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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 - 095 - 02043 County Tyler District Ellsworth  
Quad Middlebourne Pad Name Collins Pad Field/Pool Name Middlebourne  
Farm name Collins, Earl & Doris Well Number Collins Unit # 1119  
Operator (as registered with the OOG) Triad Hunter, LLC  
Address 777 Post Oak Blvd. Suite 910 City Houston State Texas Zip 77056

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4371743.8 Easting 507039.2  
Landing Point of Curve Northing 4372175 Easting 507201  
Bottom Hole Northing 4373692 Easting 506139

Elevation (ft) 740' 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 Base Mud; HT Light Mineral Oil, Synvert TWA & LWA - thinner and wetting agents, Synvert L-1 primary emulsifier, an Cimbar - weighting and filler material.

Date permit issued 1/31/2012 Date drilling commenced 3/12/2013 Date drilling ceased 7/18/2013  
Date completion activities began 10/4/2013 Date completion activities ceased 11/12/2013  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft Surface - 250' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft @ 1,000' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 900' - 1,200' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by: \_\_\_\_\_

API 47-095 - 02043 Farm name Collins, Earl & Doris Well number Collins Unit # 1119

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	24"	20"	110'	New	A53B 90 lb.	none	yes
Surface	17 1/2"	13 3/8"	422'	New	H-40 48 lb.	none	yes - circ. 15 bbls.
Coal							
Intermediate 1	12 1/4"	9 5/8"	2088'	New	J-55 36 lb.	N/A	yes - circ. 10 bbls.
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	12,973'	New	P-110 20 lb.	none	yes - circ. 20 bbls.
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	135	15.6	1.18	159	surface	12+
Surface	Class A	370	15.6	1.20	444	surface	10
Coal							
Intermediate 1	Class A	700	15.3	1.26	882	surface	12
Intermediate 2							
Intermediate 3							
Production	50/50 PNE & Class H	1,373 / 1,160	13.5 / 15.2	1.44 / 1.63	3,868	surface	12+
Tubing							

Drillers TD (ft) TMD = 12,984' TVD = 6,059.5'      Loggers TD (ft) Not Logged to Total Depth and no open hole logs  
 Deepest formation penetrated Marcellus Shale      Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) @ 4,550'

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 \_\_\_\_\_  
13 3/8" - Two    2nd & 10th joints  
 9 5/8" - Five    1 every 10 joints  
 5 1/2" - Seventy-Eight - 69 Spiral Centralizers from Toe to KOP, 9 Bow Centralizers from KOP to 250'

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- 095 - 02043 Farm name Collins, Earl & Doris Well number Collins Unit # 1119

**PERFORATION RECORD**

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

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)
		SEE	ENCLOSED	SPREAD	SHEET			

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus Shale</u>	<u>6,059.5'</u>	<u>TVD</u>	<u>12,984'</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

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Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 3,100 psi Bottom Hole 5450 psi DURATION OF TEST 240 hrs

OPEN FLOW Gas 6,200 mcfpd Oil 336 bpd NGL \_\_\_\_\_ bpd Water 600 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	<u>0</u>		<u>0</u>		( * No Open Hole Logs run on Collins # 1119 ) Pilot Hole: Spencer # 1112 ( P # 47-095-02033 )
					<i>See Attached</i>
Collins # 1119					
Tully	<u>6018'</u>	<u>6035'</u>	<u>6649'</u>	<u>6726'</u>	Limestone
Marcellus	<u>6035'</u>	<u>Not Drilled</u>	<u>6726'</u>	<u>12,984'</u>	Organic Shale Show Gas

Please insert additional pages as applicable.

Drilling Contractor Warren Drilling ( Top Hole - Alpha Hunter )  
Address P.O. Box 103 City Dexter City State Oh. Zip 45727

Logging Company Horizontal Wireline Services  
Address 381 Colonial Manor City Irwin State Pa. Zip 15642

Cementing Company Baker Hughes  
Address 2228 Phillippi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corporation  
Address 109 S.Graham Street City Zanesville State Oh. Zip 43701

Please insert additional pages as applicable.

