

JK

WR-35
Rev. 8/23/13

Page ___ of ___

PM

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

API 47-051-01628 County Marshall District Franklin
Quad Powhatan Point Pad Name MND 9 Field/Pool Name NA
Farm name Consolidated Coal Company Well Number MND 9 EHS
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 4409088.73 Easting 518220.50
Landing Point of Curve Northing 4409425.76 Easting 518360.64
Bottom Hole Northing 4411560.49 Easting 516821.03

Elevation (ft) 1221.03 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

RECEIVED
Office of Oil and Gas
NOV 18 2014
WV Department of
Environmental Protection

Date permit issued 5/3/13 Date drilling commenced 6/22/13 Date drilling ceased 11/10/13
Date completion activities began 5/22/14 Date completion activities ceased 8/17/14
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 N
Salt water depth(s) ft None noted for Offsets Void(s) encountered (Y/N) depths N
Coal depth(s) ft Sewickley 667.4-670/7, Pittsburgh 756.9-762.8 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

12/12/2014

API 47-051 - 01628 Farm name Consolidated Coal Company Well number MND 9 EHS

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	1213.7	N	J-55 54.5#		Y
Coal							Y
Intermediate 1	12 3/8	9 5/8	2459	N	J-55 36#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4	5 1/2	15710	N	HCP-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	Type I	1130	15.6	1.19	240	0	8
Coal							
Intermediate 1	Class A	956	15.6	1.19	203	0	8
Intermediate 2							
Intermediate 3							
Production	Class A	Lead-693 Tail-950	Lead-14.2 Tail-14.8	Lead-1.55 Tail-1.39	Lead-188 Tail-430	1733	8
Tubing							

Drillers TD (ft) 15720 Loggers TD (ft) 15675

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 _____

Perforation Record

Consolidated Coal
Company

API: 47-051-01628

Farm name: _____

Well Name: MND-9E-HS

Stage No.	Stim Date	Top Perf	Bottom Perf	# of Perfs	Formation
1	5/23/2014	15383	15465	48	Marcellus
2	5/23/2014	15235	15337	40	Marcellus
3	5/24/2014	15085	15187	40	Marcellus
4	5/24/2014	14935	15037	40	Marcellus
5	5/24/2014	14785	14887	40	Marcellus
5B	5/25/2014	14775	14818	36	Marcellus
6	5/25/2014	14635	14737	40	Marcellus
6B	5/26/2014	14623	14657	24	Marcellus
7	5/26/2014	14485	14587	40	Marcellus
8	5/27/2014	14335	14437	40	Marcellus
8B	5/27/2014	14325	14351	24	Marcellus
9	5/28/2014	14185	14287	40	Marcellus
10	5/29/2014	14035	14137	40	Marcellus
10B	5/29/2014	14035	14137	24	Marcellus
11	5/30/2014	13885	13987	40	Marcellus
11B	6/12/2014	13897	13974	36	Marcellus
12	6/13/2014	13735	13837	40	Marcellus
13	6/13/2014	13585	13687	40	Marcellus
14	6/14/2014	13435	13537	40	Marcellus
15	6/14/2014	13285	13387	40	Marcellus
16	6/14/2014	13135	13237	40	Marcellus
17	6/15/2014	12985	13087	40	Marcellus
18	6/15/2014	12835	12937	40	Marcellus
19	6/16/2014	12685	12787	40	Marcellus
20	6/16/2014	12535	12637	40	Marcellus
21	6/16/2014	12385	12487	40	Marcellus
21B	6/29/2014	12391	12431	44	Marcellus
22	7/6/2014	12235	12337	40	Marcellus
23	7/7/2014	12085	12187	40	Marcellus
24	7/7/2014	11935	12037	40	Marcellus
25	7/7/2014	11785	11887	40	Marcellus
26	7/8/2014	11635	11737	40	Marcellus
27	7/8/2014	11485	11587	40	Marcellus
28	7/9/2014	11335	11437	40	Marcellus
29	7/9/2014	11185	11287	40	Marcellus
30	7/9/2014	11035	11162	40	Marcellus
31	7/10/2014	10855	10987	40	Marcellus
32	7/10/2014	10735	10837	40	Marcellus
33	7/10/2014	10585	10687	40	Marcellus
34	7/11/2014	10435	10537	40	Marcellus
35	7/11/2014	10285	10387	40	Marcellus

