

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

PM

API 47-051-01627 County Marshall District Franklin
Quad Powhatan Point Pad Name MND 9 Field/Pool Name NA
Farm name Consolidated Coal Company Well Number MND 9 CHS
Operator (as registered with the OOG) Noble Energy, Inc.
Address 333 Technology Drive, Suite 116 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4409077.01 Easting 518217.68
Landing Point of Curve Northing 4409167.87 Easting 517989.88
Bottom Hole Northing 4411350.64 Easting 516402.05

Elevation (ft) 1226.69 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
Synthetic Oil Based

Date permit issued 5/3/13 Date drilling commenced 7/4/13 Date drilling ceased 11/22/13
Date completion activities began 5/25/14 Date completion activities ceased 11/10/14
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 756 Open mine(s) (Y/N) depths _____
Salt water depth(s) ft None noted for Offsets Void(s) encountered (Y/N) depths _____
Coal depth(s) ft Sewickley 667.4-670/7, Pittsburgh 756.9-762.8 Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

RECEIVED
Office of Oil and Gas
NOV 03 2014
WV Department of
Environmental Protection
Reviewed by:

12/12/2014

API 47-051 - 01627 Farm name Consolidated Coal Company Well number MND 9 CHS

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30	20	40	N	J-55		
Surface	17 1/2	13 3/8	1206	N	J-55 54.5#		Y
Coal							Y
Intermediate 1	12 3/8	9 5/8	2478.9	N	J-55 36#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4	5 1/2	15805	N	P-110 20#		Y
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Class A	1160	15.6	1.19	267	0	8
Coal							
Intermediate 1	Class A	830	15.6	Lead-1.42 Tail-1.19	Lead-178 Tail-25	0	8
Intermediate 2							
Intermediate 3							
Production	Class A	Lead-560 Tail-1905	Lead-1.42 Tail-14.8	Lead-1.57 Tail-1.4	Lead-159 Tail-474	1222	8
Tubing							

Drillers TD (ft) 15820 Loggers TD (ft) 15777
 Deepest formation penetrated Marcellus Plug back to (ft) Not a Pilot Hole
 Plug back procedure Not a Pilot Hole

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 051 - 01627

Farm name Consolidated Coal Company Well number MND 9 CHS

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable.

Perforation Record

API: 47-051-01627

Farm name: _____

Consolidated Coal
Company

Well Name: MND-9C-H5

Stage No.	Stim Date	Top Perf	Bottom Perf	# of Perfs	Formation
1	5/25/2014	15426	15616	48	Marcellus
2	5/26/2014	15123	15377	40	Marcellus
3	5/27/2014	14823	15077	40	Marcellus
4	5/27/2014	14523	14777	40	Marcellus
5	5/28/2014	14223	14477	40	Marcellus
6	5/29/2014	13923	14177	40	Marcellus
7	5/29/2014	13623	13894	40	Marcellus
8	5/30/2014	13323	13575	40	Marcellus
9	5/30/2014	13023	13277	40	Marcellus
10	5/30/2014	12723	12977	40	Marcellus
11	5/31/2014	12423	12677	40	Marcellus
12	5/31/2014	12123	12377	40	Marcellus
13	5/31/2014	11823	12077	40	Marcellus
14	6/1/2014	11523	11777	40	Marcellus
15	6/1/2014	11223	11477	40	Marcellus
16	6/2/2014	10923	11177	40	Marcellus
17	6/2/2014	10623	10877	40	Marcellus
18	6/2/2014	10323	10577	40	Marcellus
19	6/3/2014	10023	10277	40	Marcellus
20	6/3/2014	9723	9977	40	Marcellus
21	6/3/2014	9423	9677	40	Marcellus
22	6/4/2014	9123	9377	40	Marcellus
23	6/4/2014	8823	9077	40	Marcellus
24	6/4/2014	8523	8777	40	Marcellus
24B	6/5/2014	8513	8777	24	Marcellus
25	6/5/2014	8223	8477	40	Marcellus
26	6/5/2014	7923	8177	40	Marcellus
27	6/5/2014	7623	7877	40	Marcellus
28	6/6/2014	7323	7577	40	Marcellus
28B	6/6/2014	7356	7484	36	Marcellus
29	6/6/2014	7023	7277	40	Marcellus
30	6/6/2014	6723	6977	40	Marcellus

