

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

API 47-033-05887 County Harrison District Clark
Quad Mt. Clare Pad Name Goff 5-55 Field/Pool Name _____
Farm name Dimaria, Sharon E. Well Number 213
Operator (as registered with the OOG) Arsenal Resources
Address 6031 Wallace Rd. Ext City Wexford State PA Zip 15090

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4345663.8 Easting 553456.4
Landing Point of Curve Northing 4345604.7 Easting 553176.6
Bottom Hole Northing 4347982.7 Easting 552283.2

Elevation (ft) 1156.40 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 muds

Date permit issued 02/28/2017 Date drilling commenced 08/06/2017 Date drilling ceased 08/16/2017
Date completion activities began 10/23/2017 Date completion activities ceased 11/08/2017
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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

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Freshwater depth(s) ft 640' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,030' Void(s) encountered (Y/N) depths N WV Department of
Coal depth(s) ft Pittsburgh - 30.5' Cavern(s) encountered (Y/N) depths N Environmental Protection
Is coal being mined in area (Y/N) N

Reviewed

SDW
4/11/2018

Reviewed by:

[Signature]

API 47-033 - 05887 Farm name Dimaria, Sharon E. Well number 213

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"	24"	80'	New	94.0	NA	Y
Surface	17.5"	13 3/8"	707'	New	54.50	120'	Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,498'	New	40.0	NA	Y
Intermediate 2							
Intermediate 3							
Production	8 1/2"	5 1/2"	15,887'	New	20.0	NA	N
Tubing							
Packer type and depth set							

Comment Details Cement to surface on Conductor, Surface, and Intermediate. Top of Cement at 1,832 ft.

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	A	200	15.6	1.20	240	Surface	8+
Surface	A	665	15.6	1.20	798	Surface	8+
Coal							
Intermediate 1	A	143/651	15.2/15.7	1.26/1.28	180/833	Surface	8+
Intermediate 2							
Intermediate 3							
Production	A	853/1872	13.8/15.0	1.34/1.29	1143/2415	1832'	8+
Tubing							

Drillers TD (ft) 15,925 ft Loggers TD (ft) NA

Deepest formation penetrated Marcellus Plug back to (ft) NA

Plug back procedure NA

Kick off depth (ft) 6,467

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 20" - No centralizers 13 3/8" - one bow spring centralizer on every other joint 9 5/8" - one bow spring centralizer every third joint from TD to surface 5 1/2" - one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP.
Every third joint from KOP to 2,600'; there will be no centralizers from 2,600' to surface.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS Well completed in 42 stages. 1,680 perforations.

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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Perforation Record