Perforation Record

Consolidated Coal
Company

API: 47-051-01628

Farm name: _____

Well Name: MND-9E-HS

Stage No.	Stim Date	Top Perf	Bottom Perf	# of Perfs	Formation
35B	7/11/2014	10275	10326	36	Marcellus
36	7/11/2014	10135	10237	40	Marcellus
36B	7/12/2014	10144	10199	48	Marcellus
37	7/12/2014	9985	10087	40	Marcellus
38	7/12/2014	9835	9912	40	Marcellus
38B	7/13/2014	9825	9870	48	Marcellus
38C	7/17/2014	9839	9925	48	Marcellus
39	7/17/2014	9685	9787	40	Marcellus
40	7/18/2014	9535	9637	40	Marcellus
41	7/18/2014	9385	9487	40	Marcellus
42	7/19/2014	9235	9337	40	Marcellus
43	7/19/2014	9085	9187	40	Marcellus
44	7/19/2014	8935	9037	40	Marcellus
45	7/20/2014	8785	8887	40	Marcellus
46	7/20/2014	8635	8737	40	Marcellus
47	7/20/2014	8485	8587	40	Marcellus
48	7/21/2014	8335	8437	40	Marcellus
49	7/21/2014	8185	8287	40	Marcellus
50	7/21/2014	8035	8137	40	Marcellus
51	7/21/2014	7885	7987	40	Marcellus
52	7/21/2014	7735	7837	40	Marcellus
53	7/21/2014	7585	7687	40	Marcellus
54	7/22/2014	7435	7537	40	Marcellus
55	7/22/2014	7285	7387	40	Marcellus
56	7/22/2014	7135	7237	40	Marcellus
57	7/22/2014	6985	7087	40	Marcellus
58	7/22/2014	6835	6937	40	Marcellus

STIMULATION INFORMATION PER STAGE

API: 47-051-01628

Farm name:

Consolidated Coal Company

Well Name: MND-9E-HS

Stage No.	Stim Date	Avg Rate (bpm)	ATP (psi)	Max BD Pressure	ISIP (psi)	Proppant (lbs)	Water (BBLs)	Amount of N ² / other
Inj Test	5/22/2014	14.7	5661	5896		0	479.31	
Inj Test 2	5/23/2014	18.3	5178			0	522.95	
1	5/23/2014	86.9	7377	4939	3605	249615	6090.17	
2	5/23/2014	88.5	7952	4991	3724	244558	5812.41	
3	5/24/2014	89.8	7953	4869	3869	248557	6836.46	
4	5/24/2014	87.8	8016	5018	3327	248968	6056.86	
5	5/24/2014	60.7	8620	5495	5064	5276	2647.91	
5B	5/25/2014	68.3	7864		3780	248163	12560.55	
6	5/25/2014	40.6	8233	5406	5878	4850	2141.93	
6B	5/26/2014	66.3	8075		4144	246464	10830.14	
7	5/26/2014	74.4	7332	5312	3811	250694	7105.57	
8	5/27/2014	53.7	8380	5749	6035	73614	9627.61	
8B	5/27/2014	67.6	8114		7671	175209	6366.33	
9	5/28/2014	75.8	7475	5699	3698	249170	6940.75	
10	5/29/2014	38.6	7990	5663	5582	2434	4505.43	
10-restart	5/29/2014	45.7	8804		5796	986	1387.74	
10B	5/29/2014	73.1	7534		3398	246964	6061.69	
11	5/30/2014	67.6	7965	9962	9779	158129	6671.73	
11 Inj Test	6/4/2014	3.7	7397		9764	0	833.47	
11B Inj Test	6/9/2014	37.5	6209		4495	0	704.95	
11B	6/12/2014	72.9	7491	6231	4338	97942	4666.58	
12	6/13/2014	84.7	7212	5113	4018	251272	6644.89	
13	6/13/2014	87.3	7508	5245	4053	248189	6514.52	
14	6/14/2014	82.3	7079	5225	4393	248494	6331.55	
15	6/14/2014	82.8	7055	4955	4092	251832	6652.11	
16	6/14/2014	86.8	7329	5281	4497	248774	6368.49	
17	6/15/2014	84.7	7150	5282	4349	247012	6718.87	
18	6/15/2014	87.2	6938	4886	4383	248729	6724.81	
19	6/16/2014	85.9	7137	5330	4243	249915	6343.32	
20	6/16/2014	84.5	7099	5329	3942	246430	6350.95	
21	6/16/2014	59.8	9035	5747	8490	4688	4240.00	
21 Inj Test	6/23/2014	3.1	8352		9518	0	401.89	
21B	6/29/2014	3.6	8344				493.95	
21 Inj Test 2	7/6/2014	18.2	7743		6157	0	882.48	
21B Restart	7/6/2014	76.5	7393	6424	4377	250540	8142.50	
22	7/6/2014	72.2	6913	5343	4512	245414	9468.89	
23	7/7/2014	80.0	7104	5529	4599	249954	6665.92	
24	7/7/2014	80.1	7988	5894	4685	245883	6747.80	
25	7/7/2014	73.8	6816	5542	4548	243298	7360.24	
26	7/8/2014	83.4	7181	5568	4360	248036	6269.61	
27	7/8/2014	83.1	6744	5599	4423	250703	6482.21	