STIMULATION INFORMATION PER STAGE

API: 47-051-01627

Farm name:

Consolidated Coal Company

Well Name: MND-9C-HS

Stage No.	Stim Date	Avg Rate (bpm)	ATP (psi)	Max BD Pressure	ISIP (psi)	Proppant (lbs)	Water (BBLS)	Amount of N ² / other
1Inj Test	41784	17.1	7916	8271		-	482.12	
1	41784	90.5	6963	5494	3347	501,130	9,189.62	
2	41785	90.5	6989	8281	3235	502,525	9,140.20	
3	41786	83.7	7202	5474	3399	500,786	10,531.93	
4	41786	63.8	8251	5389	4803	446,921	18,551.98	
5	41787	66.6	7748	5299	4366	551,407	16,309.11	
6	41788	70.9	8348	5374	3527	457,733	11,680.80	
7	41788	74.8	7552	4986	3196	544,035	14,757.59	
8	41789	82.3	7148	4996	3937	500,604	10,523.52	
9	41789	87.3	7050	5500	3350	499,401	10,726.06	
10	41789	86.5	7075	5704	3607	502,413	10,496.54	
11	41790	87.7	6968	5560	3494	487,073	9,142.44	
12	41790	88.9	7049	5396	3250	515,529	11,265.13	
13	41790	89.7	6989	5190	3483	500,523	9,154.59	
14	41791	90.4	6912	5349	3131	501,140	9,028.72	
15	41791	89.6	6980	5578	4699	493,596	9,192.46	
16 Acid	41792	11.8	7895			-	370.54	
16	41792	89.1	7039	5428	3228	508,340	10,176.46	
17	41792	88.8	6703	5605	3580	497,482	10,030.06	
18	41792	89.7	6808	5184	3622	452,007	9,522.49	
19	41793	89.8	6717	5296	2986	549,728	11,754.82	
20	41793	89.6	6755	5369	3532	500,812	10,217.35	
21	41793	84.6	7086	5501	3495	500,092	11,456.16	
22	41794	89.2	6645	4944	3332	499,469	11,641.65	
23	41794	79.8	7139	5855	3565	500,874	11,263.66	
24	41794	86.5	6666	5596	5769	393,207	9,850.93	
24B	41795	85.2	6849		3626	105,029	4,369.53	
25	41795	89.1	6684	5458	3734	500,483	11,093.11	
26	41795	88.2	6434	5683	3424	504,679	10,602.18	
27	41795	84.7	6424	5979	3464	495,063	12,065.19	
28	41796	68.7	7658	5236	6138	343,431	12,746.36	
28B	41796	60.1	7688	5979	4478	158,462	9,579.94	
29	41796	86	6589	6437	4321	500,665	11,100.46	
30	41796	86.8	6678	6068	3506	501,744	10,943.94	

API 47- 051 - 01627 Farm name Consolidated Coal Company Well number MND9 CHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6241</u> TVD	<u>15820</u> MD
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 3487 mcfpd Oil 132 bpd NGL 356 bpd Water 742 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	<u>DEPTH IN FT</u>	
	<u>NAME TVD</u>	<u>TVD</u>	<u>MD</u>	<u>MD</u>	
	PLEASE SEE ATTACHED FORMATION SHEET		<u>0</u>		

Please insert additional pages as applicable.

Drilling Contractor Nomac 79
Address 171 Locust Avenue Ext. City Mt. Morris State PA Zip 15349

Logging Company Schlumberger Directional
Address 4600 J. Barry Court, Suite 200 City Canonsburg State PA Zip 15317

Cementing Company Schlumberger
Address 4600 J. Barry Court, Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company Halliburton Energy SRCS
Address 121 Champion Way, Suite 110 City Canonsburg State PA Zip 15317

Please insert additional pages as applicable.

