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WR-35
Rev. 8/23/13

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

API 47 - 051 - 01686 County Marshall District Sandhill
Quad Valley Grove Pad Name SHL25 Field/Pool Name NA
Farm name David Rutherford Well Number SHL25 DHS
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 4427953.61 Easting 538163.45
Landing Point of Curve Northing 4427955.24 Easting 537974.26
Bottom Hole Northing 4429578.95 Easting 536792.61

Elevation (ft) 1344.75 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 11/18/2013 Date drilling commenced 3/2/2014 Date drilling ceased 5/9/2014
Date completion activities began 8/6/2014 Date completion activities ceased 10/4/2014
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 213 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 810', 866' Pittsburgh Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) Y, Shoemaker Mine 866'

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API 47-051 - 01686 Farm name David Rutherford Well number SHL25 DHS

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	36	30	40	N			
Surface	24	20	415.7	N	J-55 94#		Y
Coal							
Intermediate 1	17 1/2	13 3/8	1249.90	N	J-55 54.5#		Y
Intermediate 2	12 1/4	9 5/8	3282.31	N	K-55 36#		Y
Intermediate 3							
Production	8 3/4	5 1/2	13754.58	N	P-110 20#		Y
Tubing							
Packer type and depth set							

Comment Details Surface Casing 4 centralizer and 2 baskets, Intermediate 1 11 Centralizers, Intermediate 2 42 Centralizers, Production 251 Centralizers

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	487	15.60	1.18	103.0	0	8
Coal							
Intermediate 1	Type I	1027	15.60	1.20	220.0	0	8
Intermediate 2	Type I	1265	15.60	1.20	301.0	0	8
Intermediate 3							
Production	Class A	2820	14.80	1.25	628.0	0	8
Tubing							

Drillers TD (ft) 13.788 Loggers TD (ft) 13763

Deepest formation penetrated Marcellus Plug back to (ft) Not a Pilot Hole

Plug back procedure Not a Pilot Hole

Kick off depth (ft) 5995

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 _____

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API 47- 051 - 01686 Farm name David Rutherford Well number SHL25 DHS

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 (bbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable.

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Perforation Record

API: 47-051-01686

Farm name: _____

David & Joy
Rutherford ET AL

Well Name: SHL-25D-HS

Stage No.	Stim Date	Top Perf	Bottom Perf	# of Perfs	Formation
Toe Sleeve	8/4/2014	13650	13653		
Toe Sub Inj Test	8/7/2014			-	Marcellus
1.1	8/8/2014	13352	13626	50	Marcellus
1.2	8/8/2014				Marcellus
1.3	8/8/2014				Marcellus
2.1	8/9/2014	13053	13327	50	Marcellus
2.2	8/9/2014				Marcellus
2.3	8/9/2014				Marcellus
3.1	8/10/2014	12754	13028	50	Marcellus
3.2	8/10/2014				Marcellus
3.3	8/10/2014				Marcellus
4.1	8/11/2014	12455	12729	50	Marcellus
4.2	8/11/2014				Marcellus
4.3	8/11/2014				Marcellus
5.1	8/12/2014	12156	12430	50	Marcellus
5.2	8/12/2014				Marcellus
SB (Reperf)	8/13/2014	12151	12163	40	Marcellus
6.1	8/13/2014	11857	12131	50	Marcellus
6.2	8/13/2014				Marcellus
6.3	8/13/2014				Marcellus
7.1	8/14/2014	11558	11832	50	Marcellus
7.2	8/14/2014				Marcellus
7.3	8/14/2014				Marcellus
8.1	8/14/2014	11259	11533	50	Marcellus
8.2	8/15/2014				Marcellus
8.3	8/15/2014				Marcellus
9.1	8/15/2014	10960	11234	50	Marcellus
9B.1 (Reperf)	8/15/2014	10994	11107	48	Marcellus
9C.1 (Reperf)	8/16/2014	10864	10930	36	Marcellus
9C.2	8/16/2014				Marcellus
9C.3	8/16/2014				Marcellus
10.1	8/17/2014	10553	10827	50	Marcellus
10.2	8/17/2014				Marcellus
10.3	8/17/2014				Marcellus
11.1	8/17/2014	10254	10528	50	Marcellus
11.2	8/17/2014				Marcellus
11B.1 (Reperf)	8/18/2014	10280	10337	48	Marcellus
11B.2	8/18/2014				Marcellus
12.1	8/19/2014	9955	10229	50	Marcellus
12.2	8/19/2014				Marcellus
12.3	8/19/2014				Marcellus

