES INC	06/19/1980	WEST VIRGINIA	HARRISON	1093	269
47D0000056	A LOWE, DAVID S., TRUST	DORAN & ASSOCIATES INC	07/28/1980	WEST VIRGINIA	HARRISON	1097	120
47D0000054	B LOWE, DAVID S., TRUST	DORAN AND ASSOCIATES INC	06/19/1980	WEST VIRGINIA	HARRISON	1093	273
47D0000025	LOWE, HENRY C ET UX	DORAN AND ASSOCIATES INC	12/11/1978	WEST VIRGINIA	HARRISON	1075	223
47D0000014	B LOWE, MARJORIE ANN S TRUSTEE	DORAN & ASSOCIATES INC	11/19/1980	WEST VIRGINIA	HARRISON	1098	131
47D0000054	A LOWE, MARJORIE ANN S TRUSTEE	DORAN & ASSOCIATES INC	11/19/1980	WEST VIRGINIA	HARRISON	1098	123
47D0000056	B LOWE, MARJORIE ANNE S TSTEE	DORAN & ASSOCIATES INC	11/19/1980	WEST VIRGINIA	HARRISON	1098	127
47D0000029	LOWTHER, A B ET UX	DORAN & ASSOCIATES INC	03/30/1979	WEST VIRGINIA	HARRISON	1077	793
47-0009999	A LOWTHER, DON H.	SCOTT OIL COMPANY	04/29/1986	WEST VIRGINIA	HARRISON	1161	162
47-0009999	B LOWTHER, LORETTA V.	SCOTT OIL COMPANY	11/14/1986	WEST VIRGINIA	HARRISON	1168	521
47-0009893	B LYONS, COLLY W., ET UX	JAMES F SCOTT	10/31/1977	WEST VIRGINIA	HARRISON	1061	275
47D0000018	LYONS, ROBERT ET AL	DORAN & ASSOCIATES INC	07/19/1978	WEST VIRGINIA	HARRISON	1076	220
47-0009801	MARSHALL, JERRY D., ET UX	EMAX OIL COMPANY	02/07/1991	WEST VIRGINIA	HARRISON	1212	1011

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47-0010015	A	MARVIN H NOON	SCOTT OIL COMPANY	05/06/1986	WEST VIRGINIA	HARRISON	1161	164
47-0009986	B	MASON, OKEY DALE, ET UX	JAMES F SCOTT	10/29/1979	WEST VIRGINIA	HARRISON	1087	57
47D0000061		MASON, REBECCA ET AL	SOUTH PENN OIL COMPANY	08/23/1900	WEST VIRGINIA	HARRISON	121	44
47-0009847		MASON, RICHARD F., ET UX	HAZE MORGAN	11/01/1910	WEST VIRGINIA	HARRISON	205	81
47-0009844		MAXWELL, LAWRENCE C., ET AL	CONSOLIDATED GAS SUPPLY CORP	03/21/1977	WEST VIRGINIA	HARRISON	1055	145
47-0010128		MAXWELL, PORTER, ET UX	SOUTH PENN OIL COMPANY	03/19/1901	WEST VIRGINIA	HARRISON	121	236
47D0000052		MCCARTY, WILLIS ET UX	DORAN & ASSOCIATES INC	05/18/1980	WEST VIRGINIA	HARRISON	1092	646
47D0000020		MCDONALD, JOHN B ET UX	DORAN & ASSOCIATES INC	10/09/1978	WEST VIRGINIA	HARRISON	1072	1095
47D0000022		MCDONALD, JOHN B ET UX	DORAN & ASSOCIATES INC	10/18/1979	WEST VIRGINIA	HARRISON	1085	83
47-0009805	C	MCGAHAN, HALLIE	CONSOLIDATED GAS SUPPLY CORP	04/24/1975	WEST VIRGINIA	HARRISON	1034	1094
47-0009865		MCKINNEY, PAUL	SCOTT OIL COMPANY	10/25/1989	WEST VIRGINIA	HARRISON	1199	858
47-0010123		MCREYNOLDS, J. D., ET UX	RESERVE GAS COMPANY	09/25/1909	WEST VIRGINIA	HARRISON	193	451
47-0009837	A	MESSINGER, RUSSELL, ET UX	EMAX OIL COMPANY	04/22/1991	WEST VIRGINIA	HARRISON	1216	766
47-0009913	G	MICHAEL C FLANAGAN ET UX	SCOTT OIL COMPANY	04/23/1990	WEST VIRGINIA	HARRISON	1204	568
47-0010026	B	MILLER, ANNA M.	JAMES F. SCOTT	10/07/1980	WEST VIRGINIA	HARRISON	1096	1048
47-0009846	D	MILLER, DEBORAH L., ET VIR	EMAX OIL COMPANY	06/15/1992	WEST VIRGINIA	HARRISON	1229	1095
47-0009920	A	MINES, J. H., ET UX	HOPE NATURAL GAS CO	08/08/1899	WEST VIRGINIA	HARRISON	108	516
47-0009913	D	MINNIE FLANAGAN DAVISSON ET AL	SCOTT OIL COMPANY	03/21/1990	WEST VIRGINIA	HARRISON	1204	560
47D0000067		MITCHELL, J D ET UX	HOPE NATURAL GAS COMPANY	07/19/1909	WEST VIRGINIA	HARRISON	184	411
47-0009952		MONKS, AGNES FRANCIS, ET AL	HOPE NATURAL GAS COMPANY	09/12/1962	WEST VIRGINIA	HARRISON	868	290
47-0009973	D	MONTGOMERY, DAWN W S., ET VIR	JAMES F SCOTT	09/01/1983	WEST VIRGINIA	HARRISON	1132	127
47-0009889		MORAN, ROBERT P, ET AL	JAMES F SCOTT	01/30/1984	WEST VIRGINIA	HARRISON	1134	342
47-0010026	A	MORGAN, ELIZA ISABEL	JAMES F. SCOTT	10/07/1980	WEST VIRGINIA	HARRISON	1096	1051
47D0000028	B	MORRIS, JOHN R ATTY-IN-FACT	DORAN & ASSOCIATES INC	11/27/1978	WEST VIRGINIA	HARRISON	1099	311
47-0010001	D	MORRIS, JOHN R., ET AL	SCOTT OIL COMPANY	11/09/1988	WEST VIRGINIA	HARRISON	1190	783
47-0009897		MORRISON, D.T., ET UX	W J PRIM	06/10/1899	WEST VIRGINIA	HARRISON	108	519
47-0009908		MORRISON, N.R., ET UX	CLARKSBURG LIGHT & HEAT CO	10/28/1908	WEST VIRGINIA	HARRISON	170	283
47-0009955		MORRISON, WHEATON, ET UX	HOPE NATURAL GAS COMPANY	12/10/1903	WEST VIRGINIA	HARRISON	143	398
47-0009904	S	MURPHY, INA L, ET VIR	JAMES F SCOTT	08/11/1978	WEST VIRGINIA	HARRISON	1072	642
47-0009910	B	NEVA W MEARNES ET AL	JAMES F SCOTT	05/04/1978	WEST VIRGINIA	HARRISON	1066	908
47D0000040		NICHOLSON, HOWARD D ET AL	DORAN & ASSOCIATES INC	08/20/1979	WEST VIRGINIA	HARRISON	1084	197
47D0000041		NICHOLSON, HOWARD D ET AL	DORAN & ASSOCIATES INC	08/20/1979	WEST VIRGINIA	HARRISON	1084	203
47-0010012		OLDAKER, NELLIE E., ET VIR	SCOTT OIL COMPANY	11/15/1988	WEST VIRGINIA	HARRISON	1191	513
47-0010013		OLDAKER, WILMA K., ET VIR	SCOTT OIL COMPANY	12/09/1988	WEST VIRGINIA	HARRISON	1191	561
47-0010161	K	OYLER, DEBRA, ET VIR	JACKSON L SMITH ENTERPRISES	06/07/1994	WEST VIRGINIA	HARRISON	1255	578
47D0000045		PALMER, MARGIE	DORAN & ASSOCIATES INC	09/16/1981	WEST VIRGINIA	HARRISON	1109	1075
47D0000064		PIGOTT, F M ET AL	HOPE GAS COMPANY	01/27/1909	WEST VIRGINIA	HARRISON	183	63
47-0009960	B	PITTSBURGH & FAIRMONT FUEL CO.	HOPE NATURAL GAS COMPANY	06/24/1905	WEST VIRGINIA	HARRISON	149	452
47-0009939		PLANT, MYRTLE B., ET VIR	HOPE NATURAL GAS COMPANY	04/10/1906	WEST VIRGINIA	HARRISON	169	423

