west virginia department of environmental protection

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

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

PERMIT MODIFICATION APPROVAL

April 08, 2015

NOBLE ENERGY, INC.
333 TECHNOLOGY DRIVE, SUITE 116
CANONSBURG, PA 15317

Re: Permit Modification Approval for API Number 1706684 , Well #: OXF 98 CHS
Extend Lateral

Oil and Gas Operator:
The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

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

Sincerely,

for Gene Smith

Gene Smith
Assistant Chief of Permitting
Office of Oil and Gas

4701706684MOD

noble energy

March 30, 2015

West Virginia Department of Environmental Protection

601 57th Street, SE

Charleston, WV 25304-2345

Re: OXF 98 Wells OXF 98 AHS 017-06682, OXF 98 BHS 017-06683, OXF 98 CHS 017-06684

Dear Office of Oil and Gas:

Enclosed please find modification requests to extend the lateral legs along with revised plats and WW-6A1 forms. These wells are located in Doddridge County, WV.

Should you have any questions, or desire any additional information, please do not hesitate to contact me at 724-820-3061 or via email at dswiger@nobleenergyinc.com.

Sincerely,

Dee Swiger

Regulatory Analyst III

DS/

Enclosures:

Received
Office of Oil & Gas
APR 03 2015

WW-6B
(9/13)

4701706684 MOD

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

8 526

1) Well Operator: Noble Energy, Inc.

494501907	017-Doddridge	West Union	Oxford
Operator ID	County	District	Quadrangle

2) Operator's Well Number: OXF 98 CHS Well Pad Name: OXF 98

3) Farm Name/Surface Owner: Briton/Pratt Public Road Access: County Route 50/30

4) Elevation, current ground: 1150' Elevation, proposed post-construction: 1119'

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

DCW 10-16 2014

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Marcellus 6612' - 6667' / 55' Thick / 4400 psi

8) Proposed Total Vertical Depth: 6657'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 13,436'

11) Proposed Horizontal Leg Length: 5,605'

12) Approximate Fresh Water Strata Depths: 213',363',419'

13) Method to Determine Fresh Water Depths: nearest offset wells

14) Approximate Saltwater Depths: 1631'

15) Approximate Coal Seam Depths: None

16) Approximate Depth to Possible Void (coal mine, karst, other): None

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: NA
Depth: ____
Seam: ____
Owner: ____

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WW-6B
(9/13)

4701706684 MOD

18)

CASING AND TUBING PROGRAM

TYPE	Size	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	20"	New	LS	94	40'minimum or to the next component formation, but no deeper than 1st freshwater	40'	fill/soil
Fresh Water	13 3/8"	New	J-55	54.5	569'	569'	CTS 30% excess Yield =1.18
Coal		New					
Intermediate	9 5/8"	New	HCK-55	36.0	2716' or 250' below the 5th sand	2716'	CTS 20% excess Yield = 1.19
Production	5 1/2"	New	HCP-110	20.0	13,436'	13,436'	10% excess Yield = 1.27 TOC=200' above 9.625" shoe
Tubing							
Liners							

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	24"	0.438	2730		CTS
Fresh Water	13 3/8"	17.5"	.380	2730	Type 1	30% excess Yield = 1.18
Coal						
Intermediate	9 5/8"	12 3/8"	.352	3520	Class A	20% excess Yield = 1 19 to surface
Production	5 1/2"	8.75" -8.5"	.361	12,640	Class A	10% excess Yield = 1.27 TOC=200' above 9.625" shoe
Tubing						
Liners						

DCN
10-16-2014

PACKERS

Kind:				
Sizes:				
Depths Set:				

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SURFACE HOLE DEC. LONG: 80.799650
SURVEYED LONG: 80° 47' 58.7"

