

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

Wednesday, April 17, 2019 WELL WORK PERMIT Horizontal 6A / New Drill

EQT PRODUCTION COMPANY 625 LIBERTY AVE., SUITE 1700 PITTSBURGH, PA 15222

Re: Permit approval for OXF43H35

47-017-06886-00-00

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.

Operator's Well Number: OXF43H35

Farm Name: CATHY JEAN WETZEL, ET A

James A. Martin

Chief

U.S. WELL NUMBER: 47-017-06886-00-00

Horizontal 6A New Drill Date Issued: 4/17/2019

API Number:	

## 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.

API Number:	

## **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.

### **EQT Production**

**Hydraulic Fracturing Monitoring Plan** 

Pad ID: OXF43

County: Doddridge

January 24, 2019

RECEIVED Gas
Office of Oil and Gas

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WV Department of Environmental Protection

Page 1 of 2

#### **Purpose**

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Doddridge County, WV prior to hydraulic fracturing at the following EQT wells on OXF43H34 and OXF43H35.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

#### 1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

EQT will recommend to these operators at a minimum to:

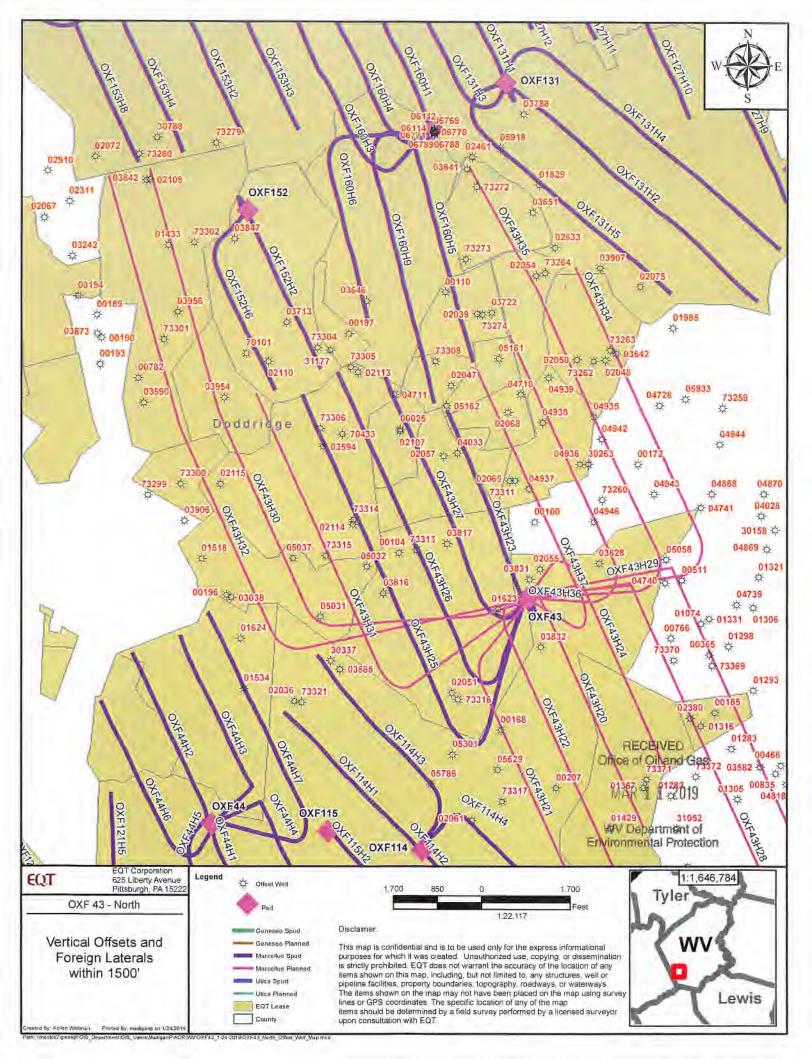
- Inspect their surface equipment prior to fracturing to establish integrity and establish prefrac well conditions
- 2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
- 3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
- 4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

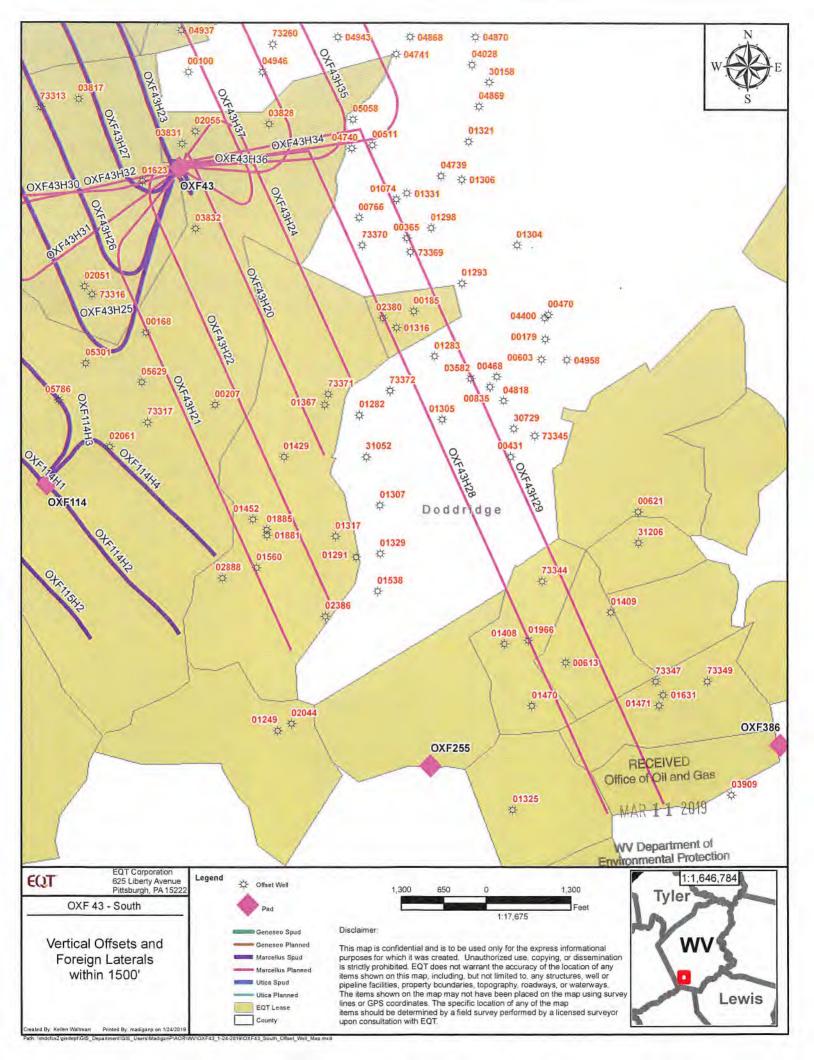
#### 2. Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.