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations (s)
42	11/8/2017 10:36	7,468.00	7,629.00	40	Marcellus Shale
41	11/8/2017 3:12	7,667.00	7,829.00	40	Marcellus Shale
40	11/7/2017 18:42	7,867.00	8,029.00	40	Marcellus Shale
39	11/7/2017 9:57	8,067.00	8,229.00	40	Marcellus Shale
38	11/7/2017 1:51	8,267.00	8,429.00	40	Marcellus Shale
37	11/6/2017 18:59	8,467.00	8,629.00	40	Marcellus Shale
36	11/6/2017 9:28	8,667.00	8,829.00	40	Marcellus Shale
35	11/5/2017 1:44	8,867.00	9,029.00	40	Marcellus Shale
34	11/5/2017 17:18	9,067.00	9,229.00	40	Marcellus Shale
33	11/5/2017 9:59	9,267.00	9,429.00	40	Marcellus Shale
32	11/5/2017 2:09	9,467.00	9,629.00	40	Marcellus Shale
31	11/4/2017 20:02	9,667.00	9,829.00	40	Marcellus Shale
30	11/4/2017 11:19	9,867.00	10,029.00	40	Marcellus Shale
29	11/3/2017 23:08	10,067.00	10,229.00	40	Marcellus Shale
28	11/3/2017 14:22	10,267.00	10,429.00	40	Marcellus Shale
27	11/3/2017 6:23	10,467.00	10,629.00	40	Marcellus Shale
26	11/2/2017 22:21	10,667.00	10,829.00	40	Marcellus Shale
25	11/2/2017 14:45	10,867.00	11,029.00	40	Marcellus Shale
24	11/2/2017 8:40	11,067.00	11,229.00	40	Marcellus Shale
23	11/2/2017 0:51	11,267.00	11,429.00	40	Marcellus Shale
22	11/1/2017 14:56	11,467.00	11,629.00	40	Marcellus Shale
21	10/31/2017 21:57	11,667.00	11,829.00	40	Marcellus Shale
20	10/31/2017 10:04	11,867.00	12,029.00	40	Marcellus Shale
19	10/30/2017 0:40	12,067.00	12,229.00	40	Marcellus Shale
18	10/30/2017 15:20	12,267.00	12,429.00	40	Marcellus Shale
17	10/30/2017 3:31	12,467.00	12,629.00	40	Marcellus Shale
16	10/30/2017 17:42	12,667.00	12,829.00	40	Marcellus Shale
15	10/29/2017 8:37	12,867.00	13,029.00	40	Marcellus Shale
14	10/28/2017 20:54	13,067.00	13,229.00	40	Marcellus Shale
13	10/28/2017 9:24	13,267.00	13,429.00	40	Marcellus Shale
12	10/27/2017 22:50	13,467.00	13,629.00	40	Marcellus Shale
11	10/27/2017 9:44	13,667.00	13,829.00	40	Marcellus Shale
10	10/26/2017 23:33	13,867.00	14,029.00	40	Marcellus Shale
9	10/26/2017 11:59	14,067.00	14,229.00	40	Marcellus Shale
8	10/26/2017 2:23	14,267.00	14,429.00	40	Marcellus Shale
7	10/26/2017 17:07	14,467.00	14,629.00	40	Marcellus Shale
6	10/25/2017 4:01	14,667.00	14,829.00	40	Marcellus Shale
5	10/25/2017 19:17	14,867.00	15,029.00	40	Marcellus Shale
4	10/24/2017 8:22	15,067.00	15,229.00	40	Marcellus Shale
3	10/23/2017 22:07	15,267.00	15,429.00	40	Marcellus Shale
2	10/23/2017 11:46	15,467.00	15,629.00	40	Marcellus Shale
1	10/4/2017 6:00	15,667.00	15,827.00	40	Marcellus Shale

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Stimulation Information Per 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)
1	10/23/2017	67.00	7,843	5197	5,086	500,860	12,243
2	10/23/2017	65.00	8,446	6651	5,211	502,660	14,060
3	10/24/2017	69.00	8,442	6905	4,856	475,680	10,874
4	10/24/2017	71.00	8,225	6214	5,370	502,100	12,583
5	10/24/2017	71.00	8,426	6339	5,716	500,140	13,330
6	10/25/2017	69.00	8,315	6707	5,372	496,500	11,984
7	10/25/2017	72.00	8,206	6129	5,484	501,040	10,078
8	10/26/2017	72.00	8,222	6701	5,556	500,240	11,395
9	10/26/2017	71.00	8,497	6917	5,745	493,700	11,800
10	10/27/2017	73.00	8,235	5995	5,393	501,120	11,978
11	10/27/2017	69.00	8,425	7231	5,936	505,840	13,503
12	10/28/2017	66.00	8,234	6367	5,633	499,200	13,281
13	10/28/2017	64.00	8,233	6751	5,562	504,980	13,408
14	10/29/2017	72.00	8,278	6639	5,194	501,300	12,039
15	10/29/2017	71.00	7,854	6517	5,514	496,260	11,384
16	10/29/2017	75.00	8,174	6581	5,540	500,840	11,605
17	10/30/2017	73.00	7,931	6541	5,297	499,660	11,426
18	10/30/2017	78.00	8,118	5988	6,026	504,060	12,541
19	10/31/2017	76.00	7,835	8376	6,086	505,800	10,633
20	10/31/2017	81.00	7,988	6424	5,554	505,780	9,825
21	11/01/2017	67.00	7,619	6639	5,963	468,660	14,103
22	11/01/2017	80.00	7,899	6860	5,662	504,520	9,887
23	11/02/2017	80.00	8,077	6887	5,444	496,860	10,710
24	11/02/2017	77.00	8,016	7373	5,661	500,020	11,653
25	11/02/2017	80.00	7,768	6804	5,687	505,080	10,147
26	11/03/2017	80.00	7,513	6315	5,816	501,240	9,705
27	11/03/2017	78.00	7,465	6695	5,755	508,180	12,102
28	11/03/2017	78.00	7,749	6398	5,254	496,060	10,808
29	11/04/2017	75.00	7,655	6206	5,310	493,180	12,610
30	11/04/2017	79.00	7,698	6568	5,498	502,260	10,978
31	11/04/2017	81.00	7,374	6674	5,547	501,160	9,204
32	11/05/2017	79.00	7,444	6937	5,072	500,940	9,843
33	11/05/2017	79.00	7,296	6569	5,504	502,180	9,221
34	11/05/2017	78.00	7,685	7023	5,748	498,900	10,068
35	11/06/2017	81.00	7,069	6610	5,490	499,020	9,287
36	11/06/2017	79.00	7,359	6618	5,657	508,260	10,446
37	11/06/2017	80.00	7,007	6229	5,882	508,180	8,826
38	11/07/2017	80.00	6,907	6164	5,472	503,460	9,189
39	11/07/2017	79.00	7,250	6625	5,899	501,940	9,263
40	11/07/2017	81.00	7,151	6931	5,034	502,420	9,516
41	11/08/2017	78.00	7,071	6579	5,552	492,820	9,232
42	11/08/2017	79.00	7,091	6135	5,165	492,800	8,978