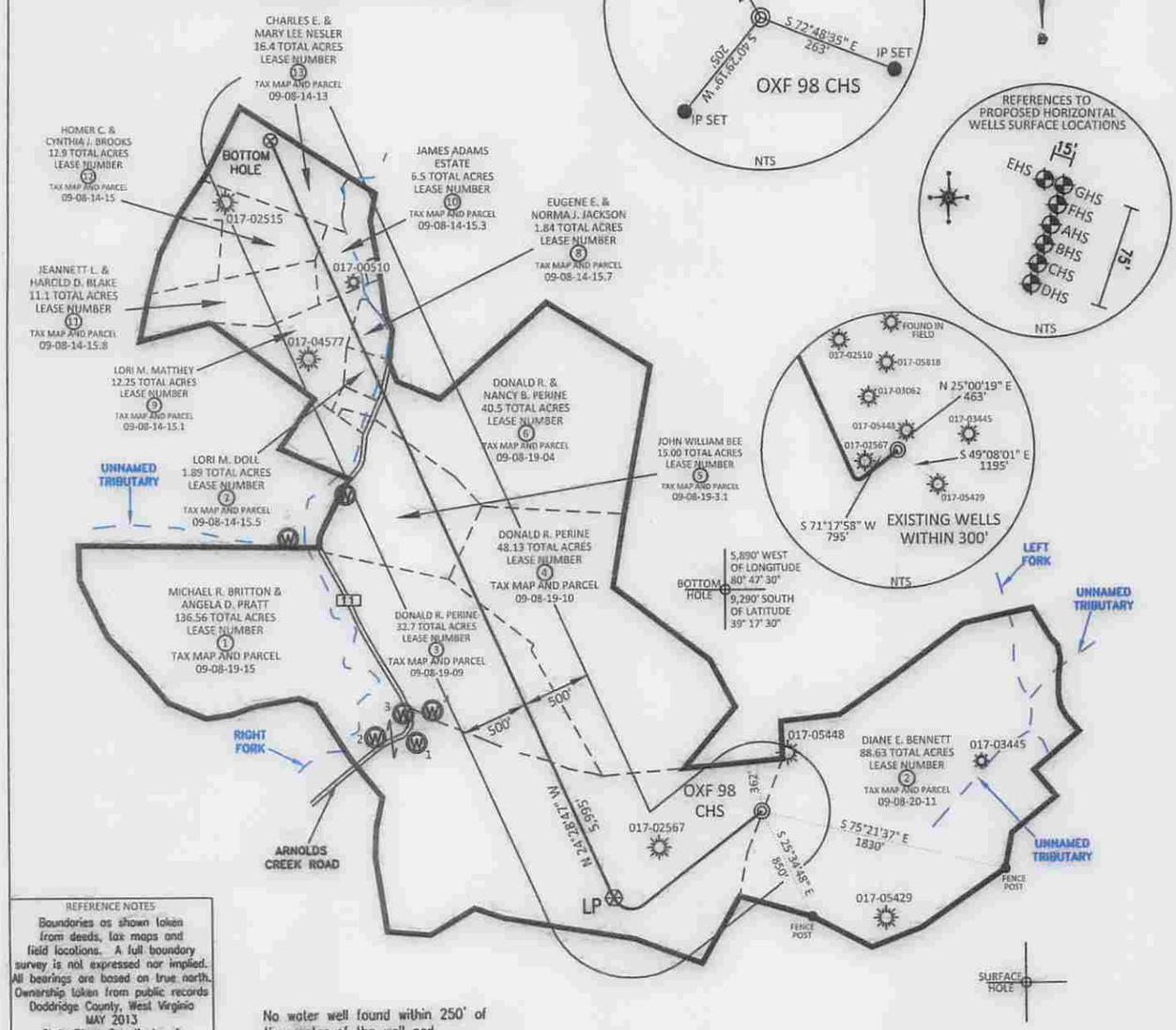
2,250'

Latitude: 39° 17' 30" (NAD 27)

Longitude: 80° 47' 30" (NAD 27)

14,070'

SURFACE HOLE LOCATION	LANDING POINT LOCATION	BOTTOM HOLE LOCATION
UTM 17-NAD 83 N) 4344881.2 E) 517301.6	UTM 17-NAD 83 N) 4344686.6 E) 516973.5	UTM 17-NAD 83 N) 4346336.1 E) 516189.0
NAD 83, WV NORTH LAT.) 39.253083 LONG.) 80.799477	NAD 83, WV NORTH LAT.) 39.251336 LONG.) 80.803285	NAD 83, WV NORTH LAT.) 39.266214 LONG.) 80.812337
NAD 27, WV NORTH N) 276919.64 E) 1631967.07	NAD 27, WV NORTH N) 276299.16 E) 1630879.79	NAD 27, WV NORTH N) 281754.82 E) 1628395.80



REFERENCE NOTES
Boundaries as shown taken from deeds, tax maps and field locations. A full boundary survey is not expressed nor implied. All bearings are based on true north. Ownership taken from public records Doddridge County, West Virginia MAY 2013
State Plane Coordinates & NAD 83 Lat/Long by differential submeter mapping grade GPS
Drafted by: E.A.M.

No water well found within 250' of the center of the well pad
No dwellings found within 650' of the center of the well pad

SURFACE HOLE DEC. LAT: 39.252999
SURVEYED LAT: 39° 15' 10.8"

FILE #: NOB 010
DRAWING #: 2447
SCALE: PLAT - 1" = 1200' TICK MARK - 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: _____

L.L.S. #2124 : Ernest J. Benchek III

ERNEST J. BENCHEK III
LICENSED
No. 2124
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

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

DATE: OCTOBER 13, 2014

OPERATOR'S WELL #: OXF 98 CHS

API WELL #: 47 (STATE) 17 (COUNTY) 06684 (PERMIT) mon

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK

ELEVATION: 1,119'

COUNTY/DISTRICT: DODDRIDGE / WEST UNION

QUADRANGLE: WEST UNION WV.