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701408000 700179000 704868000 704868000 70128000 701280000 701966000 701380001 773370000 7036420000 7015290000 701290000 701290000 701290000 701290000 701290000 70120000 70120000 70120000 70120000 70120000 70120000 70120000 70120000 70120000	9/9/1947 1/1/1936 6/27/1988	8/1/1918 10/14/2004 9/1/1965	DODDRIDGE DODDRIDGE DODDRIDGE DODDRIDGE DODDRIDGE	JAY-BEE OIL & GAS INC HOPE NATURAL GAS SPENCER ENTERPRISES HOPE NATURAL GAS MEADOWS S L JR PRODUCTION COMPANY	1241 GR 973 GR 1214 GR 1177 GR	10&1G D&A-OG GAS	39.1371 39.1498 39.1625	-80.7753 1 C A VANHORN -80.7731 5283 DECO VAN HORN	8/17/1966 6/17/1918 8/31/2004 BIG INJUN	9/1/1966 WEST VIRGINIA 7/2/1918 WEST VIRGINIA 2300 9/9/2004 WEST VIRGINIA	2300 1785 2230
7048680000 7301580000 7301580000 7015860000 7015860001 773370000 7015380001 7732600000 7014290000 7012920000 7012920000 7020550000 7026530000 7026530000 7036610000 703610000 703610000 70370000 7047110000 7001100000	1/1/1936	10/14/2004 9/1/1965 11/7/1972	DODDRIDGE DODDRIDGE DODDRIDGE DODDRIDGE	SPENCER ENTERPRISES HOPE NATURAL GAS	1214 GR						
7012980000 7019660000 7019660000 7015380001 7733600000 7036420000 7036420000 7036920000 701720000 7020550000 7012820000 7026330000 7036510000 70471100000 70471100000		9/1/1965 11/7/1972	DODDRIDGE DODDRIDGE		1177 GR			-80.7804 2 HICKMAN			2230
7019660000 7733700000 7715380001 7732600000 7036420000 7013290000 7001720000 7020550000 7012820000 7026330000 7036510000 7013070000 70471100000	6/27/1988	11/7/1972	DODDRIDGE	MEADOWS S L JR PRODUCTION COMPANY		ABD-GW	39.1606	-80.7761 5282 H C & EDWARD CHAPMAN		WEST VIRGINIA	1817
7733700000 7015380001 77332600000 7036420000 7036420000 70313290000 7001720000 7001720000 7012820000 7020550000 7026530000 7036510000 7036510000 7047110000	6/27/1988				1282 GR	10&1G	39.1545	-80.7793 2 S L CHAPMAN	7/18/1965	8/2/1965 WEST VIRGINIA	2232
7015380001 7732600000 7036420000 7013290000 7001720000 7020550000 7012820000 7026530000 7036510000 7013070000 70471100000	6/27/1988		DODDRIDGE	CONSOL GAS COMPANY	940 GR	GAS	39.1372	-80.7740 5295 J ADAMS		WEST VIRGINIA	2520
732600000 036420000 013290000 001720000 020550000 020550000 020550000 026330000 026330000 036510000 047110000 047110000	6/27/1988			PHILADELPHIA OIL	GR	UNKWN	39.1537	-80.7830 4245 JESSE WILLIAMS		WEST VIRGINIA	0
7036420000 7013290000 7001720000 7001720000 7012820000 7026330000 7036510000 7013070000 7047110000	6/27/1988	6/27/1988		MEADOWS S L JR PRODUCTION COMPANY	1035 GR	OIL-WO	39.1393	-80.7822 1 JOSHUA ADAMS	10/25/1972	11/4/1972 WEST VIRGINIA	2010
013290000 001720000 020550000 012820000 026330000 036510000 013070000 047110000	6/27/1988	6/2//1988		HOPE NATURAL GAS	GR 1238 KB	UNKWN GAS	39.1622 39.1698	-80.7878 7055 S W STOUT ET AL -80.7869 1(88-3) PRUNTY MYRTLE M	6/2/1988 ALEXANDER	WEST VIRGINIA 5320 6/12/1988 WEST VIRGINIA	0 5432
7001720000 7020550000 7012820000 7026330000 7036510000 7013070000 7047110000	6/27/1988	10/1/1065		MEADOWS S L JR PRODUCTION COMPANY	1170 GR	10&1G	39.1408	-80.7821 7 THURMAN SPURGEON	8/17/1965	9/1/1965 WEST VIRGINIA	2170
7020550000 7012820000 7026330000 7036510000 7013070000 7047110000	6/27/1988			DIVERSIFIED RESOURCES INCORPORATED	955 GR	GAS	39.1641	-80.7854 2 JESSE WILLIAMS	10/17/1946	11/1/1946 WEST VIRGINIA	1344
7012820000 7026330000 7036510000 7013070000 7047110000				EQUITABLE GAS COMPANY	1097 GR	ABD-GW	39.1585	-80.7920 4672 JACKSON LEESON	9/25/1918	10/10/1918 WEST VIRGINIA	1639
7036510000 7013070000 7047110000 7001100000				MEADOWS S L JR PRODUCTION COMPANY	1061 GR	10&1G	39.1466	-80.7832 4 THURMAN SPURGEON	6/17/1965	7/2/1965 WEST VIRGINIA	2032
013070000 047110000 001100000		6/25/1980	DODDRIDGE	LUCAS WELL SERVICE INCORPORATED	1320 GR	GAS	39.1754	-80.7910 2-B MAXWELL W BRENT	5/20/1980 GORDON /5D/	2700 5/30/1980 WEST VIRGINIA	2799
047110000 001100000				TERM ENERGY	1195 KB	GAS	39.1772	-80.7925 2 FARR CAROLYN	7/6/1988 ALEXANDER	5250 7/16/1988 WEST VIRGINIA	524
001100000				MEADOWS S L JR PRODUCTION COMPANY	917 GR	OIL	39.1429	-80.7821 5 THURMAN SPURGEON	7/18/1965	8/2/1965 WEST VIRGINIA	1920
				KEY OIL COMPANY	1215 GR	GAS	39.1677	-80.8019 1 RYMER	12/22/2002 ALEXANDER	5600 1/2/2003 WEST VIRGINIA	534:
021070000				EMPIRE OIL & GAS INCORPORATED	1168 GR	GAS	39.1731	-80.7984 1 LEESON CHARLES	9/6/1940 GORDON	9/21/1940 WEST VIRGINIA	267
054530000				EQT PRODUCTION COMPANY	1012 GR 1201 GR	GAS GAS	39.1658 39.1671	-80.8015 4983 ROSA B RYMER -80.7984 7 ADAMS A	5/19/1930 2/21/2006 GORDON	6/3/1930 WEST VIRGINIA 3000 6/12/2006 WEST VIRGINIA	250: 275:
051620000 040330000				KEY OIL COMPANY TERM ENERGY	970 GR	GAS	39.1646	-80.7976 1 MATHENY BARRY L ETALS	8/16/1993 ALEXANDER	5200 8/26/1993 WEST VIRGINIA	500
030380000				ENERGY CORPORATION OF AMERICA INC	855 KB	GAS	39.1571	-80.8130 J-466 GRIMM DONALD	11/7/1981 ALEXANDER	5400 11/17/1981 WEST VIRGINIA	504
016240000				R & R OIL & GAS LLC	967 GR	2GAS	39.1549	-80.8124 3 /1/ SNIDER W T	7/2/1971 UNKNOWN	7/12/1971 WEST VIRGINIA	237
733020000		0, 1, 23/1		HOPE NATURAL GAS	GR	UNKWN	39.1757	-80.8155 5812 W B MAXWELL HRS	-,-,	WEST VIRGINIA	4.37
040280000		8/15/1993		KEY OIL COMPANY	1295 GR	GAS	39.1613	-80.7770 1 SUMMERS PAULINE ETAL	7/31/1993 ALEXANDER	5500 8/10/1993 WEST VIRGINIA	547
012930000				MEADOWS S L JR PRODUCTION COMPANY	1117 GR	10&1G	39.1522	-80.7776 1 S L CHAPMAN	7/18/1965	8/2/1965 WEST VIRGINIA	209
037220000				TERM ENERGY	1031 KB	GAS	39.1720	-80.7953 1 SHIVE GLENN	6/3/1989 ALEXANDER	5300 6/13/1989 WEST VIRGINIA	509
020500000	5/24/2006			EQT PRODUCTION COMPANY	1066 GR	ABD-GW	39.1695	-80.7895 4653 GASTON MARY V	3/23/1918 BIG INJUN	4/23/1918 WEST VIRGINIA	182
001720001		12/1/1946	DODDRIDGE	DIVERSIFIED RESOURCES INCORPORATED	955 GR	GAS	39.1641	-80.7854 2 JESSE WILLIAMS	10/17/1946	11/1/1946 WEST VIRGINIA	231
018850000				EQT PRODUCTION COMPANY	863 GR	OIL	39.1418		3/17/1978	4/1/1978 WEST VIRGINIA	189
047410000				KEY OIL COMPANY	1202 GR	GAS	39.1617	-80.7811 1 HICKMAN	6/17/2003 ALEXANDER	5600 9/29/2003 WEST VIRGINIA	534
019850000				CONSOL GAS COMPANY	1210 GR	GAS	39.1712		5/31/1921	6/15/1921 WEST VIRGINIA	205
047100000 005110000				KEY OIL COMPANY	1206 GR 1009 GR	GAS 10&1G	39.1677 39.1580	-80.7933 1 ADAMS	12/22/2002 ALEXANDER 9/17/1961	5600 1/13/2003 WEST VIRGINIA 10/2/1961 WEST VIRGINIA	534
733060000		11/1/1961	DODDRIDGE	MID PINE DEVELOPMENT	GR	UNKWN	39.1580	-80.7824 1 H C CHAPMAN HEIRS -80.8069 1 SAM GASTON	9/1//1961	WEST VIRGINIA	195
733060000 067710000		5/1/2017		EQT PRODUCTION COMPANY	1220 GR	GAS	39.1814	-80.7992 WV 513702 HART RONALD & JEFFERY	6/15/2016 MARCELLUS_/SH/	11191 2/19/2017 WEST VIRGINIA	1119
038160000				ENERGY CORPORATION OF AMERICA INC	1075 KB	GAS	39.1573	-80.8027 1 MERT/MAXWELL F	8/22/1990 ALEXANDER	5225 9/1/1990 WEST VIRGINIA	523
024610000				MURVIN & MEIER OIL COMPANY	1230 GR	GAS	39.1802	-80.7966 11 MAXWELL BRENT W	8/6/1979 BEREA	2600 8/16/1979 WEST VIRGINIA	263
067700000				EQT PRODUCTION COMPANY	1243 KB	GAS	39.1815	-80.7992 WV 514101 HART RONALD & JEFFERY	6/15/2016 MARCELLUS /SH/	12080 10/28/2016 WEST VIRGINIA	1206
053010000		2/2/2007	DODDRIDGE	EQT PRODUCTION COMPANY	978 GR	GAS	39.1488	-80.7980 WV 510808 LEESON J	10/16/2006 ALEXANDER	5300 11/15/2006 WEST VIRGINIA	540
7067890000			DODDRIDGE	EQT PRODUCTION COMPANY	1220 GR	PERMIT	39.1814	-80.7992 WV 514102 OXF160	3/20/2017 MARCELLUS /SH/	11134 WEST VIRGINIA	
733050000			DODDRIDGE	HOPE NATURAL GAS	GR	UNKWN	39.1691	-80.8049 7034 SAM GASTON		WEST VIRGINIA	
733010000				HOPE NATURAL GAS	GR	UNKWN	39.1706	-80.8176 6491 W B MAXWELL HRS		WEST VIRGINIA	
7021150000	6/26/2006			EQUITABLE PRODUCTION COMPANY	1063 GR	ABD-GW	39.1630	-80.8137 WV 606112 GASTON	10/29/1980 BIG INJUN	11/29/1980 WEST VIRGINIA	182
7038420000				TERM ENERGY	1140 KB	GAS	39.1789	-80.8187 2 CASSIDY JOAN	7/13/1990 ALEXANDER	5350 7/23/1990 WEST VIRGINIA	525
7039540001		9/30/2002		TERM ENERGY	905 KB	GAS-WO	39.1676	-80.8135 5 GASTON SAMUEL D	8/6/2002 WEIR /SD/	1940 9/23/2002 WEST VIRGINIA	498
7733470000		11/10/1007	DODDRIDGE	KEY OIL COMPANY	GR 920 GR	UNKWN GAS	39.1355 39.1507	-80.7671 MELVILLE CONLEY -80.7731 1 DECO VANHORN HRS ETAL	10/30/1997 ALEXANDER	WEST VIRGINIA 5600 11/9/1997 WEST VIRGINIA	519
7044000000 7013050000				PENNZOIL COMPANY	893 GR	D&A-O	39.1464	-80.7787 6 SPURGEON THURMAN	8/17/1965 PRICE	9/1/1965 WEST VIRGINIA	190
7013330000		3/24/1300		PENNZOIL COMPANY	GR	PSEUDO	39.1559	-80,7806 2 THOMAS HICKMAN	0/1//1505 THEE	WEST VIRGINIA	150
7013040000	11/18/1965	10/1/1965		PENNZOIL COMPANY	994 GR	D&A	39.1537	-80.7746 3 S L CHAPMAN	8/17/1965	9/1/1965 WEST VIRGINIA	196
733710000	00, 10, 1010	,-,		HOPE NATURAL GAS	GR	UNKWN	39.1475	-80.7848 1 F L LODGE	-,,	WEST VIRGINIA	
020540000	6/12/2006	6/1/1996	DODDRIDGE		1247 GR	ABD-GW	39.1739	-80.7923 4666 GASTON	3/24/1996 WEIR /SD/	4/24/1996 WEST VIRGINIA	279
7310520000	3/14/1956	1/8/1919	DODDRIDGE	HOPE NATURAL GAS	875 GR	ABD-GW	39.1449	-80.7828 5434 THURMAN SPURGEON	12/8/1918	12/23/1918 WEST VIRGINIA	179
7733720000			DODDRIDGE		GR	UNKWN	39.1477	-80.7815 C-142 THOMAS SPURGEON		WEST VIRGINIA	
002070001				DIVERSIFIED RESOURCES INCORPORATED	883 GR	GAS	39.1471	-80.7910 7 JESSIE WILLIAMS 3	7/18/1962	8/2/1962 WEST VIRGINIA	173
049460000				CONSOL GAS COMPANY	1123 GR	GAS	39.1610	-80.7884 14082 MORRIS I L	2/8/2005 GORDON	2695 11/11/2005 WEST VIRGINIA	272
051610000				KEY OIL COMPANY	1100 GR	GAS	39.1696	-80.7948 6 ADAMS A	2/21/2006 GORDON	3000 6/15/2006 WEST VIRGINIA	263
023800000				EQT PRODUCTION COMPANY	1068 GR	GAS	39.1507	-80.7819 4703 W J HICKMAN	3/27/1919	4/11/1919 WEST VIRGINIA	209
038280000				ENERGY CORPORATION OF AMERICA INC	930 KB 1220 KB	GAS GAS	39.1588 39.1795	-80.7880 6 WILLIAMS JESSIE -80.7970 88-2 FARR CAROLYN	9/1/1990 ALEXANDER 5/27/1988 ALEXANDER	5100 9/11/1990 WEST VIRGINIA 5320 6/6/1988 WEST VIRGINIA	510 527
036410000				TERM ENERGY EQT PRODUCTION COMPANY	1220 KB 1243 KB	GAS	39.1795	-80.7970 88-2 FARR CAROLYN -80.7992 WV 513775 HART RONALD & JEFFERY	6/15/2016 MARCELLUS /SH/	11381 10/21/2016 WEST VIRGINIA	1079
067690000 057860000				EQT PRODUCTION COMPANY	1243 KB 1150 GR	GAS	39.1815	-80.7995 WV 511530 RYAN BETTY M	2/10/2009 MARCELLUS /SH/	7/5/2009 WEST VIRGINIA	1080
035940000				TERM ENERGY	968 KB	GAS	39.1650	-80.8068 87-3-25 MCNEESE	9/23/1987 WEIR/SD/	2200 10/3/1987 WEST VIRGINIA	501
733130000		-3,2,,230,	DODDRIDGE		GR	UNKWN	39.1596	-80.8004 4658 F MAXWELL	-,,	WEST VIRGINIA	50.
050320000		6/27/2005		SPENCER ENTERPRISES	1184 GR	GAS	39.1587		6/8/2005 BIG INJUN	2300 6/18/2005 WEST VIRGINIA	273
038170000		6/21/1990	DODDRIDGE	ENERGY CORPORATION OF AMERICA INC	1220 KB	GAS	39.1599	-80.7984 2 MERT/MAXWELL F	5/26/1990 ALEXANDER	5325 6/5/1990 WEST VIRGINIA	532
036460001				TERM ENERGY	1000 KB	GAS-WO	39.1726	-80.8038 2 GASTON	11/2/2002 GORDON	2500 11/12/2002 WEST VIRGINIA	506
36410001				TERM ENERGY	1220 KB	GAS-WO	39.1795	-80.7970 1 FARR	8/6/2002 BRADFORD	4450 8/15/2002 WEST VIRGINIA	527
3420001				TERM ENERGY	1140 KB	GAS-WO	39.1789	-80.8187 2 CASSIDY	11/13/2002 BIG INJUN	2100 11/13/2002 WEST VIRGINIA	525
299000				BRAXTON OIL & GAS CORPORATION	1130 KB	GAS	39.1794	-80.8255 J-214 MUTSCHELKNAUS N G	7/26/1981 ALEXANDER	5400 8/5/1981 WEST VIRGINIA	531
01400000 03990000	3/22/1967			FRIESTAD FRANCIS	913 GR	D&A-G	39.1755	-80.8173 1 M L HAUGHT	12/18/1966	1/2/1967 WEST VIRGINIA	178
139540000				TERM ENERGY	905 KB	GAS	39.1676	-80.8135 GASTONS GASTON SAMMUEL ETAL	6/7/1992 ALEXANDER	5300 6/17/1992 WEST VIRGINIA 3000 8/21/2005 WEST VIRGINIA	496
04860000				KEY OIL COMPANY	1282 GR 940 GR	GAS GAS	39.1596 39.1372	-80.7767 2 SUMMERS -80.7740 5295 JOSHUA ADAMS	9/8/2004 GORDON 1/29/1957	3000 8/21/2005 WEST VIRGINIA 2/13/1957 WEST VIRGINIA	287 252
019660001 049446000				CONSOL GAS COMPANY CONSOL GAS COMPANY	1077 GR	GAS	39.1372	-80.7740 5295 JOSHUA ADAMS -80.7798 14085 MORRIS I L	1/29/1957 2/8/2005 GORDON	2/13/1957 WEST VIRGINIA 2685 12/1/2005 WEST VIRGINIA	252
003650000				BEECHLICK OIL INCORPORATED	1077 GR 1152 GR	10&1G	39.1531	-80.7806 1 JESSIE WILLIAMS ET VIR	7/18/1960	8/2/1960 WEST VIRGINIA	203
~~@ <u>~</u>	i	2/1/1200	CONDUCE	DEEG/ILICK OIL INCONFORMIED	1132 GR	10010	35,1340	55.7556 TIESSIE WIEEMWIS ET VIR	// 10/ 1500	6/2/1500 WEST VIRGINIA	203
00368000 H U H V H V H V H V H V H V H V H V H H V H	j								•		
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Gas											