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API 47- 033 - 05887 Farm name Dimaria, Sharon E. Well number 213

PRODUCING FORMATION(S)	DEPTHS		
Marcellus Shale	6998	TVD	7455 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 _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/silt	0	3251	0	3306	Sand/silt
Balltown	3251	3897	3306	4003	Sand
Bradford	3897	4723	4003	4882	Sandstone
1s Elk	4723	6736	4882	6940	Siltstone
Burkett	6736	6752	6940	6968	Shale
Tully	6752	6798	6968	7060	Limestone
Mahantango	6798	6971	7060	7368	Shale
Marcellus	6971	6998	7368	7455	Shale
Purcell	6998	7003	7455	7470	Limestone
Lower Marcellus	7003	6987	7470	15925	Shale

Please insert additional pages as applicable.

Drilling Contractor H&P
Address 1437 South Boulder Ave. City Tulsa State OK Zip 74119

Logging Company NA
Address _____ City _____ State _____ Zip _____

Cementing Company C&J Energy Services, Inc
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Keane Group
Address 2121 Sage Road City Houston State TX Zip 77056

Please insert additional pages as applicable.

Completed by Arsenal Resources Telephone 364-629-6309
Signature [Signature] Title PERMITTING MANAGER Date 2/6/18

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

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/23/2017
Job End Date:	11/8/2017
State:	West Virginia
County:	Harrison
API Number:	47-033-05887-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	Goff 213H
Latitude:	39.25865900
Longitude:	-80.38040200
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,050
Total Base Water Volume (gal):	19,996,914
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
Water	Ascent	Carrier/Base Fluid					
			Water	7732-18-5	100.0000	88.36116	None
Sand (Proppant)	Keane	Proppant					
			Crystalline silica: Quartz (SiO2)	14808-60-7	100.0000	11.11219	None
Hydrochloric Acid (7.5%)	Keane	Acid Inhibitor					
			Water	7732-18-5	92.5000	0.36627	None
KFR-16FW	Keane	Friction Reducer					
			Hydrochloric Acid	7647-01-0	7.5000	0.02970	None
			Water	7732-18-5	60.0000	0.06295	None
			Distillates (petroleum), hydrotreated light	64742-47-8	20.0000	0.02098	None
			oleic acid diethanolamide	93-83-4	1.5000	0.00157	None
MBC-516	Keane	Biocide					
			ammonium chloride	12125-02-9	1.5000	0.00157	None
			alcohols, C12-16, ethoxylated	68551-12-2	1.0000	0.00105	None
			Water	7732-18-5	56.7000	0.00592	None
			Glutaral	111-30-8	26.7000	0.00279	None