SURFACE OWNER: MICHAEL R. BRITTON & ANGELA D. PRATT

ACREAGE: 136.56 +/-

OIL & GAS ROYALTY OWNER: MICHAEL FRANCIS ET AL

ACREAGE: 413.30 +/-

LEASE NUMBERS: SEE ATTACHED WW-6A1

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

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: TVD: 6,657' TMD: 13,436'

WELL OPERATOR: NOBLE ENERGY, INC.

DESIGNATED AGENT: STEVEN M. GREEN

ADDRESS: 333 TECHNOLOGY DRIVE SUITE 116

ADDRESS: 500 VIRGINIA STREET EAST

CITY: CANONSBURG STATE: PA ZIP CODE: 15317

CITY: CHARLESTON STATE: WV ZIP CODE: 25301

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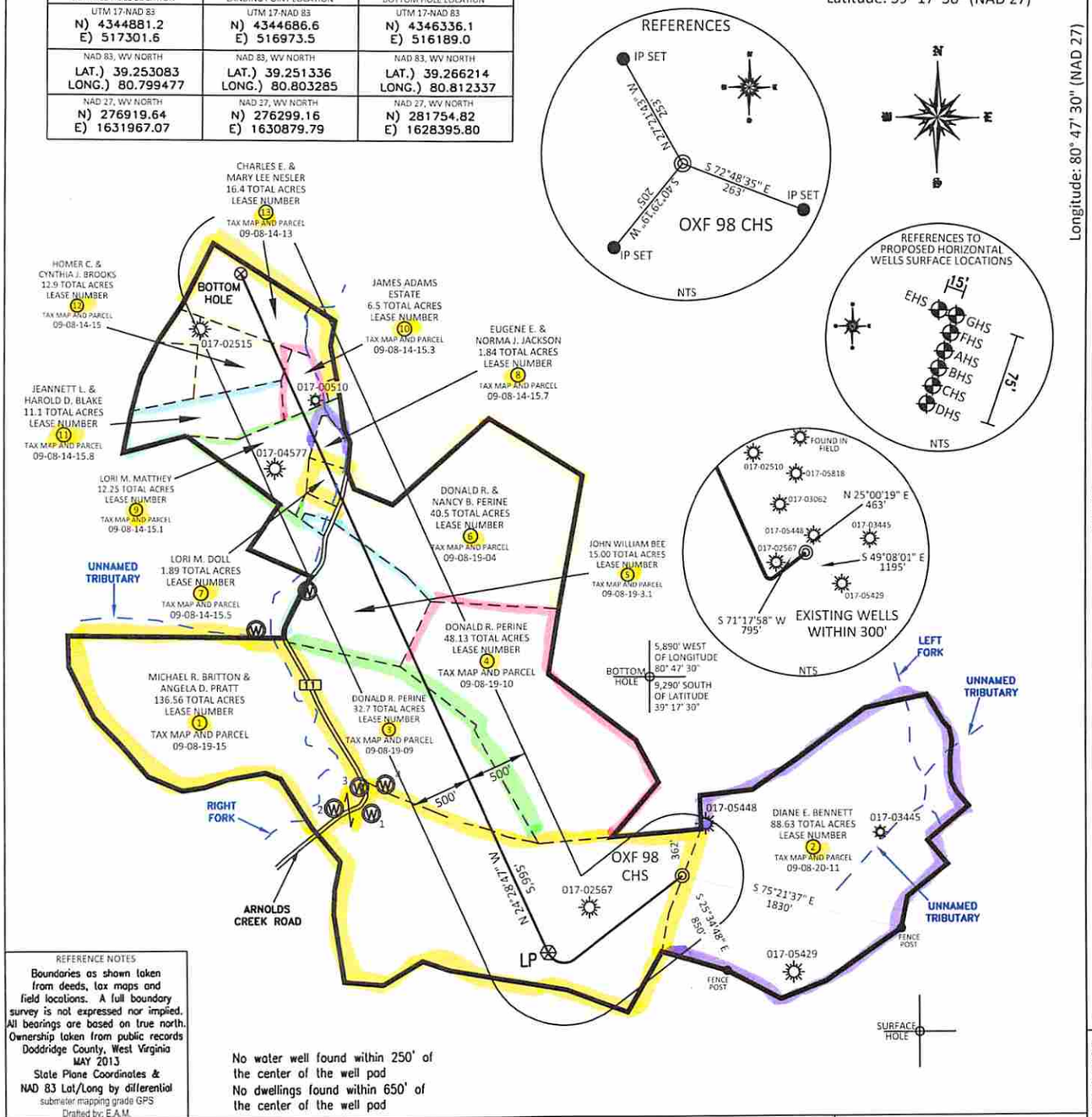