12/12/2014

STIMULATION INFORMATION PER STAGE

API: 47-051-01628

Farm name:

Consolidated Coal Company

Well Name: MND-9E-HS

Stage No.	Stim Date	Avg Rate (bpm)	ATP (psi)	Max BD Pressure	ISIP (psi)	Proppant (lbs)	Water (BBLS)	Amount of N ² / other
28	7/9/2014	80.7	6917	5503	4775	249711	6557.30	
29	7/9/2014	86.6	6917	5354	4369	249164	6284.39	
30	7/9/2014	85.4	6733	6144	4640	249965	6473.36	
31	7/10/2014	83.0	6767	5873	4520	245936	6288.20	
32	7/10/2014	86.8	7059	5756	4453	248594	6347.77	
33	7/10/2014	81.2	6876	5756	4520	249924	6104.92	
34	7/11/2014	85.4	6947	5465	4499	248245	6061.20	
35	7/11/2014	37.1	7445	5704	5825	4052	2028.74	
35B	7/11/2014	65.8	7423	6861	4096	244846	9082.91	
36	7/11/2014	42.7	7605	5880	5219	5889	3331.71	
36B	7/12/2014	74.1	6983	6657	4139	247840	6783.64	
37	7/12/2014	84.5	6919	5408	4558	247593	5890.54	
38	7/12/2014	47.7	8130	5949	5007	6013	2991.60	
38B	7/13/2014	64.1	7152		9573	130858	5549.22	
38C Inj	7/16/2014	20.7	4846			0	442.17	
38C	7/17/2014	66.5	6709	6612	4425	130276	5774.19	
39	7/17/2014	80.4	7171	5850	4757	247148	6241.48	
40	7/18/2014	83.6	6692	5335	4354	244743	8046.24	
41	7/18/2014	87.5	6677	6206	4446	248235	5865.31	
42	7/19/2014	80.5	6512	5740	4380	250670	7370.67	
43	7/19/2014	84.6	6739	6146	4433	250236	5804.96	
44	7/19/2014	83.1	6561	6356	4318	249695	6026.41	
45	7/20/2014	87.1	6597	5693	4331	250320	5968.91	
46	7/20/2014	87.2	6717	5517	4488	249000	5722.39	
47	7/20/2014	86.6	6551	5690	4474	247918	5991.67	
48	7/21/2014	87.6	6603	5221	4096	247766	5737.94	
49	7/21/2014	81.8	6562	5149	4442	250253	5784.75	
50	7/21/2014	87.0	6725	4980	4667	247051	5599.84	
51	7/21/2014	87.3	6783	5641	4508	249795	5688.29	
52	7/21/2014	88.4	6777	5908	4554	248829	6463.96	
53	7/21/2014	84.8	6439	6046	4668	249365	6181.55	
54	7/22/2014	85.2	6489	5761	4580	249609	6442.69	
55	7/22/2014	88.6	6607	6415	4443	249387	5680.12	
56	7/22/2014	88.5	7319	6269	4567	250144	5631.94	
57	7/22/2014	88.2	6558	5858	4620	247749	5487.20	
58	7/22/2014	86.0	6558	5793	4822	246035	5391.40	