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Perforation Record

API: 47-051-01686

Farm name: David & Joy
Rutherford ET AL

Well Name: SHL-25D-HS

Stage No.	Stim Date	Top Perf	Bottom Perf	# of Perfs	Formation
12B.1 (Reperf)	8/19/2014	9979	10071	40	Marcellus
13-Diff PTR Format-	8/20/2014	9656	9930	25	Marcellus
13B (Reperf)	8/20/2014	9646	9719	36	Marcellus
14 Inj Test	8/26/2014	9646	9930	-	Marcellus
14	9/1/2014	9357	9628	50	Marcellus
15	9/2/2014	9058	9332	50	Marcellus
16	9/3/2014	8759	9033	50	Marcellus
16 Inj Test I	9/5/2014	8759	9033	-	Marcellus
16 Inj Test II	9/10/2014	8759	9033	-	Marcellus
17	9/11/2014	8460	8734	50	Marcellus
18	9/12/2014	8161	8435	50	Marcellus
19	9/12/2014	7862	8136	50	Marcellus
20	9/13/2014	7563	7837	50	Marcellus
21	9/13/2014	7264	7537	50	Marcellus
22	9/13/2014	6965	7236	50	Marcellus
23	9/14/2014	6838	6940	50	Marcellus

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STIMULATION INFORMATION PER STAGE

API: 47-051-01686

Farm name:

David & Joy Rutherford ET
AL

Well Name: SHL-25D-HS

Stage No.	Stim Date	Avg Rate (bpm)	ATP (psi)	Max BD Pressure	ISIP (psi)	Proppant (lbs)	Water (BBLs)	Amount of N ² / other (units)
Toe Sub Inj Test	8/7/2014	10	8,352	9,295	5,678	-	478.40	
1.1	8/8/2014	81.2	7,938	5,770	3,827	199,483	5,945.80	
1.2	8/8/2014	86.7	8,204	6,331	-	201,051	6,186.06	
1.3	8/8/2014	87.5	8,163	5,956	-	200,430	6,286.80	
2.1	8/9/2014	87.7	7,490	6,088	4,055	200,834	7,069.78	
2.2	8/9/2014	88.1	7,687	5,344	-	199,066	6,769.01	
2.3	8/9/2014	89.9	7,801	5,368	-	200,151	6,723.61	
3.1	8/10/2014	87.1	7,867	5,914	4,011	198,752	6,060.83	
3.2	8/10/2014	87.8	8,013	5,878	-	201,555	6,341.12	
3.3	8/10/2014	85.7	8,136	6,050	-	199,824	6,379.24	
4.1	8/11/2014	74.8	7,875	5,615	4,630	198,394	6,804.86	
4.2	8/11/2014	84	8,347	6,411	-	202,280	6,115.64	
4.3	8/11/2014	86.2	7,944	5,565	-	199,902	6,095.24	
5.1	8/12/2014	83.4	8,382	5,906	5,857	200,288	6,080.90	
5.2	8/12/2014	59.7	8,668	8,757	-	202,439	6,386.40	
5B (Reperf)	8/13/2014	77.4	8,066	6,603	4,160	196,667	5,898.33	
6.1	8/13/2014	82.9	7,618	5,820	4,393	203,644	6,319.17	
6.2	8/13/2014	85.3	7,474	5,486	-	200,412	6,608.21	
6.3	8/13/2014	82.8	7,523	5,763	-	196,698	6,410.52	
7.1	8/14/2014	81	7,615	5,779	4,130	199,313	5,868.91	
7.2	8/14/2014	80.3	7,599	6,106	-	201,133	5,883.35	
7.3	8/14/2014	82	7,723	6,002	-	197,163	5,918.18	
8.1	8/14/2014	77.5	7,780	6,022	5,262	201,524	9,052.18	
8.2	8/15/2014	79	7,776	6,545	-	199,146	6,513.18	
8.3	8/15/2014	70.7	7,559	6,095	-	121,478	6,945.35	
9.1	8/15/2014	45.3	8,116	6,101	5,201	11,273	3,846.20	
9B.1 (Reperf)	8/15/2014	44.2	8,217	6,793	6,208	13,063	8,312.67	
9C.1 (Reperf)	8/16/2014	74.4	7,597	6,352	4,046	243,363	10,742.25	
9C.2	8/16/2014	69.1	7,424	6,381	-	234,105	11,086.85	
9C.3	8/16/2014	50.2	8,094	6,966	-	199,674	11,006.78	
10.1	8/17/2014	84.4	7,509	6,171	4,468	202,195	6,435.53	
10.2	8/17/2014	86.6	7,592	5,461	-	201,775	6,206.17	
10.3	8/17/2014	86.6	7,560	5,301	-	196,615	5,531.81	
11.1	8/17/2014	83.4	7,562	5,762	7,080	205,129	5,614.19	
11.2	8/17/2014	40.4	7,773	6,680	-	6,397	5,006.29	
11B.1 (Reperf)	8/18/2014	66.4	7,946	6,349	4,746	199,704	9,615.40	
11B.2	8/18/2014	75.8	7,628	6,782	-	203,332	7,850.19	
12.1	8/19/2014	79.1	6,919	5,898	4,894	199,305	6,052.12	
12.2	8/19/2014	76.1	6,954	5,189	-	197,413	6,266.45	
12.3	8/19/2014	37.3	7,836	8,060	-	2,773	3,167.50	
12B.1 (Reperf)	8/19/2014	79.3	7,120	5,908	4,445	197,487	6,503.11	