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ERNEST J. BENCHEK III LICENSED No. 2124 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

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ESTIMATED DEPTH: TVD: 6,657' TMD: 13,436'
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CITY: CANONSBURG STATE: PA ZIP CODE: 15317
CITY: CHARLESTON STATE: WV ZIP CODE: 25301

4701706684 MOD

WW-6A1
(3/13)

Operator's Well No. OXF98 CHS

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
1, 3	See attached chart			
2	Kathleen Summers	Clarence W. Mutschelknaus	Not less than 1/8	142/140
4	Ritchie Britton & Pauline Britton	J & J Enterprises, Inc.	Not less than 1/8	118/376
5	Ed Broome, Inc.	Antero Resources Appalachian Corporation	Not less than 1/8	304/257
6-12	Wanda Hurst	Key Oil Company	Not less than 1/8	104/331
13	Joseph Freeman & Flora Freeman	J. F. Donaldson	Not less than 1/8	22/430

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: Noble Energy, Inc.
By:
Its: Operations Landman

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Office of Oil & Gas
APR 03 2015

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WW-6A1 (1/12) Attachment

Operator's well #: _OXF98 CHS_____

Lease Name or Number	Grantor/Lessor	Grantee/Lessee	Royalty	Book/Page
1, 3	Michael S. Francis & Jenny Francis, John M. Francis, William E. Yoke, Jr. & Delores V. Yoke, Margaret Yoke Booth & Fred Booth, and John R. Romine III	Key Oil Company	Not less than 1/8	106/273
1, 3	Key Oil Company	Columbia Gas Transmission Corporation	Not less than 1/8	115/436
1, 3	Key Oil Company	Columbia Gas Transmission Corporation	Not less than 1/8	116/540
1, 3	Columbia Gas Transmission Corporation	Columbia Natural Resources, Inc.	Not less than 1/8	161/68
1, 3	Columbia Natural Resources, Inc.	Chesapeake Appalachia, L.L.C.	Not less than 1/8	264/447
1, 3	Chesapeake Appalachia, L.L.C.	Chesapeake Appalachia, L.L.C. and Statoilhydro USA Onshore Properties, Inc.	Not less than 1/8	231/515
1, 3	Statoilhydro USA Onshore Properties, Inc.	Statoil USA Onshore Properties, Inc.	Not less than 1/8	Name change
1, 3	Chesapeake Appalachia, L.L.C. and Statoil USA Onshore Properties, Inc.	Noble Energy, Inc. and CNX Gas Company LLC	Not less than 1/8	375/585
2	William G Summers & Kathryn Summers	Clarence W. Mutschelknaus	Not less than 1/8	142/42
2	Pauline Summers	Clarence W. Mutschelknaus	Not less than 1/8	142/28
2	Edith C. Casto & Walter B. Casto	Clarence W. Mutschelknaus	Not less than 1/8	142/456
2	Edith B. Yoney & George Yoney	Clarence W. Mutschelknaus	Not less than 1/8	142/458
2	Sam Bee & Ina Bee and Edna Pease	Clarence W. Mutschelknaus	Not less than 1/8	142/454
2	Mabel Bee	Clarence W. Mutschelknaus	Not less than 1/8	142/450
2	George H. Bee & Arlene Bee	Clarence W. Mutschelknaus	Not less than 1/8	142/452
2	Joanne Brosey & Charles Brosey	Clarence W. Mutschelknaus	Not less than 1/8	144/428
2	G. Stanley Bennett & Lois Bennett	Clarence W. Mutschelknaus	Not less than 1/8	143/526
2	Richard W. Minnis & Joanne North Minnis and Charles J. Dennison, Trustee of C.O. Dennison	Consolidated Gas Supply Corporation	Not less than 1/8	95/706
2	Oma Corder	CNG Development Company	Not less than 1/8	140/101
2	Clarence W. Mutschelknaus	CNG Development Company	Not less than 1/8	146/358
2	Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Not less than 1/8	135/583
2	Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Not less than 1/8	51/798
2	CNG Development Company	CNG Producing Company	Not less than 1/8	Merger
2	CNG Producing Company	Dominion Exploration & Production, Inc.	Not less than 1/8	Name Change
2	Dominion Exploration & Production, Inc.	Dominion Transmission, Inc.	Not less than 1/8	244/528
2	Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Not less than 1/8	135/583
2	Consolidated Gas Transmission Corporation	CNG Transmission Corporation	Not less than 1/8	51/798
2	CNG Transmission Corporation	Dominion Transmission, Inc.	Not less than 1/8	58/362
2	Dominion Transmission, Inc.	Consol Energy Holdings LLC XVI	Not less than 1/8	245/1
2	Consol Energy Holdings LLC XVI	CNX Gas Company, LLC	Not less than 1/8	292/469, 293/252
2	CNX Gas Company, LLC	Noble Energy, Inc.	Not less than 1/8	260/39
2	CNX Gas Company LLC & Noble Energy, Inc.	Antero Resources Corporation	Not less than 1/8	325/507
2	Antero Resources Corporation	CNX Gas Company LLC & Noble Energy, Inc.	Not less than 1/8	385/656