Completed by Regina A. Logue Telephone 724-820-3559
Signature Regina A. Logue Title Regulatory Analyst Date 10/31/14

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

MND9 C

47-051-01627

Formations	Top TVD	Base TVD	Top MD	Base MD	Fluid
Shale and Sandstone	0	790	0	790	
Pittsburgh Coal	790	800	790	800	
Shale and Sandstone	800	1148	800	1148	
Dunkard Sand	1148	1169	1148	1169	
Shale	1169	1318	1169	1318	
Gas Sand	1318	1389	1318	1389	
Shale	1389	1458	1389	1458	
1st Salt Sand	1458	1474	1458	1474	
Shale	1474	1581	1474	1581	
2nd Salt Sand	1581	1610	1581	4315	
Shale and Sandstone	1610	1740	1610	5039	
Maxton Sand	1740	1787	1740	5124	
Shale	1787	1805	1787	5200	
Big Lime	1805	1877	1805	5791	
Big Injun	1877	2147	1877	6114	
Price	2147	2245	2147	6189	
Murrysville	2245	2352	2245	6213	
Shale and Sandstone	2352	2890	2352	6279	
Gordon	2890	2920	2890	6306	
Shale and Sandstone	2920	3441	2920	6336	
Fifth Sand	3441	3494	3443	6377	
Shale and Sandstone	3494	4296	3496	not encountered	
Warren Sand	4296	4305	4306	not encountered	
Shale	4305	5022	4315	5039	
Java Shale	5022	5106	5039	5124	
Pipe Creek Shale	5106	5181	5124	5200	
Angola Shale	5181	5765	5200	5791	
Rhinestreet	5765	6084	5791	6114	
Cashaqua	6084	6156	6114	6189	
Middlesex	6156	6179	6189	6213	
West River	6179	6240	6213	6279	
Burkett	6240	6264	6279	6306	
Tully Limestone	6264	6290	6306	6336	
Hamilton	6290	6325	6336	6377	Gas
Marcellus	6325	6378	6377	not encountered	
Onondaga	6378	6385	not encountered	not encountered	
Huntersville	6385	not encountered	not encountered	not encountered	

12/12/2014

Hydraulic Fracturing Fluid Product Component Information Disclosure



51-01627

Job Start Date:	5/25/2014
Job End Date:	6/6/2014
State:	West Virginia
County:	Marshall
API Number:	47-051-01627-00-00
Operator Name:	Noble Energy, Inc.
Well Name and Number:	MND9 C
Longitude:	-80.78710000
Latitude:	39.83149700
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,241
Total Base Water Volume (gal):	15,081,859
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Operator	Base Fluid					
			Fresh Water	7732-18-5	100.00000	88.51761	Density = 8.340
SAND - PREMIUM WHITE	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	8.04422	
SAND - COMMON WHITE	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	2.53748	
HYDROCHLORIC ACID 5-10%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	10.00000	0.06764	
LGC-36 UC	Halliburton	Liquid Gel Concentrate					
			Naphtha, hydrotreated heavy	64742-48-9	60.00000	0.01246	
			Guar gum	9000-30-0	60.00000	0.01246	
FR-66	Halliburton	Friction Reducer					
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02296	
HYDROCHLORIC ACID 10-30%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	30.00000	0.01042	
PermVis VFR-10	Halliburton	Friction Reducer					