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STIMULATION INFORMATION PER STAGE

API: 47-051-01686

Farm name:

David & Joy Rutherford ET

AL

Well Name: SHL-25D-HS

Stage No.	Stim Date	Avg Rate (bpm)	ATP (psi)	Max BD Pressure	ISIP (psi)	Proppant (lbs)	Water (BBLs)	Amount of N ² / other (units)
13-Diff PTR Format-	8/20/2014	40.5	7,889	6,524	4,831	198,737	8,611.58	
13B (Reperf)	8/20/2014	72.4	7,812	6,188	3,963	400,018	13,033.20	
14 Inj Test	8/26/2014	26.3	5,543	-	4,972	-	465.24	
14	9/1/2014	73.3	6,740	6,444	4,189	601,406	17,568.19	
15	9/2/2014	73.2	6,709	6,577	4,278	601,209	17,223.60	
16	9/3/2014	72.2	6,943	6,680	9,136	588,478	17,538.73	
16 Inj Test I	9/5/2014	3.2	7,508	-	9,624	-	347.26	
16 Inj Test II	9/10/2014	16	4,107	-	-	-	338.57	
17	9/11/2014	87.1	7,113	6,235	4,171	599,839	18,859.60	
18	9/12/2014	88.3	6,738	6,477	4,150	601,210	18,008.50	
19	9/12/2014	90.3	6,615	6,129	4,315	601,767	18,054.68	
20	9/13/2014	89.5	6,679	6,525	4,460	601,657	17,785.08	
21	9/13/2014	88.5	6,793	7,168	4,461	603,103	17,786.19	
22	9/13/2014	89.2	6,937	6,244	4,631	600,771	19,558.20	
23	9/14/2014	90	6,201	6,272	4,371	599,941	16,639.09	