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47-0010122	POST, A.A., ET AL	RESERVE GAS COMPANY	09/22/1909	WEST VIRGINIA	HARRISON	193	453
47-0010186	POST, A.A., ET UX	RESERVE GAS COMPANY	01/10/1910	WEST VIRGINIA	HARRISON	193	437
47-0010170	POST, G.T., ET UX	RESERVE GAS COMPANY	08/27/1909	WEST VIRGINIA	HARRISON	192	472
47-0010086	POST, ISAAC L., ET UX	MALTA OIL AND GAS COMPANY	01/04/1900	WEST VIRGINIA	HARRISON	111	260
47-0010161	Z PRICE, CATHERINE C, ET VIR	JACKSON L SMITH ENTERPRISES	05/24/1994	WEST VIRGINIA	HARRISON	1255	542
W4710128/ROW	PUBLIC LAND CORPORATION OF WV	CABOT OIL & GAS CORPORATION	08/03/1994	WEST VIRGINIA	HARRISON	N/A	N/A
47-0009905	QUEEN, CHESTER B., ET AL	JAMES F SCOTT	12/31/1979	WEST VIRGINIA	HARRISON	1088	248
47-0010022	A QUEEN, GERNA, ET AL	SCOTT OIL COMPANY	03/27/1988	WEST VIRGINIA	HARRISON	1159	365
47-0009898	RAY M PALMER ET UX	SCOTT OIL COMPANY	02/26/1990	WEST VIRGINIA	HARRISON	1202	489
47D0000021	REED, MRS MARY VIRGINIA	DORAN & ASSOCIATES INC	10/07/1978	WEST VIRGINIA	HARRISON	1072	1103
47-0009826	A REYNOLDS, ALICE M., ET AL	CONSOLIDATED GAS SUPPLY CORP	12/03/1974	WEST VIRGINIA	HARRISON	1072	1103
47-0010003	C REYNOLDS, ALMA E.	EDMUND J MATKO	06/17/1985	WEST VIRGINIA	HARRISON	1150	690
47-0009849	REYNOLDS, B.S.	H H EDINGER	01/02/1899	WEST VIRGINIA	HARRISON	107	39
47-0009870	REYNOLDS, BILLY B., ET UX	SCOTT OIL COMPANY	03/21/1989	WEST VIRGINIA	HARRISON	1194	850
47-0009826	B REYNOLDS, KATHRYN V.	SCOTT OIL COMPANY	12/18/1989	WEST VIRGINIA	HARRISON	1200	1063
47-0009916	B REYNOLDS, RICHARD L., ET AL	CLARKSBURG LIGHT AND HEAT CO	09/17/1927	WEST VIRGINIA	HARRISON	376	470
47-0009853	A REYNOLDS, T. FITZHUGH, ET AL	CONSOLIDATED GAS SUPPLY CORP	03/20/1970	WEST VIRGINIA	HARRISON	973	48
47D0000048	RICHARDS, JR LYDA A ET UX	DORAN & ASSOCIATES INC	03/07/1981	WEST VIRGINIA	HARRISON		
47-0009910	A ROBERT L DOUGLAS ET UX	JAMES F SCOTT	05/18/1978	WEST VIRGINIA	HARRISON	1066	898
47-0009974	ROBEY, MARY S.	HOPE NATURAL GAS COMPANY	06/30/1908	WEST VIRGINIA	HARRISON	189	54
47D0000060	ROBINSON, D D	HARNE & CO	04/08/1899	WEST VIRGINIA	HARRISON	110	327
47D0000073	ROBINSON, INEZ P ET AL	CONSOLIDATED GAS SUPPLY CORP	12/13/1973	WEST VIRGINIA	HARRISON	1022	48
47D0000063	ROBINSON, LOUISA C ET VIR	HOPE NATURAL GAS COMPANY	07/28/1908	WEST VIRGINIA	HARRISON	180	381
47-0010161	X RODGERS, JAMES R, ET UX	JACKSON L SMITH ENTERPRISES	06/03/1994	WEST VIRGINIA	HARRISON	1255	574
47D0000043	RODGERS, FRANCES S ET AL	DORAN & ASSOCIATES INC	12/01/1979	WEST VIRGINIA	HARRISON	1091	354
47D0000070	RODGERS, FRED ET UX	CONSOLIDATED GAS SUPPLY CORP	12/26/1973	WEST VIRGINIA	HARRISON	1019	640
47D0000082	RODGERS, JOHN G ET UX	C T EMERY	05/31/1999	WEST VIRGINIA	HARRISON	113	384
47D0000015	RODGERS, MARTHA V	DORAN & ASSOCIATES INC	04/22/1978	WEST VIRGINIA	HARRISON	1067	353
47D0000016	RODGERS, MARTHA V ET AL	DORAN & ASSOCIATES INC	04/22/1978	WEST VIRGINIA	HARRISON	1072	762
47D0000055	A ROSENBERGER, EDITH W ET AL	CONSOLIDATED GAS SUPPLY CORP	11/01/1973	WEST VIRGINIA	HARRISON	1042	857
47-0009922	RUSSELL WALLACE MOTOR SALES	CLARENCE W MUTSCHELKNAUS	05/17/1989	WEST VIRGINIA	HARRISON	1195	856
47-0010007	SALERNO, MARIA ROSE, BY HER AIF	JAMES F SCOTT	11/08/1979	WEST VIRGINIA	HARRISON	1086	794
47-0009805	B SAYLER, MARY M., ET AL	CONSOLIDATED GAS SUPPLY CORP	04/24/1975	WEST VIRGINIA	HARRISON	1034	425
47-0009981	SCHOOLCRAFT, ESTHER CRISS ETAL	CONSOLIDATED GAS SUPPLY CORP	10/30/1969	WEST VIRGINIA	HARRISON	966	698
47-0009963	SHEETS, A.J., ET UX	SOUTH PENN OIL COMPANY	11/28/1899	WEST VIRGINIA	HARRISON	116	562
47D0000065	SHINN, HOWARD T ET UX	W B GRIM	03/01/1915	WEST VIRGINIA	HARRISON	246	32
47D0000046	A SHINN, IDA E ET AL	DORAN & ASSOCIATES INC	09/07/1979	WEST VIRGINIA	HARRISON	1102	753
47-0009871	C SHRADER, DENNIS G., ET UX	EMAX OIL COMPANY	07/16/1990	WEST VIRGINIA	HARRISON	1216	782
47-0009871	E SHRADER, MARY JUNE, ET AL	EMAX OIL COMPANY	06/20/1990	WEST VIRGINIA	HARRISON	1216	774