			Hydrotreated light petroleum distillate	54742-47-8	30.00000	0.00381	
			Ammonium chloride	12125-02-9	10.00000	0.00127	
			Alcohols, C12-16, ethoxylated	58551-12-2	10.00000	0.00127	
			9-Octadecenamamide, n,n-bis-2 (hydroxy-ethyl)-,(Z)	93-83-4	5.00000	0.00063	
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive					
			Acetic anhydride	108-24-7	100.00000	0.00341	
			Acetic acid	64-19-7	60.00000	0.00205	
BE-9	Halliburton	Biocide					
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00451	
LP-65MC	Halliburton	Scale Inhibitor					
			Ammonium chloride	12125-02-9	10.00000	0.00271	
LCA-1	Halliburton	Solvent					
			Paraffinic solvent	Confidential	100.00000	0.00194	Denise Tuck, Halliburton 3000 N. Sam Houston Pkwy E., Houston, TX 77032 281-871-6226
LoSurf-300D	Halliburton	Non-ionic Surfactant					
			Ethanol	64-17-5	60.00000	0.00069	
			Heavy aromatic petroleum naphtha	54742-94-5	30.00000	0.00034	
			Naphthalene	91-20-3	5.00000	0.00006	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00006	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00001	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00034	
			Propargyl alcohol	107-19-7	10.00000	0.00006	
SP BREAKER	Halliburton	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00033	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
		Other Ingredient(s)					
			Water	7732-18-5		0.82219	
		Other Ingredient(s)					
			Polyacrylamide copolymer	Confidential		0.02296	
		Other Ingredient(s)					
			Organic phosphonate	Confidential		0.01627	
		Other Ingredient(s)					
			Ammonium chloride	12125-02-9		0.00383	
		Other Ingredient(s)					
			Fatty acid tall oil amide	Confidential		0.00383	
		Other Ingredient(s)					
			Sodium chloride	7647-14-5		0.00383	

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	Other Ingredient(s)					
		Alcohols, C12-16, ethoxylated	68551-12-2			0.00383
	Other Ingredient(s)					
		Inorganic salt	Confidential			0.00381
	Other Ingredient(s)					
		Polyacrylate	Confidential			0.00381
	Other Ingredient(s)					
		Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite	68953-58-2			0.00104
	Other Ingredient(s)					
		Sorbitan monooleate polyoxyethylene derivative	9005-65-6			0.00077
	Other Ingredient(s)					
		Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8			0.00077
	Other Ingredient(s)					
		Fatty acid ester	Confidential			0.00063
	Other Ingredient(s)					
		Oxyalkylated phenolic resin	Confidential			0.00034
	Other Ingredient(s)					
		Formaldehyde	50-00-0			0.00027
	Other Ingredient(s)					
		Fatty alcohol polyglycol ether surfactant	9043-30-5			0.00021
	Other Ingredient(s)					
		Alcohols, C14-C15, ethoxylated	68951-67-7			0.00017
	Other Ingredient(s)					
		Fatty acids, tall oil	Confidential			0.00017
	Other Ingredient(s)					
		Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1			0.00017
	Other Ingredient(s)					
		Oxyalkylated phenolic resin	Confidential			0.00011
	Other Ingredient(s)					
		Olefins	Confidential			0.00003
	Other Ingredient(s)					
		Olefins	Confidential			0.00003
	Other Ingredient(s)					
		Crystalline silica, quartz	14808-60-7			0.00002
	Other Ingredient(s)					
		Olefins	Confidential			0.00001
	Other Ingredient(s)					
		Olefins	Confidential			0.00001
	Other Ingredient(s)					
		Sodium sulfate	7757-82-6			0.00000

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* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Well is located on topo map 698' feet south of Latitude: 39° 50' 00"

Well is located on topo map 10,483' feet west of Longitude: 80° 45' 00"

NOTES:

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



LEGEND

- ☐ - TOPO MAP POINT
- ☉ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- ⊕ - WATER SOURCE
- ⊙ - MINERAL TRACT ON ATTACHED WW-6A1
- - - - - LEASE NUMBER BASED BOUNDARY
- - - - - PARCEL LINES
- - - - - WELL REFERENCE
- - - - - PROPOSED HORIZONTAL WELL
- — — — — ROAD
- - - - - STREAM CENTER LINE
- — — — — AS DRILLED

WELLS WITHIN 2,400'