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4	Wanda Hurst	J & J Enterprises, Inc.	Not less than 1/8	119/281
4	James A. Gain	J & J Enterprises, Inc.	Not less than 1/8	119/490
4	Homer K. Dotson & Marie M. Dotson	Key Oil Company	Not less than 1/8	107/745
4	Belvia Fleming & Boyd L. Fleming	Key Oil Company	Not less than 1/8	107/747
4	Hazel Dotson & Asa A. Dotson	Key Oil Company	Not less than 1/8	107/749
4	Clifford V. Dotson & Mildred W. Dotson	Key Oil Company	Not less than 1/8	107/751
4	Barbara Bunner & Buddie Dale Bunner	Key Oil Company	Not less than 1/8	108/383
4	Arkle Denzil Taylor & Martha F. Taylor	Key Oil Company	Not less than 1/8	108/550
4	Shelby Jean Ramsdell & Kim L. Ramsdell	Key Oil Company	Not less than 1/8	108/552
4	Virgil Fleming & Maxine Fleming	Key Oil Company	Not less than 1/8	108/554
4	Hayward Taylor & Jane Taylor	Key Oil Company	Not less than 1/8	108/764
4	Florence Davis	Key Oil Company	Not less than 1/8	108/766
4	Charles Ferrebee & Agnes Ferrebee	Key Oil Company	Not less than 1/8	109/300
4	Patricia Lynn Ferrebee	Key Oil Company	Not less than 1/8	110/107
4	Maxine Ferrebee	Key Oil Company	Not less than 1/8	110/111
4	Candance L. Ferrebee	Key Oil Company	Not less than 1/8	110/113
4	Key Oil Company	J & J Enterprises, Inc.	Not less than 1/8	111/326
4	Cliff Wilson & Opal T. Wilson	Warren R. Haught	Not less than 1/8	118/44
4	Warren R. Haught	J & J Enterprises, Inc.	Not less than 1/8	120/200
4	J & J Enterprises	Eastern American Energy Corporation	Not less than 1/8	159/139, 211/137
4	Eastern American Energy Corporation	Energy Corporation of America	Not less than 1/8	240/498
4	Energy Corporation of America	Antero Resources Appalachian Corporation	Not less than 1/8	272/307, 307/321
4	Antero Resources Appalachian Corporation	Antero Resources Corporation	Not less than 1/8	Name Change
4	Antero Resources Corporation	CNX Gas Company LLC & Noble Energy, Inc.	Not less than 1/8	323/624

