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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 47-091-01245 County Taylor District Booth's Creek
Quad Rosemont Pad Name Fairmont Tools Inc Field/Pool Name Booth Creek
Farm name Fairmont Tools Inc Well Number 3H
Operator (as registered with the OOG) Diversified Resources, Inc.
Address P.O. Box 381087 City Birmingham, AL 35238-1087 State AL Zip 35238-1087

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 44298028.512' (13502039.090 M) Easting 1882498.821' (573785.641 M)
Landing Point of Curve Northing 14287517.440 (4357883.316 M) Easting 1883043.890' (573951.778 M)
Bottom Hole Northing 14284887.648' (4357081.755 M) Easting 1886227.135' (574922.030748 M)

Elevation (ft) 1380' 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 OBM - Mi SWCO Mega Drill
Megual, Versathin, hybrcarb

Date permit issued 10/18/2011 Date drilling commenced 01/4/12 Date drilling ceased 3/17/12
Date completion activities began 10/29/2013 Date completion activities ceased 11/26/13
Verbal plugging (Y/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 600' Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 1273' Void(s) encountered (Y/N) depths _____
Coal depth(s) ft NA Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) NA

NA
Received
NA
JUN 30 2014
Reviewed by:
Office of Oil and Gas
WV Dept. of Environmental Protection
08/15/2014

API 47-091 - 01245 Farm name Fairmont Tools Inc Well number 3H

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		20"	60'				Grout
Surface	17 1/2"	13 3/8"	560'	New	J-55 STC		Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	1,888'	New	J-55 LTC		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	11,768'	New	P-110 Buttress		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	497		1.19	591	circulated	
Coal							
Intermediate 1	Class A	635		1.26	800	circulated	
Intermediate 2							
Intermediate 3							
Production	Class A	2387	6250	1.19	1538	circulated	
Tubing							

Drillers TD (ft) 11,795' (7261' TVD) Loggers TD (ft) 11,795'
 Deepest formation penetrated Oriskany Plug back to (ft) _____
 Plug back procedure Pilot Hole

Kick off depth (ft) 8610'

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 Centralizers on jts 1, 2, 3, 4, 7, and 10. Cement basket on jt 14

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS Perforated w/ 6 spt 40 holes @ 11,520' - 522', 11,575' - 577', 11,630' - 632' and 11,685' - 687'

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	Formation(s)
1	10/31/2013	11,520'	11,687'	40	Marcellus Shale

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)
1	11/26/13	80.7	8177	6689	5648	411,100	8191	0

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus Shale</u>	<u>7,724'</u>	<u>TVD</u>	<u>11,795'</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole _____ psi DURATION OF TEST 122 hrs

OPEN FLOW Gas 288 mcfpd Oil 0 bpd NGL 0 bpd Water 1 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 ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	<u>()</u>		<u>()</u>		
<u>Please see attached</u>	<u>Please see attached</u>	<u>Please see attached</u>	<u>Please see attached</u>	<u>Please see attached</u>	<u>Please see attached</u>

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Please insert additional pages as applicable.

Drilling Contractor Decker Drilling (0-7130) & Pioneer Drilling Company (7130-11795)
Address 1083 N. 88 Road City Rices Landing State PA Zip 15357

Logging Company Baker Hughes
Address 2929 Allen Parkway City Houston State TX Zip 77019

Cementing Company Baker Hughes
Address 2929 Allen Parkway City Houston State TX Zip 77019

Stimulating Company ?? Toe Frac
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Robert Hutson Jr Telephone 205-408-0909
Signature [Signature] Title President Date 6/26/14

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

91-01245

Fairmont Tool 3H

Formation	TVD Top	TVD Base	MD Top	MD Base
Silstone/ sand / shale	0	750		
Shale / silt / redrock	750	890		
Maxton	890	990		
Shale/ redrock	990	1050		
Little Lime	1060	1074		
shale	1074	1096		
Big Lime	1096	1178		
Big Injun	1178	1268		
Silt/ sand	1268	1690		
Gantz	1560	1584		
Silt /sand	1584	1690		
Fifty Foot	1690	1750		
Silt/ sand	1750	1790		
Thirty Foot	1790	1814		
Silt /sand	1814	2078		
Fourth	2078	2152		
Silt/ sand /shale	2152	2203		
Fifth	2206	2244		
Silt/shale/sand	2244	2888		
Speechley	2888	2910		
Silt/sand	2910	3145		
Balltown	3145	3260		
Silt/sand	3260	4221		
Benson	4221	4390		
Silt/sand	4390	6301	Plugged Back To KO	
Alexander	6301	6382		
silt/shale	6382	6777		
Sonyea Group	6777	6857		
Genesee group	6857	6912	6865	6955
Geneseo Sh	6912	6940	6955	6967
Tully	6940	7001	6967	7041
Hamilton	7001	7178	7041	7296
Marcellus Sh	7178	7275	7296	11795
Onondaga Ls	7275	7284		
Huntersville Chert	7284	7370		
Needmore Sh	7370	7478		
Oriskany	7478	7531 TD		