- - EXISTING WELLS
- - PLUGGED WELLS

AS DRILLED PLAT

AS DRILLED
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4411350.64
E:516402.05
NAD27, WV NORTH
N:495087.483
E:1632652.810

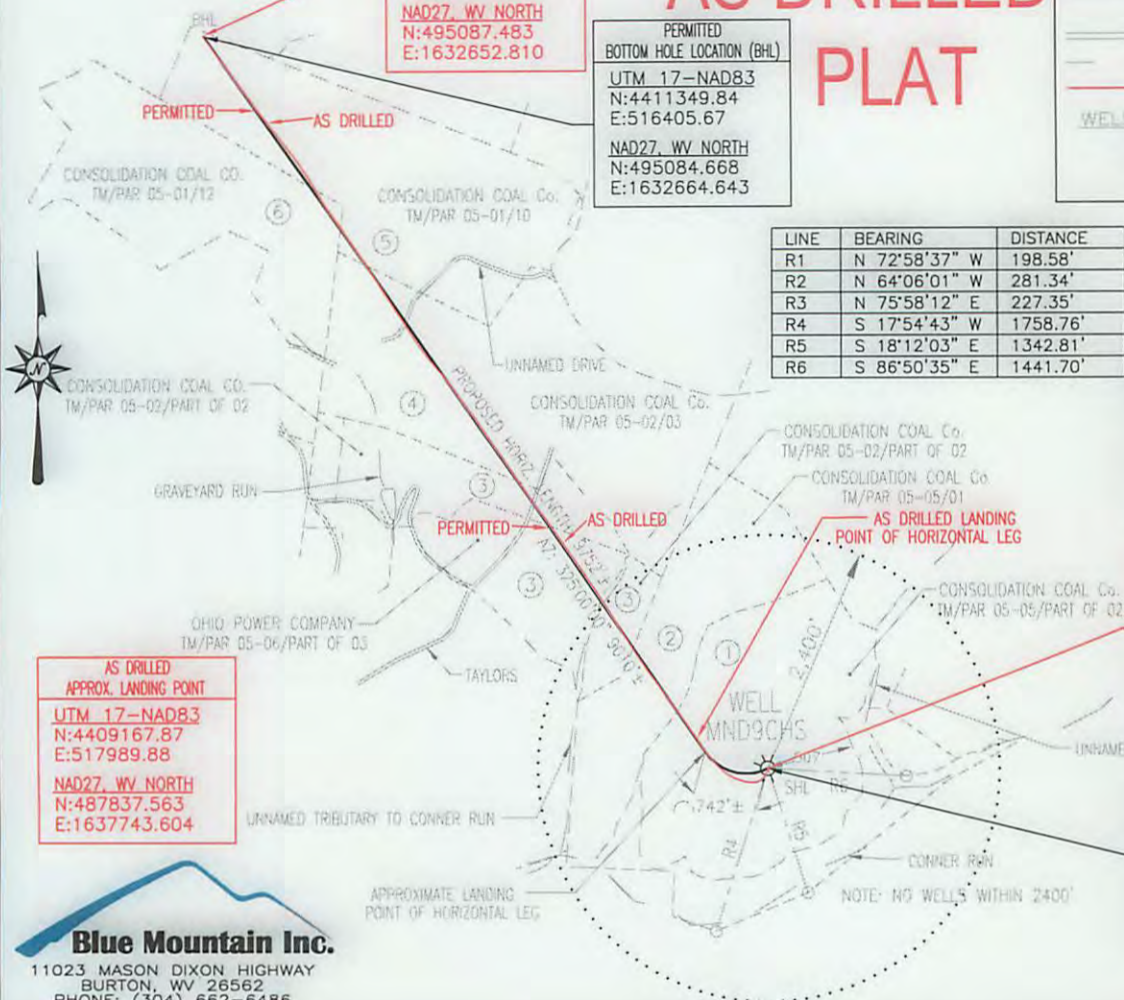
PERMITTED
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4411349.84
E:516405.67
NAD27, WV NORTH
N:495084.668
E:1632664.643