12/12/2014

API 47- 051 - 01628 Farm name Consolidated Coal Company Well number MND9 EHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6248</u> TVD	<u>15720</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 2112 mcfpd Oil 528 bpd NGL 344 bpd Water 816 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</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</u>	<u>TVD</u>	<u>MD</u>	<u>MD</u>	
	<u>PLEASE SEE ATTACHED</u>	<u>FORMATION SHEET</u>	<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 E

47-051-01628

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



51-01628

Job Start Date:	5/22/2014
Job End Date:	7/22/2014
State:	West Virginia
County:	Marshall
API Number:	47-051-01628-08-00
Operator Name:	Noble Energy, Inc.
Well Name and Number:	MND9 E
Longitude:	-80.78725600
Latitude:	39.83152800
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,248
Total Base Water Volume (gal):	18,939,773
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	90.11601	Density = 8.400
SAND - PREMIUM WHITE 40/70	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	4.89651	
Sand - Premium White 100 Mesh	Halliburton	Proppant					
			Crystalline silica, quartz	14808-60-7	100.00000	3.60545	
HYDROCHLORIC ACID 5-10%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	10.00000	0.11562	
FR-66	Halliburton	Friction Reducer					
			Hydrotreated light petroleum distillate	54742-47-8	30.00000	0.02145	
HYDROCHLORIC ACID 10-30%	Halliburton	Solvent					
			Hydrochloric acid	7647-01-0	30.00000	0.01939	
LGC-36 UC	Halliburton	Liquid Gel Concentrate					
			Guar gum	9000-30-0	60.00000	0.00846	
			Naphtha, hydrotreated heavy	54742-48-9	60.00000	0.00846	
FE-1A ACIDIZING COMPOSITION	Halliburton	Acid Additive					

			Acetic anhydride	108-24-7	100.00000	0.00642	
			Acetic acid	64-19-7	60.00000	0.00385	
BE-9	Halliburton	Biocide					
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00398	
Scalechek(R) LP-65 Scale Inhibitor	Halliburton	Scale Inhibitor					
			Ammonium chloride	12125-02-9	10.00000	0.00239	
LoSurf-300D	Halliburton	Non-ionic Surfactant					
			Ethanol	64-17-5	60.00000	0.00129	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00065	
			Naphthalene	91-20-3	5.00000	0.00011	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00011	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00002	
PermVis VFR-10	Halliburton	Friciton Reducer					
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.00060	
			Ammonium chloride	12125-02-9	10.00000	0.00020	
			Alcohols, C12-16, ethoxylated	68551-12-2	10.00000	0.00020	
			9-Octadecenamide, n,n-bis-2(hydroxy-ethyl)-, (Z)	93-83-4	5.00000	0.00010	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00064	
			Propargyl alcohol	107-19-7	10.00000	0.00011	
SP BREAKER	Halliburton	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00029	
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		1.31846	
		Other Ingredient(s)					
			Polyacrylamide copolymer	Confidential		0.02145	
		Other Ingredient(s)					
			Organic phosphonate	Confidential		0.01435	
		Other Ingredient(s)					
			Sodium chloride	7647-14-5		0.00357	
		Other Ingredient(s)					
			Ammonium chloride	12125-02-9		0.00357	
		Other Ingredient(s)					
			Fatty acid tall oil amide	Confidential		0.00357	Denise Tuck, Halliburton 3000 N. Sam Houston Pkwy E., Houston, TX 77032 281-871-6226
		Other Ingredient(s)					
			Alcohols, C12-16, ethoxylated	68551-12-2		0.00357	