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47D0000013		SHUTTLESWORTH, RALPH A ET UX	05/18/1981	WEST VIRGINIA	HARRISON	1103	403
47D0000075	B	SIMONS, ROY K ET UX	09/28/1978	WEST VIRGINIA	HARRISON	1074	494
47D0000075	C	SIMONS, SANDRA D	09/28/1978	WEST VIRGINIA	HARRISON	1074	496
47D0000075	A	SMITH, FRED H ET UX	09/30/1978	WEST VIRGINIA	HARRISON	1074	492
47-0010161	AC	SMITH, FRED H.	08/27/1994	WEST VIRGINIA	HARRISON	1256	164
47-0009879		SMITH, L L, ET AL	09/27/1909	WEST VIRGINIA	HARRISON	193	446
47-0010050		SMITH, LEXIE ET AL	06/23/1977	WEST VIRGINIA	HARRISON	1057	260
47D0000075	F	SMITH, RUSSELL D ET UX	09/19/1978	WEST VIRGINIA	HARRISON	1074	488
47-0009837	C	SMITH, S.A., ET AL TRUST	05/22/1991	WEST VIRGINIA	HARRISON	1216	772
47-0010161	U	SMITH, SUSAN J.	06/02/1994	WEST VIRGINIA	HARRISON	1255	576
47D0000074		SNIDER, IRENE A ET AL	11/27/1973	WEST VIRGINIA	HARRISON	1025	680
47D0000076		SNIDER, IRENE A ET AL	08/31/1971	WEST VIRGINIA	HARRISON	1009	276
47-0010023		SOMERS, ALICE MARIE, ET VIR	08/08/1979	WEST VIRGINIA	HARRISON	1083	1102
47-0010084		SOMMERVILLE, J. H., ET UX	07/28/1913	WEST VIRGINIA	HARRISON	228	306
47-0010098		SOMMERVILLE, J. W., ET UX	11/19/1908	WEST VIRGINIA	HARRISON	192	456
47D0000044		SORBELLO, CHARLES J	02/12/1980	WEST VIRGINIA	HARRISON	1090	105
47-0009831		SOUTHERN, EDMUND ET UX	10/31/1898	WEST VIRGINIA	HARRISON	105	95
47-0009877		SOUTHERN, H E, ET AL	07/24/1972	WEST VIRGINIA	HARRISON	1006	1202
47D0000077		SQUIRES, RHODA ET AL	05/15/1981	WEST VIRGINIA	HARRISON	1105	26
47-0009804	P	ST JOHN, IDA	08/04/1978	WEST VIRGINIA	HARRISON	1072	646
47D0000036		STEPHENSON, NEWTON J ET AL	05/18/1979	WEST VIRGINIA	HARRISON	1081	258
47-0009893	C	STEWART, MABEL L., ET AL	10/31/1977	WEST VIRGINIA	HARRISON	1061	279
47-0009904	F	STOUT, FRANCES OSBORN	07/18/1978	WEST VIRGINIA	HARRISON	1072	650
47-0009904	D	STOUT, VIRGINIA OGDEN	07/03/1978	WEST VIRGINIA	HARRISON	1072	654
47D0000032		STROTHER, BERTHA ET AL	03/16/1979	WEST VIRGINIA	HARRISON	1077	915
47-0009868		STROTHER, FRANCES ET AL	04/14/1899	WEST VIRGINIA	HARRISON	149	225
47D0000057	B	STRUM, HAZEL D	07/14/1981	WEST VIRGINIA	HARRISON	1106	269
47D0000058	B	STRUM, HAZEL D	07/14/1981	WEST VIRGINIA	HARRISON	1106	273
47-0009973	F	SWIGER, ELIZABETH	10/20/1983	WEST VIRGINIA	HARRISON	1132	128
47-0009956		SWIGER, J N, ET UX	12/22/1908	WEST VIRGINIA	HARRISON	176	216
47-0010027		SWIGER, J. ASHVILLE, ET UX	06/19/1909	WEST VIRGINIA	HARRISON	184	423
47-0009973	B	SWIGER, JOE E.	11/30/1983	WEST VIRGINIA	HARRISON	1132	1108
47-0009973	A	SWIGER, JOSEPHINE, ET AL	02/04/1980	WEST VIRGINIA	HARRISON	1094	575
47-0009973	G	SWIGER, JUNE C., ET AL	12/06/1979	WEST VIRGINIA	HARRISON	1088	532
47-0009973	E	SWIGER, LAURA	10/20/1983	WEST VIRGINIA	HARRISON	1132	129
47-0009973	C	SWIGER, NEAL B., ET AL	09/01/1983	WEST VIRGINIA	HARRISON	1132	130
47-0009973	H	SWIGER, PAUL	10/20/1983	WEST VIRGINIA	HARRISON	1132	131
47-0009904	X	TERNEUS, WILLIAM F, ET UX	09/08/1978	WEST VIRGINIA	HARRISON	1072	658
47-0009904	B	THRASHER, HENRY A., ET AL	02/16/1978	WEST VIRGINIA	HARRISON	1072	662
		APPALACHIAN ENERGIES INC	05/18/1981	WEST VIRGINIA	HARRISON	1103	403
		CLARENCE W MUTSCHELKNAUS	09/28/1978	WEST VIRGINIA	HARRISON	1074	494
		CLARENCE W MUTSCHELKNAUS	09/28/1978	WEST VIRGINIA	HARRISON	1074	496
		CONSOLIDATED GAS SUPPLY CORP	09/30/1978	WEST VIRGINIA	HARRISON	1074	492
		JACKSON L SMITH ENTERPRISES	08/27/1994	WEST VIRGINIA	HARRISON	1256	164
		RESERVE GAS COMPANY	09/27/1909	WEST VIRGINIA	HARRISON	193	446
		CONSOLIDATED GAS SUPPLY CORP	06/23/1977	WEST VIRGINIA	HARRISON	1057	260
		CLARENCE W MUTSCHELKNAUS	09/19/1978	WEST VIRGINIA	HARRISON	1074	488
		EMAX OIL COMPANY	05/22/1991	WEST VIRGINIA	HARRISON	1216	772
		JACKSON L SMITH ENTERPRISES	06/02/1994	WEST VIRGINIA	HARRISON	1255	576
		CONSOLIDATED GAS SUPPLY CORP	11/27/1973	WEST VIRGINIA	HARRISON	1025	680
		CLARENCE W MUTSCHELKNAUS	08/31/1971	WEST VIRGINIA	HARRISON	1009	276
		JAMES F SCOTT	08/08/1979	WEST VIRGINIA	HARRISON	1083	1102
		RESERVE GAS COMPANY	07/28/1913	WEST VIRGINIA	HARRISON	228	306
		HOPE NATURAL GAS COMPANY	11/19/1908	WEST VIRGINIA	HARRISON	192	456
		DORAN & ASSOCIATES INC	02/12/1980	WEST VIRGINIA	HARRISON	1090	105
		WM MICHEALS	10/31/1898	WEST VIRGINIA	HARRISON	105	95
		CONSOLIDATED GAS SUPPLY CORP	07/24/1972	WEST VIRGINIA	HARRISON	1006	1202
		KEPCO INC	05/15/1981	WEST VIRGINIA	HARRISON	1105	26
		JAMES F SCOTT	08/04/1978	WEST VIRGINIA	HARRISON	1072	646
		DORAN & ASSOCIATES INC	05/18/1979	WEST VIRGINIA	HARRISON	1081	258
		JAMES F SCOTT	10/31/1977	WEST VIRGINIA	HARRISON	1061	279
		JAMES F SCOTT	07/18/1978	WEST VIRGINIA	HARRISON	1072	650
		JAMES F SCOTT	07/03/1978	WEST VIRGINIA	HARRISON	1072	654
		DORAN & ASSOCIATES INC	03/16/1979	WEST VIRGINIA	HARRISON	1077	915
		SOUTH PENN OIL COMPANY	04/14/1899	WEST VIRGINIA	HARRISON	149	225
		DORAN & ASSOCIATES INC	07/14/1981	WEST VIRGINIA	HARRISON	1106	269
		DORAN & ASSOCIATES INC	07/14/1981	WEST VIRGINIA	HARRISON	1106	273
		JAMES F SCOTT	10/20/1983	WEST VIRGINIA	HARRISON	1132	128
		HOPE NATURAL GAS COMPANY	12/22/1908	WEST VIRGINIA	HARRISON	176	216
		HOPE NATURAL GAS COMPANY	06/19/1909	WEST VIRGINIA	HARRISON	184	423
		JAMES F SCOTT	11/30/1983	WEST VIRGINIA	HARRISON	1132	1108
		A L MCQUAID	02/04/1980	WEST VIRGINIA	HARRISON	1094	575
		JAMES F SCOTT	12/06/1979	WEST VIRGINIA	HARRISON	1088	532
		JAMES F SCOTT	10/20/1983	WEST VIRGINIA	HARRISON	1132	129
		JAMES F SCOTT	09/01/1983	WEST VIRGINIA	HARRISON	1132	130
		JAMES F SCOTT	10/20/1983	WEST VIRGINIA	HARRISON	1132	131
		JAMES F SCOTT	09/08/1978	WEST VIRGINIA	HARRISON	1072	658
		JAMES F SCOTT	02/16/1978	WEST VIRGINIA	HARRISON	1072	662

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200700021914

Book Page
1412 449

4703305921

<u>Lease No.</u>		<u>Lessor Name</u>
47-0009904	Y	THURMAN, MARY ALICE, ET AL
47-0009871	A	TRENT, PATRICIA, ET VIR
47-0010161	E	TRICOT, JOSEPHINE C, ET VIR
47-0010161	H	TRICOT, MICHAEL T
47-0010161	I	TRICOT, THOMAS A, ET UX
47-0010001	C	UNION NATIONAL BANK OF WV T/U/
47D0000049	A	VINCENT, ROSS ET UX
47D0000050		VINCENT, ROSS ET UX
47-0010015	B	W C NOON
47-0009810		WADE, ARLIE R. JR., ET UX
47-0009982		WARNER, CATHERINE D., ET AL
47-0009822		WASHBURN, GEORGE W., ET UX
47-0009904	N	WELCH, GENEVIEVE A
47-0010161	W	WILLIAMS, ALBERTA
47-0009900		WILLIAMS, DAVID C., ET UX
47-0009904	R	WILLIAMS, GRACE D, ET AL
47-0009927		WILLIAMS, IRVAN G.
47-0010029	B	WILLIAMS, JOHN J.
47-0009876		WILLIAMS, JOHN T., ET UX
47D0000049	D	WILLIAMS, MARY ANN ET VIR
47D0000051	E	WILLIAMS, MARY ANN ET VIR
47-0010161	V	WILLIAMS, T FRANCIS, ET UX
47-0010001	B	WILSON, ANN DOLAN, EXECUTRIX
47-0010029	A	WILSON, BEN J., ET AL
47D0000023		WILSON, LEON F ET AL
47-0009975		WILSON, LEON F, ET UX
47-0009805	A	WILSON, LEON F., ET AL
47-0009864	B	WINEBRENNER, FRANK D., ET UX
47-0009904	E	YOUMANS, JANE

<u>Lessee Name</u>
JAMES F SCOTT
EMAX OIL COMPANY
JACKSON L SMITH ENTERPRISES
JACKSON L SMITH ENTERPRISES
JACKSON L SMITH ENTERPRISES
SCOTT OIL COMPANY
DORAN & ASSOCIATES INC
DORAN & ASSOCIATES INC
SCOTT OIL COMPANY
EMAX OIL CO.
CONSOLIDATED GAS TRANSMISSION
RESERVE GAS COMPANY
JAMES F SCOTT
JACKSON L SMITH ENTERPRISES
WEST FORK OIL & NATURAL GAS CC
JAMES F SCOTT
GULF RESOURCES INC
SOUTH PENN OIL COMPANY
RESERVE GAS COMPANY
DORAN AND ASSOCIATES INC
DORAN AND ASSOCIATES INC
JACKSON L SMITH ENTERPRISES
SCOTT OIL COMPANY
SOUTH PENN OIL COMPANY
DORAN & ASSOCIATES INC
SCOTT OIL COMPANY
CONSOLIDATED GAS SUPPLY CORP
CONSOLIDATED GAS SUPPLY CORP
JAMES F SCOTT