5	Antero Resources Appalachian Corporation	Antero Resources Corporation	Not less than 1/8	Name Change
5	The Haught Family Trust, Joseph & Carolyn Haught Trustees, Mary Haught Post, and Robert J. Haught	Antero Resources Corporation	Not less than 1/8	316/519
5	Debra P. Bonnell	Antero Resources Corporation	Not less than 1/8	317/174
5	John Channels	Antero Resources Corporation	Not less than 1/8	317/357
5	Virginia Channels	Antero Resources Corporation	Not less than 1/8	317/362
5	Rowe Family Revocable Living Trust	Antero Resources Corporation	Not less than 1/8	317/346
5	Orma Johnson, Trustee of Orma Wilson Declaration of Trust	Antero Resources Corporation	Not less than 1/8	323/477
5	Patrick Harvey Bonnell	Antero Resources Corporation	Not less than 1/8	319/484
5	Gertrude Beth Agolio	Antero Resources Corporation	Not less than 1/8	326/81
5	Douglas A. Hutson	Antero Resources Corporation	Not less than 1/8	324/300
5	Michael Paige Bonnell	Antero Resources Corporation	Not less than 1/8	325/572
5	Rodney Bonnell	Antero Resources Corporation	Not less than 1/8	326/651
5	Robert Bonnell	Antero Resources Corporation	Not less than 1/8	326/96
5	Shelly G. Bonnell	Antero Resources Corporation	Not less than 1/8	326/656
5	Diana Bonnell	Antero Resources Corporation	Not less than 1/8	327/431
5	Barbara Eppley	Antero Resources Corporation	Not less than 1/8	327/436
5	Lillian Sue Leeson	Antero Resources Corporation	Not less than 1/8	329/123
5	Alfred Perine	Antero Resources Corporation	Not less than 1/8	329/118
5	Emery Perine	Antero Resources Corporation	Not less than 1/8	331/25
5	Franklin Perine, Sr.	Antero Resources Corporation	Not less than 1/8	329/93
5	Kathryn Mayle	Antero Resources Corporation	Not less than 1/8	329/533
5	Mabel Smith	Antero Resources Corporation	Not less than 1/8	331/315
5	Christian Todd Cox	Antero Resources Corporation	Not less than 1/8	331/344
5	Tasha Michelle Cox	Antero Resources Corporation	Not less than 1/8	331/364
5	Chad A. Swiger	Antero Resources Corporation	Not less than 1/8	331/124
5	Ronald Perine	Antero Resources Corporation	Not less than 1/8	333/303
5	Nancy Shultz	Antero Resources Corporation	Not less than 1/8	367/615
5	Jacqueline McBee	Antero Resources Corporation	Not less than 1/8	333/544
5	Jerry Walls	Antero Resources Corporation	Not less than 1/8	333/539
5	Terry Lynn Walls	Antero Resources Corporation	Not less than 1/8	333/532
5	David Wayne Bell	Antero Resources Corporation	Not less than 1/8	335/262
5	Howard Jesse Bell	Antero Resources Corporation	Not less than 1/8	335/267
5	James Bruce Bell	Antero Resources Corporation	Not less than 1/8	335/272
5	Michael Paul Bell	Antero Resources Corporation	Not less than 1/8	335/257
5	Robert Dale Bell	Antero Resources Corporation	Not less than 1/8	335/252
5	Brian Keith Bell	Antero Resources Corporation	Not less than 1/8	338/97
5	Raymond Lyle Bell	Antero Resources Corporation	Not less than 1/8	339/499
5	William Stone, Sr.	Antero Resources Corporation	Not less than 1/8	341/287