51-01628

	Other Ingredient(s)					
		Sorbitan monooleate polyoxyethylene derivative	9005-65-6			0.00072
	Other Ingredient(s)					
		Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8			0.00072
	Other Ingredient(s)					
		Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite	68953-58-2			0.00071
	Other Ingredient(s)					
		Oxyalkylated phenolic resin	Confidential			0.00065
	Other Ingredient(s)					
		Inorganic salt	Confidential			0.00060
	Other Ingredient(s)					
		Polyacrylate	Confidential			0.00060
	Other Ingredient(s)					
		Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1			0.00032
	Other Ingredient(s)					
		Alcohols, C14-C15, ethoxylated	68951-67-7			0.00032
	Other Ingredient(s)					
		Fatty acids, tall oil	Confidential			0.00032
	Other Ingredient(s)					
		Formaldehyde	50-00-0			0.00024
	Other Ingredient(s)					
		Oxyalkylated phenolic resin	Confidential			0.00022
	Other Ingredient(s)					
		Fatty alcohol polyglycol ether surfactant	9043-30-5			0.00014
	Other Ingredient(s)					
		Fatty acid ester	Confidential			0.00010
	Other Ingredient(s)					
		Olefins	Confidential			0.00005
	Other Ingredient(s)					
		Olefins	Confidential			0.00005
	Other Ingredient(s)					
		Crystalline silica, quartz	14808-60-7			0.00001
	Other Ingredient(s)					
		Olefins	Confidential			0.00001
	Other Ingredient(s)					
		Olefins	Confidential			0.00001
	Other Ingredient(s)					
		Sodium sulfate	7757-82-6			0.00000

51-01628

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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 659' feet south of Latitude: 39° 50' 00"

Well is located on topo map 10,474' feet west of Longitude: 80° 45' 00"

AS DRILLED PLAT

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
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LEGEND

	- TOPO MAP POINT
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	- MINERAL TRACT ON ATTACHED WW-6A1
	- MINERAL TRACT BOUNDARY
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	- WELL REFERENCE
	- PROPOSED HORIZONTAL WELL
	- ROAD
	- STREAM CENTER LINE
	- AS DRILLED
WELLS WITHIN 3000'	
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PERMITTED APPROX. LANDING POINT
 UTM 17-NAD83
 N:4409410.62
 E:518375.20
 NAD27, WV NORTH
 N:488613.023
 E:1639021.299

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 N:4411560.49
 E:516821.03
 NAD27, WV NORTH
 N:495753.113
 E:1634039.177

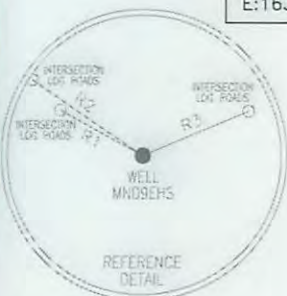
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LINE	BEARING	DISTANCE
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R2	N 72°14'08" W	275.73'
R3	N 85°34'08" E	211.70'
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R5	S 17°19'01" E	1376.87'
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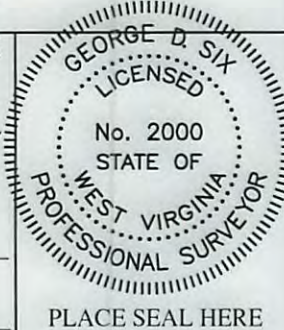


Blue Mountain Inc.
 11023 MASON DIXON HIGHWAY
 BURTON, WV 26562
 PHONE: (304) 662-6486

FILE #: MND9EHS-AS DRILLED
 DRAWING #: MND9EHS-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



(+) 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 #: MND9EHS-AS DRILLED
 API WELL #: 47 51 01628
 STATE COUNTY PERMIT

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

WATERSHED: CONNER RUN ELEVATION: 1218.78'

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: 653.407±

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: 15,971±

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

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