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SHL25 DHS
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Formations	Top TVD	Base TVD	Top MD	Base MD	Fluid
Shale	0	812	0	812	
Pittsburgh Coal	812	822	812	822	
Shale and Sandstone	822	1420	822	1420	
Gas Sand	1420	1473	1420	1473	
Shale	1473	1517	1473	1517	
1st Salt Sand	1517	1595	1517	1595	
2nd Salt Sand	1595	1606	1595	2944	
3rd Salt Sand	1606	1665	1606	2977	
Shale	1665	1700	1665	3364	
Maxton Sand	1700	1838	1700	3388	
Shale	1838	1860	1838	4281	
Big Lime	1860	1946	1860	4295	
Big Injun	1946	2126	1946	5211	
Price	2126	2465	2126	5282	
Murrysville	2465	2488	2465	5326	
Shale and Sandstone	2488	2715	2488	5959	
50' Sand	2715	2728	2715	3388	
Shale	2728	2814	2728	4281	
Gordon Stray	2814	2821	2814	4295	
Shale	2821	2836	2821	5211	
Gordon	2836	2854	2836	5282	
Shale	2854	2944	2854	5326	
Fifth Sand	2944	2977	2944	2977	
Shale	2977	3363	2977	3364	
Speechley Sand	3363	3387	3364	3388	
Shale	3387	4271	3388	4281	
Warren Sand	4271	4285	4281	4295	
Shale	4285	5192	4295	5211	
Java Shale	5192	5262	5211	5282	
Pipe Creek Shale	5262	5306	5282	5326	
Angola Shale	5306	5932	5326	5959	
Rhinestreet	5932	6346	5959	6404	
Cashaqua	6346	6438	6404	6533	
Middlesex	6438	6475	6533	6597	
West River	6475	6516	6597	6684	
Burkett	6516	6549	6684	6774	Gas
Tully Limestone	6549	6577	6774	not encountered	
Hamilton	6577	6691	not encountered	not encountered	
Marcellus	6691		not encountered	not encountered	

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/8/2014
Job End Date:	9/14/2014
State:	West Virginia
County:	Marshall
API Number:	47-051-01686-00-00
Operator Name:	Noble Energy, Inc.
Well Name and Number:	SHL 25 D
Longitude:	-80.55311100
Latitude:	40.00083300
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	6,677
Total Base Water Volume (gal):	19,335,175
Total Base Non Water Volume:	0

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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	90.96671	Density = 8.330
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	6.23380	
SSA-2	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100.00000	1.57654	
HYDROCHLORIC ACID 5-10%	Halliburton	Solvent	Hydrochloric acid	7647-01-0	10.00000	0.10163	
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02066	
HYDROCHLORIC ACID 10-30%	Halliburton	Solvent	Hydrochloric acid	7647-01-0	30.00000	0.01818	
FE-1A ACIDIZING COMPOSITION	Halliburton	Additive	Acetic anhydride	108-24-7	100.00000	0.00501	
			Acetic acid	64-19-7	60.00000	0.00301	
BE-9	Halliburton	Biocide					

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			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000	0.00416	
LP-65	Halliburton	Scale Inhibitor					
			Ammonium chloride	12125-02-9	10.00000	0.00251	
Biovert NWB	Halliburton	Viscosifier					
			Poly lactide resin	Confidential	100.00000	0.00176	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	0.00101	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00050	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00008	
			Naphthalene	91-20-3	5.00000	0.00008	
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00002	
LGC-36 UC	Halliburton	Liquid Gel Concentrate					
			Naphtha, hydrotreated heavy	64742-48-9	60.00000	0.00076	
			Guar gum	9000-30-0	60.00000	0.00076	
HAI-OS ACID INHIBITOR	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00050	
			Propargyl alcohol	107-19-7	10.00000	0.00008	
SP BREAKER	Halliburton	Breaker					
			Sodium persulfate	7775-27-1	100.00000	0.00003	
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		1.17480	
		Other Ingredient(s)					
			Polyacrylamide copolymer	Confidential		0.02066	
		Other Ingredient(s)					
			Organic phosphonate	Confidential		0.01503	
		Other Ingredient(s)					
			Sodium chloride	7647-14-5		0.00344	
		Other Ingredient(s)					
			Alcohols, C12-16, ethoxylated	68551-12-2		0.00344	
		Other Ingredient(s)					
			Ammonium chloride	12125-02-9		0.00344	
		Other Ingredient(s)					
			Fatty acid tall oil amide	Confidential		0.00344	
		Other Ingredient(s)					
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6		0.00069	
		Other Ingredient(s)					