<u>Lease Date</u>	<u>State</u>	<u>County</u>	<u>Book</u>	<u>Page</u>
09/22/1978	WEST VIRGINIA	HARRISON	1072	678
12/03/1990	WEST VIRGINIA	HARRISON	1216	778
06/09/1994	WEST VIRGINIA	HARRISON	1255	586
01/26/1996	WEST VIRGINIA	HARRISON	1243	470
08/10/1994	WEST VIRGINIA	HARRISON	1255	612
11/01/1988	WEST VIRGINIA	HARRISON	1191	563
04/01/1980	WEST VIRGINIA	HARRISON	1090	704
04/01/1980	WEST VIRGINIA	HARRISON	1090	700
05/08/1988	WEST VIRGINIA	HARRISON	1161	183
12/13/1990	WEST VIRGINIA	HARRISON	1210	1258
12/04/1985	WEST VIRGINIA	HARRISON	1161	132
09/28/1909	WEST VIRGINIA	HARRISON	193	449
08/03/1978	WEST VIRGINIA	HARRISON	1072	686
06/13/1994	WEST VIRGINIA	HARRISON	1255	584
12/30/1902	WEST VIRGINIA	HARRISON	134	41
08/11/1978	WEST VIRGINIA	HARRISON	1072	670
05/15/1981	WEST VIRGINIA	HARRISON	1119	1090
08/21/1899	WEST VIRGINIA	HARRISON	113	350
01/21/1905	WEST VIRGINIA	HARRISON	149	355
12/11/1980	WEST VIRGINIA	HARRISON	1102	844
06/01/1981	WEST VIRGINIA	HARRISON	1123	715
08/02/1994	WEST VIRGINIA	HARRISON	1255	608
11/01/1988	WEST VIRGINIA	HARRISON	1190	785
06/12/1899	WEST VIRGINIA	HARRISON	105	294
11/22/1978	WEST VIRGINIA	HARRISON	1074	288
04/28/1986	WEST VIRGINIA	HARRISON	1160	654
05/20/1975	WEST VIRGINIA	HARRISON	1034	1090
08/31/1971	WEST VIRGINIA	HARRISON	994	500
07/03/1978	WEST VIRGINIA	HARRISON	1072	674

Exhibit A-1: Property Descriptions - Agreements & Rights of Way

FILE NO	GRANTOR	GRANTEE	AGREEMENT DATE	STATE	COUNTY	RECORDING BOOK/PAGE
W-80002588-000	PENN VIRGINIA COAL	CABOT OIL & GAS CORPORATION	5/15/1997	WEST VIRGINIA	KANAWHA	2413/890
W-80002588-001	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	6/2/1897	WEST VIRGINIA	KANAWHA	UNRECORDED
W-C0000252-000	BOOTH, FLEM ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	10/0/1945	WEST VIRGINIA	WAYNE	34/50
W-C0000252-001	BOOTH, MINNIE ET AL	OWENS-ILLINOIS GLASS COMPANY ET AL	12/4/1981	WEST VIRGINIA	WAYNE	52/427
W-C0000451-000	BLANKENSHIP, F M ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	10/21/1953	WEST VIRGINIA	WAYNE	44/101
W-C0000451-001	SANSOM, OMA ET VIR	OWENS-ILLINOIS GLASS COMPANY ET AL	10/23/1953	WEST VIRGINIA	WAYNE	44/107
W-C0000451-002	MAYNARD, N B ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	11/12/1953	WEST VIRGINIA	WAYNE	44/105
W-C0000451-003	TALBERT, OAKLEY	OWENS-ILLINOIS GLASS COMPANY ET AL	10/13/1953	WEST VIRGINIA	WAYNE	44/110
W-C0000451-004	ADKINS, SYVANUS ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	10/14/1953	WEST VIRGINIA	WAYNE	44/100
W-C0000451-005	SPRADLING, VIRGIL ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	10/14/1953	WEST VIRGINIA	WAYNE	44/106
W-C0000451-006	CROCKETT, TRUMAN ET AL	OWENS-ILLINOIS GLASS COMPANY ET AL	10/14/1953	WEST VIRGINIA	WAYNE	44/117
W-C0000451-007	BOOTH, FLEM ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	10/13/1953	WEST VIRGINIA	WAYNE	44/102
W-C0000451-008	SANSOM, HERMAN ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	11/4/1953	WEST VIRGINIA	WAYNE	44/109
W-C0000451-009	LUTHER, ROBERT V	OWENS-ILLINOIS GLASS COMPANY ET AL	11/3/1953	WEST VIRGINIA	WAYNE	44/103
W-C0000451-010	BLANKENSHIP, CHANIE ET VIR	OWENS-ILLINOIS GLASS COMPANY ET AL	4/29/1954	WEST VIRGINIA	WAYNE	45/97
W-C0000451-011	ADKINS, LORENA ET VIR	OWENS-ILLINOIS GLASS COMPANY ET AL	4/28/1954	WEST VIRGINIA	WAYNE	45/96
W-C0000451-012	LANGE, VERNON ET UX	OWENS-ILLINOIS GLASS COMPANY ET AL	5/10/1954	WEST VIRGINIA	WAYNE	45/100
W-P0000842-000	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	8/29/1997	WEST VIRGINIA	WOOD	UNRECORDED
W-P0000842-001	PATTERSON, SANDRA SUE ET AL	CRANBERRY PIPELINE CORPORATION	7/23/1997	WEST VIRGINIA	WOOD	97/170
W-P0000843-000	LIFE, RAY ET UX	CRANBERRY PIPELINE CORPORATION	8/4/1997	WEST VIRGINIA	WOOD	97/188
W-P0000843-001	WRIGHT, WILLIAM A ET AL	CRANBERRY PIPELINE CORPORATION	8/4/1997	WEST VIRGINIA	WOOD	97/273
W-S0000424-000	PUBLIC LAND CORPORATION	CRANBERRY PIPELINE CORPORATION	9/21/1998	WEST VIRGINIA	RALEIGH	UNRECORDED
W-S0000424-001	ROBERTS, DARRYL J ET AL	CABOT CORPORATION	5/28/1978	WEST VIRGINIA	FAYETTE	372/81
W-S0000424-002	SYNER, LAWRENCE ET UX	CABOT CORPORATION	5/22/1978	WEST VIRGINIA	RALEIGH	602/91
W-S0000424-003	PHILLIPS, JOSEPH ROBERT	CABOT CORPORATION	6/6/1978	WEST VIRGINIA	RALEIGH	602/80
W-S0000424-004	NEW RIVER COMPANY	CABOT CORPORATION	6/7/1978	WEST VIRGINIA	RALEIGH	602/93
W-S0000424-005	FUDGE, DONIS G	CABOT CORPORATION	6/9/1978	WEST VIRGINIA	FAYETTE	372/73
W-S0000424-006	LONGWORTH, MARTHA F	CABOT CORPORATION	6/9/1978	WEST VIRGINIA	FAYETTE	372/79
W-S0000424-007	JACKSON, ROBERT F	CABOT CORPORATION	6/9/1978	WEST VIRGINIA	FAYETTE	372/77
W-S0000424-008	CRAWFORD, CHARLES F ET AL	CABOT CORPORATION	6/19/1978	WEST VIRGINIA	RALEIGH	602/89
W-S0000424-009	KINCAID, G Z ET AL	CABOT CORPORATION	6/22/1978	WEST VIRGINIA	RALEIGH	602/98
W-S0000424-010	TAMROY MINING INC	CABOT CORPORATION	6/23/1978	WEST VIRGINIA	RALEIGH	602/103
W-S0000424-011	ESTATE OF GEORGE N DAVIS	CABOT CORPORATION	6/6/1978	WEST VIRGINIA	FAYETTE	372/87
W-S0000424-012	HALSTEAD, KEVIN ET UA	CABOT CORPORATION	7/10/1978	WEST VIRGINIA	FAYETTE	372/75
W-S0000425-000	MITCHELL, DONALD G ET UX	CABOT CORPORATION	5/10/1978	WEST VIRGINIA	RALEIGH	602/82
W-S0000425-001	YUNKER, WILLIAM R ET UX	CABOT CORPORATION	6/5/1978	WEST VIRGINIA	RALEIGH	602/78
W-S0000426-000	KINCAID, G Z ET AL	CABOT CORPORATION	8/22/1978	WEST VIRGINIA	RALEIGH	602/99
W-S0000426-001	TAMROY MINING INC	CABOT CORPORATION	8/23/1978	WEST VIRGINIA	RALEIGH	602/103
W-S0000427-001	DAVIS, PERRY E ET UX	CABOT CORPORATION	5/10/1978	WEST VIRGINIA	RALEIGH	602/84
W-S0000427-002	CRAFTON, JACK R ET UX	CABOT CORPORATION	5/12/1978	WEST VIRGINIA	RALEIGH	372/71
W-S0000428-000	DAVIS, TROY ET UX	CABOT CORPORATION	10/4/1978	WEST VIRGINIA	FAYETTE	604/13
W-S0000428-001	DAVIS, DAVID D ET UX	CABOT CORPORATION	10/4/1978	WEST VIRGINIA	RALEIGH	604/15
W-S0000428-002	PHILLIPS, NANCY M ET AL	CABOT CORPORATION	10/4/1978	WEST VIRGINIA	RALEIGH	604/11
W-S0000428-003	YUNKER, WILLIAM R ET UX	CABOT CORPORATION	10/10/1978	WEST VIRGINIA	RALEIGH	604/72
W-S0000428-004	NIPPER, NICKY A ET UX	CABOT CORPORATION	11/2/1978	WEST VIRGINIA	RALEIGH	607/175
W-S0000428-000	YUNKER, WILLIAM R ET UX	CABOT CORPORATION	10/10/1978	WEST VIRGINIA	RALEIGH	604/70
W-S0000432-000	DAVIS, PERRY E ET UX	CABOT CORPORATION	10/3/1978	WEST VIRGINIA	RALEIGH	604/66
W-S0000435	DAVIS, SAM L ET UX	CABOT CORPORATION	12/4/1978	WEST VIRGINIA	RALEIGH	607/177
W-S0000435	BLAKE, V A ET UX	CABOT CORPORATION	12/5/1978	WEST VIRGINIA	RALEIGH	607/284