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4701706684 MOA

5	Antero Resources Corporation	CNX Gas Company LLC & Noble Energy, Inc.	Not less than 1/8	385/656
5	Constance K. Griffith & Gene Griffith	Noble Energy, Inc.	Not less than 1/8	339/712
5	Chad A. Swiger	Noble Energy, Inc.	Not less than 1/8	343/620
5	Helen G. Thomas	Noble Energy, Inc.	Not less than 1/8	357/530
5	Homer Lemasters	Noble Energy, Inc.	Not less than 1/8	357/538
5	Phillip D. McGill, Jr.	Noble Energy, Inc.	Not less than 1/8	339/718
5	Virginia Lenore Smith & Larry P. Smith	Noble Energy, Inc.	Not less than 1/8	374/481
5	Erma Isabelle Kinsley	Noble Energy, Inc.	Not less than 1/8	360/78
5	Shirley K. Lemasters	Noble Energy, Inc.	Not less than 1/8	360/76
5	Judith L. Valovcik & James Valovcik	Noble Energy, Inc.	Not less than 1/8	362/261
5	Linda Lou Stackpole and William Marion Stackpole	Noble Energy, Inc.	Not less than 1/8	364/507
5	David Wesley Lemasters and Barbara K. Lemasters	Noble Energy, Inc.	Not less than 1/8	364/509
5	Rodney Lemasters & Debra Lemasters	Noble Energy, Inc.	Not less than 1/8	362/255
5	Gertrude B. Agolio	Noble Energy, Inc.	Not less than 1/8	362/265
5	Sandy Pyles & Harry L. Pyles	Noble Energy, Inc.	Not less than 1/8	362/263
5	John Mark Perine	Noble Energy, Inc.	Not less than 1/8	374/479
5	Gregory L. Robinson & Betty L. Robinson	Noble Energy, Inc.	Not less than 1/8	374/476
5	Terrance E. Allen	Noble Energy, Inc.	Not less than 1/8	374/474
5	Voie Perine, by Atty. In Fact, Gregory L. Robinson	Noble Energy, Inc.	Not less than 1/8	374/471
5	Robert Martin Allen	Noble Energy, Inc.	Not less than 1/8	374/469
5	Helen P. Smith	Noble Energy, Inc.	Not less than 1/8	374/467
5	Harold J.Lemasters & Jenna M. Lemasters	Noble Energy, Inc.	Not less than 1/8	374/541
5	Connie Myers & Kenneth Myers	Noble Energy, Inc.	Not less than 1/8	374/543
5	Michele L. Sterling	Noble Energy, Inc.	Not less than 1/8	374/551
5	Mark D. Lemasters	Noble Energy, Inc.	Not less than 1/8	374/554
5	Robin L. Boyd	Noble Energy, Inc.	Not less than 1/8	374/548
5	John F. Borgstrom	Noble Energy, Inc.	Not less than 1/8	374/545
5	Mary Jo Koontz and Ralph Donald Koontz	Noble Energy, Inc.	Not less than 1/8	374/556
5	Merle Eugene Lemasters & Sharon Lee Lemasters	Noble Energy, Inc.	Not less than 1/8	374/558
5	Sheila D. Friend and Paul H. Friend	Noble Energy, Inc.	Not less than 1/8	374/560
5	Carol Wilcox and Allen Vincent Wilcox	Noble Energy, Inc.	Not less than 1/8	374/535
5	Kenneth Blain Perine, widower	Noble Energy, Inc.	Not less than 1/8	374/533
5	Dolly Lou Perine	Noble Energy, Inc.	Not less than 1/8	374/537
5	Richard Rodney Perine and Donna Lee Perine	Noble Energy, Inc.	Not less than 1/8	375/14
5	Cameron Lynn Forbush & Marjorie Forbush	Noble Energy, Inc.	Not less than 1/8	379/248
5	Ruby Alcinda Williams	Noble Energy, Inc.	Not less than 1/8	379/246
5	James D. Phillips and Terri Phillips	Noble Energy, Inc.	Not less than 1/8	379/254
5	Talamiah Dawn Boyett and David Wayne Boyett	Noble Energy, Inc.	Not less than 1/8	379/256
5	Darla Clarissa Graber and Matthew Graber	Noble Energy, Inc.	Not less than 1/8	379/252
5	Margaret Ann Christmas and Terry Christmas, Sr.	Noble Energy, Inc.	Not less than 1/8	374/528
5	Virginia W. Wallar, Marilyn Spicer, Kendall Robinson, James T. Robinson, Julia Rogers, Kathryn Elaine Summers, Willie Perine, Cecil Don Perine, John Robinson, by Gregory L. Robinson AIF	Noble Energy, Inc.	Not less than 1/8	374/531
5	Ronald Scott Phillips	Noble Energy, Inc.	Not less than 1/8	374/526
5	Trans Energy, Inc.	Noble Energy, Inc.	Not less than 1/8	379/275
5	Mary Lee Kimball	Noble Energy, Inc.	Not less than 1/8	379/260
5	Janet Leigh Hardbarger	Noble Energy, Inc.	Not less than 1/8	379/267
5	Michael Drago	Noble Energy, Inc.	Not less than 1/8	379/258
5	Anthony Drago	Noble Energy, Inc.	Not less than 1/8	379/265
5	Connie Myers & Kenneth Myers	Noble Energy, Inc.	Not less than 1/8	381/93
5	Mary Lou Cox & Duane Cox	Noble Energy, Inc.	Not less than 1/8	381/91
5	The 2010 Chester C. Yeater, Jr. and Lorene M. Yeater Family Trust Revocable Trust Agreement	Noble Energy, Inc.	Not less than 1/8	381/95
5	Paul R. Robinson, Judith E. Robinson, Jeffery Robinson aka Jeffery Williams Robinson, David L. Robinson, Jane Pepera aka Jane M. Robinson, Jennifer Carman aka Jennifer A. Robinson, Mirian Reep Wickham aka Marian Elizabeth Reep, and Janet M. Esposito, by Gregory L. Robinson AIF	Noble Energy, Inc.	Not less than 1/8	381/37
5	Kimberly S. Finfrock and Edward Finfrock	Noble Energy, Inc.	Not less than 1/8	381/41
5	Jason Eric McConnell	Noble Energy, Inc.	Not less than 1/8	379/273
5	James Lynn Perine	Noble Energy, Inc.	Not less than 1/8	379/278
5	Merdith Lynn McCaskey	Noble Energy, Inc.	Not less than 1/8	379/283
5	Joe Edwin McConnell, Jr. & Lydia J. McConnell	Noble Energy, Inc.	Not less than 1/8	381/39
5	Beth A. Cober, a/k/a Beth A. Clump	Noble Energy, Inc.	Not less than 1/8	387/224
5	Stacey Yvonne Hawk	Noble Energy, Inc.	Not less than 1/8	387/222
5	Kelly Reeves	Noble Energy, Inc.	Not less than 1/8	387/220
5	John Joseph Allen	Noble Energy, Inc.	Not less than 1/8	387/218
5	Gerald Allen	Noble Energy, Inc.	Not less than 1/8	387/216
5	Appalachian Royalty Company, LLC	Noble Energy, Inc.	Not less than 1/8	387/214
5	Anthony Kessell a/k/a Tony Kessell	Noble Energy, Inc.	Not less than 1/8	387/212
5	Kathryn Summers, by Gregory L. Robinson AIF	Noble Energy, Inc.	Not less than 1/8	387/194
5	Edith Jeanette Nelson	Noble Energy, Inc.	Not less than 1/8	387/196
5	Twyla J. Peace & Joe C. Peace	Noble Energy, Inc.	Not less than 1/8	387/198
5	Charles Dale Kocher	Noble Energy, Inc.	Not less than 1/8	387/200
5	Jill S. Albritton & Ronald S. Albritton	Noble Energy, Inc.	Not less than 1/8	387/202
5	Sherrill Gary Wright	Noble Energy, Inc.	Not less than 1/8	387/206
5	Sandra Nelson Terry & Jusephus Terry, Jr.	Noble Energy, Inc.	Not less than 1/8	387/208
5	Shirley L. Plauger & Dorsey B. Plauger	Noble Energy, Inc.	Not less than 1/8	387/204
5	Mary V. Rubio	Noble Energy, Inc.	Not less than 1/8	387/210
5	Debra Kay Imhoff, Rodney Allen Robinson, Tamale Ann Hyde, Betsey Lou Lane, Timothy Robinson, Robert W. Robinson, Jr., by Robert W. Robinson, Jr. AIF	Noble Energy, Inc.	Not less than 1/8	374/539