Completed by Ben Smeltzer Telephone (740) 760-0570  
Signature *Ben Smeltzer* Title Geologist Date 11/18/2014

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

02/06/2015

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**Spencer Unit # 1112** – Permit # 47-095-02033 ( Pilot Well for Collins # 1116, 1117, 1118 & 1119 )

WR-35 Pg. 4 Geology Attachment

<u>FORMATION / LITHOLOGY</u>	<u>DEPTH</u>	<u>SHOWS / COMMENTS</u>
Siltstone & shale	surface – 898'	
SECOND COW RUN SAND	898' – 923'	
Shale & siltstone	923' – 960'	
SALT SAND ( 1 <sup>st</sup> )	960' - 1092'	
Shale	1092' – 1148'	
SALT SAND (2 <sup>nd</sup> )	1148' – 1183'	
Shale, siltstone, tr. Sandstone	1183' – 1394'	
SALT SAND (3 <sup>rd</sup> )	1394' – 1427'	
Shale, siltstone	1427' – 1552'	
GREENBRIER LIMESTONE	1552' – 1644'	
Shale	1644' – 1650'	
BIG INJUN SANDSTONE	1650' – 1821'	Show Gas
Shale	1821' - 2012'	
WEIR SAND	2012' – 2108'	
Shale, siltstone	2108' – 2182'	
BEREA SANDSTONE	2182' – 2186'	
shale & siltstone	2186' – 2609'	
GORDON / Fifth SAND	2609' – 2626'	
Shale & siltstone	2626' – 3141'	
WARREN SANDSTONE	3141' – 3189'	
Shale & siltstone	3189' – 4504'	
Riley	4504' – 4536'	

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Shale, siltstone, tr. organic sh.	4536' – 5412'	Base Lower Huron @ 4650', volcanic ash @ 4861'
RHINESTREET ( Java Fm.)	5412' – 5727'	Organic shale, Show of Gas
Shale ( Middlesex Fm.)	5727' – 5883'	
GENESEO Formation	5883' – 5990'	Organic shale
TULLY Formation	5990' – 6014'	limestone
MARCELLUS SHALE	6014' – 6068'	Organic shale, Show of Gas
ONONDAGA LIMESTONE	6068' – 6190'	

DRILLER'S T.D. = 6215'

LOGGER'S T.D. = 6190'

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Collins Unit 1119

(Permit # 47-095-02043)