Exhibit A-1: Property Descriptions - Agreements & Rights of Way

FILE NO	GRANTOR	GRANTEE	AGREEMENT DATE	STATE	COUNTY	RECORDING BOOK/PAGE
W-S0000435	MILLS, W C ET UX	CABOT CORPORATION	12/5/1978	WEST VIRGINIA	RALEIGH	607/173
W-S0000437-000	MATICS, JOHNNY ET UX	CABOT PIPELINE CORPORATION	3/19/1982	WEST VIRGINIA	RALEIGH	654/794
W-S0000437-001	TONEY, CHESTER S ET UX	CABOT PIPELINE CORPORATION	3/19/1982	WEST VIRGINIA	RALEIGH	664/796
W-S0000437-002	BARKER, RONNIE L ET AL	CABOT PIPELINE CORPORATION	3/19/1982	WEST VIRGINIA	RALEIGH	654/798
W-S0000437-003	DEARING, J A JR ET UX	CABOT PIPELINE CORPORATION	3/19/1982	WEST VIRGINIA	RALEIGH	654/792
W-S0000437-004	PHILLIPS, ROBERT ET AL	CRANBERRY PIPELINE CORPORATION	6/16/1984	WEST VIRGINIA	RALEIGH	687/87
W-S0000437-005	ROBERTS, DARRYL L ET AL	CRANBERRY PIPELINE CORPORATION	5/21/1984	WEST VIRGINIA	RALEIGH	687/85
W-S0000438-000	CHAPMAN, ROBERT F ET UAL	CABOT PIPELINE CORPORATION	10/30/1981	WEST VIRGINIA	RALEIGH	651/173
W-S0000438-001	FRYE, LINDA L ET UVIR	CABOT PIPELINE CORPORATION	12/23/1981	WEST VIRGINIA	RALEIGH	651/173
W-S0000438-002	LUKIE, ERNEST H ET UX	CABOT PIPELINE CORPORATION	10/30/1981	WEST VIRGINIA	RALEIGH	651/171
W-S0000438-003	NIPPER, NICKY A ET UX	CABOT PIPELINE CORPORATION	10/30/1981	WEST VIRGINIA	RALEIGH	651/177
W-S0000438-004	SETTLE, GEORGE A ET UX	CABOT PIPELINE CORPORATION	11/12/1981	WEST VIRGINIA	RALEIGH	651/175
W-S0000466-000	CSX TRANSPORTATION	CRANBERRY PIPELINE CORPORATION	6/19/1975	WEST VIRGINIA	RALEIGH	UNRECORDED
W-S0000466-001	CSX TRANSPORTATION	CRANBERRY PIPELINE CORPORATION	9/24/1976	WEST VIRGINIA	RALEIGH	UNRECORDED
W-S0000466-002	MCVEY, JAMES W ET UX	CRANBERRY PIPELINE CORPORATION	4/19/1984	WEST VIRGINIA	RALEIGH	695/355
W-S0000466-003	MILLER, JOE E ET UX	CRANBERRY PIPELINE CORPORATION	4/20/1984	WEST VIRGINIA	RALEIGH	695/370
W-S0000466-004	CLAY, FREEMAN ET UX	CRANBERRY PIPELINE CORPORATION	4/23/1984	WEST VIRGINIA	RALEIGH	695/581
W-S0000466-005	JAMES, NOAL J ET UX	CRANBERRY PIPELINE CORPORATION	4/23/1984	WEST VIRGINIA	RALEIGH	695/352
W-S0000466-006	MCCAULEY, JACKIE ET UX	CRANBERRY PIPELINE CORPORATION	4/25/1984	WEST VIRGINIA	RALEIGH	695/376
W-S0000466-007	COCHRAN, GILBERT H ET UX	CRANBERRY PIPELINE CORPORATION	4/25/1984	WEST VIRGINIA	RALEIGH	695/367
W-S0000466-008	BAILEY, JAMES E ET UX	CRANBERRY PIPELINE CORPORATION	5/3/1984	WEST VIRGINIA	RALEIGH	695/345
W-S0000466-009	OBUGENE, PAUL ET UX	CRANBERRY PIPELINE CORPORATION	5/3/1984	WEST VIRGINIA	RALEIGH	696/384
W-S0000466-010	BAILEY, CHARLES E ET UX	CRANBERRY PIPELINE CORPORATION	5/4/1984	WEST VIRGINIA	RALEIGH	695/339
W-S0000466-011	BAILEY, DELBERT ET UX	CRANBERRY PIPELINE CORPORATION	5/4/1984	WEST VIRGINIA	RALEIGH	695/341
W-S0000466-012	BAILEY, LOVELL ET UX	CRANBERRY PIPELINE CORPORATION	5/4/1984	WEST VIRGINIA	RALEIGH	695/343
W-S0000466-012	YUNKER, WILLIAM R ET UX	CRANBERRY PIPELINE CORPORATION	5/10/1984	WEST VIRGINIA	RALEIGH	695/373
W-S0000466-013	KNOTTS, CHARLES W ET UX	CRANBERRY PIPELINE CORPORATION	5/10/1984	WEST VIRGINIA	RALEIGH	695/358
W-S0000466-014	KINCAID, BEULAH GAY ET AL	CRANBERRY PIPELINE CORPORATION	5/10/1984	WEST VIRGINIA	RALEIGH	695/349
W-S0000466-015	BROWNE, HELEN H ET UVIR	CRANBERRY PIPELINE CORPORATION	6/4/1984	WEST VIRGINIA	RALEIGH	695/347
W-S0000466-017	VV TURNPIKE COMMISSION	CRANBERRY PIPELINE CORPORATION	5/10/1984	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000001-000	CSX TRANSPORTATION	APPALACHIA EXPLORATION & DEVELOPMENT INC	9/25/1980	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000002-001	CHEASAPEAKE & OHIO RAILWAY	APPALACHIA EXPLORATION & DEVELOPMENT INC	10/9/1980	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000002-002	CSX TRANSPORTATION	APPALACHIA EXPLORATION & DEVELOPMENT INC	9/25/1980	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000002-003	CSX TRANSPORTATION	APPALACHIA EXPLORATION & DEVELOPMENT INC	9/25/1980	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000492-000	PUBLIC LAND CORPORATION	CRANBERRY PIPELINE CORPORATION	9/15/1989	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000493	NORFOLK & WESTERN RAILWAY	CABOT OIL & GAS CORPORATION	4/1/1984	WEST VIRGINIA	RALEIGH	UNRECORDED
W-SB0000502-000	RALEIGH CO BOARD OF EDUCATION	CABOT OIL & GAS CORPORATION	2/24/1993	WEST VIRGINIA	RALEIGH	38/1939
W-SB0000512-000	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	8/30/1980	WEST VIRGINIA	RALEIGH	UNRECORDED
	MCKINNEY, GLEN ET UX	CABOT CORPORATION	8/18/1978	WEST VIRGINIA	RALEIGH	603/138
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	11/14/1984	WEST VIRGINIA	KANAWHA	28/209
	WALTER E BOSLEY ET UX	APPALACHIA EXPLORATION & DEVELOPMENT INC	3/24/1971	WEST VIRGINIA	KANAWHA	UNRECORDED
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	8/6/1985	WEST VIRGINIA	NICHOLAS	UNRECORDED
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	2/23/1984	WEST VIRGINIA	MCDOWELL	UNRECORDED
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	5/29/1985	WEST VIRGINIA	NICHOLAS	UNRECORDED
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	1/11/1985	WEST VIRGINIA	NICHOLAS	UNRECORDED
	PUBLIC LAND CORPORATION	CABOT OIL & GAS CORPORATION	7/22/1997	WEST VIRGINIA	WOOD	UNRECORDED
	ARBY E GLASPELL ET UX	JAMES F SCOTT	5/18/1982	WEST VIRGINIA	DODDRIDGE	188/292
	ROY HOSKINSON ET UX	JAMES F SCOTT	5/22/1982	WEST VIRGINIA	DODDRIDGE	188/288
	ROBERT R WOLFE ET UX	JAMES F SCOTT	6/18/1982	WEST VIRGINIA	DODDRIDGE	188/294

