API#

103 2391

State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Farm name:	MILLER, ISRAEL-ESTATE			Operator Well No.: ISRAEL MILLER 7					
LOCATION:	Elevation:	1,150'		Qua	drangle:	PINE GRO	OVE 7.5'		
Company:	District: Latitude: Longitude: H G ENERG		t south of t west of	Cou 39 80	Deg 32 Deg 40 Casing	TZEL Min 30	Sec. Sec.	T C	ement
	5260 Dupont Parkersburg,				Tubing Size	Drilling	in Well		ill Up u. Ft.
Agent:	MICHAEL KIRSCH						22 11 011	-	u. 1 t.
Inspector: Permit Issued: Well work Com		09/18/12 03/07/13	_						
Well work Com Verbal plugging	5	03/13/13	_						
permission gran Rotary X Total Depth (fee Fresh water dep	_Cable et)	Rig 3260' N/A			7"	417'	417'	100	sks
Salt water depth					4 1/2"	3150.8'	3150.8'	150	sks
Is coal being mit Coal Depths (ft)		N) NA N	- -						
OPEN FLOW DATA * WATER INJECTION WELL REGEIVED Producing formation Gordon Pay zone depth (ft) 2975'2981', 2984'-2986									
Produc	ing formation		Gordon		•	Pav zone de	Office of Ull 9	181' 299	241_2086
Gas:	Initial open flor Final open flor		* MC	F/d	Oil: Initia	I onen flow	110V 1 83	ell 13	D1.1/1
			IVIC		rinai tests	open flow	Howar	ment (Bpl/q
Final open flow * MCF/d Final open flow Time of open flow between initial and final tests Static rock pressure * MCF/d Final open flow * Bbl/d * Bbl/d									
Second	producing form	nation				Pay zone de			
Gas:	Initial open flo			F/d	Oil: Initia	l open flow	F ()		Bbl/d
	Final open flov		MC		Final	open flow			Bbl/d
Static re	Time of open ock pressure	flow between			tests face press	sure)	Hours after		Hours
NOTE: ON BACK OF THIS FORM, 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 ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.									
For: H G ENERGY LLC									
			By:		(Ke	Keld	in		
Date: 01/13/13 01/03/2014									

Treatment:

Treated perfs (2975'-2981', 2984'-2986') w/ 250 gals. 15% HCl, 317 bbls cross linked gel, and 18,000 # 30/50 sand.

converted to water inejction

Wall I og :	0	723	Sand and Shale
Well Log:	723	770	Sand
	770	880	Shale
•	880	894	Sand
	894	976	Shale
	976	986	Sand
	986	995	Shale
	995	1018	Sand
	1018	1076	Shale
	1076	1100	Sand
	1100	1386	Shale
	1386	1436	Sand
	1436	1443	Shale
	1443	1466	Sand
	1466	1488	Shale
	1488	1517	Sand
	1517	1628	Shale
	1628	1666	Sand
	1666	1710	Shale
	1710	1729	Sand
	1729	1769	Shale
	1769	1814	Sand
	1814	1876	Shale
	1876	1944	Sand
	1944	2052	Shale
	2052	2078	Sand
	2078	2093	Shale
	2093	2106	Sand
	2106	2166	Big Lime
	2166	2368	Big Injun
	2368	2940	Shale
	2940	2958	Gordon Stray Shale
4 4	2958	2971	Gordon
e y og e kgrek	2971	2986	Shale
$\mathcal{F}(G_{p}^{*}(s), \mathcal{F}_{p}) = \mathcal{F}(s)$	2986	2990	Sand
	2990	2998	Sand
	2998	3261	TD
	3261		ענ