WR-35 Rev. 8/23/13 

# State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work

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Office of Oil & Gas

MAR 1 7 2014

API 47_ 039 _ 05815R	County Kanawha	a <sub>I</sub>	District Elk	14018	-admont of
Quad Mammoth 7.5'	Pad Name Godsh	all #13	Field/Pool Name	- WV De	partment of
Farm name Shaver Land Holding,			Well Number	F19 WV804814	ental Protect
Operator (as registered with the OOG		ias, Inc.	Well Mullioei _		
Address PO Box 470	City Bridg	geport	State WV	Zip 2	6330
	Northing 4,242,489.9	<del></del>	ing 460,003.4	у	
	Northing N/A		ng N/A	· · ·	
Bottom Hole	Northing N/A	Easti	ng <u>N/A</u>		<del></del>
Elevation (ft) 879 GL	Type of Well 🗆	New Existing	Type of Rep	port 🗆 Interim	□Final
Permit Type   Deviated   H	forizontal   Horizonta	al 6A 🛔 Vertical	Depth Type	е 🗆 Deep	■ Shallow
Type of Operation □ Convert □ I	Deepen 🗆 Drill 🗆 🗅	Plug Back 🛘 🗆 Redril	ling 🖪 Rewo	rk 🛎 Stimulat	e
Well Type □ Brine Disposal □ CBM	Ai BiGas BiOil □ Seco	ondary Recovery 🗆 So	lution Mining	□ Storage □ Oti	her
Type of Completion	ltiple Fluids Produc	ed 🗆 Brine 🛮 🗏 Gas	□ NGL ■ O	il 🗆 Other	
	•				<del>,</del>
Drilled with			ole 🗆 Air 🗖 l	Mud □ Fresh W	/ater □ Brine
Drilled with	r	nencedN/A	Date drill	ling ceased	N/A
Drilled with	r □ Mud □Fresh Wat □ Fresh Water □ Brine □ Date drilling comm	nencedN/A  Date completion activ	Date drill	ling ceased 11/06/2013	N/A
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  Date permit issued ○7/09/2013  Date completion activities began  Verbal plugging (Y/N)	r □ Mud □Fresh Wat □ Fresh Water □ Brine □ Date drilling comm 10/22/2013 Date permission granted	nencedN/A  Date completion activ	Date drill vities ceased Granted by	ling ceased	N/A
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  Date permit issued ○ 07/09/2013  Date completion activities began ○ Verbal plugging (Y/N) ○ Please note: Operator is required to s	r □ Mud □Fresh Wat □ Fresh Water □ Brine □ Date drilling comm 10/22/2013 Date permission granted	nencedN/A  Date completion activ	Date drill vities ceased Granted by erbal permission	ling ceased	N/A
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  Date permit issued ○7/09/2013  Date completion activities began ○  Verbal plugging (Y/N) ○  Please note: Operator is required to s  Freshwater depth(s) ft ○	r □ Mud □Fresh Wat □ Fresh Water □ Brine □ Date drilling comm 10/22/2013  Date permission granted ubmit a plugging applica	nenced N/A  Date completion activation within 5 days of vicinition within 6 days of vicinition within 8 days of vi	Date drill vities ceased Granted by erbal permission	ling ceased	N/A 3
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  Date permit issued ○ 07/09/2013  Date completion activities began ─ Verbal plugging (Y/N) ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─	r □ Mud □Fresh Wat □ Fresh Water □ Brine □ Date drilling comm 10/22/2013  Date permission granted ubmit a plugging applica	nenced N/A  Date completion activation within 5 days of vicinition within 6 days of vi	Date drill vities ceased Granted by erbal permission epths Y/N) depths	ling ceased	N/A