Exhibit A-1: Property Descriptions - Agreements & Rights of Way

FILE NO	GRANTOR	GRANTEE	AGREEMENT DATE	STATE	COUNTY	RECORDING BOOK/PAGE
	MARY K POST ET VIR	JAMES F SCOTT	5/5/1982	WEST VIRGINIA	DODDRIDGE	188/298
	JAMES D JOHNSON ET UX	JAMES F SCOTT	5/16/1983	WEST VIRGINIA	DODDRIDGE	191/308
	WILLIAM R TAYLOR ET UX	JAMES F SCOTT	5/4/1982	WEST VIRGINIA	DODDRIDGE	188/296
	RANDALL BATES ASH ET UX	JAMES F SCOTT	6/1/1982	WEST VIRGINIA	DODDRIDGE	188/284
	RANDALL BATES ASH ET UX	JAMES F SCOTT	6/1/1982	WEST VIRGINIA	DODDRIDGE	188/282
	ROY HOSKINSON ET UX	JAMES F SCOTT	5/22/1982	WEST VIRGINIA	DODDRIDGE	188/286
	ROBERT R WOLFE ET UX	JAMES F SCOTT	5/18/1982	WEST VIRGINIA	DODDRIDGE	UNRECORDED
	JOHN W ARCHER ET UX	JAMES F SCOTT	5/24/1982	WEST VIRGINIA	DODDRIDGE	UNRECORDED
	JAMES D JOHNSON ET UX	JAMES F SCOTT	5/31/1982	WEST VIRGINIA	DODDRIDGE	188/789
	PEACOCK & EAGLE COAL	COLUMBIA GAS TRANSMISSION	5/31/1982	WEST VIRGINIA	DODDRIDGE	UNRECORDED
	FORSYTHE, CLAUDE S ET UX	CRANBERRY PIPELINE CORPORATION	1/18/1995	WEST VIRGINIA	NICHOLAS	511/743
W-AA000007-000	BALL, DAVID B ET UX	CRANBERRY PIPELINE CORPORATION	4/21/1994	WEST VIRGINIA	FAYETTE	511/748
W-AA000007-001	BAYS, RICHARD L ET UX	CRANBERRY PIPELINE CORPORATION	4/22/1994	WEST VIRGINIA	FAYETTE	511/752
W-AA000007-002	BAYS, RAYMOND G JR ET UX	CRANBERRY PIPELINE CORPORATION	4/23/1994	WEST VIRGINIA	FAYETTE	511/749
W-AA000007-003	BAYES, GERALD E	CRANBERRY PIPELINE CORPORATION	4/23/1999	WEST VIRGINIA	FAYETTE	511/755
W-AA000007-004	SHEPPARD, RANDALL LEE ET UX	CRANBERRY PIPELINE CORPORATION	4/23/1999	WEST VIRGINIA	FAYETTE	22761
W-B0002578-MS1	SHEPPARD, RANDALL LEE ET UX	CRANBERRY PIPELINE CORPORATION	6/28/1991	WEST VIRGINIA	KANAWHA	2291621
W-B0002578-MS2	BRYANT, ARY W ET UX	CRANBERRY PIPELINE CORPORATION	4/14/1992	WEST VIRGINIA	KANAWHA	969/850
W-P0000841-000	PATTERSON, SANDRA SUE ET AL	CRANBERRY PIPELINE CORPORATION	6/17/1997	WEST VIRGINIA	WOOD	969/852
W-P0000841-001						

SAVE AND EXCEPT Cabot Oil & Gas reserved unto itself from each of the agreements described in this Exhibit, all rights titles and interest necessary or beneficial in connection with the ownership, development or operation by Cabot Oil & Gas of any of the interest it reserved in the oil, gas and/or mineral leases conveyed by Cabot to Enervest Appalachia, L.P. by general conveyance dated effective in part as of June 1, 1999; provided, however, with respect to pipeline rights of way, Cabot only reserved the right to lay new gathering lines in the extent permitted pursuant to the terms of such agreements

200700021914
 Filed for Record in
 HARRISON COUNTY, WV
 SUSAN THOMAS
 12-29-2007 At 02:18 PM.
 DEED ASSIGN 37.00
 STATE TAX .00
 UNIT TAX .00
 Book 1412 Page 421 - 453

Instrument
 200700021914
 Book Page
 1412 453

4703305921

Agreement to Drill, Complete and Operate Oil & Gas Wells

This Agreement to Drill, Complete and Operate Oil & Gas Wells (this "Agreement"), by and among Arsenal Resources LLC, a West Virginia limited liability company ("Arsenal"), River Ridge Energy, LLC, a Delaware limited liability company ("River Ridge"), and River Ridge Energy, Holdings, LLC, a Delaware limited liability company ("River Ridge Holdings"), is effective as of March 1, 2017. (the "Effective Date") and sets forth the terms pursuant to which Arsenal will drill, complete and operate the Wells (as defined below) on behalf of River Ridge and River Ridge Holdings. Arsenal, River Ridge, and River Ridge Holdings are each a "Party" and are collectively the "Parties". In consideration of the foregoing and the respective agreements hereinafter set forth and the mutual benefits to be derived therefrom, the Parties, intending to be legally bound, hereby agree as follows:

1. **Term:** This Agreement is effective from the Effective Date until terminated by Arsenal on the one hand or River Ridge and River Ridge Holdings on the other hand with 30 days' written notice to the other Party or Parties, as applicable (the "Term").
2. **Authorization to Operate:** River Ridge and River Holdings authorize Arsenal to undertake and perform, on River Ridge and River Ridge Holdings behalf, all operations, including without limitation permit applications, well pad preparation, drilling and completing wells, and marketing gas, oil and other hydrocarbons therefrom with respect to all oil and gas wells to be drilled on oil and gas leasehold acreage held by River Ridge or River Ridge Holdings. River Ridge, River Ridge Holdings and Arsenal are affiliates with a common parent. Arsenal was formed to operate oil and gas leasehold acreage held by River Ridge, River Ridge Holdings and certain other affiliates. Arsenal agrees that it shall, in a good and workmanlike manner and in accordance with industry standards as they prevail in the area, drill, complete and operate oil and gas wells on leasehold acreage owned by River Ridge or River Ridge Holdings from time to time as directed by River Ridge or River Ridge Holdings (collectively, the "Wells").
3. **No Third Party Beneficiary:** This Agreement is for the benefit of the Parties and is not for the benefit of any third party.
4. **Counterparts:** This Agreement may be simultaneously executed in several counterparts and via facsimile or similar electronic transmittal, each of which shall be deemed to be an original and taken together shall constitute one and the same instrument.

[Signature Page Follows]

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WV Department of
Environmental Protection

4703305921

IN WITNESS WHEREOF, Arsenal, River Ridge, and River Ridge Holdings have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

ARSENAL RESOURCES LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE ENERGY, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE HOLDINGS, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

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Agreement to Drill, Complete and Operate Oil & Gas Wells

This Agreement to Drill, Complete and Operate Oil & Gas Wells (this "Agreement"), by and among Mountaineer Keystone LLC, a West Virginia limited liability company ("Mountaineer Keystone"), PDC Mountaineer, LLC, a Delaware limited liability company ("PDC"), and PDC Mountaineer Holdings, LLC, a Delaware limited liability company ("PDC Holdings"), is effective as of **October 15, 2014**. (the "Effective Date") and sets forth the terms pursuant to which Mountaineer Keystone will drill, complete and operate the Wells (as defined below) on behalf of PDC and PDC Holdings. Mountaineer Keystone, PDC, and PDC Holdings are each a "Party" and are collectively the "Parties". In consideration of the foregoing and the respective agreements hereinafter set forth and the mutual benefits to be derived therefrom, the Parties, intending to be legally bound, hereby agree as follows:

1. **Term:** This Agreement is effective from the Effective Date until terminated by Mountaineer Keystone on the one hand or PDC and PDC Holdings on the other hand with 30 days' written notice to the other Party or Parties, as applicable (the "Term").
2. **Authorization to Operate:** PDC and PDC Holdings authorize Mountaineer Keystone to undertake and perform, on PDC and PDC Holdings behalf, all operations, including without limitation permit applications, well pad preparation, drilling and completing wells, and marketing gas, oil and other hydrocarbons therefrom with respect to all oil and gas wells to be drilled on oil and gas leasehold acreage held by PDC or PDC Holdings. PDC, PDC Holdings and Mountaineer Keystone are affiliates with a common parent. Mountaineer Keystone was formed to operate oil and gas leasehold acreage held by PDC, PDC Holdings and certain other affiliates. Mountaineer Keystone agrees that it shall, in a good and workmanlike manner and in accordance with industry standards as they prevail in the area, drill, complete and operate oil and gas wells on leasehold acreage owned by PDC or PDC Holdings from time to time as directed by PDC or PDC Holdings (collectively, the "Wells").
3. **No Third Party Beneficiary:** This Agreement is for the benefit of the Parties and is not for the benefit of any third party.
4. **Counterparts:** This Agreement may be simultaneously executed in several counterparts and via facsimile or similar electronic transmittal, each of which shall be deemed to be an original and taken together shall constitute one and the same instrument.

[Signature Page Follows]

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U.S. Department of
Environmental Protection


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IN WITNESS WHEREOF, Mountaineer Keystone, PDC, and PDC Holdings have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

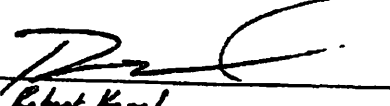
MOUNTAINEER KEYSTONE LLC

By: 
Name: Robert Koval
Title: CEO

PDC MOUNTAINEER, LLC

By: 
Name: Robert Koval
Title: CEO

PDC MOUNTAINEER HOLDINGS, LLC

By: 
Name: Robert Koval
Title: CEO

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People Powered. Asset Strong.