LINE	BEARING	DISTANCE
R1	N 72°58'37" W	198.58'
R2	N 64°06'01" W	281.34'
R3	N 75°58'12" E	227.35'
R4	S 17°54'43" W	1758.76'
R5	S 18°12'03" E	1342.81'
R6	S 86°50'35" E	1441.70'

PERMITTED
APPROX. LANDING POINT
UTM 17-NAD83
N:4409127.78
E:518017.58
NAD27, WV NORTH
N:487704.513
E:1637832.284

AS DRILLED
SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4409077.01
E:518217.68
NAD27, WV NORTH
N:487526.905
E:1638486.130

PERMITTED
SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4409077.001
E:518217.778
NAD27, WV NORTH
N:487526.875
E:1638486.445



AS DRILLED
APPROX. LANDING POINT
UTM 17-NAD83
N:4409167.87
E:517989.88
NAD27, WV NORTH
N:487837.563
E:1637743.604

Blue Mountain Inc.
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

FILE #: MND9CHS-AS DRILLED
DRAWING #: MND9CHS-AS DRILLED
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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

Signed: [Signature]
R.P.E.: _____ L.L.S.: P.S. No. 2000

GEORGE D. SIX
LICENSED
No. 2000
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

PLACE SEAL HERE

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



DATE: OCTOBER 21, 2014
OPERATOR'S WELL #: MND9CHS-AS DRILLED
API WELL #: 47 51 01627
STATE COUNTY PERMIT

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

WATERSHED: CONNER RUN ELEVATION: 1226.69'

COUNTY/DISTRICT: MARSHALL / FRANKLIN QUADRANGLE: POWHATAN POINT, WV-OH 7.5'

SURFACE OWNER: CONSOLIDATION COAL COMPANY ACREAGE: 123.244±

OIL & GAS ROYALTY OWNER: SEE ATTACHED WW-6A1 ACREAGE: 685.95±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,600'± TMD: 16,038'±

WELL OPERATOR NOBLE ENERGY INC. DESIGNATED AGENT STEVEN M. GREEN
Address 333 TECHNOLOGY DRIVE Address 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 1001
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

12/12/2014

Well is located on topo map 698' feet south of Latitude: 39° 50' 00"

Well is located on topo map 10,483' feet west of Longitude: 80° 45' 00"

NOTES:

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



LEGEND	
	- TOPO MAP POINT
	- WELL
	- ALL ACRE POINTS UNLESS OTHERWISE NOTED
	- WATER SOURCE
	- MINERAL TRACT ON ATTACHED WW-6A1
	- LEASE NUMBER BASED BOUNDARY
	- PARCEL LINES
	- WELL REFERENCE
	- PROPOSED HORIZONTAL WELL
	- ROAD
	- STREAM CENTER LINE
	- AS DRILLED
WELLS WITHIN 2,400'	
	- EXISTING WELLS
	- PLUGGED WELLS

AS DRILLED PLAT

AS DRILLED
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4411350.64
E:516402.05
NAD27, WV NORTH
N:495087.483
E:1632652.810