Part	47017047390000		10/22/2003 DODDRIDGE		1144 GR	GAS	39.1567	-80.7787 3 HICKMAN	6/17/2003 ALEXANDER	5600 10/9/2003 WEST VIRGINIA	5313 04739
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											2512 04943 1847 00766
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Committee   Comm											6332 05629
Column											2045 00100
Company   Comp											2027 01452
Color								-80.8071 7032 SAMUEL HILEMAN			0 73304
## 12   19   19   19   19   19   19   19		5/5/2006				ABD-GW	39.1719	-80.7963 4532 GASTON	8/1/1926 GORDON	9/1/1926 WEST VIRGINIA	2453 02039
Company   Comp					1220 GR	GAS	39.1816	-80.7992 WV 513173 GASTON S E	8/10/2012 MARCELLUS /SH/	8/30/2012 WEST VIRGINIA	13269 06113
MINISTRATION   SECONDO   CHAPTAN	47017037130001		11/12/2004 DODDRIDGE	TERM ENERGY	977 KB	GAS-WO	39.1715	-80.8092 1 SCHWARTZMAN	9/24/2004 BIG INJUN	10/6/2004 WEST VIRGINIA	5065 03713
Column	47017036460000		7/6/1988 DODDRIDGE	TERM ENERGY	1000 KB	GAS	39.1726	-80.8038 2 GASTON	6/13/1988 ALEXANDER	5065 6/23/1988 WEST VIRGINIA	5068 03646
Company	47017733140000		DODDRIDGE	HOPE NATURAL GAS	GR						0 73314
Company	47017732990000										0 73299
Commission   174,1745   177,174											5271 03847
## 17/1948 OCCURRENT OF COLORDON   19.0 (A)											5017 03956
GENERAL STATES AND STA		12/18/1950									2288 00196 2681 04818
## (\$12,0000 COORDING MET) 126/1916 (\$12,0000 COORDING MET) 126/19		2/22/4040									2526 30729
## 12   19   19   19   19   19   19   19		3/23/1949									2881 04870
## 17/19/19/19/19/19/19/19/19/19/19/19/19/19/		12/6/1062									2270 00621
### STATES		12/0/1302									1955 00603
## 17/1/1988 OCCURRENCE (1970) A 1971 ST 1970 CONTROL OF CONTROL O		1/1/1981									2094 00613
## 2015/03/23/25/06/25/25   MAJORES SECONOMIC INFORMATION CONTROL   100		-, -,									2879 01470
## 1797999989000   1/1/1/180 DOCINIOR COMPANY   125 CM   000   125									6/17/1965		2018 01283
## 1997/37/19/000 ## 1997/39/19/0000 ## 1997/39/19/0000 ## 1997/39/19/0000 ## 1997/39/19/00000 ## 1997/39/19/00000 ## 1997/39/19/00000 ## 1997/39/19/0000000 ## 1997/39/19/00000000 ## 1997/39/19/00000000 ## 1997/39/19/000000000 ## 1997/39/19/000000000 ## 1997/39/19/000000000 ## 1997/39/19/0000000000 ## 1997/39/19/0000000000 ## 1997/39/19/000000000000000000000000000000000					1252 GR		39.1806				12244 05918
### 1979/99/99/99/99   1/1/1/1989   COORDINATION COMPANY   111 60   GAS   35.124   40.7940   17.7949   17.			DODDRIDGE	EQUITABLE RESOURCES EXPLORATION INC			39.1719				0 73274
1971/1975/2000   1971/1975	47017015600000										1943 01560
### PAID 2007/2000   1947/200 DOCUMENT CONCORD AND ADMINISTRATION   1150 of the Control of Control	47017020690000		1/1/1981 DODDRIDGE	EQT PRODUCTION COMPANY							5053 02069
### APPLIESTANCE COMPANY CONFORMER   1346 BW   UNIVERS   137/1959   UNIVERS   137/1959   UNIVERS   137/1959   UNIVERS   137/1959   UNIVERS   UNIVE									4/29/2003 WEIR /SD/		2720 04728
### AP\$   1993   11/1/1995   1											0 02075
### PRIJECTIONS   11/1/1985 DODDINGS   PART HEPOLICE   10/16											0 00100
100,17000000000000000000000000000000000											5422 03831 2001 01317
## 1477759600000											2285 05058
7/17/2009 COURSING SPICE SET PROCESS OF SPICE SPICE PRINCE SET PRINCE NOT SPICE AND SPICE SET PROCESS OF SPICE SET		4/0/1001									2700 02044
#0070001000000		4/9/1991									1950 05037
## 10070747890000 ## 1/1/17/000 ## 17/17/17/000 ## 17/17/17/000 ## 17/17/17/17/000 ## 17/17/17/17/17/17/17/17/17/17/17/17/17/1											2492 00104
## ATT/11/17/0000 ## A/15/19/19 CORRINGE CALIFORMY 9.5 68 AB. GOV 9.17/19 AB. 93.17/19 AB. 93.17											0 06788
## 1001/1958/000000000000000000000000000000000000		4/16/1964									1997 31177
#7017713100000		,, = 2, = 2 2			945 KB						5017 03956
## 17970915M00000 121/1/1969 DODDRINGE BEFROIR C 1246 GR UNAW 31.503 40.3123 81.08 LESCON HEIRS 10/7/1969 MET VIRGINIA 0 0 7071731570000 7716/1920 DODDRINGE UNKNOWN 1D10 FR GR AS 31.5120 40.2122 7706 MANAPUL (			8/29/1968 DODDRIDGE	SPENCER ENTERPRISES	906 GR	GAS	39.1591	-80.8150 1 DONALD LEE GRIMM	7/15/1968	7/30/1968 WEST VIRGINIA	2007 01518
## 1797920772000 7/6/1920 000000000 UNIVOWN 1010 67 UNIVOWN 1916 00000000 UNIVOWN 1916 000000000 UNIVOWN 1916 00000000 UNIVOWN 1916 000000000 UNIVOWN 1916 00000000 UNIVOWN 1916 000000000 UNIVOWN 1916 0000000000 UNIVOWN 1916 000000000 UNIVOWN 1916 0000000000 UNIVOWN 1916 0000000000 UNIVOWN 1916 0000000000 UNIVOWN 1916 0000000000 UNIVOWN 1916 00000000000 UNIVOWN 1916 000000000000 UNIVOWN 1916 000000000000000 UNIVOWN 1916 0000000000000000000000000000000000					1248 GR	GAS	39.1523	-80.8122 3 ELI B LEESON HEIRS	10/17/1968	11/1/1968 WEST VIRGINIA	2142 01534
#7017731950000 #7017731730000 #7017731730000 #7017731730000 #7017731730000 #7017731730000 #7017731730000 #7017731730000 #7017731700000 #701773170000 #701773170000 #701773170000 #701773170000 #701773170000 #701773170000 #701773170000 #701773170000 #701773170000000000000000000000000000000	47017733000000		DODDRIDGE	HOPE NATURAL GAS	GR						0 73300
## 17077312000000 1/1/1967   10/031/918   DODORDEGE CUNKNOWN   13 6R   ABD-WW   31,413   10/2789137310000   DODORDEGE UNKNOWN   GR   UNKNOWN   31,416   10/278913110000   DODORDEGE UNKNOWN   GR   UNKNOWN   31,416   10/278913110000   DODORDEGE UNKNOWN   GR   UNKNOWN   31,416   10/278913110000   TWO THE PROPERTY OF THE	47017020720000								6/9/1920		1850 02072
47017793179000 DODRIGGE UNNOWN GR UNNOWN 91.46 90.7931 74702 CASTON 1911/1990 LEXAMORE \$12,71/1990 MEST WIRGINA 0 0 47017093898000 6/5/2005 DODRIGGE KERGY CORPORATION OF AMERICA INC 129 86 65 39.1624 40.7912 138 LAUSER WE MAXWELL 3/1/1990 ALEXAMORE \$12,72/1/1990 WEST WIRGINA 2581 47017093980000 5/5/20/2005 DODRIGGE KEY OIL COMPANY 10.28 66 65 39.1624 40.7912 138 LAUSER WE MAXWELL 3/1/1990 ALEXAMORE \$12,72/1/1990 WEST WIRGINA 2581 470170939800000 5/5/20/2005 DODRIGGE KEY OIL COMPANY 10.28 66 65 39.1624 40.7912 138 LAUSER WE MAXWELL 3/1/1990 ALEXAMORE \$12,72/1/1990 WEST WIRGINA 2581 4701709130000 10.1/1/1995 DODRIGGE CELT PRODUCTION COMPANY 10.77 66 64.5 39.1614 40.7912 2 ADMAG A 1.7047005 GORDON 3000 5/11/2005 WEST WIRGINA 2591 4701709130000 27/7/1991 DODRIGGE CELT PRODUCTION COMPANY 10.77 64.6 64.5 39.1614 40.7912 2 ADMAG A 1.7047091 2 ADMAG A 1.7047091 MEST WIRGINA 13.13 40.704701 40.7912											0 73345
47017733110000		1/1/1967							5/26/1918		2808 31206
47017937880000 4701709380000 57027005 DODORIDOG E KEY OLI COMPANY 1018 (6 AS 3) 31,614 4701709380000 57027005 DODORIDOG E KEY OLI COMPANY 1018 (6 AS 3) 31,614 4701709380000 1019/1595 DODORIDOG E KEY OLI COMPANY 1017005 DODORIDOG E KEY OLI COMPANY											0 73317
470170493900000									3/11/1000 ALEXANDED		0 73311 5417 03788
47017099190000											2581 04938
470170020700000											2807 04936
47017013170000											1331 00207
47017012990000											1929 01317
470170124990000							39.1407				2021 01291
47017923850000 4701793290000 1/10/1985 12/11/1976 DODDRIDGE (ATPRODUCTION COMPANY DODDRIDGE SEPRICATION INC APPLICATION INC AP											0 01249
47017731630000 47017018290000 1/10/1985 1/10/1							39.1382		12/11/1913		2604 02386
47017018290000 1/10/1985 12/1/1976 DODDRIDGE MURNIN OIL COMPANY 1215 67 6AS 39.1578 80.7921 4W BRENT MAXWELL HRS 9/4/1976 6WEST VIRGINIA 1955 12/10/1900 DODDRIDGE SPENCER BETERPRISES 96 6AS 39.1578 80.7835 7 HICKMAN 6/17/2003 ALEXANDER 500 10/17/2003 WEST VIRGINIA 5374 47017/2003 1000 DODDRIDGE SPENCER BETERPRISES 96 6AS 39.1561 80.8070 1-A GRIMM 6/10/2005 BIG INJUN 250 6/20/2005 WEST VIRGINIA 1242 47017/2013/10000 4/18/1919 DODDRIDGE PR M OIL COMPANY 905 6R 6AS 39.1561 80.8070 1-A GRIMM 6/10/2005 BIG INJUN 250 6/20/2005 WEST VIRGINIA 1242 47017/303370000 10/10/1940 6/24/1917 DODDRIDGE PR M VA GAS 1084 6R 80-GW 39.1507 80.0002 13/10/1940 6/24/1917 DODDRIDGE PR M VA GAS 1084 6R 80-GW 39.1507 80.0002 13/10/1940 GP /42/1917 WEST VIRGINIA 1958 47017/30430000 DODDRIDGE CHE TRODUCTION COMPANY 972 6R 80-GW 39.1509 80.0004 8511 66 80.0002 13/10/1940 GP /42/1919 DODDRIDGE GET RRODUCTION COMPANY 973 6R 80-GW 39.1509 80.0004 8511 66 80.0002 13/10/1940 GP /42/1919 DODDRIDGE GET RRODUCTION COMPANY 972 6R 80-GW 39.1509 80.0004 8511 66 80.0002 13/10/1940 GP /42/1910 GORDON 973/1940 WEST VIRGINIA 00 47017/794300000 DODDRIDGE GET RRODUCTION COMPANY 973 6R 80-GW 39.1509 80.0004 8511 66 80.0002 13/10/1940 GP /42/1910 GORDON 973/1940 WEST VIRGINIA 00 47017/794300000 DODDRIDGE GETER OLD CURNOW GR PSEUDO 39.1507 80.0005 13 14 66 6AS 39.1507 80.0005 13 14 66 6AS 39.1507 80.0005 13 14 66 6AS 39.1507 80.00000 10/1/1987 DODDRIDGE GETER MERGY GP /47017/6910 GP /47017/6910 DODDRIDGE GETER MERGY GP /47017/6910 GP /47017/6910 DODDRIDGE GET REM WERGY GP /47017/6910 GP /47017/6910 DODDRIDGE GETER MERGY GP /47017/6910 GP /47017/691			DODDRIDGE	EQUITABLE RESOURCES EXPLORATION INC							0 73263
47017026910000		1/10/1985									1955 01829
4/03/7032130000 4/38/1919 DODDRIDGE P& MOIL COMPANY 90 5 GR GAS 39.145 9.0967 4896 LEESON 31/4/1919 31/4/1											5347 04740
47017937130000 5/12/1989 DODRINGE TERM ENERGY 97 / 8											2070 05031
47017703337000 10/19/19 6/24/1917 DODDRINGE   TITSBURGH & WA GAS   1084 GR   ABD-GW   39.1537   80.8063 4572 W RERNT MAXWELL   5/9/1917   5/24/1917 WEST VIRGINIA   1958   470177011/1900000   10/15/1920 DODDRINGE   CATTER DIL & GAS   GR   PSEUD   39.1657   80.8058 15 IM GASTON   WEST VIRGINIA   00   4701770489700000   DODDRINGE   CATTER DIL & GAS   GR   VINKWN   39.1637   80.8059 14552 C GASKINS SAM   9/8/1987 WEIR /5D/   2100   9/18/1987 WEIR /5D/   2000   200											1424 02061
47017703114000 9/24/2015 11/15/1920 DDDRIDGE LATER OIL & GAS GR PSEUD 39.1694 80.7991 4652 C GASTON 7/12/1920 GORDON 7/12/1920 WEST VIRGINIA 2400 WEST VIRGINIA 0 WEST VIRGINIA 0 WEST VIRGINIA 0 WEST VIRGINIA 0 O DDDRIDGE LATER OIL & GAS GR PSEUD 39.1691 80.7991 4652 C GASTON WEST VIRGINIA 0 O DDDRIDGE LATER OIL & GAS GR PSEUD 39.1691 80.8192 S885 MABEL HAUGHT ET AL WEST VIRGINIA 10 O DDDRIDGE LATER OIL & GAS GR PSEUD 39.1691 80.8192 S885 MABEL HAUGHT ET AL WEST VIRGINIA 4951 4701776900000 10/15/1991 DDDRIDGE ENERGY CORPORATION OF AMERICA INC 1108 KB GAS 39.1611 80.8162 88.M/HICKMAN1 HICKMAN LAURA ETAL 9/22/1991 ALEXANDER 5229 10/2/1991 WEST VIRGINIA 5050 1/17/1993 DDDRIDGE CATTER OIL COMPANY GR PSEUD 39.1699 80.8120 1 GASTON E WEST VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR PSEUD 39.1691 80.8120 1 GASTON E WEST VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR PSEUD 39.1691 80.8120 1 GASTON E WEST VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR PSEUD 39.1691 80.8120 1 GASTON E WEST VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR PSEUD 39.1691 80.8120 1 GASTON E WEST VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COMPANY GR VIRGINIA 5050 1/17/1993 PMO DDDRIDGE LATER OIL COM											5065 03713
47017733080000 DODDRIDGE UNKNOWN GR PSEUDO 39.1657 - 80.07591 4652 C GASTON WEST VIRGINIA O 470177034300000 DODDRIDGE CARTER OIL & GAS GR PSEUDO 39.1657 - 80.08055 1 S M GASTON WEST VIRGINIA O 47017703400000 DODDRIDGE HOPE MATURAL GAS GR UNKWN 39.184 - 80.7991 4652 C GASTON WEST VIRGINIA O 47017703400000 DODDRIDGE HOPE MATURAL GAS GR UNKWN 39.184 - 80.7991 4652 C GASTON WEST VIRGINIA O 47017703400000 DODDRIDGE HOPE MATURAL GAS GR UNKWN 39.184 - 80.7991 4652 C GASTON WEST VIRGINIA O 47017703400000 DODDRIDGE HOPE MATURAL GAS GR UNKWN 39.184 - 80.7991 4652 C GASTON WEST VIRGINIA O 47017703400000 DODDRIDGE HOPE MATURAL GAS GR UNKWN 39.1851 - 80.08161 RAW HOLD HAVE MADE WEST VIRGINIA O 47017703400000 DODDRIDGE CARTER OIL COMPANY GR PSEUDO 39.169 80.08120 1 GASTON HO WEST VIRGINIA DO 47017703479470 GODDRIDGE CARTER OIL COMPANY GR PSEUDO 39.169 80.08120 1 GASTON HO WEST VIRGINIA O 47017703499470 DODDRIDGE CARTER OIL COMPANY GR PSEUDO 39.169 80.08120 1 GASTON HO WEST VIRGINIA SOSO 47017703499470 DODDRIDGE CARTER OIL COMPANY GR UNKWN 39.1535 80.7643 4404 H G SUMHER MARIE 12/8/1992 ALEXANDER 500 12/18/1992 WEST VIRGINIA 599 HOLD HOLD HAVE MARIE 12/8/1992 ALEXANDER 500 12/18/1992 WEST VIRGINIA 599 HOLD HOLD HOLD HOLD HOLD HOLD HOLD HOLD											1958 30337 2400 02114
47017704330000 DODDRIGGE CATER OIL & GAS GR VINGINIA GS GAS GAS GR VINGINIA GS GR VINGINIA GR		9/24/2015			9/2 GK				6/12/1920 GORDON		
4701725900000 10/1/1987 DODDRIDGE 10/15/1991 DODDRI					GP GP						0 73308 0 70433
47017@3600000 10/1/1987 DODDRIDGE TEM ENERGY 1108 KB GAS 39.1673 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 4951 47017@3600000 10/15/1991 DODDRIDGE CATER OIL COMPANY GR PSEUDO 39.1994 -80.8120 1 GASTON E M WEST VIRGINIA 5275 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEIR/SD/ 2100 9/18/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 GASKINS SAM 9/8/1987 WEST VIRGINIA 5755 -80.8190 87-3-15 G											0 73280
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DODDRIGGE CARRENG LOCKMANY  GR PSEUD 39.1697  39.1897  39	47017030060000										5255 03906
47017098739900 6/3/1991 DODDRIDGE ENERGY CORPORATION OF AMERICA INC 885 KB GAS 39.1709 -80.8221 1 HAUGHT FOREST ETAL 5/3/1991 ALEXANDER 5020 6/13/1991 WEST VIRGINIA 5090 4701709399000 1/17/1993 DODDRIDGE ENERGY CORPORATION OF AMERICA INC 981 GR GAS 39.1307 -80.8221 1 HAUGHT FOREST ETAL 5/3/1991 ALEXANDER 5020 6/13/1991 WEST VIRGINIA 5090 4701776399900 DODDRIDGE UNKNOWN GR UNKWN 39.1355 -80.7643 4404 H G 5PURGEON WEST VIRGINIA 0 DODDRIDGE UNKNOWN GR UNKWN 39.1535 -80.7804 365 JESSE WILLIAMS WEST VIRGINIA 0 WEST VIRGINIA 0 WEST VIRGINIA 0 ODDRIDGE UNKNOWN GR UNKWN 39.1535 -80.7804 365 JESSE WILLIAMS	47017701010000										0 70101
47017739994590 1/17/1993 DODDRIDGE ENERVEST OPERATING LLC 981 GR GAS 39.1307 -80.7630 1 LOWTHER MARIE 12/8/1992 ALEXANDER 5500 12/18/1992 WEST VIRGINIA 5299  4701773994500 DODDRIDGE UNKNOWN GR UNKWN 39.1355 -80.7634 4404 H G SPURGEON WEST VIRGINIA 0  Part 47017739959500 DODDRIDGE UNKNOWN GR UNKWN 39.1535 -80.7804 365 JESSE WILLIAMS  WEST VIRGINIA 0  20 20 20 20 20 20 20 20 20 20 20 20 2	47017036736960								5/3/1991 ALEXANDER		5050 03873
470177 39 9 0 DODDRIDGE UNKNOWN GR UNKWN 39.1355 -80.7643 4404 H G SPURGEON WEST VIRGINIA O DODDRIDGE UNKNOWN GR UNKWN 39.1535 -80.7804 365 JESSE WILLIAMS WEST VIRGINIA O WES	470170 <del>390</del> 9 <del>908</del> 0				981 GR						5299 03909
ODDORIDGE UNKNOWN GR UNKWN 39.1335 -80.7804 365 JESSE WILLIAMS WEST VIRIGINIA 0  20 d D  20 d D  20 d D	47017783399990				GR	UNKWN	39.1355	-80.7643 4404 H G SPURGEON		WEST VIRGINIA	0 73349
019	470177 <del>33</del> 69660		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1535	-80.7804 365 JESSE WILLIAMS		WEST VIRGINIA	0 73369
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47017733440000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1397	-80.7733 1 RAY CONLEY			WEST VIRGINIA	0 73344
47017013210000		9/1/1961 DODDRIDGE		GR	UNKWN	39.1581	-80.7772 5 S L CHAPMAN	7/18/1961		8/2/1961 WEST VIRGINIA	0 01321
47017004680000			ASH & CHAPMAN	GR	UNKWN	39.1482	-80.7757 1 ROY RUPPERT HEIRS			WEST VIRGINIA	0 00468
47017008350000	7/5/1966	7/1/1962 DODDRIDGE	DOLLEY ED LEE	1068 GR	ABDOGW	39.1478	-80.7761 1 H C CHAPMAN	5/17/1962		6/1/1962 WEST VIRGINIA	2084 00835
47017001850000		6/1/1948 DODDRIDGE	EQT PRODUCTION COMPANY	1103 GR	GAS	39.1510	-80.7802 4708 F L LODGE 3	4/17/1948		5/2/1948 WEST VIRGINIA	2008 00185
47017016310000	1/1/1974	8/11/1971 DODDRIDGE	WARREN DRILLING	1007 GR	ABD-GW	39.1349	-80.7667 1 SMITH HARRY M	7/28/1971 UNKNOWN		8/7/1971 WEST VIRGINIA	2690 01631
47017001680000		10/1/1946 DODDRIDGE	DIVERSIFIED RESOURCES INCORPORATED	905 GR	GAS	39.1501	-80.7947 1 JESSIE WILLIAMS	8/17/1946		9/1/1946 WEST VIRGINIA	2321 00168
47017020500001	5/24/2006	10/24/1926 DODDRIDGE	EQT PRODUCTION COMPANY	1066 GR	ABD-GW	39.1695	-80,7895 4653 GASTON MARY V	8/4/1926 BIG INJUN		9/4/1926 WEST VIRGINIA	1944 02050
47017014290000		3/1/1967 DODDRIDGE	EQT PRODUCTION COMPANY	873 GR	OIL	39.1449	-80.7873 6213 F L LODGE	1/15/1967		1/30/1967 WEST VIRGINIA	1781 01429
47017732640000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1741	-80.7917 4666 C GASTON			WEST VIRGINIA	0 73264
47017013670000		10/1/1966 DODDRIDGE	EQT PRODUCTION COMPANY	1071 GR	OIL	39.1471	-80.7850 6210 F L LODGE	8/17/1966		9/1/1966 WEST VIRGINIA	1998 01367
47017028880000		2/8/1981 DODDRIDGE	DORAN ASSOC	1163 KB	D&A	39.1398	-80.7906 1 LODGE F L	1/25/1981 BENSON /SD/	4500	2/4/1981 WEST VIRGINIA	2250 02888
47017039070000		9/29/1991 DODDRIDGE	ENERGY CORPORATION OF AMERICA INC	1349 KB	GAS	39.1743	-80.7879 BLAUSER/MAXWELL MAXWELL W B HEIRS ETAL	9/14/1991 ALEXANDER	5458	9/24/1991 WEST VIRGINIA	5534 03907
47017732730000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1748	-80.7971 1 M J LEESON			WEST VIRGINIA	0 73273
47017020570000		DODDRIDGE	UNKNOWN	GR	PSEUDO	39.1645	-80.7986 4684 GASTON			WEST VIRGINIA	0 02057
47017733160000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1517	-80.7976 4660 F MAXWELL			WEST VIRGINIA	0 73316
47017732720000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1786	-80.7963 4579 M J LEESON			WEST VIRGINIA	0 73272
47017061120000		4/13/2013 DODDRIDGE	EQT PRODUCTION COMPANY	1252 KB	GAS	39.1817	-80.7991 WV 513171 GASTON S E	7/31/2012 MARCELLUS /SH/		8/30/2012 WEST VIRGINIA	11557 06112
47017020390000	5/5/2006	4/29/1917 DODDRIDGE	EQUITABLE PRODUCTION COMPANY	1037 GR	ABD-GW	39.1719	-80.7963 4532 GASTON	1/27/1917 BIG INJUN		2/27/1917 WEST VIRGINIA	1795 02039
47017733150000		DODDRIDGE	UNKNOWN	GR	UNKWN	39.1593	-80.8066 DONALD L GRIMM			WEST VIRGINIA	0 73315
47017021130000	9/30/2015	6/8/1920 DODDRIDGE	EQT PRODUCTION COMPANY	1083 GR	ABD-GW	39.1689	-80.8044 6110 GASTON	2/29/1920 BIG INJUN		3/31/1920 WEST VIRGINIA	2485 02113
47017023110000		7/25/1979 DODDRIDGE	CONSOL GAS COMPANY	1018 KB	OIL	39.1778	-80.8240 1 HUSK HOWARD	1/12/1979 WEIR /SD/	2500	1/22/1979 WEST VIRGINIA	2543 02311
47017307880000	9/23/1949	4/11/1920 DODDRIDGE	PITTSBURGH & W VA GAS	1140 GR	ABD-GW	39.1812	-80.8180 4750 W B MAXWELL 3	2/29/1920		3/15/1920 WEST VIRGINIA	2023 30788
47017032420000		9/30/1983 DODDRIDGE	CONSOL GAS COMPANY	1039 KB	GAS	39.1750	-80.8238 2 MUTSCHELKNAUS ET AL	9/3/1983 ALEXANDER	5100	9/13/1983 WEST VIRGINIA	5534 03242
47017013060000		DODDRIDGE	PENNZOIL COMPANY	GR	PSEUDO	39.1565	-80.7776 4 S L CHAPMAN	•		WEST VIRGINIA	0 01306
47017014710000		9/1/1967 DODDRIDGE	BROOME ED INCORPORATED	1036 GR	10&1G	39.1344	-80.7670 2 MELVILLE CONLEY	7/18/1967		8/2/1967 WEST VIRGINIA	2653 01471
47017001790001	9/9/1947	8/1/1947 DODDRIDGE	HOPE NATURAL GAS	973 GR	D&A	39.1498	-80.7731 5283 DECO VAN HORN	6/17/1947		7/2/1947 WEST VIRGINIA	2600 00179
47017732590000			UNKNOWN	GR	UNKWN	39.1670	-80.7796 49 S W STOUT ET AL			WEST VIRGINIA	0 73259
47017014090000		10/1/1966 DODDRIDGE		1219 GR	10&1G	39.1384	-80.7696 2 MELVILLE CONLEY	8/17/1966		9/1/1966 WEST VIRGINIA	3000 01409
47017004700000			UNKNOWN	GR	PSEUDO	39.1508	-80.7729 3 ROY RUPPERT HEIRS			WEST VIRGINIA	0 00470
47017035820000		10/28/1987 DODDRIDGE		1020 KB	GAS	39.1482	-80.7771 3000 THURMAN SPURGEON	9/29/1987 ALEXANDER	5500	10/9/1987 WEST VIRGINIA	5343 03582
47017049350000		3/5/2005 DODDRIDGE		1203 GR	GAS	39.1665	-80.7884 1 ADAMS A	1/24/2005 GORDON	3000	2/23/2005 WEST VIRGINIA	2770 04935
47017732620000			UNKNOWN	GR	UNKWN	39.1694	-80.7884 M & F GASTON			WEST VIRGINIA	0 73262
47017038320000			ENERGY CORPORATION OF AMERICA INC	1102 KB	GAS	39.1545	-80.7920 S MERT/WILLIAMS	8/25/1990 ALEXANDER	5270	9/4/1990 WEST VIRGINIA	5283 03832
47017020680000			EQT PRODUCTION COMPANY	1035 GR	GAS	39.1668	-80.7942 4744 GASTON C	12/3/1919 BIG INJUN		1/3/1920 WEST VIRGINIA	1833 02068
47017015380000			MEADOWS S L JR PRODUCTION COMPANY	1035 GR	OIL	39.1393	-80.7822 1 JOSHUA ADAMS	12/22/1968 UNKNOWN		1/1/1969 WEST VIRGINIA	2010 01538
47017013160000			EQT PRODUCTION COMPANY	1131 GR	OIL	39.1503 39.1416	-80.7811 6208 W J HICKMAN 2 -80.7882 6230 F L LODGE	9/13/1965 3/17/1978 BIG INJUN /SD/	1880	9/28/1965 WEST VIRGINIA 3/27/1978 WEST VIRGINIA	2003 01316
47017018810000			EQT PRODUCTION COMPANY	908 GR	OIL			6/30/1971 UNKNOWN	1000	7/10/1971 WEST VIRGINIA	1893 01881
47017016230000	1/1/1974	8/8/1971 DODDRIDGE		1226 GR GR	ABD-OW UNKWN	39.1565 39.1516	-80.7949 4/1-ADAM5/ MAXWELL W B -80.8083 GEORGIA MCKAINN	6/30/1971 ONKNOWN		WEST VIRGINIA	2700 01623 0 73321
47017733210000			UNKNOWN	1220 GR	GAS	39.1516	-80.7992 WV 513174 GASTON S E	8/10/2012 MARCELLUS /SH/		8/30/2012 WEST VIRGINIA	12834 06114
47017061140000			EQT PRODUCTION COMPANY	930 KB	2OIL	39.1815	-80,8056 1 PRUNTY EDWARD D	9/29/1987 DEVONIAN /SH/	5250	10/9/1987 WEST VIRGINIA	5258 03585
47017035850000	c /24 /4 000		ARIES PETROLEUM CORPORATION EQUITABLE GAS COMPANY	906 GR	ABD-GW	39.1694	-80.8105 6106 GASTON	3/23/138/ DEVONIAN /3N/	3230	WEST VIRGINIA	1732 02110
47017021100000	6/21/1988		•	883 GR	D&A-OG	39.1686	-80.8193 1 M L HAUGHT	4/17/1962		5/2/1962 WEST VIRGINIA	2362 00782
47017007820000		6/1/1962 DODDRIDGE 9/27/1917 DODDRIDGE		831 GR	GAS	39.1572	-80.8134 4593 M S GASTON	8/20/1917		9/4/1917 WEST VIRGINIA	1429 00196
47017001960000 47017732790000			HOPE NATURAL GAS	GR	UNKWN	39.1809	-80.8140 MABEL HAUGHT ET AL	0,20,252,		WEST VIRGINIA	0 73279
47017732790000		DODDRIDGE	HOPE NATURAL GAS	1012.0000	UNK	-80.8015	39.1659			WEST VINGINIA	-1490.0000 00025
4701700023				842.0000	O&G	-80.8221	39.1719				-917.0000 00189
4701700189				836.0000	O&G	-80.8218	39.1707				-900.0000 00190
4701700193				882.0000	DRY	-80.8219	39.1693				-868.0000 00193
4701700194				885.0000	GAS	-80.8234	39.1729				-865.0000 00194
4701700197				1065.0000	P&A	-80.8050	39.1709				-1418.0000 00197
4701700197				1008.0000	DRY	-80.7749	39.1301				-1072.0000 01325
4701702036				0.0000	GAS	-80.8087	39.1516				-1554.0000 02036
4701702047				0.0000	GAS	-80.7981	39.1682				-1907.0000 02047
4701702048				0.0000	GAS	-80.7876	39.1695				-1944.0000 02048
4701702051				0.0000	GAS	-80.7980	39.1521				-1801.0000 02051
4701702067				0.0000	GAS	-80.8257	39.1770				-1957.0000 02067
4701702109				0.0000	GAS	-80.8185	39.1790				-1898.0000 02109
4701704939				1204.0000	GAS	-80.7914	39.1686				-1567.0000 04939
4701704958				911.0000	GAS	-80.7719	39.1489				-1687.0000 04958
4701705933				1200.0000	GAS	-80.7821	39.1675				-1784.0000 05933

