

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

Well Operator's Report of Well Work

Farm name: SCOT HARSHBERGER Operator Well No.: 10R

LOCATION: Elevation: 1517' Quadrangle: THORNTON

District: COVE County: BARBOUR  
Latitude: 9,990 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude: 6,770 Feet West of 79 Deg. 52 Min. 30 Sec.

Company: Texas Keystone, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
560 Epsilon Drive Pittsburgh, PA 15238				
Agent: Jon Farmer	13 3/8"	42	42	Sanded In
Inspector: Bryan Harris				
Date Permit Issued: 10/05/11	9 5/8"	462	462	180
Date Well Work Commenced: 11/10/11				
Date Well Work Completed: 11/17/11	7"	1649	1649	300
Verbal Plugging:				
Date Permission granted on:	4 1/2"	0	5490	205
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft.): 5576				
Total Measured Depth(ft.): 5576				
Fresh Water Depth (ft.): none reported				
Salt Water Depth (ft.): none reported				
Is coal being mined in the area (N/Y)? N				
Coal Depths (ft.): 105, 225				
Void(s) encountered (N/Y) Depth(s): N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation: 5TH ELK Pay zone Depth (ft) 5376 - 5381  
Gas: Initial open flow: G/S TSTM MCF/D Oil: Initial open flow: 0 Bbl/d  
Final open flow 1200 MCF/D Oil: Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests: N/A Hours  
Static rock Pressure: 1000 psig(surface pressure) after 48 Hours

Second Producing formation: 3RD ELK Pay zone Depth (ft) 5013 - 5030  
Gas: Initial open flow: Co-mingled MCF/D Oil: Initial open flow: 0 Bbl/d  
Final open flow Co-mingled MCF/D Oil: Final open flow: 0 Bbl/d  
Time of open flow between initial and final tests:      Hours  
Static rock Pressure: Co-mingled psig(surface pressure) after      Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

[Signature]  
Signature

1/16/12  
Date

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JAN 23 2012

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

Were core samples taken? Yes \_\_\_ No X Were cuttings caught during drilling? Yes \_\_\_ No X

Were N Electrical, N Mechanical, Y or Geophysical logs recorded on this well?  
 Y/N Y/N Y/N

**NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL**

Perforated Intervals, Fracturing, or Stimulating:

Perfed 5th Elk 5376' - 5381 (15 shots). BD 3560 #. 200 sks 40/70 & 116 sks 20/40. 556 bbl. Gel Frac.  
 Perfed 3rd Elk 5013' - 5030 (20 shots). BD 2400 #. 200 sks 40/70 & 108 sks 20/40. 648 bbl. Gel Frac.  
 Perfed 2nd Elk 4779' - 4800 (18 shots). BD 3623 #. 100 sks 40/70 & 112 sks 20/40. 522 bbl. Gel Frac.  
 Perfed 1st Elk 4572' - 4583 (17 shots). BD 3945 #. 100 sks 40/70 & 111 sks 20/40. 522 bbl. Gel Frac.  
 Perfed 2nd Alexander 4322' - 4362' (24 shots). BD 3716 #. 100 sks 40/70 & 106 sks 20/40. 503 bbl. Gel Frac.  
 Perfed Balltown A 3030' - 3038' (24 shots). BD 1600 #. 200 sks 40/70 & 105 sks 20/40. 523 bbl. Gel Frac.

Formations Encountered:	Top Depth	Bottom Depth	Notes:
SHALE	0	20	
SANDY SHALE	20	42	
SAND	42	50	
SANDY SHALE	50	105	
COAL	105	110	
SANDY SHALE	110	150	
SAND	150	225	
COAL	225	230	
SAND	230	295	
SANDY SHALE	295	352	
SAND	352	472	
SANDY SHALE	472	570	
SAND	570	720	
SANDY SHALE	720	810	
SAND	810	890	
RED ROCK	890	930	
SAND	930	990	
RED ROCK	990	1020	
SAND	1020	1115	
RED ROCK	1115	1224	
LITTLE LIME	1224	1238	
PENCIL CAVE SHALE	1238	1268	
BIG LIME	1268	1501	
SHALE	1501	1532	
WEIR SANDSTONE	1532	1577	
SHALE	1577	1680	
BEREA SANDSTONE	1680	1700	
SHALE	1700	1720	
GANTZ SANDSTONE	1720	1761	
LOWER GANTZ SANDSTONE	1761	1810	
SANDY SHALE	1810	2400	
BAYARD SANDSTONE	2400	2410	
SPEECHLEY A SANDSTONE	2410	2654	
SPEECHLEY C SANDSTONE	2654	2691	
SANDY SHALE	2691	3000	
BALLTOWN A SANDSTONE	3000	3136	
BALLTOWN C SANDSTONE	3136	3145	
SANDY SHALE	3145	4127	
BENSON SILTSTONE	4127	4146	
SANDY SHALE	4146	4319	
ALEXANDER	4319	4368	
SHALE	4368	4523	
1ST ELK SILTSTONE	4523	4591	
SANDY SHALE	4591	4774	
2ND ELK SILTSTONE	4774	4802	
SANDY SHALE	4802	5018	
3RD ELK SILTSTONE	5018	5056	
SANDY SHALE	5056	5345	
5TH ELK SILTSTONE	5345	5390	
SHALE	5390	5576	

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Third Producing formation:	<u>2ND ELK</u>	Pay zone Depth (ft)	<u>4779 - 4800</u>
Gas: Initial open flow:	<u>Co-mingled</u>	MCF/D	Oil: Initial open flow: <u>0</u> Bbl/d
Final open flow	<u>Co-mingled</u>	MCF/D	Oil: Final open flow: <u>0</u> Bbl/d
Time of open flow between initial and final tests:	<u>          </u>	Hours	
Static rock Pressure:	<u>Co-mingled</u>	psig(surface pressure) after	<u>  -  </u> Hours

Fourth Producing formation:	<u>1ST ELK</u>	Pay zone Depth (ft)	<u>4572 - 4583</u>
Gas: Initial open flow:	<u>Co-mingled</u>	MCF/D	Oil: Initial open flow: <u>0</u> Bbl/d
Final open flow	<u>Co-mingled</u>	MCF/D	Oil: Final open flow: <u>0</u> Bbl/d
Time of open flow between initial and final tests:	<u>          </u>	Hours	
Static rock Pressure:	<u>Co-mingled</u>	psig(surface pressure) after	<u>  -  </u> Hours

Fifth Producing formation:	<u>ALEXANDER</u>	Pay zone Depth (ft)	<u>4322 - 4362</u>
Gas: Initial open flow:	<u>Co-mingled</u>	MCF/D	Oil: Initial open flow: <u>0</u> Bbl/d
Final open flow	<u>Co-mingled</u>	MCF/D	Oil: Final open flow: <u>0</u> Bbl/d
Time of open flow between initial and final tests:	<u>          </u>	Hours	
Static rock Pressure:	<u>Co-mingled</u>	psig(surface pressure) after	<u>  -  </u> Hours

Sixth Producing formation:	<u>BALLTOWN A</u>	Pay zone Depth (ft)	<u>3030 - 3038</u>
Gas: Initial open flow:	<u>Co-mingled</u>	MCF/D	Oil: Initial open flow: <u>0</u> Bbl/d
Final open flow	<u>Co-mingled</u>	MCF/D	Oil: Final open flow: <u>0</u> Bbl/d
Time of open flow between initial and final tests:	<u>          </u>	Hours	
Static rock Pressure:	<u>Co-mingled</u>	psig(surface pressure) after	<u>  -  </u> Hours