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

API 47 - 033 -	05611 County Harris	son	District Grant				
Quad West Milford			Kannady				
Farm name Ricky Nutte	r		_ Well Number 13143				
Operator (as registered w	ith the OOG) Dominion Trans	mission, Inc		_			
Address 445 W. Main	St City C	Clarksburg	State WV	Zip <u>26301</u>			
To Landing Point o	op hole Northing <u>4333945.67</u>	Ea	nd deviation survey asting 550151.82 sting sting				
Elevation (ft) 1181.94	GL Type of We	ll ■New □ Existing	Type of Report □Ir	nterim BFinal			
Permit Type   Devia	ted 🗆 Horizontal 🗅 Hori:	zontal 6A   Vertical	Depth Type 🛛	Deep			
Type of Operation □ Co	onvert 🗆 Deepen 🗂 Drill	□ Plug Back □ Red	rilling 🗆 Rework 📑	Stimulate			
Well Type   Brine Disp	oosal 🗆 CBM 🛢 Gas 🗆 Oil 🗅	Secondary Recovery	Solution Mining 🗆 Storag	e 🗆 Other			
Type of Completion   Drilled with   Cable  Drilling Media Surface	Single Multiple Fluids Pro Rotary  hole Air Mud Fresh	oduced □ Brine ■Ga. Water Intermediate	s □ NGL □ Oil □ C e hole ■ Air ■ Mud ■	Other  Fresh Water □ Brine			
Production hole Air							
Mud Type(s) and Additi			starch, xanthan gum, so	odium bicabonate,			
caustic soda, soda a	sh, and biocide.						
Date permit issued	5-23-12 Date drilling co	Date completion a	Date drilling ceas	8-2013			
	Date permission gra	nted DEC 1 o	Granted by				
Please note: Operator is	required to submit a plugging app	WV Departe	fyerbal permission to plug Protection				
Freshwater depth(s) ft		<b>-</b> • • • • • • • • • • • • • • • • • • •	•	None			
Salt water depth(s) ft		- ``	d (Y/N) depths	None None			
Coal depth(s) ft	N1	_ Cavern(s) encounte	red (Y/N) depths	INUITE			
Is coal being mined in ar	ea (Y/N)N			Reviewed by:			

WR-35 Rev. 8/23/13

WR-35 Rev. 8/23/13									Page 2 01
	05044		Dialas	Nisathan				13143	
API 47- 033	033 _ 05611 Farm name Ricky Nutter Well number 13143								
CASING	Hole	Casing	Danish	New o			Basket		nent circulate (Y/N)
STRINGS Conductor	Size 17-1/2"	Size 16"	Depth 38'	Used N		35#, H-40	Depth(s)	Sande	
Surface	14-3/4"	10-3/4"	792'	- 1.V	<del></del>	0.5#, J-55			Yes
Coal	14-3/4	10-3/4	132		_	0.0#, 0-00			103
Intermediate 1	9-7/8"	7"	1890'	N	<del></del>	20#, J-55	<del> </del>		Yes
Intermediate 2	9-776	,	1090		'	20#, 0-00		195	
Intermediate 3									
Production	C 4 (41)	4.4/2.8	4480'	N	1	0.5#, M-65	<del>  -</del> -	N	
Tubing	6-1/4"	4-1/2 "	4400	14		U.S#, IVI-US	<u> </u>	14	
Packer type and de	enth set				!		<u> </u>		
Comment Details		ted 14 bbls of cement to	surface. Intern	nediate job circu	lated 30 bbls to	surface. Produc	tion job not desig	ned to bring cen	nent to surface (cement
top @ approximately	y 2000').								
CEMENT	Class/Type	Number		Slurry	Yield ( ft <sup>3</sup> /sks)	Volum (ft <sup>1</sup> )		Cement	WOC (hrs)
DATA Conductor	of Cement	of Sacks	· · · · ·	vt (ppg)	( II /SKS)	<u> </u>		pp (IVID)	(iiis)
Surface	Class A	670	<del></del>	15.6	1.20	1.20 804		CTS	
Coal	Oldo / L	0.0							
Intermediate 1	Class A	500		15.4	1.23	615		CTS	24
Intermediate 2	Glado / A	130		15.9	1.15	149			
Intermediate 3		100							
Production	Poz	250		13.5	1.53	382		1845	144
Tubing	1 02								
Drillers TD (ft) 4510  Deepest formation penetrated Siltstone immediately below Benson Plug back to (ft) Plug back procedure									
Kick off depth	ı (ft)								
Check all wire	eline logs run	<b>■</b> caliper <b>■</b> neutron	■ densit	•	eviated/dire amma ray		induction temperatur	re <b>E</b> son	ic
Well cored	Yes 🗆 No	□ Convention	onal 🗆 S	Sidewall		Were cuttir	igs collected	l ■ Yes	□ No
10-3/4" centralizers: 42".	168', 251', 377', 500', 622'.	751'							
		01', 1030', 1159', 1288', 14				1761', 1804', 1847	·		
4-1/2" centralizers: 1	1902', 1946', 1990', 243	6', 2480', 3053', 3097', 33	10, 3302, 3003	, 5541 , 4252 , 434	.,,4001				
WAS WELL	COMPLETED	AS SHOT HOLE	E □ Yes	■ No	DETAIL				
WAS WELL	COMPLETED	OPEN HOLE?	□ Yes	■ No	DETAILS				
WERE TRAC	ERS USED	yes ■ No	ТҮРЕ С	OF TRACEI	R(S) USED	·			

API 47- 033 - 05611 Farm name Ricky Nutter Well number 13143

## PERFORATION RECORD

Stage	Da Carallan dasa	Perforated from	Perforated to	Number of Perforations	Formation(c)
No.	Perforation date	MD ft.	MD ft.	·	Formation(s)
1	5-20-13	4332'	4342'	20	Benson
2	5-21-13	3717'	3723'	12	Riley
3	5-21-13	3110'	3224'	20	Balltown
4	5-21-13	2722'	2973'	22	Speechley
5	5-21-13	2333'	2343'	20	Bayard

Please insert additional pages as applicable.

## STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage	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)
No. 1	5-21-13	24.8	2742	3649	1450	36020	160	580310 scf
2	5-21-13	22.9	2795	4870	1000	9295	103	380406 scf
3	5-21-13	26.8	2468	4075	1550	29580	144	515263 scf
4	5-21-13	27.7	2387	3995	1200	28987	143	508837 scf
5	5-21-13	21.9	2592	3990	1150	30043	169	481050 scf
		ļ						
				ļ				
					<del></del>		<del> </del>	
					L	l	L	L

Please insert additional pages as applicable.

WR-35 Rev. 8/23/13

API 47- 033	_ 05611	·	Farm name Ricky Nutter			Well number 13148							
PRODUCING	<u>FORMATIO</u>	ON(S)	_	DEPTI	<u>HS</u>								
Comingled:			;	2333' - 4342' <sub>TV</sub>		TVD	233	33' - 4342'	MD				
(Benson, Riley,	Balltown, Sp	eechley,	-										
Bayard). See ir	ncluded frac/	perf				<del></del>							
information and	formation lo	g.											
Please insert ad	lditional pag	es as app	olicable.										
GAS TEST	□ Build up	□ Dra	wdown	<b>■</b> Ope	n Flow		OIL	TEST o	Flow 🗆	Pump			
SHUT-IN PRE	SSURE	Surface _	700	psi	Botto	m Hole <u></u> No	t mea	sured psi	DURAT	ION O	F TES	Γ 24	_ hrs
OPEN FLOW	Gas 804	mcfpd	Oil	bpd <sub>-</sub>	NGL	_ bpd	Wa	ater bpd	GAS M				ot
LITHOLOGY/ FORMATION	TOP DEPTH IN NAME TV	FT DE	OTTOM PTH IN FT TVD	DEPT	TOP TH IN FT MD	BOTTO DEPTH IN MD						O QUANTITY NE, OIL, GAS	
	0				0								
See Attached Sheet				-			-		<u> </u>				
				-									
				<del> </del>					_				
			<u> </u>	<del> </del>									
<u> </u>													
				<del> </del>							<del></del>		
Please insert ac	dditional pag	ges as app	plicable.	<u>.</u>		l		<u> </u>					
Drilling Contra	actor Nexus	Drilling, I	nc.										
Address P.O. B	lox 903				City	Jane Lew	<u>'</u>		State	<u>wv</u>	Zip	26378	
Logging Comp Address 121 Hi	oany Weathe	erford Inte	rnational,	Ltd.	City	Canonsb	ura		State	PA	7in	15317	
							<u>=</u>		State		<i>Z</i> .p		
Cementing Con Address 1650 H	mpany Nabo Hackers Creek	rs Comple Road	etion and P	roductio	n Services City	Jane Lew			State	wv	Zip	26378	
Stimulating Company Halliburton Address 1628 Jackson's Mill Road City					Jane Lev	<del>_</del>		State	wv	Zip	26378		
Please insert ac			plicable.		_ ,						-		
Completed by	y Jason Bac	h					_	Telephon	e 304.669	.4850			
Signature _	53	Z			Title T	echnical Sp	eciali	st III		Date 1	2-13-13		
Submittal of H	Ivdraulic Fra	acturing (	Chemical	Disclo	sure Info	rmation	Α	ttach copy	of FRACI	FOCUS	Regist	try	

## Formation Description Dominion Transmission Well # 13143

Formation	Тор	Bottom	Show
Fill	0	20	
Sand & Shale	20	212	Hole damp @ 50'
Shale & Red Rock	212	330	1 " Stream @ 107
Sand & Shale	330	690	
Sands	690	810	
Shale	810	880	
Salt Sands	880	1135	
Shale	1135	1324	
Little Lime	1324	1340	
Shale	1340	1376	
Big Lime	1376	1440	
Big Injun	1440	1544	
Shale	1544	1770	
Gantz	1764	1784	
Shale	1784	1860	
Thirty Foot	1860	1922	
Shale	1922	1952	
Gordons	1952	2030	
Shale	2030	2064	
Fourth Sand	2064	2154	
Sand & Shale	2154	2280	
5th Sand	2280	2290	
Shale	2290	2346	Gas Check @ 2319 Ordor
Bayard	2346	2357	
Shale	2357	2706	
Speechley	2706	2766	
Shale & Siltstone	2766	2978	
Balltowns	2978	3222	Gas Check @ 3111 103 Mcf
Shale & Siltstone	3222	3720	Gas Check @ 3584 60 Mcf
Riley	3720	3726	
Shale	3726	4330	Gas Check @ 4057 103 Mcf
Benson	4330	4343	
Siltstone	4343	TD	
TD	4510		