API NO. 47- 017 - 06886

OPERATOR WELL NO. OXF43H35

Well Pad Name: OXF43

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

1) Well Operat	or: EQTP	roduction Co	mpany	306686	Doddridge	South West/ Cove	Oxford
				Operator ID	County	District	Quadrangle
2) Operator's V	Well Numbe	r: OXF43H35	5	Well Pad	Name: OXF4	3	
3) Farm Name/	/Surface Ow	ner: Cathy Jea	an Wetzel,	et. al Public Road	d Access: Rt. 2	20	
4) Elevation, co	urrent groun	d: 1,229'	Ele	evation, proposed p	oost-construction	n: 1,229'	(Site Built)
5) Well Type	(a) Gas	X	Oil	Unde	rground Storag	e	
	Other						
	(b)If Gas	Shallow	X	Deep			
		Horizontal	<u>X</u>				
6) Existing Pad	l: Yes or No	Yes					
•	•	, , , ,		pated Thickness ar	-	essure(s):	
8) Proposed To	tal Vertical	Depth: 6,666	6'				
9) Formation a	t Total Verti	ical Depth: N	/larcellus				
10) Proposed T	otal Measu	red Depth: 1	6,763'				
11) Proposed H	Iorizontal L	eg Length: 8	,134'	· · · · · · · · · · · · · · · · · · ·			
12) Approxima	ite Fresh Wa	nter Strata Dep	ths:	70',221',307',382			
13) Method to	Determine F	resh Water De	epths: B	y offset wells			
14) Approxima	ite Saltwater	Depths: N//	4				
15) Approxima	ite Coal Sea	m Depths: 32	22'				
16) Approxima	ite Depth to	Possible Void	(coal min	ne, karst, other): 💆	None reported		
17) Does Propo directly overlyi				ns Yes	No	X	and Gas.
(a) If Yes, pro	ovide Mine	Info: Name:				<u> </u>	A OFF
		Depth:					7 7 7 6 6 6 7 6 6 6 6 6 6 6 6 6 6 6 6 6
		Seam:					Ziging Ziging
		Owner	•				Ū

WW-6B
(04/15)

API NO. 47			
OPERATOR WEL	L NO.	OXF43H35	
Well Pad Name	OXF4	3	

## 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	New	A-500	85.6	40	40 √	49 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	532	532 ′	546 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	5291	5291	2094ft^3 / CTS
Production	5 1/2	New	P-110	20	16763	16763	500' above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40' above top perf or 80° inclination.	
Liners							

ТҮРЕ	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor	26	30	.312	884	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	3160	See Variance	1.19
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	NA	.19	7700			
Liners							

## **PACKERS**

Kind:		
Sizes:		
Depths Set:		

WW-6B
(10/14)

.PI NO. 47	
OPERATOR WELL NO. OXF43H35	
Well Pad Name: OXF43	

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical to an approximate depth of 4274'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 400,000 pounds of proppant per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres):
- 22) Area to be disturbed for well pad only, less access road (acres):
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers— One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives
Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries
Intermediate (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries.
Production:

Lead (Class A Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 Pez (extend): 15% SEC-10 (fluid loss) .2% Super FL-350 (fluid loss) .2% SuperFL-350 (f

#### 25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

\*Note: Attach additional sheets as needed.

Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Setting/Suspension 500' above top Producing Zone 0.361 16,763° 20# P-110 TVD 16,763° MD Calcium Chloride 12.3/8 9.5/8 0.395 5.291' 40# A-500 New 3,950 1,19 Surface 6,666 Est. TD @ Calcium Surface J-55 New 2,700 A / Type 1 13.3/8 0.380 532' 54.5# Surface 26 0.312 40' 85.6# A-500 New N/A Hole Size, In.
Casing Size, OD In.
Casing Wall Thickness, In.
Depth, MD Casing and Cementing Top of Cement (Planned) Method Est. Volume (cu ft) Possible Additives 336 8285 516245 4,274 Land curve @ 6,666' TVD — 8,629' MD — KOP @ Azimuth Vertical Section Enertia # 1103 - 1143 1979 - 2047 2091 - 2123 2265 - 2391 2245 - 2654 2647 - 2604 2687 - 2736 2737 - 2854 2967 - 3028 3301 - 3367 3301 - 3450 4470 - 4846 4470 - 4846 5148 - 5241 6324 - 6474 6474 - 6464 6464 - 6573 6615 - 6615 6615 - 6628 6616 - 6702 6666 MD Base EQT Production Oxford Quad Doddridge County, WV 532 382 829 10p Base Red Rock
Maxton
Big Lime
Big Injun
Weir
Gantz
Fifty foot
Gordon
Forth Sand
Bayard
Warren
Speechley
Balltown A
Riley
Balltown A
Riley
Balltown A
Riley
Banson
Alexander
Intermediate Casing
Sonyea
Middlesex
Genesee
Genesee
Genesee
Genesee
Tully
Hamilton
Marcellus
Production Casing Base Fresh Water Note: Diagram is not to scale Surface Casing Formations

OXF43H35

Proposed Well Work:
Dril and complete a new horizontal well in the Marcellus formation.
Dril the vertical to an approximate depth of 4274;
Kick off and dril curve. Drill lateral in the Marcellus. Cement casing.

8,134' Lateral

Office of Oil and Gas
MAR I 5 2019

"An Department of the office of the



March 6, 2019

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: Casing on OXF43H35

Dear Mr. Brewer,

EQT is requesting the 13-3/8" surface casing be set at 532' KB, 150' below the deepest fresh water. We will set the 9-5/8" intermediate string at 5291' KB, 50'below the base of the Alexander formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

John Zavatchan Landman - Permitting

Enc.



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 dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company 1380 Route 286 Hwy E #121 Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

1 1

James Peterson

Environmental Resources Specialist / Permitting

Promoting a healthy environment.



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 dep.wv.gov

#### BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

IN THE MATTER OF A VARIANCE FROM	)	ORDER NO.	2014 - 17
REGULATION 35 CSR § 4-11.4/11.5/14.1	)		
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE	)		
THE OPERATIONAL	)		
REGULATIONS OF CEMENTING OIL	)		
AND GAS WELLS	)		

#### REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

#### FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
  - 2% Calcium Chloride (Accelerator)
  - 0.25 % Super Flake (Lost Circulation)
  - 94% Type "1" Cement
  - 5.20 % Water
- Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500
  psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24
  hours.

Promoting a healthy environment.



#### **CONCLUSIONS OF LAW**

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

#### **ORDER**

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chref Office of Oil and Gas

API	Numbe	r 47 -

Operator's Well No. 0XF43H35

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

## FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686
Watershed (HUC 10) Middle Fork Hughes River Quadrangle Oxford
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: N/A
Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:
Land Application
Underground Injection (UIC Permit Number 0014, 8462, 4037
Reuse (at API Number Various  Off Site Disposal (Supply form WW-9 for disposal location)
Other (Explain
Will closed loop system be used? If so, describe:  Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. See Attached
-If oil based, what type? Synthetic, petroleum, etc. Synthetic Mud
Additives to be used in drilling medium? See Attached
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? See Attached List
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at an 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 is on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other application can lead to enforcement action.  I certify under penalty of law that I have personally examined and am familiar with the information submitted on application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible 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
Company Official (Typed Name) John Zavatchan
Company Official Title Landman - Permitting
Subscribed and sworn before me this 8 day of Barch , 20 19  Notary Public
My commission expires / 8/21/202.7

DAC 3/11/19

WV Department 5.

#### WW-9 Attachment

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

 Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

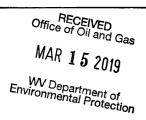
## Additives to be used in drilling medium?

Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud - Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud - synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

Office of Oil and Gas

n				
		Prevegetation pl	1	
Lime 3	Tons/acre or to correct to	pH 6.5		
Fertilizer type Gr		_		
Fertilizer amount_	1/3	_lbs/acre		
Mulch_2	To	ns/acre		
	<u>\$</u>	Seed Mixtures		
Т	emporary emporary	Perma	nent	
Seed Type	lbs/acre	Seed Type	lbs/acre	
KY-31	40	Orchard Grass	15	
Alsike Clover	5	Alsike Clover	5	
Annual Rye	15			
acreage, of the land applica	ipit will be land applied, include tion area	dimensions (L x W x D) of the pit, and	ling this info have been dimensions (L x W), a	nd area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	lion area  Silved 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	Ived 7.5' topographic sheet.		dimensions (L x W), a	and area in
Photocopied section of invo	Ived 7.5' topographic sheet.		dimensions (L x W), a	and area in

	· · · · · · · · · · · · · · · · · · ·	EQT	Production Water Plan	 					
		<u> </u>	osals for Unconvention					-	· · · · · · · · · · · · · · · · · · ·
Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number
CWS Trucking Inc.	P.O. 80x 391		Williamstown	wv	26187	740-516-3586		ОН	3390
				+***	12227	1 220 2200		<del>    ```</del>	3330
Broad Street Energy LLC	37 West Broad Street	Suite 1100	Columbus	ОН	43215	740-516-5381	Washingoth	ОН	8462
				124.	1	1		1	5 102
LAD Liquid Assets Disposal Inc.	226 Rankin Road		Washington	PA	15301	724-350-2760	Ohio	wv	USEPA WV 0014
				<del>-   · · · -</del>	1	1.27.555		<del>                                     </del>	55E: A W 1 55E
Triad Energy	PO Box 430		Reno	ОН	45773	740-516-6021	Noble	ОН	4037
					1	740-374-2940			
					<del>                                     </del>				
Tri County Waste Water Management, Inc.	1487 Toms Run Road		Holbrook	PA	15341	724-627-7178	Greene	PA	TC-1009
						724-499-5647		1	10 2000
					<del> </del>			<del> </del>	
King Excavating Co. Advance Waste Services	101 River Park Drive		New Castle	PA	16101		Lawrence	PA	PAR000029132
					<del> </del>	1	1	<del>                                     </del>	
Waste Management - Meadowfill Landfill	Rt. 2, Box 68 Dawson Drive		Bridgeport	wv	16330	304-326-6027	Harrison	wv	SWF-1032-98
				1	1	1		<del>                                     </del>	Approval #100785WV
						<u> </u>			
Waste Management - Northwestern Landfill	512 E. Dry Road		Parkersburg	wv	26104	304-428-0602	Wood	wv	SWF-1025 WV-0109400
						1		1	3111 2023 111 0203400
APEX Landfill	11 County Road 78	PO 80x 57	Amsterdam	OH	43903	740-543-4389	Jefferson	ОН	06-08438
		1.5 55.151		<del> </del>	1	1 100 10 1000		1	10.00.130
Advanced Disposal - Chestnut Valley Landfill	1184 McClellandtown Road		McClellandtown	PA	15458	724-437-7336	Favette	PA	100419
					1	10000		<del>                                     </del>	200725
Westmoreland Sanitary Landfill	901 Tyrol Boulevard		Belle Vernon	PA	15012	724-929-7694	Westmoreland	PA	100277
				-	1	1,5,550		<del>                                     </del>	2002/1
Austin Master Services	801 North 1st Street		Martins Ferry	ОН	43935	740-609-3800	Belmont	ОН	2014-541
			·			1		-	
Belmont Solids Control	77505 Cadiz-New Athers Road		Cadiz	ОН	43907	740-942-1739	Harrison	ОН	2015-511
								1	
Diversified Resources	3111 Braun Rd.		Belpre	ОН	45714	740-401-0413	Washington	ОН	
					1.2	1.10 102 0120		1	
				1		<del>                                     </del>			34-031-27177
			Coshocton	ОН	43812	740-610-1512		ОН	34-031-27178
Buckeye Brine	23986 Airport Road			1		724-591-4393	Coshocton		34-031-27241
						†			
Central Environmental Services	28333 West Belpre Pike		Coolville	ОН	45723	304-488-0701	Athens	он	
				+	1			1	
Nuverra - Nichols	10555 Veto Road		Belpre	ОН	45714	330-232-5041	Washington	ОН	34-119-2-8776
					1		3		
Nuverra - Goff	9350 East Pike Road		Norwich	ОН	43767	330-232-5041	Muskingum	ОН	34-167-2-3862
					1	1	, , , , , , , , , , , , , , , , , , ,		1
Nuverra - Wolf	5480 State Route 5		Newton Falls	ОН	44444	330-232-5041	Trumbull	ОН	34-155-2-1893
					T			T	
Nuverra - Pander	5310 State Route 5		Newton Falls	ОН	44444	330-232-5041	Trumbull	ОН	34-155-2-3795
Nuverra - AnnaRock D-1	3549 Warner Road		Fowler	ОН	44418	330-232-5041	Trumbuli	ОН	34-155-2-2403



FQ Helen	199 Bowersock Road	Reno	он	45773	740-374-2940 412-443-4397 740-236-2135	Washington	ОН	34-167-2- <del>9</del> 577
FQ Dexter	38505 Marietta Rd.	Dexter City	ОН	45727	740-374-2940 412-443-4397 740-236-2135	Noble	ОН	34-121-24037 34-121-24086
FQ Ritchie	122 Lonesome Pine Rd	Ellenboro	wv	26346	740-374-2940 412-443-4397 740-236-2135	Ritchie	wv	47-085-09721
FQ Mills	53610 TS Rd 706	Portland	он	45770	740-374-2940 412-443-4397 740-236-2135	Meigs	он	34-105-2-3619 34-105-2-3652 34-105-2-3637 34-105-2-3651
Petta Enterprises - OH	745 North 3rd Street	Cambridge	ОН	43725	614-477-1368	Guernsey	ОН	Ohio Chiefs Order 25-019
Petta Enterprises - WV	38 Technology Dr.	Tridelphia	wv	26059	740-255-5727	Ohio	w	
Deep Rock Disposal	2341 OH-821	Marietta	ОН	45750	304-629-0176	Washington	ОН	34-167-2-9766

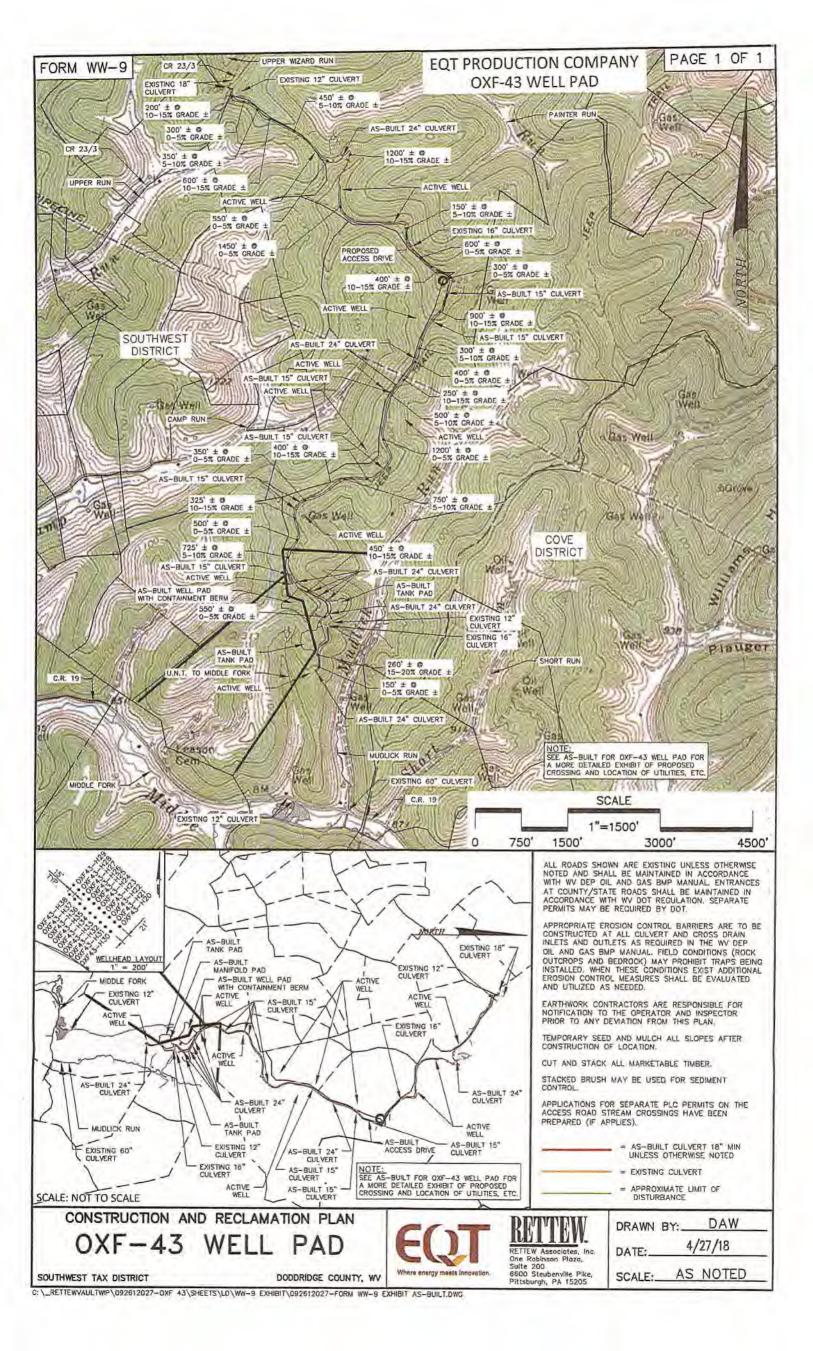




## Site Specific Safety and Environmental Plan

EQT
OXF43 Pad
West Union
Doddridge County, WV

516238 516240 OXF43H34 COXF43H30) (OXF43H31)	OxF43H35	
Date Prepared: February 21, 2018  EOT Production  Lawman Atmittee  316119  Date	WV Oil and Gas Inspector  E: 1 + Gas Inspector  Title  3/11/19  Date	Office of Oil VED MAR 15 2019 Onnental Plant of





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 dep.wv.gov

March 18, 2014

Nabors Completion & Production Services Company 1380 Route 286 Hwy E #121 Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely

James Peterson

Environmental Resources Specialist / Permitting

Promoting a healthy environment.



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 dep.wv.gov

#### BEFORE THE OFFICE OF OIL AND GAS DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF WEST VIRGINIA

IN THE MATTER OF A VARIANCE FROM	)	ORDER NO.	2014 - 17
REGULATION 35 CSR § 4-11.4/11.5/14.1	)		
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE	)		
THE OPERATIONAL	)		
REGULATIONS OF CEMENTING OIL	)		
AND GAS WELLS	)		

#### REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

#### FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
  - 2% Calcium Chloride (Accelerator)
  - 0.25 % Super Flake (Lost Circulation)
  - 94% Type "1" Cement
  - 5.20 % Water
- 2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

Promoting a healthy environment.