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			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8		0.00069	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00050	
		Other Ingredient(s)					
			Formaldehyde	50-00-0		0.00025	
		Other Ingredient(s)					
			Alcohols, C14-C15, ethoxylated	68951-67-7		0.00025	
		Other Ingredient(s)					
			Fatty acids, tall oil	Confidential		0.00025	
		Other Ingredient(s)					
			Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide	68527-49-1		0.00025	
		Other Ingredient(s)					
			Oxyalkylated phenolic resin	Confidential		0.00017	
		Other Ingredient(s)					
			Quaternary ammonium compounds, bis(hydrogenated tallow alkyl) dimethyl, salts with bentonite	68953-58-2		0.00006	
		Other Ingredient(s)					
			Olefins	Confidential		0.00004	
		Other Ingredient(s)					
			Olefins	Confidential		0.00004	
		Other Ingredient(s)					
			Fatty alcohol polyglycol ether surfactant	9043-30-5		0.00001	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Olefins	Confidential		0.00001	
		Other Ingredient(s)					
			Crystalline silica, quartz	14808-60-7		0.00000	
		Other Ingredient(s)					
			Sodium sulfate	7757-82-6		0.00000	

5161686

* 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)

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Well is located on topo map 14,868' feet south of Latitude: 40° 02' 30"

Well is located on topo map 3,181' feet west of Longitude: 80° 32' 30"

AS DRILLED PLAT

PERMITTED APPROX. LANDING POINT	
UTM 17-NAD83	N:4427949.56 E:537978.05
NAD27, WV NORTH	N:548372.17 E:1704362.53

AS DRILLED APPROX. LANDING POINT	
UTM 17-NAD83	N:4427955.24 E:537974.26
NAD27, WV NORTH	N:548391.01 E:1704350.40

PARCEL	LESSOR
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2	ASAD A. KHAN ET AL.
3	FRANKLIN J. PROVANCE ET UX.
4	DELBERT L. NELSON ET UX.
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NOTES:

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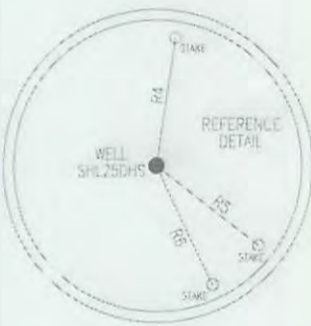
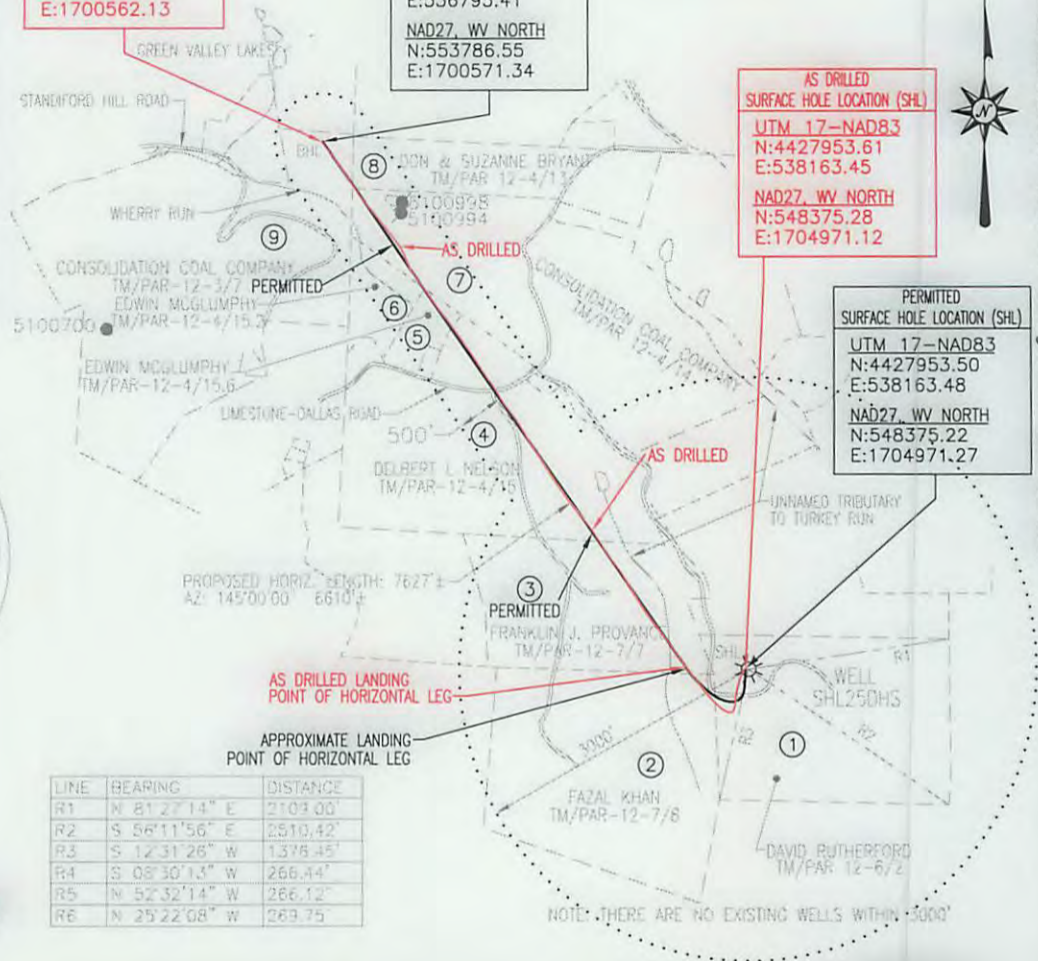
LEGEND	
	- TOPO MAP POINT
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	- MINERAL TRACT BOUNDARY
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	- AS DRILLED
EXISTING WELLS	
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AS DRILLED BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83	N:4429578.95 E:536792.61
NAD27, WV NORTH	N:553784.17 E:1700562.13

PERMITTED BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83	N:4429579.72 E:536795.41
NAD27, WV NORTH	N:553786.55 E:1700571.34

AS DRILLED SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83	N:4427953.61 E:538163.45
NAD27, WV NORTH	N:548375.28 E:1704971.12

PERMITTED SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83	N:4427953.50 E:538163.48
NAD27, WV NORTH	N:548375.22 E:1704971.27



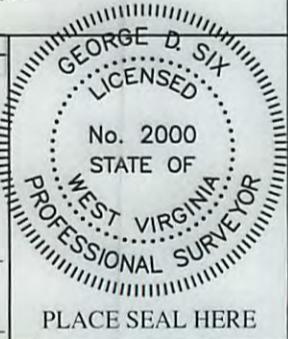
LINE	BEARING	DISTANCE
R1	N 81° 27' 14" E	2103.00'
R2	S 56° 11' 56" E	2510.42'
R3	S 12° 31' 26" W	1378.45'
R4	S 08° 30' 13" W	266.44'
R5	N 52° 32' 14" W	266.12'
R6	N 25° 22' 08" W	263.75'

Blue Mountain Inc.
10125 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

FILE #: SHL25DHS-AS DRILLED
DRAWING #: SHL25DHS-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



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



DATE: DECEMBER 8, 2014
OPERATOR'S WELL #: SHL25DHS-AS DRILLED
API WELL #: 47 51 01686
STATE COUNTY PERMIT

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

WATERSHED: WHEELING CREEK ELEVATION: 1344.75'
COUNTY/DISTRICT: MARSHALL / SAND HILL QUADRANGLE: VALLEY GROVE, WV 7.5'
SURFACE OWNER: DAVID RUTHERFORD ACREAGE: 95.912±
OIL & GAS ROYALTY OWNER: DAVID RUTHERFORD ET UX. ACREAGE: 757.697±