Completion Summary

Total Depth (ft)	Landing Point MD (ft)	TVD (ft)	Effective Lateral Length (ft)	Stages	Perforation Intervals		Stage Intervals		Total Volume (bbl)	Average Rate (bpm)	Formation Break (PSI)	Average Pressure (PSI)	80/100 Mesh Pumped (Lb)	40/70 Mesh Pumped (Lb)	20/40 Mesh Pumped (Lb)	Total Sand Pumped (Lb)	ISIP (PSI)	Completed per design	Notes on Frac
12,984	6,060	6,045	6,924		Actual Length	Footage	Actual Length	Footage											
Stage 1	12,843'-12,675'	168	12,895'-12,645'	250	8,017	81	5,655	6,772	30,600	310,400	101,900	442,500	3,386	Yes	Screened out on flush				
Stage 2	12,616'-12,424'	192	12,645'-12,395'	250	9,000	75	7,803	7,354	30,000	309,500	100,200	439,700	3,588	Yes					
Stage 3	12,366'-12,174'	192	12,395'-12,145'	250	8,103	76	5,640	6,810	29,400	314,700	100,000	444,100	4,206	Yes					
Stage 4	12,116'-11,924'	192	12,145'-11,895'	250	8,054	76	5,237	6,681	30,300	311,800	100,400	442,500	4,155	Yes					
Stage 5	11,866'-11,674'	192	11,895'-11,645'	250	8,093	78	5,716	6,840	30,300	314,200	100,700	445,200	3,964	Yes					
Stage 6	11,616'-11,424'	192	11,645'-11,395'	250	7,449	75	5,956	6,532	30,500	316,800	100,700	448,000	3,872	Yes					
Stage 7	11,364'-11,174'	192	11,395'-11,145'	250	7,423	75	5,521	6,794	30,500	309,800	103,000	443,300	4,016	Yes					
Stage 8	11,116'-10,924'	192	11,145'-10,895'	250	7,833	73	5,973	6,746	30,000	311,600	99,100	440,700	3,797	Yes					
Stage 9	10,866'-10,674'	192	10,895'-10,645'	250	7,712	75	5,494	6,629	32,800	305,300	100,600	438,700	3,591	Yes					
Stage 10	10,614'-10,424'	190	10,645'-10,395'	250	7,379	78	5,510	6,602	30,000	308,600	99,700	438,300	3,802	Yes					
Stage 11	10,360'-10,174'	186	10,395'-10,145'	250	7,787	76	5,562	6,545	29,500	311,100	99,500	440,100	3,892	Yes					
Stage 12	10,116'-9,924'	192	10,145'-9,895'	250	7,051	76	5,282	6,713	29,800	308,400	99,800	438,000	4,075	Yes					
Stage 13	9,866'-9,674'	192	9,895'-9,645'	250	7,215	77	5,330	6,560	29,800	309,500	100,400	439,700	4,226	Yes					
Stage 14	9,616'-9,424'	192	9,645'-9,395'	250	7,633	75	5,428	6,729	29,400	310,400	99,900	439,700	4,322	Yes					
Stage 15	9,366'-9,174'	192	9,395'-9,145'	250	7,558	74	5,698	6,849	29,500	309,700	99,000	438,200	4,016	Yes					
Stage 16	9,116'-8,924'	192	9,145'-8,895'	250	6,956	78	5,623	6,501	27,500	309,900	100,400	437,800	4,371	Yes					
Stage 17	8,866'-8,674'	192	8,895'-8,645'	250	7,259	79	6,330	6,311	30,400	310,500	100,700	441,600	3,513	Yes					
Stage 18	8,616'-8,424'	192	8,645'-8,395'	250	7,187	81	5,576	6,157	30,200	310,600	99,800	440,600	3,545	Yes					
Stage 19	8,366'-8,174'	192	8,395'-8,145'	250	7,023	79	5,775	6,404	31,000	304,700	100,000	435,700	4,304	Yes					
Stage 20	8,116'-7,924'	192	8,145'-7,895'	250	7,179	80	5,440	6,168	30,000	313,100	100,700	443,800	4,480	Yes					
Stage 21	7,863'-7,674'	189	7,895'-7,645'	250	7,626	79	5,307	6,471	30,200	311,500	98,900	440,600	3,748	Yes					
Stage 22	7,612'-7,424'	192	7,645'-7,395'	250	8,335	79	5,651	6,278	30,100	309,500	100,100	439,700	3,709	Yes					
Stage 23	7,366'-7,174'	192	7,395'-7,145'	250	7,225	79	5,477	6,278	30,200	316,800	100,000	447,000	3,688	Yes					
Stage 24	7,111'-6,924'	187	7,145'-	N/A	6,580	78	5,057	6,130	31,600	311,500	99,600	442,700	3,718	Yes					

Total	24		4,568		5,750	181,677	1,852	136,041	157,854	723,600	7,459,900	2,405,100	10,588,200	93,984
Average			190		250	7,570	77	5,668	6,577	30,150	310,829	100,213	441,175	3,916

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Collins 1119H (P# 47-095-02043) Tyler County Ellsworth District Middlebourne Quadrangle

CHEMICAL SUMMARY

STAGE #	SURFACTANT (gals.)	BIOCIDES (gals.)	SCALE INHIBITOR (gals.)	FRICTION REDUCER (gals.)	PRO GEL (gals.)	PRO BREAKER (qts.)	7.5% HCL ACID (gals.)
1	296	74	36	266	401	1.5	2,000
2	331	132	43	318	445	2	2,000
3	322	125	45	285	92	0.5	2,000
4	318	120	42	270	410	2	2,000
5	320	120	43	321	386	2	2,000
6	302	122	45	270	235	1	2,000
7	304	120	46	315	370	1.5	2,000
8	312	124	42	330	92	0.5	2,000
9	311	120	49	304	209	1	2,000
10	269	122	40	300	84	0.5	2,000
11	293	124	45	288	526	2	2,000
12	290	107	40	285	472	2	2,000
13	285	110	40	290	490	2	2,000
14	300	120	50	330	531	2	2,000
15	290	112	50	337	583	2.5	2,000
16	283	107	43	275	354	1.5	2,000
17	290	115	41	312	420	1.5	2,000
18	305	110	41	278	434	1.5	2,000
19	289	115	43	290	315	1	2,000
20	278	110	41	303	513	2	2,000
21	298	105	50	322	694	2.5	2,000
22	320	125	50	335	505	2	2,000
23	275	135	62	300	400	1.5	2,000
24	250	95	33	260	195	1	2,000

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TOTALS:

24 Stages	7,131 Gals	2,769 Gals	1,060 Gals	7,184 Gals	9,156 Gals	37.5 Qts	
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