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6, 7, 8, 9, 10, 11, 12	Ritchie Britton & Pauline Britton	Key Oil Company	Not less than 1/8	104/331
6, 7, 8, 9, 10, 11, 12	Ivy Contz	Key Oil Company	Not less than 1/8	104/454
6, 7, 8, 9, 10, 11, 12	Charlie Rollins & Pearl Rollins	Key Oil Company	Not less than 1/8	108/389
6, 7, 8, 9, 10, 11, 12	Chris Baber & Robert Baber and Sharon Bishop & Charles Bishop	Key Oil Company	Not less than 1/8	108/385
6, 7, 8, 9, 10, 11, 12	Karen Sue Swisher & Franklin Swisher	Key Oil Company	Not less than 1/8	108/391
6, 7, 8, 9, 10, 11, 12	Ollie Russell	Key Oil Company	Not less than 1/8	108/387
6, 7, 8, 9, 10, 11, 12	Mary E. Davis & Alex Davis	Key Oil Company	Not less than 1/8	107/755
6, 7, 8, 9, 10, 11, 12	Patti Jo Brown	Key Oil Company	Not less than 1/8	107/753
6, 7, 8, 9, 10, 11, 12	Juanita L. Lough & Roy R. Lough	Key Oil Company	Not less than 1/8	108/395
6, 7, 8, 9, 10, 11, 12	Melvin L. Williams & Ramona Williams	Key Oil Company	Not less than 1/8	108/393
6, 7, 8, 9, 10, 11, 12	Key Oil Company	J & J Enterprises, Inc.	Not less than 1/8	111/326
6, 7, 8, 9, 10, 11, 12	J & J Enterprises, Inc.	Eastern American Energy Corporation	Not less than 1/8	159/139
6, 7, 8, 9, 10, 11, 12	Eastern American Energy Corporation	Energy Corporation of America	Not less than 1/8	240/498
6, 7, 8, 9, 10, 11, 12	Energy Corporation of America	Antero Resources Appalachian Corporation	Not less than 1/8	272/307, 307/321
6, 7, 8, 9, 10, 11, 12	Antero Resources Appalachian Corporation	Antero Resources Corporation	Not less than 1/8	Name Change
6, 7, 8, 9, 10, 11, 12	Antero Resources Corporation	CNX Gas Company LLC & Noble Energy, Inc.	Not less than 1/8	323/624

13	Lewis Maxwell & Sarah E. Maxwell	D.P. Stout	Not less than 1/8	23/344
13	D.P. Stout	J.F. Donaldson	Not less than 1/8	24/77
13	J.F. Donaldson	The Philadelphia Company of West Virginia	Not less than 1/8	24/80
13	The Philadelphia Company of West Virginia	Pittsburgh and West Virginia Gas Company	Not less than 1/8	45/102, 87/90
13	Pittsburgh and West Virginia Gas Company	Euqitable Gas Company	Not less than 1/8	121/257, 121/303
13	Euqitable Gas Company	Equitrans, Inc.	Not less than 1/8	154/475
13	Equitrans, Inc.	Equitrans, L.P.	Not less than 1/8	Merger
13	Equitrans, L.P.	Equitible Production-Eastern States, Inc.	Not less than 1/8	Merger
13	Equitible Production-Eastern States, Inc.	EQT Production Company	Not less than 1/8	Merger
13	EQT Production Company	CNX Gas Company LLC & Noble Energy, Inc.	Not less than 1/8	348/658

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