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

DATE: 4/8/2011 API #: 4709101200

Well Operator's Report of Well Work

Farm name	:WA	LTER, ART	HUR	Operator Well	No.:	. 3	
LOCATIO	N: Elevation:		1420	_Quadrangle:		THORNTON	
	District:	KNOT	TSVILLE	County:		TAYLOR	
•			Feet South of		. 20	Min. 0 Sec.	
			Feet West of	79 Deg.			
		7,550	rect west of	Deg.		Min. 30 Sec.	
Company:	Texas Keystone,	Inc.		la	lee		
Address:	560 Epsilon Driv			Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
	Pittsburgh, PA 1	5238			<u> </u>		
Agent:	Jon Farmer	-		13 3/8"	129	129	Sanded In
	Bryan Harris						
Date Perm		09/27		9 5/8"	462	462	350
	Work Commence						
	Work Completed	l: 02/18	<u>′11</u>	7"	154	1544	200
Verbal Plu							
	ission granted on			4 ½"	0	5166	240
		Rig		\			
Total Verti	cal Depth (ft.):	5736	•				
	ured Depth(ft.):						
Fresh Wate	er Depth (ft.):	142, 145, 21	0, 390, 560				
	Depth (ft.):						
	g mined in the a	rea (N/Y)?	N				
Coal Depth		1225					
Void(s) enc	ountered (N/Y) I	Depth(s):	N	1			
	W DATA (If m Producing format Gas: Initial open Final open flow Time of open flow Static rock Pressu	tion: flow: <u>G</u> 21 w between in	3RD ELK /S TSTM 5 nitial and final tes	ts: N/A	Pay zone MCF/D MCF/D Hours	Depth (ft) Oil: Initial open flow Oil: Final open flow:	955 - 5055 : 0 Bbl/d
	Second Producing	g formation	2ND ELK		Day, gama	Daniel (A)	750 4760
	Gas: Initial open:		o-mingled				753 - 4763
	Final open flow		o-mingled			Oil: Initial open flow	
	Time of open flow					Oil: Final open flow:	0Bbl/d
	Static rock Pressu		ndar and final tes -mingled		Hours		
	outile rock rressu	<u>ec</u>	-mingieu		psig(surra	ce pressure) after	Hours
document ar	der penalty of law and all the attachr information I bel	nents and	hat, based on m	v inquiry of tl	hose indiv	th the information suited and industrial immediately in the control of the contro	bmitted on this responsible for

Were c	ore samples taken?	Yes No _X	Were cuttings caught during drilling?	Yes	No X
Were	N Electrical,	N Mechanical, _	Y or Geophysical logs recorded on t	his well?	

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 3rd Elk 4955' - 5055' (20 shots). BD 3833 #. 200 sks 40/70 & 100 sks 20/40. 628 bbl. Gel Frac.

Perfed 2nd Elk 4753' - 4763' (21 shots). BD 4800 #. 150 sks 40/70 & 100 sks 20/40. 623 bbl. Gel Frac.

Perfed Alexander 4320' - 4324' (12 shots). No breakdown.

Perfed Lower Riley 3926' - 3931' (15 shots). BD 4900 #. 200 sks 40/70 & 100 sks 20/40. 560 bbl. Gel Frac.

Perfed Balltown A 2848' - 2880' (25 shots). BD 4410 #. 200 sks 40/70 & 100 sks 20/40. 580 bbl. Gel Frac.

Perfed Bayard & Speechley A 2254' - 2327' (24 shots). BD 4140 #. 200 sks 40/70 & 100 sks 20/40. 573 bbl. Gel Frac.

Formations Encountered:	Top Depth	Bottom Depth	Notes:
FILL	0	15	
SANDY SHALE	15	40	
SANDSTONE	40	60	
SANDY SHALE	60	100	DAMP FW @ 142'
SANDSTONE	100	172	1/2" FW @ 145'
SANDY SHALE	172	225	1 1/2" FW @ 210'
COAL	225	230	1.1.2 1.11 (6) 210
SANDY SHALE	230	360	
SANDSTONE	360	405	3" FW @ 390'
SANDY SHALE	405	450	
SANDSTONE	450	465	
SANDY SHALE	465	605	1/4" FW @ 560'
REDROCK SHALE	605	625	77. 117 (@ 300
SANDY SHALE	625	850	
SANDSTONE	850	945	
SANDY SHALE	945	993	
LITTLE LIME	993	1007	
PENCIL CAVE SHALE	1007	1032	
BIG LIME	1032	1248	
SHALE	1248	1273	
SQUAW SANDSTONE	1273	1302	
SHALE	1302	1335	
WEIR SANDSTONE	1335	1371	and the second second
SHALE	1371	1472	
BEREA SANDSTONE	1472	1493	
UPPER GANTZ SANDSTONE	1493	1504	
SHALE	1504	1525	
GANTZ SANDSTONE	1525	1558	
SHALE	1558	1573	
LOWER GANTZ SANDSTONE	1573	1628	
SANDY SHALE	1628	2043	
LOWER FOURTH SAND	2043	2073	
SHALE	2073	2103	
SANDY SHALE	2103	2229	
BAYARD SANDSTONE	2229		CAR GWOW O AREH TOTAL
SHALE	2260	2260 2293	GAS SHOW @ 2255' TSTM
SPEECHLEY A SANDSTONE	2293	2331	
SANDY SHALE	2331	2838	
BALLTOWN A SANDSTONE	2838	2886	
SHALE	2886	2911	
BALLTOWN B SANDSTONE	2911	2932	
SHALE	2932	3821	
SANDY SHALE	3821	3919	
OWER RILEY SILTSTONE	3919		GAS STREET
SANDY SHALE	3943	3943	GAS SHOW @ 3930' TSTM
ALEXANDER SILTSTONE	4293	4293	40404044
ANDY SHALE	4293	4356	GAS SHOW @ 432/193/2011
ST ELK SILTSTONE	4480	4480	
ANDY SHALE	4543	4543	
ND ELK SILTSTONE		4703	
ANDY SHALE	4703	4764	GAS SHOW @ 4755' TSTM
RD ELK SILTSTONE	4764	4953	
	4953	5073	GAS SHOW @ 4955' TSTM

Third Producing formation		Pay zone	e Depth (ft) 4	320 - 43	24
Gas: Initial open flow:		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:			1		
Static rock Pressure:	Co-mingled	_ _psig(surf	face pressure) after	_	Hours
		_			
Fourth Producing formati		Pay zone	e Depth (ft) 39	926 - 39	21
Gas: Initial open flow:			Oil: Initial open flow:		Bbl/d
	Co-mingled	MCF/D	Oil: Final open flow:	0	Bbl/d
Time of open flow between		Hours	•		_
Static rock Pressure:	Co-mingled	_psig(surf	ace pressure) after	_	Hours
Fifth Producing formation		Pay zone	Depth (ft) 28	848 - 28	80
Gas: Initial open flow:			Oil: Initial open flow:		Bbl/d
Final open flow			Oil: Final open flow:		Bbl/d
Time of open flow between	en initial and final tests:	Hours		75	
Static rock Pressure:	Co-mingled	psig(surf	ace pressure) after	-	Hours
Sixth Producing formation	n: BAYARD & SPEECHLEY A	Pay zone	Depth (ft)	254 22	-
	Co-mingled		Oil: Initial open flow:		
Final open flow	Co-mingled		Oil: Final open flow:		_Bbl/d
Time of open flow betwee		Hours	On. Piliai open 110W;	0	_Bbl/d
Static rock Pressure:	Co-mingled	•	ace pressure) after	_	Hours
			- /		