#### CONCLUSIONS OF LAW

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

#### ORDER

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

IN THE NAME OF THE STATE OF WEST VIRGINIA

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

James Martin, Chief Office of Oil and Gas

Conduction Casing Secure   Conduction Casing S	Oxford Quad Oxford Quad Doddridge Count Note: Diagram is not to scale Top								
Top   Base   Casing and Cernenting   Casing and Cernenting   Type   Casing Active   Casing A		y, wv	Azimuth Vertical Section Enertia #	336 8285 516245					
Typ   Typ   Conductor   Street   Intermediate   Type   Conductor   Street   Intermediate   Type		Base			Casing and Cementing			Deepest Fresh Wate	r: 382'
40		DVT			Type	Conductor	Surface	Intermediate	Production
Casing Well Thickness, In   Casing   Casing Well Thickness, In   Casing   Casing Well Thickness, In   Casing   C		40	4		Hole Size, In.	30	17 1/2	12 3/8	
SS2   Casing Wall Thickness, In		1	4		Casing Size, OD In.	26	13 3/8	9 5/8	
823 824 825 825 826 826 827 826 827 827 827 828 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1104 - 1149 1105 - 1243 1265 - 2347 1266 - 2347 1266 - 2347 1266 - 2347 1266 - 2347 1267 - 2864 1268 - 2347 1268 - 2347 1268 - 2347 1268 - 2347 1268 - 2347 1268 - 2347 1268 - 2347 1268 - 2348 1268 - 2347 1269 - 2457 1269 -		182			Casing Wall Thickness, In.	0.312	0.380	0.395	
1932   1443   1453   1454   1454   1454   1454   1454   1454   1454   1454   1454   1454   1455					Depth, MD	40,	532'	5,291	
1103 - 1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1143   1149		332	4		Weight	#9.58	24.5#	40#	
103 - 1443   New or Used   New   N				1	Grade	A-500	J-55	A-500	
1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1103 - 1143 1104 - 1143 1105 - 1286 1246 - 1284 1246 - 1285 1247 - 12864 1248 - 12864 1248 - 12864 1249 - 12864 1249 - 12864 1240 - 12864 1241 - 12864 1241 - 12864 1242 - 12864 1243 - 12864 1244 - 12864 1244 - 12864 1245 - 12864 1246 - 12864 1247 - 12864 1248 - 12864 1248 - 12864 1248 - 12864 1249 - 12864		129			New or Used	New	New	New	
1979 - 2047 2081 - 2123 2085 - 2254 2086 - 2254 2086 - 2254 2087 - 2604 2085 - 2254 2086 - 2254 2087 - 2604 2085 - 2684 2087 - 2884 2088 - 6615 2088 - 6615 2088 - 6615 2088 - 6615 2088 - 6615 2088 - 6615 2088 - 6615 2088 - 6615 2089 - 2884 2088 - 6615 2089 - 2884 2089 -		- 1143			Burst (psi)	1378	2,700	3,950	
2465 - 2331 2465 - 2331 2466 - 2331 2467 - 2864 2468 - 2430 247 - 2864 2487 -		- 2047			Cement Class	A	A/Type1		
2465 - 2391 2466 - 2547 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2548 - 2864 2548 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2547 - 2864 2548 - 2873 2387 - 4230 2387 - 4230 2470 - 4846 2548 - 5244 2540 - 4846 2540 - 4846 2541 - 6846 2541 - 6846 2542 - 6615 2544 - 6846 2546 - 6702 2547 - 2864 2548 - 573 2549 - 6846 2549 - 6846 2549 - 6846 2540 -		- 2123		Y	Cement Yield	1.18	1.19	1.19	
2547 - 2547 2547 - 2547 2548 - 2554 2547 - 2554 2548 - 2554 2547 - 2554 2547 - 2554 2548 - 2554 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 3038 2547 - 4230 2547 - 4230 2548 - 5241 2548 - 5241 25231		- 2391			Top of Cement (Planned)	Surface	Surface	Surface	500' abo
2645 - 2681		- 2604			Method	Displacement	Displacement	Displacement	
2687 - 2736 2787 - 2736 2787 - 2834 2967 - 3038 3301 - 3367 3367 - 3872 3367 - 3872 3367 - 3872 3367 - 3872 3367 - 3872 3367 - 3430 470 - 4846 4846 - 4940 518 - 4940 518 - 4940 518 - 4940 518 - 4940 518 - 5294 6324 - 6474 6474 - 6464 6464 - 6573 6673 - 6615 6615 - 6628 6666 MD 6666 MD 8,629 MD 76,763 MD		- 2681			Est Volume (cu ff)	49	546	2.094	
2787 - 2854 3301 - 3333 3301 - 3373 3307 - 3430 3307 - 3430 3307 - 3430 3307 - 3430 3486 - 4446 4846 - 4444 6374 - 6454 6456 - 6573 6573 - 6615 6666 - 6702  Land curve @ 6,666 TVD 8,629 MD 16,763 - 14,763 MD 16,763 - 14,764 MD 16,763 - 14,765 MD 16,763 - 14,764 MD 16,764 MD 16,765 MD 16,76		- 2736							Calcium
3301 - 3367 3367 - 3357 3367 - 3426 4846 - 4846 4846 - 4846 4846 - 4846 5148 - 5241 5234 - 6474 644 - 6573 6573 - 6615 6615 - 6628 6646 - 6702 6666 MD  Est. TD @ 6,6667 TD  ROP @ 4,274*		- 2854			Possible Additives	N/A	Calcium	Calcium Chloride	Defoamer
3367 - 3872 3872 - 4230 4470 - 4846 4846 - 4940 5148 - 5241 5291 6324 - 6474 6474 - 6464 6464 - 6573 6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6666 MD 6702  Land curve @ 6,666' TVD 8,629' MD 16,763' M		- 3367			SOMEON DISEASE	2	Chloride		Retarder, Anti-Settling/Suspension
3872 - 4230 4470 - 4846 4466 - 4940 5291 6324 - 6474 6474 - 6464 6464 - 6573 66702 Land curve @ 6,666' TVD 8,629' MD  Est. TD @ 6,666' 16,763'		- 3872							
4470 - 4846 4470 - 4846 51846 - 4940 51846 - 4940 5184 - 6474 6474 - 6464 6464 - 6573 6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6666 MD  Land curve @ 6,666' TVD  Record Control		- 4230							
#846 - 4940  5291  6324 - 6474  6474 - 6464  6464 - 6573  6573 - 6615  6615 - 6628  6626 - 6702  6666 MD  Land curve @ 6,666' TVD  Record Production Records Producti		- 4846							
5291 5291 6324 - 6474 6474 - 6464 6464 - 6573 6573 - 6615 6615 - 6628 6646 - 6702 6646 - 6702 6666 MD Est.TD @ 6,666' 7,214 6474 - 6474 6474 - 6474 6474 - 6474 6474 - 6474 6474 - 6474 6475 - 6628 6615 - 6628 6646 - 6702 6666 MD 6702 16,763'		- 4940	0 000						
6324 - 6474 6474 - 6464 6464 - 6573 6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6646 - 6702 6646 - 6702 86597 MD Est.TD @ 6,6667 16,763	2	1476						*	
6054 - 6454 6464 - 6573 6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6646 - 6702 6646 MD 6702 Land curve @ 6,666' TVD 8,629' MD	623	231	1						
6464 - 6573 6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6646 MD 6702 Land curve @ 6,666' TVD 8,629' MD Est.TD @ 6,666' 16,763'									
6573 - 6615 6615 - 6628 6628 - 6646 6646 - 6702 6646 MD 6702  Land curve @ 6,666' TVD 8,629' MD 6,666' TVD 8,629' MD 16,763'		- 6573							
6615 - 6628 6628 - 6646 6646 - 6702 6666 MD 6702  Land curve @ 6,666' TVD  8,629' MD  Est.TD @ 6,666' 16,763'		- 6615							
6628 - 6646 6646 - 6702 6666 MD 6702 Land curve @ 6,666' TVD 8,629' MD 6,666' TVD 8,629' MD 16,763'		- 6628							
6546 - 6702 6566 MD 6702 Land curve @ 6,666' TVD 8,629' MD Est. TD @ 6,666' 15,763'		- 6646	/						
6702 F702 Land curve @ 6,666' TVD Est. TD @ 6,666' 16,763' 16,763'		- 6702							
Land curve @ 6,666' TVD Est. TD @ 6,666' TVD 8,629' MD 16,763'		QN							
6,666' TVD Est. TD @ 6,666' 16,763' 8,629' MD 16,763'									2
8,629' MD		La	6,666	Z			Est. TD @		TVD
			8,629,	ND ON				16,76	3. MD

Proposed Well Work:

Drill and complete a new horizontal well in the Marcellus formation.

Drill the vertical to an approximate depth of 4274'.

Kick off and drill curve. Drill lateral in the Marcellus. Cement casing.

8,134' Lateral



March 6, 2019

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: Casing on OXF43H35

Dear Mr. Brewer,

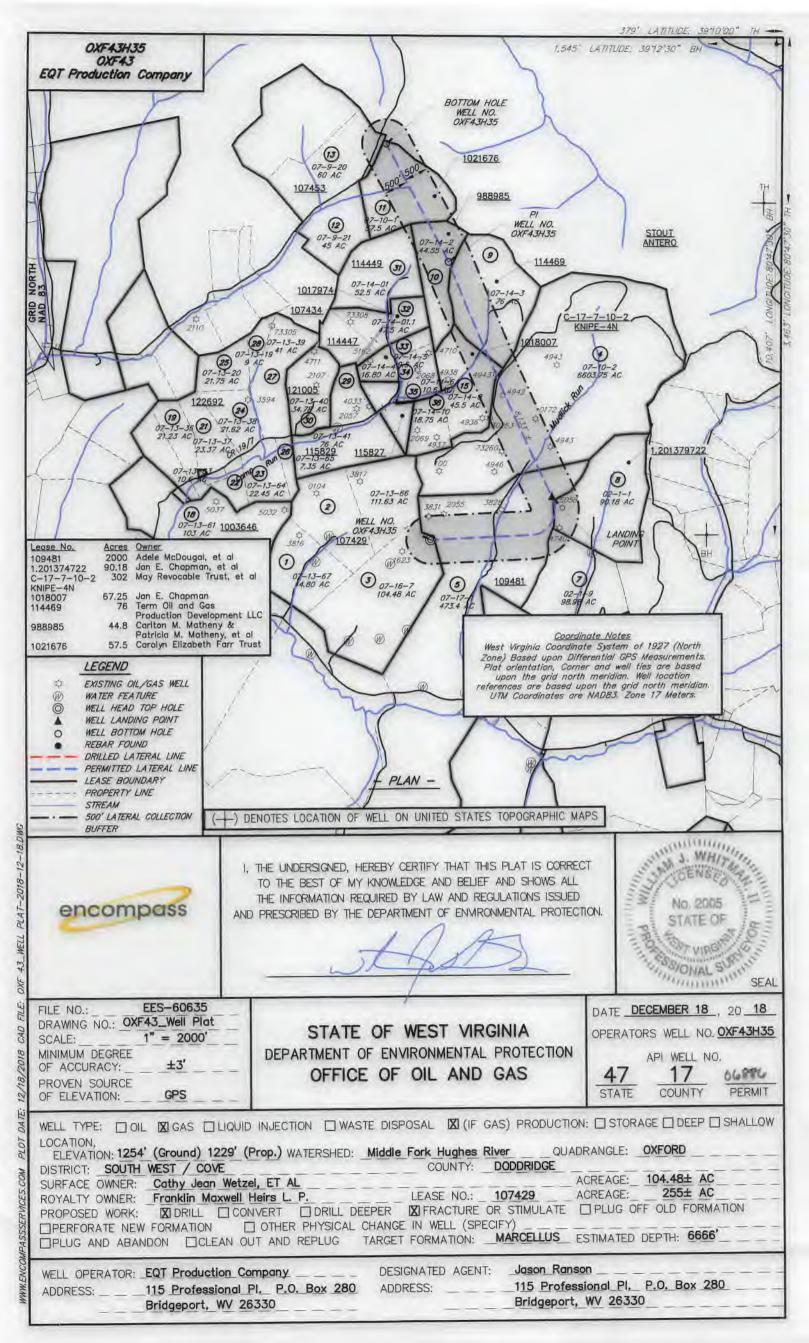
EQT is requesting the 13-3/8" surface casing be set at 532' KB, 150' below the deepest fresh water. We will set the 9-5/8" intermediate string at 5291' KB, 50'below the base of the Alexander formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

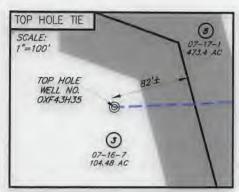
John Zavatchan Landman - Permitting

Enc.



OXF43H35 OXF43 EQT Production Company





BOTTOM HOLE TIE  SCALE: 1"=100'	07-10-2 6603.75 AC
1)7-9-20 60 AC	38 S
Ø 07-10-1	BOTTOM HOLE WELL NO. OXF43H35

NO.	SURFACE OWNER
3	CATHY JEAN WETZEL, ET AL
4	/ L (IKE) MORRIS
5	RANDY E. & WILLIAM LEE HUFF
8	ARNOLD DALE ALAN & BRYAN ALAN & DAVID LYNNGEE
9	JANICE S. MCCORMACK
10	WILLIAM A. ARMENTROUT & SANDRA MATHENY
11	MATTHEW H. COPELAND
15	WALTER RIESENBERG, ET AL

NO.	ADJACENT OWNER
7	WM & RANDY HUFF DECEDENTS
13	RONALD L. & JEFFREY L. HART
31	MICHAEL D. & SUSAN H. ZORN

#### OXF43H35 Well Point Coordinates

Top Hole Coordinates

N: 241,952.505 LAT: 39.157057 N 4,334,235.6 N 241,987.8 NAD 27 S.P.C. (Ft.) E: 1,633,346.350 NAD 27 GEO NAO 83 UTM 17N (M) NAO 83 S.P.C. (FL.) LONG: 80.793003 E: 517,899.6 E: 1,601,905.5

Landing Point Coordinates

N: 242,839.722 LAT: 39.159593 N 4,334,518.8 N 242,875.1 E: 1,635,882.950 LONG: 80.784104 E: 518,667.8 E: 1,604,442.1 NAD 27 S.P.C. (Ft.) NAD 27 GEO NAD 83 UTM 17N (M) NAD 83 S.P.C. (Ft.)

Bottom Hole Coordinates

N: 250,183.276 NAD 27 S.P.C. (Ft.) E: 1,632,398.690 LONG: 80.796763 E: 517,569,0 E: 1,600,957.8 NAD 27 GEO LAT: 39.179616 NAD 83 UTM 17N (M) N 4,336,738.3 N 250,218.6 MDRASPC (Ft.)

10	00	MA
LE	GEI	VU

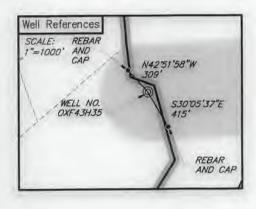
EXISTING OIL/GAS WELL WATER FEATURE

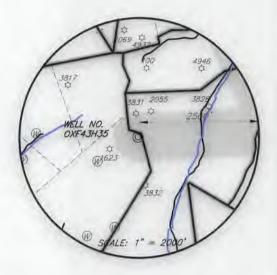
WELL HEAD TOP HOLE WELL LANDING POINT WELL BOTTOM HOLE

REBAR FOUND

DRILLED LATERAL LINE PERMITTED LATERAL LINE LEASE BOUNDARY PROPERTY LINE

STREAM 500' LATERAL COLLECTION BUFFER







PLAT-2018-12-18.0WC

OXF

DATE

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.





EES-60635 FILE NO .: DRAWING NO .: OXF43\_Well Plat 1" = 2000' SCALE: MINIMUM DEGREE ±3' OF ACCURACY: PROVEN SOURCE

OF ELEVATION:

GPS

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

DATE DECEMBER 18 , 20 18 OPERATORS WELL NO. OXF43H35

API WELL NO.