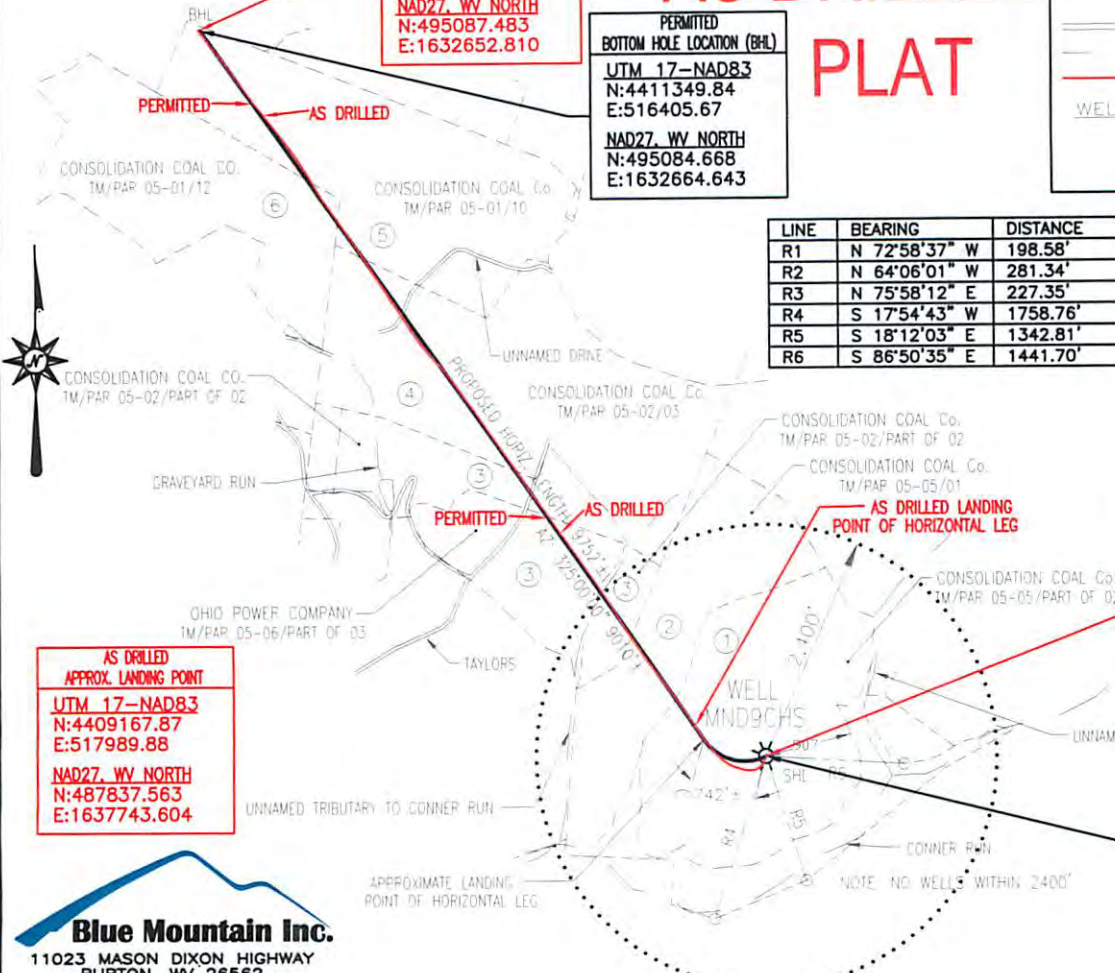
PERMITTED
BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4411349.84
E:516405.67
NAD27, WV NORTH
N:495084.668
E:1632664.643

LINE	BEARING	DISTANCE
R1	N 72°58'37" W	198.58'
R2	N 64°06'01" W	281.34'
R3	N 75°58'12" E	227.35'
R4	S 17°54'43" W	1758.76'
R5	S 18°12'03" E	1342.81'
R6	S 86°50'35" E	1441.70'

PERMITTED
APPROX. LANDING POINT
UTM 17-NAD83
N:4409127.78
E:518017.58
NAD27, WV NORTH
N:487704.513
E:1637832.284

AS DRILLED
SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4409077.01
E:518217.68
NAD27, WV NORTH
N:487526.905
E:1638486.130

PERMITTED
SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4409077.001
E:518217.778
NAD27, WV NORTH
N:487526.875
E:1638486.445



AS DRILLED
APPROX. LANDING POINT
UTM 17-NAD83
N:4409167.87
E:517989.88
NAD27, WV NORTH
N:487837.563
E:1637743.604

Blue Mountain Inc.
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

FILE #: MND9CHS-AS DRILLED
DRAWING #: MND9CHS-AS DRILLED
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/2500
PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
Signed: *George D. Six*
R.P.E.: _____ L.L.S.: P.S. No. 2000



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