April 5, 2018

Mr. James Martin, Chief of Oil and Gas
West Virginia Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

RE: Ownership of Roadways – Griffin HC Unit (Well 214)

Mr. Martin:

In preparation of filing a permit application for the above referenced well, the Title Department of Arsenal Resources has conducted a thorough title examination in order to determine the ownership of the oil and gas underlying all roadways crossed by wells in the proposed unit. The findings of the title examination show that the roadways crossed by wells in the proposed unit are rights-of-way, with the oil and gas being owned and covered by the leaseholds provided in the application materials.

If you have any questions, concerns or need further information, please do not hesitate to contact me at the address listed below.

Sincerely,

A handwritten signature in blue ink that reads 'Jonathan B. Bompiani'.

Jonathan B. Bompiani
Senior Title Attorney

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WV Department of
Environmental Protection

5031 Wallace Road Ext, Suite 300
Wexford, PA 15090
P: 724-940-1100
F: 800-428-0981
www.arsenalresources.com

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 4/5/18

API No. 47- 033 -
Operator's Well No. Griffin HC 214
Well Pad Name: Griffin HC

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>561,414.118</u>
County:	<u>Harrison</u>		Northing:	<u>4,357,663.906</u>
District:	<u>Clay - Outside</u>	Public Road Access:		<u>SR 131</u>
Quadrangle:	<u>Clarksburg</u>	Generally used farm name:		<u>Griffin</u>
Watershed:	<u>West Fork (Shinns Run)</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:

*PLEASE CHECK ALL THAT APPLY

- 1. NOTICE OF SEISMIC ACTIVITY or NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED/
NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been notified as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Office of Oil and Gas

APR 6 2018

WV Department of Environmental Protection

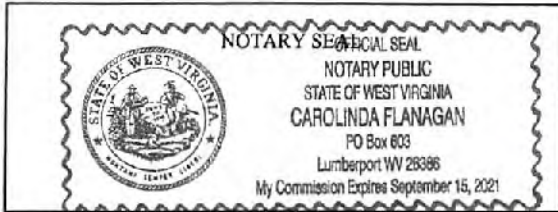
4703305021

Certification of Notice is hereby given:

THEREFORE, I William Veigel, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Arsenal Resources
By: William Veigel
Its: Designated Agent
Telephone: 724-940-1224

Address: 6031 Wallace Road Ext., Suite 300
Wexford, PA 15090
Facsimile: 304-848-9134
Email: cflanagan@arsenalresources.com



Subscribed and sworn before me this 5TH day of APRIL 2018
Carolinda Flanagan Notary Public
My Commission Expires 9/15/2021

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.

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Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 4/5/18 Date Permit Application Filed: 4/5/18

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Bradley A. & Vicky L. Griffin
Address: 2335 Jack Run Road
Bridgeport, WV 26330

Name: Humane Society of Harrison County Inc.
Address: 301 W Main Street
Clarksburg WV 26301

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Consolidated Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: See Attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

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WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

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(8-13)

API NO. 4470-3305001
OPERATOR WELL NO. Griffin HC 214
Well Pad Name: Griffin HC

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

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. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

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WV Department of
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Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

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

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WV Department of
Environmental Protection

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API NO. 47-**4703305921**
OPERATOR WELL NO. Griffin HC 214
Well Pad Name: Griffin HC

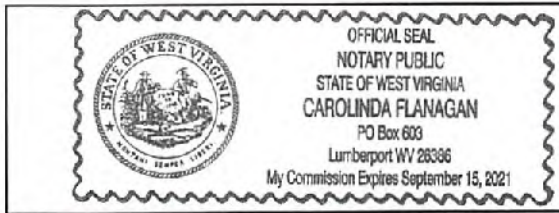
Notice is hereby given by:

Well Operator: Arsenal Resources
Telephone: 724-940-1224
Email: cflanagan@arsenalresources.com

Address: 6031 Wallace Road Extension, Suite 300
Wexford, PA 15090
Facsimile: 304-848-9134

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.



Subscribed and sworn before me this 5TH day of APRIL 2018.

Carolinda Flanagan Notary Public

My Commission Expires 9/15/2021

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APR 6 2018
WV Department of
Environmental Protection

**Arsenal Resources
Griffin HC
WW-6A Notice of Application, Attachment**

Surface Owner(s) (Road and/or Other Disturbance):

Bradley A. Griffin and Vicky L.
2335 Jack Run Road
Bridgeport, WV 26330

Humane Society of Harrison County Inc.
301 W Main Street
Clarksburg, WV 26301

Harrison County Commission
301 W Main Street
Clarksburg, WV 26301

Joseph B. and Brandy L. Spadafore
68 Spadafore Dr.
Shinnston, WV 26431

Surface Owner of Water Well and/or Water Purveyor(s):

Lillian M. Donithan (LE) (Michael James Hoen et al)
2276 Jack Run Road
Bridgeport, WV 26330

Mike Ross Inc. and Waco Oil & Gas Co.
P.O. Box 219
Coalton, WV 26257

Mary Lou Garrett
153 W Main Street
Enterprise WV 26568

Humane Society of Harrison County Inc.
301 W Main Street
Clarksburg, WV 26301

Joseph B. and Brandy L. Spadafore
68 Spadafore Dr.
Shinnston, WV 26431

Bradley A. Griffin and Vicky L.
2335 Jack Run Road
Bridgeport, WV 26330

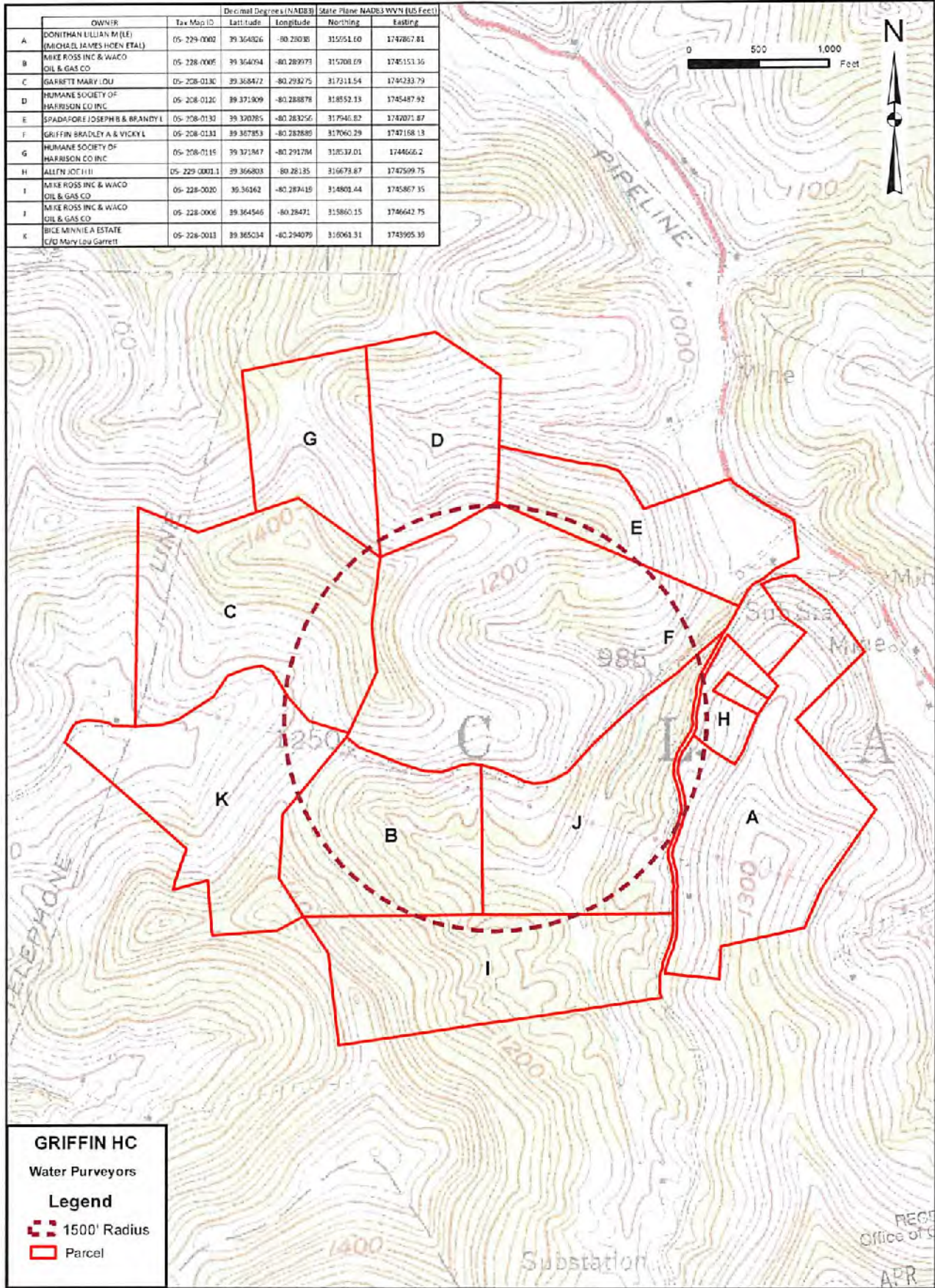
Joe H. Allen II
2344 Jack Run Road
Bridgeport, WV 26330