			didecyl dimethyl ammonium chloride	7173-51-5	8.00000	0.00083	None
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00055	None
			ethonal	64-17-5	2.80000	0.00029	None
KLSI-21	Keane	Scale Inhibitor					
			polyphosphoric acids, esters with triethanolamine, sodium salts	68131-72-6	30.00000	0.00406	None
KAI-12	Keane	Acid Inhibitor					
			Ethylene glycol	107-21-1	40.00000	0.00072	None
			dipropylene glycol, monomethyl ether	34590-94-8	20.00000	0.00036	None
			formic acid	64-18-6	10.00000	0.00018	None
			Cinnamaldehyde	104-55-2	10.00000	0.00018	None
			Ethoxylated alcohol	68131-39-5	10.00000	0.00018	None
			Tar bases, quinoline derivs., benzyl chloride-quaternized	72480-70-7	10.00000	0.00018	None
			isopropyl alcohol	67-63-0	5.00000	0.00009	None
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 Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	92.50000	0.36627	
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.02098	
			Glutaral	111-30-8	26.70000	0.00279	
			ammonium chloride	12125-02-9	1.50000	0.00157	
			oleic acid diethanolamide	93-83-4	1.50000	0.00157	
			alcohols, C12-16, ethoxylated	68551-12-2	1.00000	0.00105	
			didecyl dimethyl ammonium chloride	7173-51-5	8.00000	0.00083	
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00055	
			dipropylene glycol, monomethyl ether	34590-94-8	20.00000	0.00036	
			ethonal	64-17-5	2.80000	0.00029	
			Tar bases, quinoline derivs., benzyl chloride-quaternized	72480-70-7	10.00000	0.00018	
			Ethoxylated alcohol	68131-39-5	10.00000	0.00018	
			formic acid	64-18-6	10.00000	0.00018	
			Cinnamaldehyde	104-55-2	10.00000	0.00018	
			isopropyl alcohol	67-63-0	5.00000	0.00009	
			Water	7732-18-5	85.00000	0.00000	

- * 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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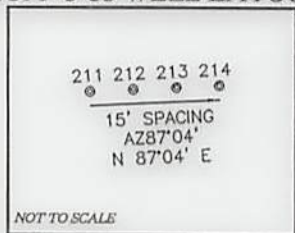
NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- LEASE INFORMATION PROVIDED BY MOUNTAINEER KEYSTONE.

213 WELL TIES

LINE	BEARING	DISTANCE
L1	S 89°25' E	789.40'
L2	S 61°55' E	910.75'
L3	S 42°16' W	1051.12'
L4	N 19°40' W	636.35'
L5	N 19°38' W	8337.00'

GOFF 5-55 WELL LAYOUT



LEGEND

LEASE LINE	---
SURFACE LINE	----
WELL LATERAL	-----
OFFSET LINE	-----
TIE LINE	-----
CREEK	~~~~~
ROAD	=====
FENCE LINE	-----
COUNTY ROUTE	-----
STATE ROUTE	-----
PROPOSED WELL	⊙
EXISTING WELL	⊙
PERMITTED WELL	⊙

LATITUDE(NAD'83) 39°17'30"

TRACT #	SURFACE OWNER	SURFACE ACREAGE	OIL & GAS LEASE #
326-46.4	SHARON DIMARIA	69.31±	00004472 & 00007245
326-46	HARRISON COUNTY BUILDING COMMISSION	9±	00004472 & 00007245
U.S. RT. 19	STATE OF W.V.(WEST MILFORD & NEW SALEM TURNPIKE)		00007183 & 00004623
326-29.2	DOLAN HEIRS	77.09±	00005109
326-29.4	DOLAN HEIRS	2.47±	00005109
326-30	ERIC GIAQUINTO	.52±	00005109
326-29.5	RONALD HAYNES ET AL	1.17±	00005109
326-29.8	RONALD HAYNES ET AL	.46±	00005109
326-29	DOLAN HEIRS	152.60±	00005109
110-17	D. DAETWYLER ETAL	6.45±	00004788 & 00006698
110-17.2	JERRY POVROZNIK	.36±	00004784 & 00004788
110-16	DIANNE MARSH	.76±	00004784-0004789
110-17.1	CORK DALE ET AL	.59±	00004784 & 00004788
110-6	CORK DALE ET AL	6.36±	00004787 & 00004788
326-1	CORK DALE ET AL	1.20±	00004787 & 00004789
326-1.11	CORK DALE ET AL	9.49±	00004789 & 00004790
326-88	CORK DALE ET AL	8.65±	00004790
306-41	DEBRA PRATT	2.5±	00004721
306-40	DAVID & SHERRY NOSS	6.88±	00007242, 00007194 & 00007201 & 00007204
306-34	JEREMY POOLER ET AL	0.48±	00006678
306-33	JEREMY POOLER ET AL	0.90±	00006678
306-32	WILLIAM DOUGLASS	1.63±	00006695
306-31	MARY EMERSON (LIFE)	0.80±	00006695