47 STATE

17 COUNTY 06886 PERMIT

WELL TYPE: ☐ OIL IXI GAS ☐ LIQUID INJECTION ☐ WASTE DISPOSAL IXI (IF GAS) PRODUCTION: ☐ STORAGE ☐ DEEP ☐ SHALLOW QUADRANGLE: OXFORD

ELEVATION: 1254' (Ground) 1229' (Prop.) WATERSHED: Middle Fork Hughes River

DODDRIDGE DISTRICT: SOUTH WEST / COVE COUNTY: ACREAGE: 104.48± AC SURFACE OWNER: Cathy Jean Wetzel, ET AL

107429 LEASE NO .: ACREAGE: 255± AC ROYALTY OWNER: Franklin Maxwell Heirs L. P. X FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

■ DRILL □ CONVERT □ DRILL DEEPER PROPOSED WORK: OTHER PHYSICAL CHANGE IN WELL (SPECIFY) PERFORATE NEW FORMATION

MARCELLUS ESTIMATED DEPTH: 6666' TARGET FORMATION: □PLUG AND ABANDON □CLEAN OUT AND REPLUG

WELL OPERATOR: EQT Production Company 115 Professional Pl. P.O. Box 280 ADDRESS: Bridgeport, WV 26330

DESIGNATED AGENT: ADDRESS:

Jason Ranson 115 Professional Pl. P.O. Box 280

Bridgeport, WV 26330

WW-6A1 (5/13)

Operator's	Well No.	OXF43H35
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### 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

#### 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, RECEIVED Office of Oil and Gas, including but not limited to the following:

Office of Oil and Gas

- 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

MAR 1 1 2019

WV Department of **Environmental Protection** 

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: EQT Production Company

By:

John Zavatchan

Its:

Landman - Permitting

Page 1 of 3

Lease No.	Grantor, Lessor, etc.				Grantee, Lessee, etc.	Royalty	Book/Page
107429	Franklin Maxwell Heirs L.P. (current royalty or	wner)				**	
	W. Brent Maxwell, et al (original lessor)				Fisher Oil Co.		LB23/337
	Fisher Oil Co.				The Philadelphia Company of West Virginia		LB32/120
	The Philadelphia Company of West Virginia				Pittsburgh & West Virginia Gas Company		DB87/90
	Pittsburgh & West Virginia Gas Co.				Equitable Gas Company		DB121/303
	Equitable Gas Company				Equitrans, Inc.		LB154/475
	Equitrans, Inc.				Equitrans, L.P.		DB329/645
	Equitrans, L.P.				Equitable Production-Eastern States, Inc.		LB 192/19
	Equitable Production-Eastern States, Inc.				Equitable Production Company		CB281/346
	Equitable Production Company				EQT Production Company		CB281/346
109481	Adele McDougal, et al. (currenty royalty owns	r)					
	Jackson Leeson, et al. (original lessor)				The Philadelphia Co. of West Virginia		LB21/76
	The Philadelphia Co. of West Virginia				Pittsburgh & West Virginia Gas Co.		DB87/90
	Pittsburgh & West Virginia Gas Co.				Equitable Gas Company		DB121/303
	Equitable Gas Company				Equitrans, Inc.	4	LB154/475
	Equitrans, Inc.				Equitrans, L.P.		DB329/645
	Equitrans, L.P.				Equitable Production-Eastern States, Inc.		LB 192/19
	Equitable Production-Eastern States, Inc.				Equitable Production Company		CB281/346
	Equitable Production Company				EQT Production Company		CB281/346
<u>1.20138</u>	Jan E. Chapman (current royalty owner) Edwin H. Chapman Union Oil and Gas Co. Wm. W. Gruber J. D. Brawner , et al Pennzoil Company				Union Oil and Gas Co. Wm. W. Gruber J. D. Brawner , et al Pennzoil Company Edwin H. Chapman	••	LB 69/72 LB 70/482 LB 72/259 LB 88/264 LB 91/563 LB 94/225
	Edwin H. Chapman				J&S Gas Company		LB 95/137
	J&S Gas Company				Hugh Spencer		WB 33/68
	Hugh Spencer	-			Spencer Enterprises, LLC		LB 396/611
	Spencer Enterprises, LLC	<u>"</u>		0	Antero Resources Appalachian Corp		LB 411/478
	Antero nesources Appaiachian Corp	ਡੇਂ≶	<b>S</b>	¥	CNX Gas Company LLCand Noble Energy, Inc. CNX Gas Company.LLC		LB 377/304
	Noble Energy ,inc	ã∂	MAR	® <del>⊒</del>	Antero Resources Corporation		DB 387/216
	Antona Bassayana Companyilla	eg eg	~ . <b>⊢</b>	<u>약</u> [[	EQT Production Company		DB 429/585
	Antero Resources Appalachian Corp Noble Energy ,Inc CNX Gas Company.LLC Antero Resources Corporation  May Revocable Trust, et al. (Current Royalty 6)	WV Department o Environmental Protec	1 2019	RECEIVED Office of Oil and Gas	EQ1 Floudction Company		DD 423000
C-17-7-10-2	WB	te of	)19	ල ට		**	
Knipe-4N	May Hevocable Trust, et al. (Current Royalty	JW BET		<u> </u>	The Code Oil	. •	LB 14/135
•	S.w. Stout, et ux., et al. (Original Lessor)	-			The Carter Oil	^	LB 42/411
	The Carter Oil				Hope Natural Gas Company		DB 143/345
	Hope Natural Gas Company				Consolidated Gas Supply Corporation		DD 143/343

	Consolidated Gas Supply Corporation Consolidated Gas Transmission Corporation CNG Transmission Corporation CNG Development Company CNG Producing Company Dominion Exploration and Production Inc CONSOL Energy Holdings LLC VI CONSOL Gas Company CNX Gas Company LLC Antero Resources	n			Consolidated Gas Transmission Corporation CNG Transmission Corporation CNG Development Company CNG Producing Company Dominion Exploration & Production, Inc. Consol Energy Holdings LLC VI CONSOL Gas Company CNX Gas Company LLC Antero Resources EQT Production Company		LB 135/583 DB 328/398 DB 139/41 CB 1096/0124 (Delaware) CB 82/07 (Delaware) DB 293/252 DB 293/252 DB 292/469 DB 387/180 DB 429/585
<u>1018007</u>	Jan E. Chapman (Current Royalty owner)	)			EQT Production Company	**	DB 467/576
<u>114469</u>	Term Oil and Gas Production Developme Mary V. Gaston , etal The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans Inc. Equitrans, LP Equitable Production Company	1	urrent Ro	yaity owner)	The Philadelphia Company of West Virginia Pittsburgh and West Virginia Gas Company Equitable Gas Company Equitrans Inc. Equitrans, LP Equitable Production Company EQT Production Company	•	LB 33/26 DB 87/90 DB 121/303 LB 154/475 LB 192/19 LB 192/19 Mis 16/705
988985	Carlton M. Matheny & Patricia M. Mathen Royalty Owner)	y et al. (C	urrent		EQT Production Company	**	DB 239/185
1021676	Carolyn Elizabeth Farr Trust (Current Romannie J. & Charles Leeson E. F. Daubenspeck E. F. Daubenspeck S. W. Young/JA Parks William D Smith/George G Mead Minnie J Leeson (1/3) George G Mead/DC Reece William G Stathers William J Droppleman/Louis A Henderson/C William J Droppleman/Louis A Henderson/C Hyatt/William L Travis/Claude O Travis Travis Oil and Gas Company Doddridge County Standard Gas Company Carolyn E Farr Trust Agreement Carolyn Elizabeth Farr Trust Antero Resources Corporation	Clarence T	· Hyatt	RECEIVED Office of Oil and Gas	E F. Daubenspeck James A. Parks (50% WI) S.W. Young (50% WI) George G Mead/William D Smith/DC Reece Minnie J Leeson (1/3) William G Stathers William G Stathers William J Droppleman/Louis A Henderson/Clarence T Hyatt W.L. Travis and C.O. Travis Travis Oil and Gas Company Doddridge County Standard Gas Company Carolyn E Gribble Antero Resources Corporation EQT Production Company	**	LB 38/402 39/401 39/432 44/314 44/362 38/402 47/147 47/321 48/500 50/360 50/43 100/461 220/233 271/551 DB 447/459



EQT Production Company 2400 Ansys Drive, Suite 200 Canonsburg, PA 15317 www.eqt.com

John Zavatchan Landman - Permitting O:724-746-9073 izawatchan@eqt.com

March 6, 2019

Mr. Taylor Brewer West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street SE Charleston, WV 25304

Re: OXF43H35 Gas Well Southwest District, Doddridge County

Dear Mr. Brewer,

EQT Production Company is applying for a new well work permit for the well referenced above. Upon information and belief, the Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

John Zavatchan Landman - Permitting

RECEIVED
Office of Oil and Gas

MAR 1 1 2019

WV Department of Environmental Protection

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

Date of Notic	ce Certification: 03/08/2019	API N	o. 47-	
			tor's Well No. OXF	43H35
		Well I	ad Name: OXF43	
Notice has l				
Pursuant to th	ne provisions in West Virginia Code	22-6A, the Operator has provided the	e required parties v	with the Notice Forms listed
	tract of land as follows:			
State:	West Virginia	UTM NAD 83 Eastin		
County:	Doddridge	Northi	ng: 4334235.6	
District:	South West/Cove	Public Road Access:	Rt. 20	<del>.</del>
Quadrangle:	Oxford	Generally used farm nan	e: Cathy Jean Wet	zel, et. al.
Watershed:	Middle Fork Hughes River			
D	W . W			
		every permit application filed unde		
prescribed by	the secretary, shall be verified and s	hall contain the following information	i: (14) A certificati	on from the operator that (i)
it has provid	ed the owners of the surface descri	ped in subdivisions (1), (2) and (4),	subsection (b), se	ction ten of this article, the
information r	equired by subsections (b) and (c), se	ction sixteen of this article; (ii) that t	ne requirement was	deemed satisfied as a result
of giving the	surface owner notice of entry to su	rvey pursuant to subsection (a), sec	ion ten of this art	icle six-a; or (iii) the notice
requirements	of subsection (b), section sixteen o	f this article were waived in writing	by the surface or	wner; and Pursuant to West
Virginia Cod	e § 22-6A-11(b), the applicant shall t	ender proof of and certify to the secre	tary that the notice	e requirements of section ten
of this article	have been completed by the applicar	it.		
	W			
		erator has attached proof to this Not	ce Certification	
tnat the Ope	rator has properly served the require	d parties with the following:		
*PLEASE CHI	ECK ALL THAT APPLY			OOG OFFICE USE ONLY
				UNLY
🔲 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED BE	CAUSE NO	□ RECEIVED/
		SEISMIC ACTIVITY WAS CONI		
		SEISMIC ACTIVITY WAS COM	OCTED	NOT REQUIRED
□ 2. NO	TICE OF ENTRY FOR PLAT SURV	'EY or 🔳 NO PLAT SURVEY WA	S CONDUCTED	☐ RECEIVED
		BI OF THE PROPERTY WAS	5 CONDUCTED	LI RECEIVED
■ 3 NO	ΓΙCE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED BE	CALISE	
3. 140	HEL OF INTENT TO DRILL OF			☐ RECEIVED/
		NOTICE OF ENTRY FOR PLAT S	URVEY	NOT REQUIRED
		WAS CONDUCTED or		14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15
		☐ WRITTEN WAIVER BY SUI	CFACE OWNER	
		(PLEASE ATTACH)		
				_
4. NO	TICE OF PLANNED OPERATION			☐ RECEIVED
_				
5. PUB	BLIC NOTICE			RECEIVED
■ 6. NO	FICE OF APPLICATION			RECEIVED
	<u> </u>			

#### **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 noticed 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 affidavity service, the return receipt card or other postal receipt for certified mailing.

Office of Oil and Gas

MAR 1 1 2019

Telephone:

# Certification of Notice is hereby given:

THEREFORE, I John Zavatchan , 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: EQT Production Company By: John Zavatchan Its:

Landman - Permitting

724-746-9073

Address: 2400 Ansys Drive, Suite 200

Canonsburg, PA 15317

Facsimile: 724-745-2418 Email: jzavatchan@eqt.com

NOTARY PUBLIC ATE OF WEST VIRGINIA AMY L TODD PRODUCTION COMPANY 115 PROFESSIONAL PLACE BRIDGEPORT, WV 26330

Subscribed and sworn before me this

8 day of March

Notary Public

My Commission Expires

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.

> RECEIVED Office of Oil and Gas

> > MAR 1 1 2019

WV Department of Environmental Protection WW-6A (9-13)

API NO. 47	
OPERATOR WELL NO.	OXF43H35
Well Pad Name: OXF43	

# 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 th	an the filing date of permit application.
Date of Notice: 03/08/2019 Date Permit Application Filed: 03/08/2019 Date Permit Application Filed: 03/08/2019	08/2019
☑ PERMIT FOR ANY ☐ CERTIFICATE OF APPLICATE OF APPLI	PROVAL FOR THE
<del></del>	AN IMPOUNDMENT OR PIT
WEED WORK CONSTRUCTION OF	AN INI CONDINENT CRITI
Delivery method pursuant to West Virginia Code § 22-6A-1	0(b)
☐ PERSONAL ☐ REGISTERED ☑ METH	OD OF DELIVERY THAT REQUIRES A
	IPT OR SIGNATURE CONFIRMATION
sediment control plan required by section seven of this article, and the surface of the tract on which the well is or is proposed to be located and gas leasehold being developed by the proposed well work, it described in the erosion and sediment control plan submitted pursus operator or lessee, in the event the tract of land on which the well pursuance coal seams; (4) The owners of record of the surface tract or to well work, if the surface tract is to be used for the placement, constitution which the surface tract is to be used for the placement, constitution of the surface tract is to be used for the placement, constitution of the surface tract is to be used for the placement, constitution of this article; (5) have a water well, spring or water supply source located within one provide water for consumption by humans or domestic animals; an proposed well work activity is to take place. (c)(1) If more than thresubsection (b) of this section hold interests in the lands, the applicate records of the sheriff required to be maintained pursuant to section provision of this article to the contrary, notice to a lien holder is no	ant may serve the documents required upon the person described in the eight, article one, chapter eleven-a of this code. (2) Notwithstanding any t notice to a landowner, unless the lien holder is the landowner. W. Va. provide the Well Site Safety Plan ("WSSP") to the surface owner and any
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan Notice	e
Z SURFACE OWNER(s)	☐ COAL OWNER OR LESSEE
Name: See Attached	Name: See Attached
Address:	Address:
Name:	COAL OPERATOR
Address:	Name:
	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance)	
Name: See Attached	☑ SURFACE OWNER OF WATER WELL
Address:	AND/OR WATER PURVEYOR(s)
<del></del>	Name: See Attached
Name:	Address:
Address:	OPERATOR OF ANY NATURAL GAS STORAGE FIELD
7 SURFACE OWNER(s) (Impoundments or Pits)	<del>-</del>
Names See Attached	Name:Address:
Address:	DECENTS
	*Please attach additional forms if necessary Office of Oil and Gas
	- 1980 Bland Gas

MAR 1 1 2019

WW-6A (8-13)

API NO. 47OPERATOR WELL NO. OXF43H35
Well Pad Name: OXF43

### 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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

#### 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 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 would ress the items

WW-6A	
(8-13)	

API NO. 47-OPERATOR WELL NO. OXF43H35 Well Pad Name: OXF43

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

RECEIVED

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons data here to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. MAR 1 1 2019

API NO. 47-

OPERATOR WELL NO. OXF43H35

Well Pad Name: OXF43

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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> 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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MAR 1 1 2019

API NO. 47-OPERATOR WELL NO. OXF43H35 Well Pad Name: OXF43

Notice is hereby given by:

Well Operator: EQT Production Company

Telephone: 724-746-9073 Email: jzavatchan@eqt.com Address: 2400 Ansys Drive, Suite 200

Canonsburg, PA 15317

Facsimile: 724-745-2418

#### 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.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRIGINIA
AMY L TODD
EQT PRODUCTION COMPANY
115 PROFESSIONAL PLACE
BRIDGEPORT, W 26330
My Commission Expires August 21, 2022

Subscribed and sworn before me this day of March 2019.