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	OWNER	Tax Map ID	Decimal Degrees (NAD83)		State Plane NAD83 WVN (US Feet)	
			Latitude	Longitude	Northing	Easting
A	DONITHAN LILLIAN M (LE) (MICHAEL JAMES HOEN ETAL)	05-229-0002	39.364826	-80.23038	315951.60	1742867.81
B	MIKE ROSS INC & WACO OIL & GAS CO	05-228-0006	39.364954	-80.289973	315200.09	1745153.36
C	GARRETT MARY LOU	05-208-0130	39.368472	-80.293275	317211.54	1742233.79
D	HUMANE SOCIETY OF HARRISON CO INC	05-208-0120	39.371909	-80.288878	318552.13	1745487.92
E	SPADAFORE JOSEPH B & BRANDY I	05-208-0133	39.320785	-80.283256	317946.02	1742071.87
F	GRIFFIN BRADLEY A & VICKY L	05-208-0131	39.367853	-80.282889	317060.29	1747158.13
G	HUMANE SOCIETY OF HARRISON CO INC	05-208-0115	39.371867	-80.291294	318532.01	1744666.2
H	ALLIN JODI III	05-229-0001.1	39.366803	-80.28135	316673.87	1742599.75
I	MIKE ROSS INC & WACO OIL & GAS CO	05-228-0020	39.36362	-80.287419	314801.44	1745867.35
J	MIKE ROSS INC & WACO OIL & GAS CO	05-228-0006	39.364546	-80.28471	315860.15	1746642.75
K	RICE MINNIE A ESTATE C/O Mary Lou Garrett	05-228-0011	39.365234	-80.294079	316061.31	1743995.39



GRIFFIN HC
Water Purveyors
Legend
 1500' Radius
 Parcel

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 WVD Department of
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 9/5/2017 **Date of Planned Entry:** 9/12/2017

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Bradley A. & Vicky L. Griffin
Address: 2335 Jack Run Road
Bridgeport, WV 26330

Name: Humana Society of Harrison County Inc.
Address: 301 W Main Street
Clarksburg WV 26301

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: Consolidated Coal Company
Address: 1000 Consol Energy Drive
Canonsburg, PA 15317

MINERAL OWNER(s)

Name: See Attached
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.366512°, -80.287304°</u>
County: <u>Harrison</u>	Public Road Access: <u>SR 131</u>
District: <u>Clay - Outside</u>	Watershed: <u>West Fork (Shinns Run)</u>
Quadrangle: <u>Clarksburg</u>	Generally used farm name: <u>Griffin</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Arsenal Resources
Telephone: 724-940-1224
Email: cflanagan@arsenalresources.com

Address: 6031 Wallace Road Extension, Suite 300
Wexford, PA 15090
Facsimile: 304-848-9134

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WV Department of
Environmental Protection

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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.

Arsenal Resources
Griffin HC
WW-6A3 Notice of Entry for Plat Survey

Mineral Owner(s)

Alice J. Squires
15934 Johnson Rd. ✓
Lisbon, OH 44432

Robert Squires
6219 Longwood Dr. ✓
Murrells Inlet, SC 29576

Arol C. Squires ✓
113 Ripley Landing Road
Millwood, WV 25262

Beryldene Bertschy ✓
16015 Poplar,
East Liverpool, OH 43920

Vance L. Squires ✓
45 Kathy Drive
Chester, WV 26034

Larry Squires ✓
3204 US Rt.30,
Georgetown, PA 15043

Gary Squires ✓
3204 US Rt.30
Georgetown, PA 15043

Mary Lou Garrett ✓
153 W Main Street
Enterprise WV 26568

Monna Jo West ✓
3310 Spring Creek Road
Cookeville, TN 38501

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4703305921

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 4/5/2018 Date Permit Application Filed: 4/5/2018

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Bradley A. & Vicky L. Griffin
Address: 2335 Jack Run Road
Bridgeport, WV 26330

Name: Humane Society of Harrison County Inc.
Address: 301 W Main Street
Clarksburg WV 26301

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>561,414.118</u>
County:	<u>Harrison</u>		Northing:	<u>4,357,663.906</u>
District:	<u>Clay - Outside</u>	Public Road Access:		<u>SR 131</u>
Quadrangle:	<u>Clarksburg</u>	Generally used farm name:		<u>Griffin</u>
Watershed:	<u>West Fork (Shinns Run)</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Arsenal Resources
Telephone: 724-940-1224
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Address: 6031 Wallace Road Extension, Suite 300
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Facsimile: 304-848-9134

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WV Department of Environmental Protection



4703305921

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

July 2, 2018

Jill M. Newman
Deputy Commissioner

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Griffin Pad, Harrison County

Griffin HC 214 Well Site

Dear Mr. Martin,

The West Virginia Division of Highways has received applications for Permits #04-2018-0805 & 0806 for the subject site from ARSENAL Resources for access to the State Road for the well site located off of WV 131 F in Harrison County.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT for DOH District 4 and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton
Regional Maintenance Engineer
Central Office Oil & Gas Coordinator

Cc: Kelly Davis
ARSENAL Resources
CH, OM, D-4
File

4703305921

Griffin HC #214			
FRACTURING ADDITIVES			
	PURPOSE	TRADE NAME	CAS #
Additive #1:	Friction Reducer	WFRA-405	Proprietary
Additive #2:	Scale Inhibitor	SI-1000	7440-21-3
Additive #3:	Biocide	BIOCLEAR 2000	25314-61-8
Additive #4:	Gelling Agent	LGC-15	9000-30-0
Additive #5:	Corrosion Inhibitor	AI-300	111-76-2
Additive #6:	Gel Breaker	AP-One	7727-54-0
Additive #7:	Acid	HCl - 7.5%	7647-01-0

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Environmental Protection

EROSION & SEDIMENT CONTROL PLAN

GRIFFIN HC

HARRISON COUNTY, WEST VIRGINIA

FOR



SDW
4/3/2018

LDC SUMMARY			
PARCEL	ACRES	PARCEL	ACRES
HARRISON COUNTY COMMISSION 17 05 208 015 000 000	3.343	SHADYFORK, JOSEPH B & BERNICE L 17 05 208 015 000 000	3.839
HARRIS SOCIETY (HARRIS) 17 05 208 015 000 000	3.403	HARRIS SOCIETY 17 05 208 015 000 000	8.588
HARRIS SOC. CITY (HARRIS) 17 05 208 015 000 000	7.044	HARRIS SOCIETY 17 05 208 015 000 000	8.184
HARRIS SOCIETY 17 05 208 015 000 000	1.902	GRIFFIN, BRADLEY A & VICKI L 17 05 208 015 000 000	29.917
ROAD	1.114	TRAIL	94.379

THE PAD AND LDC (INCLUDING ERS CONTROL FEATURES) IS WITHIN 100 FEET OF A PERENNIAL STREAM.

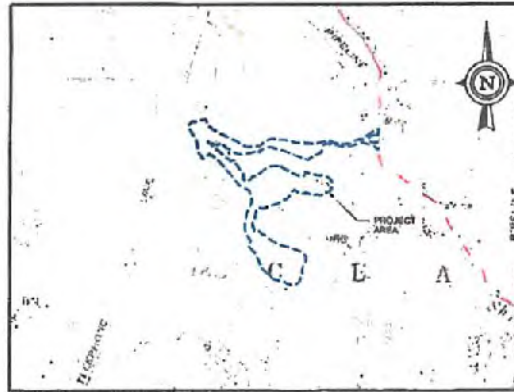
THE PAD AND LDC (INCLUDING ERS CONTROL FEATURES) IS NOT WITHIN 300 FEET TO A NATURALLY PRODUCING (WELL) SPRING.

THE PAD AND LDC (INCLUDING ERS CONTROL FEATURES) IS NOT WITHIN 1000 FEET TO A GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY.

THE PAD AND LDC (INCLUDING ERS CONTROL FEATURES) IS NOT WITHIN 250 FEET TO AN EXISTING WATER WELL OR DEVELOPED SPRING.

THE CENTER OF THE PAD IS AT LEAST 600 FEET FROM AN OCCUPIED DWELLING STRUCTURE.

THE CENTER OF THE PAD IS AT LEAST 600 FEET FROM AGRICULTURAL BUILDINGS LARGER THAN 2500 SQUARE FEET.



REFERENCES: UNITED STATES GEOLOGICAL SURVEY - CLARKSBURG QUADRANGLE, STATE, 7.5 MINUTE SERIES



PROJECT NO. 17078-006

MARCH 2018

DIEFFENBAUCH & HRITZ, LLC



INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING SITE PLAN
4	SOILS PLAN
5	OVERALL SITE PLAN
6-12	PROPOSED SITE PLAN
13-14	ACCESS ROAD PROFILE
15-21	ACCESS ROAD CROSS SECTIONS
22	TANK PAD CROSS SECTIONS
23	WELL PAD CROSS SECTIONS
24	SEED & MULCH PLAN
25	SITE RESTORATION PLAN
26-28	TRAIL DETAILS
29	CAPACITY SUMMARY

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DIEFFENBAUCH & HRITZ, LLC
1000 Chapel Hill Road, Suite 200
Martinsburg, WV 26158
P: 304.263.8800 F: 304.263.8802



GRIFFIN HC

TITLE SHEET

1

4703305921

811 - Call before you dig

811
Have them before
Call before you dig

STOP
NO STOPPING
OR PARKING
HERE

RECEIVED
Office of Oil and Gas
APR 6 2018
Department of Environmental Protection