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: 6,823'± TMD: 13,904'±
WELL OPERATOR NOBLE ENERGY, INC. DESIGNATED AGENT STEVEN M. GREEN
Address 333 TECHNOLOGY DRIVE, SUITE 116 Address 500 VIRGINIA STREET EAST, UNITED CENTER SUITE 590
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

01/16/2015

Well is located on topo map 14,868' feet south of Latitude: 40° 02' 30"

AS DRILLED PLAT

Well is located on topo map 3,181' feet west of Longitude: 80° 32' 30"

PERMITTED APPROX. LANDING POINT	
UTM 17-NAD83	N:4427949.56
	E:537978.05
NAD27, WV NORTH	N:548372.17
	E:1704362.53

AS DRILLED APPROX. LANDING POINT	
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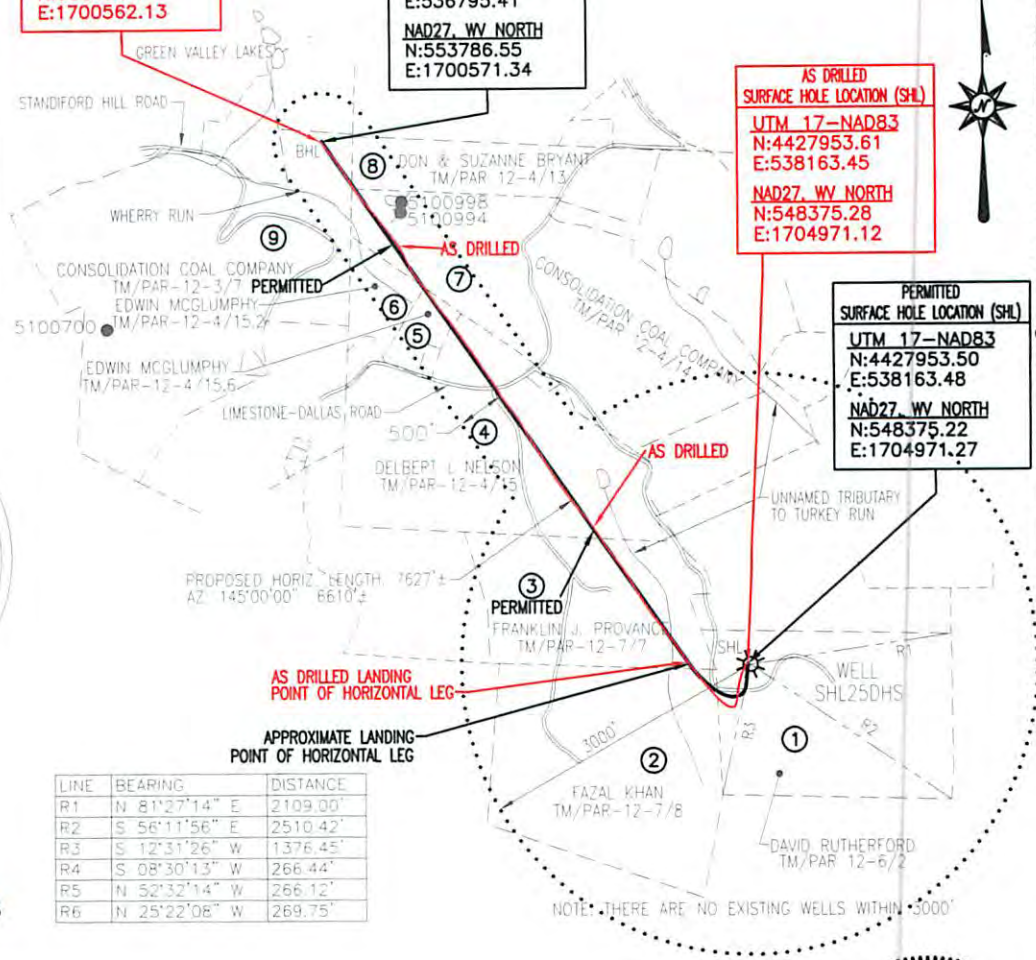
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Received
Office of Oil & Gas
DEC 15 2014

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

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

PLACE SEAL HERE

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