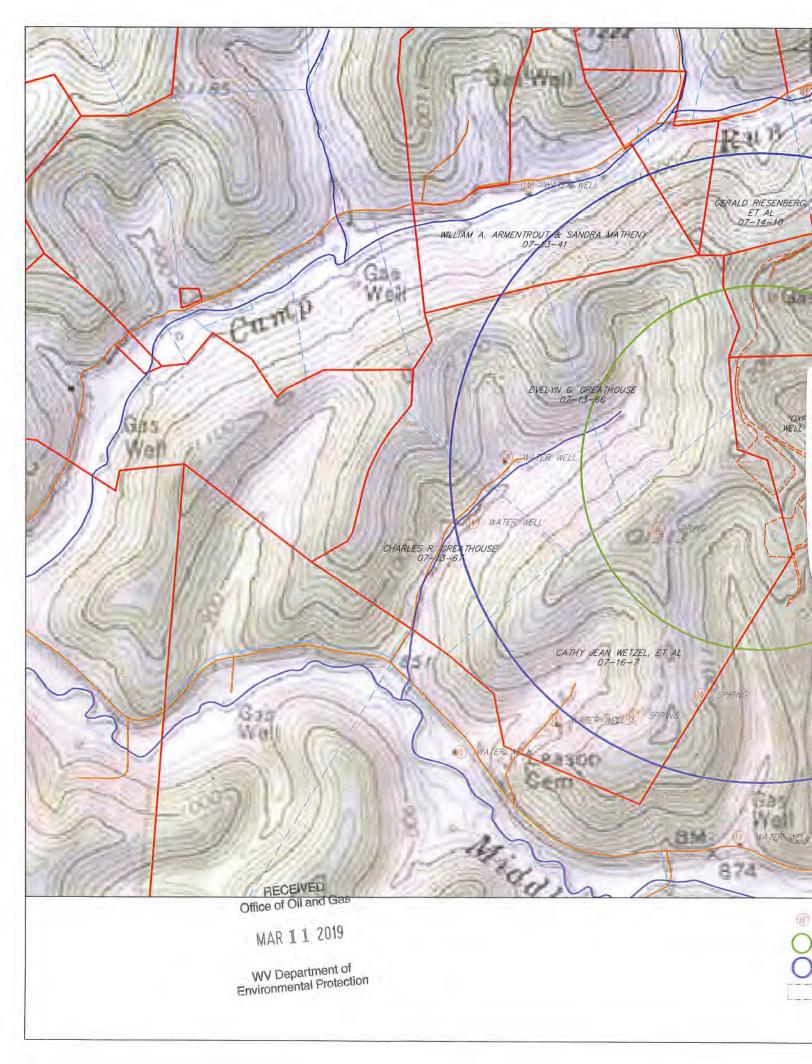
Notary Public

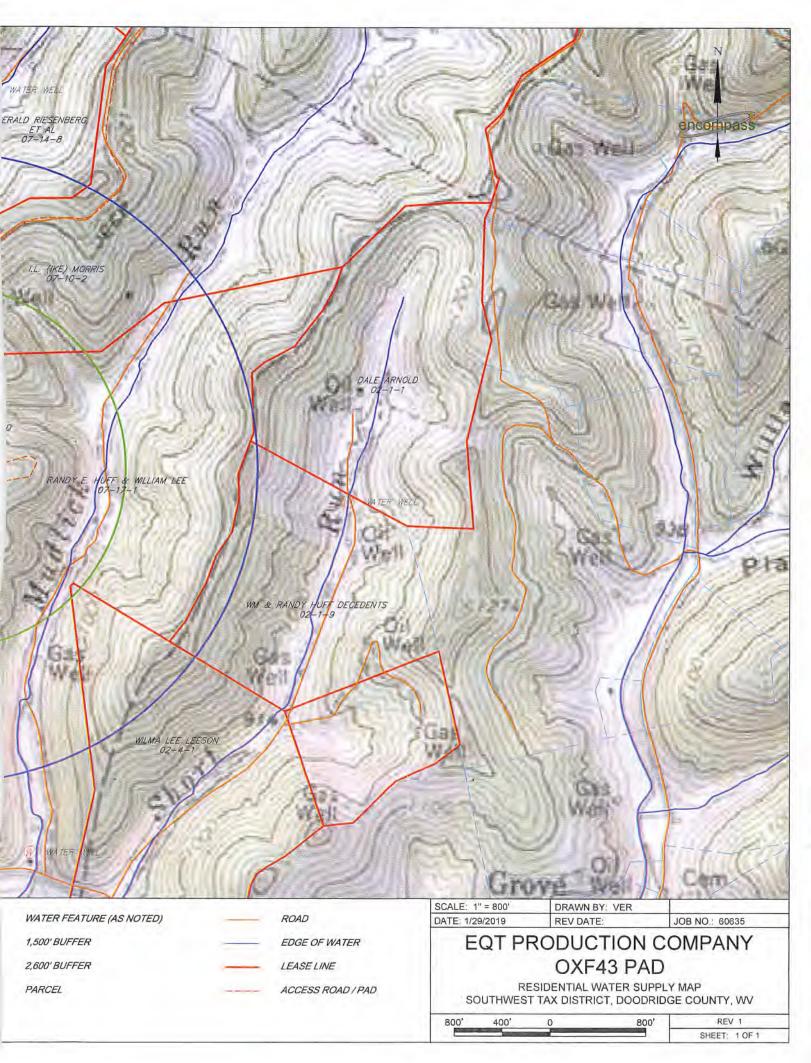
My Commission Expires

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WV Department of Environmental Protection





#### Surface Owners:

CATHY JEAN WETZEL, ET AL 322 ZACKS RUN ROAD MOUNT CLARE ,WV 26408

RANDY E. HUFF DECEDENT'S TRUST B 826 ORANGE AVENUE CORONADO, CA 92118

WILLIAM LEE HUFF 826 ORANGE AVENUE CORONADO, CA 92118

## Surface Owners (road, AST, or other disturbance):

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I.L. MORRIS PO BOX 397 GLENVILLE, WV

MATHEW H. COPELAND 1500 HAYSTACK LANE WEST UNION,WV 26456

SANDRA MATHENY ARMENTROUT AND WILLIAM A. ARMENTROUT 851 MACE ST. ELKVIEW, WV 25071

Janice S. McCormack 1903 CAMP RUN ROAD WEST UNION, WV 26456

Office of Oil and Gas

MAR 1 1 2019

WV Department of Environmental Protection

## Coal Owner

Adele McDougal 213 W. High Street Harrisville WV 26362

William Lee Huff c/o Joye E Huff 826 Orange Ave. Coronado CA 92118

Master Mineral Holdings II LP P.O.Box 10886 Midland TX 79702

Lois L McKain 4141 S. Braeswood Blvd. Apt 224 Houston TX 77009

Katherine Foster Leggett 1625 Stonehenge Rd Charleston WV 25314

Franklin Maxwell Heirs Ltd Partnership #1 P.O.Box 2395 Buchannon WV 26201

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WV Department of Environmental Projection

WW-6A4 (1/12)

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Date of Notic		provided at least TEN (10) days prior to filing a Date Permit Application Filed: 3/8/10	
Delivery met	hod pursuant to West Virgin	tia Code § 22-6A-16(b)	
☐ HAND	■ CERTIFIED	лап	
DELIVE		CEIPT REQUESTED	
DELIVI	RETURN RE	CEIFT REQUESTED	
receipt reque drilling a hor of this subsec- subsection m	sted or hand delivery, give the izontal well: <i>Provided</i> , That a stion as of the date the notice way be waived in writing by the	least ten days prior to filing a permit application, surface owner notice of its intent to enter upon the notice given pursuant to subsection (a), section to was provided to the surface owner: <i>Provided</i> , how surface owner. The notice, if required, shall incomic mail address of the operator and the operator	he surface owner's land for the purpose of en of this article satisfies the requirements vever. That the notice requirements of this lude the name, address, telephone number,
	reby provided to the SUR	FACE OWNER(s):	
Name: See Atta	ached List	Name:	
Address:		Address:	
State: County: District:	West Virginia Doddridge Southwest / Cove	drilling a horizontal well on the tract of land as for the tract of lan	517,899.6 4,334,235.6 Rt. 20
Quadrangle:	Oxford	Generally used farm name:	Cathy Jean Wetzel, et. al.
Watershed:	Middle Fork Hughes River		
Pursuant to 'facsimile nur related to hor	nber and electronic mail addi- rizontal drilling may be obtain	16(b), this notice shall include the name, address of the operator and the operator's authorized from the Secretary, at the WV Department of V 25304 (304-926-0450) or by visiting www.de	ed representative. Additional information of Environmental Protection headquarters,
Notice is he	reby given by:		
	T: EQT Production Company	Authorized Representative:	John Zavatchan
	2400 Ansys Drive, Suite 200	Address:	2400 Ansys Drive, Suite 200
	Canonsburg, PA 15317		Canonsburg, PA 15317
Telephone:	724-746-9073	Telephone:	724-746-9073
Email:	jzavatchan@eqt.com	Email:	jzavatchan@eqt.com
Facsimile:	724-745-2418	Facsimile:	724-745-2418
			·

Oil and Gas Privacy Notice:

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

#### Surface Owners:

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WILLIAM LEE HUFF 826 ORANGE AVENUE CORONADO, CA 92118

# Surface Owners (road, AST, or other disturbance):

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SANDRA MATHENY ARMENTROUT AND WILLIAM A. ARMENTROUT 851 MACE ST. ELKVIEW, WV 25071

Janice S. McCormack 1903 CAMP RUN ROAD WEST UNION, WV 26456

Office of Oil and Gas

MAR 11 2019

WV Department of Environmental Protection

WW-6A5 (1/12)

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

Delivery method pursuant to West Virginia Code § 22-6A-16(c)    CERTIFIED MAIL	
Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by or return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal with the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunct drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of comp damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff 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: See Attached List Address:    Name: See Attached List Address:	
Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by or return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal with the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunct of drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of comp damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff 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: See Attached List Address:    Name: See Attached List Address:	
(at the address listed in the records of the sheriff at the time of notice):  Name: See Attached List Address:    Name: See Attached List   Address:   Address:	well notice of e information ction with the pensation for f this chapter.
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a properation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:  State:    West Virginia	
County: Doddridge District: Southwest / Cove Public Road Access: Rt. 20  Quadrangle: Oxford Generally used farm name: Cathy Jean Wetzel, et. al.  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 informat to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the chorizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for dar surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmenta headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.spanes.pdf">www.dep.wv.spanes.pdf</a>	planned
Quadrangle: Oxford Generally used farm name: Cathy Jean Wetzel, et. al.  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 informat to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the chorizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for dar surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmenta headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.spaneous.org/">www.dep.wv.spaneous.org/</a>	
Watershed: Middle Fork Hughes River  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 informat to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the chorizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for dar surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmenta headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.com/www.spaneous.c&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The informat to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the chorizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for dar surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmenta headquarters, located at 601 57&lt;sup&gt;th&lt;/sup&gt; Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting &lt;a href=" https:="" td="" www.dep.wv.spaneous.com="" www.spaneous.com="" www<=""><td></td></a>	
	drilling of a mages to the r. Additional al Protection
Well Organization	
Well Operator: EQT Production Company Address: 2400 Ansys Drive, Suite 200	
Telephone: 724-746-9073 Canonsburg, PA 15317	
Email: jzavatchan@eqt.com Facsimile: 724-745-2418	

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. RECEIVED

Office of Oil and Gas

MAR 1 1 2019

WV Department of Environmental Protection

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Janice S. McCormack 1903 CAMP RUN ROAD WEST UNION, WV 26456

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Office of Oil and Gas

MAR 1 1 2019

WV Department of Environmental Protection



# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

# **Division of Highways**

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

November 13, 2018

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

> Jill M. Newman Deputy Commissioner

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

Subject: DOH Permit for the OXF43 Well Site, Doddridge County

OXF43H20	OXF43H21	OXF43H22
OXF43H24	OXF43H28	OXF43H29
OXF43H32	OXF43H34	OXF43H35
OXF43H36	OXF43H37	

Dear Mr. Martin.

This well site will be accessed from Permit # 04-2015-0394 has been issued to EQT Production Company for access to the State Road for a well pad located off of County Rt. 23/3 SLS in Doddridge County.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT 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,

Gary K. Clayton, P.E.

Regional Maintenance Engineer

Dany K. Chayton

Central Office O&G Coordinator

Cc:

Nick Bumgardner

**EQT Production Company** 

CH, OM, D-4

File

Office of Oil and Gas

NAP I 1 2019

WV Department of the Environmental Protection

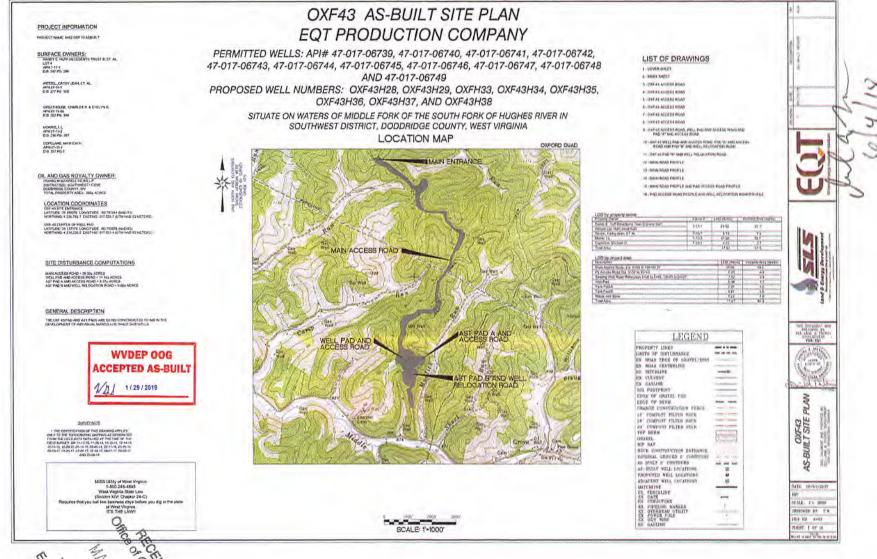
# **Anticipated Frac Additives Chemical Names and CAS numbers**

<u>Material</u>	<u>Ingredient</u>	<b>CAS Number</b>
Water		
Sand	Hydrotreated light petroleum distillate Tributyl tetradecyl phosphonium	14808-60-7
Friction Reducer	chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

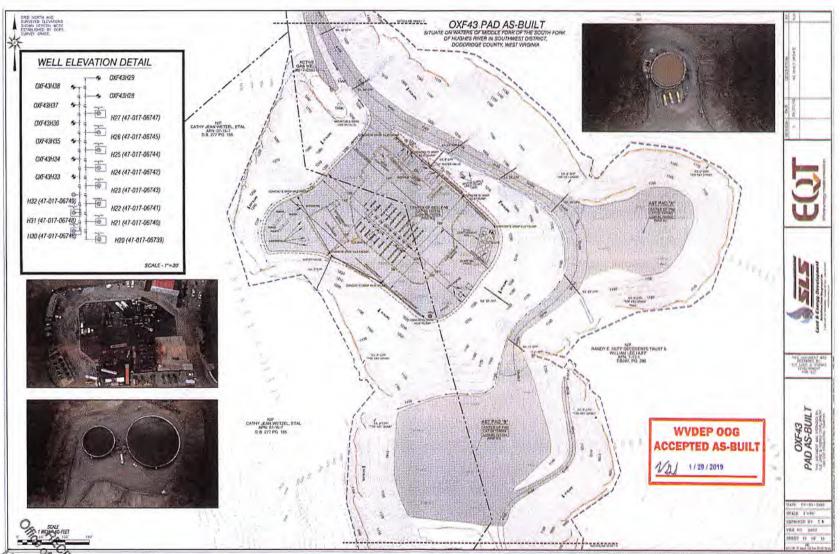
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Thursday Proceeding