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08/15/2014

****CELLS WITH BLUE BACKGROUND ARE THE ONLY CELLS TO BE EDITED****

Fracture Start Date/Time:	11/25/13 10:10
Fracture End Date/Time:	11/25/2013 13:56:00 PM
State:	WV
County:	Taylor
API Number:	47-091-01245-0000
Operator Number:	305996
Well Name:	Fairmont Tools 3H
Federal Well:	No
Longitude:	-99.12345679
Latitude:	25.12345679
Long/Lat Projection:	NAD27
True Vertical Depth (TYD):	1906
Total Clean Fluid Volume* (gal):	8519



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Additive	Specific Gravity	Additive Quantity	Mass (lbs)	
Water	1.00	344022.00	2,870,864	gal
Sand (Proppant)	2.65	367700.00	367,700	lb
15% IC Acid	1.07	0.00	0	gal
Hydrochloric Acid (7.5%)	1.04	1200.00	10,415	gal
PROHIB II	0.97	2.50	20	gal
PRO SHALE SLICK 405	1.05	467.00	4,104	gal
BIO CLEAR 2000	1.24	91.00	942	gal
PRO SCALE CLEAR 112	1.19	85.00	844	gal
PRO FLO 102 M	0.94	0.00	0	gal
GSF-202-4.0L	1.02	642.00	5,465	gal
PRO BREAKER 4	1.26	2.00	21	gal

Total Slurry Mass (Lbs)
3,268,173

9101245

Ingredients Section:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Mass per Component (LBS)	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Company I	Carrier/Base Fluid	Water	7732-18-5	100.00%	2,870,864	88.05321%	
Sand (Proppant)	PSC	Proppant	Silica Substrate		100.00%	367,700	11.27785%	
Hydrochloric Acid (7.5%)	Producers Service Corp	Acidizing	Hydrochloric Acid	7647-01-0	7.50%	781	0.02396%	
PROHIB II	Producers Service Corp	Inhibitor	Ethoxylated Nonylphenol	68412-54-4	10.00%	2	0.00006%	
			Dimethylcocoamine, bis(chloroethyl)ether, diquaternary am	68607-28-3	60.00%	12	0.00037%	
			Ethylene Glycol	107-21-1	40.00%	8	0.00025%	
			Glycol Ethers	111-76-2	40.00%	8	0.00025%	
			Methanol	67-56-1	30.00%	6	0.00019%	
			Propargyl Alcohol	107-19-7	30.00%	6	0.00019%	
PRO SHALE SLICK 405	Producers Service Corp	Friction Reducer	Petroleum Distillates	64742-47-8	40.00%	1,641	0.05035%	
BIO CLEAR 2000	Producers Service Corp	Biocide	Polyethylene Glycol	25322-68-3	70.00%	659	0.02022%	
			2,2-dibromo-3-nitropropionamide	10222-01-2	40.00%	377	0.01155%	
PRO SCALE CLEAR 112	Producers Service Corp	Scale Inhibitor	Ethylene Glycol	107-21-1	40.00%	338	0.01036%	
GSF-202-4.0L	Producers Service Corp	Gelling Agent	Distillates petroleum, hydro treated	64742-47-8	65.00%	3,552	0.10895%	
			Nonylphenol, ethoxylated	9016-45-9	5.00%	273	0.00838%	
PRO BREAKER 4	Producers Service Corp	Breaker	Sucrose	57-50-1	46.00%	10	0.00030%	
			Ethylene Glycol	107-21-1	14.00%	3	0.00009%	

*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%

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of
Initial Gas-Oil Ratio

Well Operator Diversified Resources, Inc.
Address P.O. Box 381087
Birmingham, AL 35238-1087

Designated Agent Robert R Hutson, Jr.
Address 100 Corporate Ridge, Suite 100
Birmingham, AL 35242

Geological Target Formation: Marcellus Shale Depth 11,795 feet
Perforation Interval 11,520-11,687 feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

TEST DATA

Start of Test Date 11/30/2013	Time 12:00	End of Test Date 11/30/2013	Time 1200	Duration of Test 23 Hrs
Tubing Pressure N/A	Casing Pressure 400	Separator Pressure 130	Separator Temperature 140	
Oil Production During Test 0	Gas Production During Test 288	Water Production During Test 1	-Salinity	
Oil Gravity N/A	API	Producing Method (flowing, pumping, gas lift etc.) Flowing		

GAS PRODUCTION

Measurement Method Flange Tap <input checked="" type="checkbox"/> Pipe Tap <input type="checkbox"/> L-10 <input type="checkbox"/>		Positive Choke <input checked="" type="checkbox"/>
		Positive flow prover <input type="checkbox"/>
Orifice diameter 1.00	Pipe Diameter (inside) NA	Nominal Choke Size inches 12/64
Differential Pressure range	Max. Static pressure range 150	Prover and Orifice diameter - inches 1
Differential 17.9	Static 134	
Gas Gravity (Air = 1.0) Measured 0.595 Estimated	Flowing Temperature 50	Gas Temperature 50
24 Hour Coefficient 23	24 Hour coefficient pressure PSIA 465	

TEST RESULTS

Daily Oil 0	Daily Water 1	Daily Gas 288	Gas-Oil Ratio 0
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Received

JUN 30 114

Diversified Resources, Inc.
Well Operator
BY: Alta Mesa, Inc.
ITS: President