TRACT #	SURFACE OWNER	SURFACE ACREAGE	OIL & GAS LEASE #
306-63	H DOTSON CATHER TRUSTEE	208.72±	00003556
306-61	HARRISON COUNTY BOE	22.21±	00003556

NAD'83 GRID NORTH

LONGITUDE (NAD'83) 80°22'30"

AS-DRILLED BOTTOM HOLE

TOP HOLE

MOUNTAINEER KEYSTONE GOFF 5-55 PAD WELL 213

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

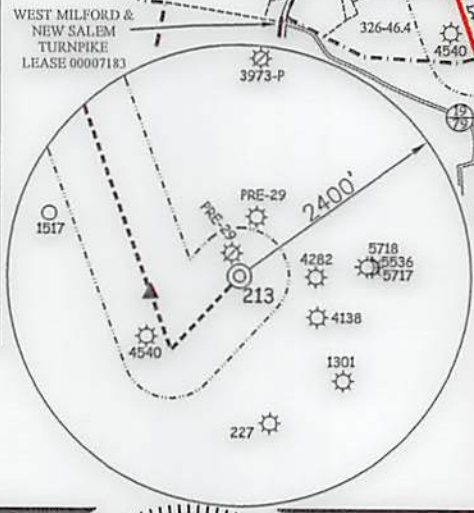
NAD'83 S.P.C.(FT) N. 277,545.9 E. 1,719,210.9
 NAD'83 GEO. LAT-(N) 39.258659 LONG-(W) 80.380402
 NAD'83 UTM (M) N. 4,345,663.8 E. 553,456.4

LANDING POINT

NAD'83 S.P.C.(FT) N. 277,367.4 E. 1,718,289.8
 NAD'83 GEO. LAT-(N) 39.258144 LONG-(W) 80.383649
 NAD'83 UTM (M) N. 4,345,604.7 E. 553,176.6

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 285,219.5 E. 1,715,488.0
 NAD'83 GEO. LAT-(N) 39.279625 LONG-(W) 80.393819
 NAD'83 UTM (M) N. 4,347,982.7 E. 552,283.2



AS DRILLED COORDINATES FOR WELL NO. 213

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

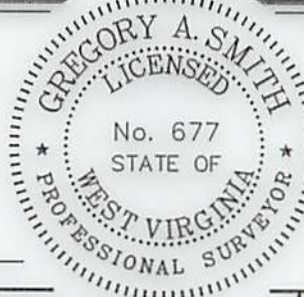
NAD'83 S.P.C.(FT) N. 277,545.9 E. 1,719,210.9
 NAD'83 GEO.(DD) LAT-(N) 39.258659 LONG-(W) 80.380402
 NAD'83 GEO.(DMS) LAT-(N) 39°15'31.2" LONG-(W) 80°22'49.4"
 NAD'83 UTM (M) N. 4,345,663.8 E. 553,456.4

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 285,237.5 E. 1,715,477.2
 NAD'83 GEO.(DD) LAT-(N) 39.279674 LONG-(W) 80.393858
 NAD'83 GEO.(DMS) LAT-(N) 39°16'46.8" LONG-(W) 80°23'37.9"
 NAD'83 UTM (M) N. 4,347,988.2 E. 552,279.9



Land & Energy Development
 Solutions from the ground up.
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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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE NOVEMBER 08, 20 16
 REVISED SEPTEMBER 18, 2017
 OPERATORS WELL NO. 213
 API WELL NO. 47 033 05887
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8312P213AD.dwg
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION EXISTING: 1,156.40' / PROPOSED: 1,155.20' WATERSHED WEST FORK RIVER
 DISTRICT CLARK COUNTY HARRISON QUADRANGLE WOLF SUMMIT
 SURFACE OWNER SHARON DIMARIA ACREAGE 69.31±
 ROYALTY OWNER COUNTY COMMISSION OF HARRISON COUNTY ACREAGE 85 OF 100±
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH 15,938' TMD / 7,045' TVD

WELL OPERATOR MOUNTAINEER KEYSTONE, LLC DESIGNATED AGENT NATHAN SKEEN
 ADDRESS 6031 WALLACE RD. EXT. SUITE 300 ADDRESS 65 PROFESSIONAL PLACE
WEXFORD, PA 15090 BRIDGEPORT, WV 26330

COUNTY NAME

PERMIT