Rev. 8/23/13 Well number\_#13 WV0048 Farm name\_Shaver Land Holding, LLC API 47-039 -05815R **CASING** Casing New or Grade Basket Did cement circulate (Y/N) Hole **STRINGS** Used wt/ft \* Provide details below\* Size Size Depth Depth(s) Conductor **EXISTING** 13 3/8° 32' Surface 9 5/8" 250 **EXISTING** Coal Intermediate 1 1,110 **EXISTING** Intermediate 2 Intermediate 3 Production 4 1/2" 2,254' **EXISTING** Tubing Packer type and depth set Comment Details Class/Type Yield Volume Cement WOC CEMENT Number Slшту  $(R^1)$ of Sacks (ft 3/sks) Top (MD) (hrs) DATA of Cement wt (ppg) Conductor Surface Coal Intermediate 1 Intermediate 2 Intermediate 3 Production Tubing Loggers TD (ft)\_ Drillers TD (ft) Deepest formation penetrated Plug back to (ft) Plug back procedure\_ Kick off depth (ft)\_ □ deviated/directional □ induction Check all wireline logs run □ caliper □ density □ resistivity □ gamma ray □ temperature □ neutron □sonic Were cuttings collected □ Yes □ No □ Conventional □ Sidewall Well cored □ Yes □ No DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING DETAILS \_\_\_\_\_ WAS WELL COMPLETED AS SHOT HOLE □ Yes 📱 No DETAILS WAS WELL COMPLETED OPEN HOLE? □ Yes 🖪 No 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	11/5/2013	1,708'	1,718'	20	Weir
2	11/5/2013	1,610'	1,644'	42	Injun

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	11/5/13	28	4,000	3,150	2,200	15,000	94	262,000
2	11/5/13	28	3,200	2,500	1,900	4,0000	165	538,000
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Please insert additional pages as applicable.

API 47- 039 - 05815R		Farm	Farm name Shaver Land Holding, LLC						Well number_#13 WV0048					
PRODUCING	FORMAT	ION(S)		DEPT	<u>rhs</u>	_TVD				MD				
Please insert ad	ditional p	ages as a	pplicable.											
GAS TEST	D Build u	ip 🗆 D	rawdown	□ Op	en Flow		OII	L TES	TpF	low 🗆	Pump			
SHUT-IN PRE	SSURE	Surface	260	psi	Botto	m Hole_			psi	DURAT	ION OI	F TEST	hrs	
OPEN FLOW	Gas 135	_ mcfpd	Oil -	bpd	NGL -	bpd		ater	bpd	GAS M	EASUI	RED B	Y ice □ Pilot	
LITHOLOGY/ FORMATION	TOF DEPTH I NAME	N FT I	BOTTOM DEPTH IN FT TVD	DEF	TOP YTH IN FT MD	BOTTO DEPTH IN MD							O QUANTITY AND NE, OIL, GAS, H2S,	ETC)
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Stimulating Co		Universa	l Well Servic	es							<b>T</b> \'		75000 0000	
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### **WELL WORK HISTORY**

#### Godshall #13-WV0048

10/22/13: Pettey Oilfield Services MIRU pull 2 3/8" 10rd tubing, check TD, swab well dry.

10/23/13: Blue Dot set cast iron bridge plug inside 4 ½" casing @ 1800'. Universal Well Services loaded hole and pressure tested to 4000 psi. Blue Dot shot squeeze holes from 1712-1714 2ft 10holes. Universal Well Services cemented with 50sks 50/50 POZ 2% salt 10% gel.

10/24-10/30/13: WOC

10/31/13: Pettey Oilfield Services drilled cement to plug.

11/4/13: Blue Dot ran CBL/CCL from 1794-700'. Pettey swabbed well dry.

11/5/13: Universal Well Services loaded hole with 500 gal 28% HCL and treated water. Blue Dot perforated 1<sup>st</sup> stage 1718-1708 20holes. Universal Well Services fracked 1<sup>st</sup> stage with 15,000# 20/40 sand 75Q Cross Linked Foam 262,000 scf N2. Blue Dot set large mouth frac plug @ 1680 and perforated 2<sup>nd</sup> stage 1644-1610 42 holes. Universal Well Services fracked 2<sup>nd</sup> stage with 40,000# 20/40 sand 75Q Cross Linked Foam 538,000 scf N2. Pettey flowed well back.

11/6/13: Pettey drilled frac plug, TD well, swabbed dry and shut in

11/7/13: TIL