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Is coal being mined in area (Y/N)



Page\_

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

Quad Sinks of Gandy	County Pocahontas	Field/Pool Name	Slady Storage
Quad Office of Carray  Farm name US Dept of the Interior	Pad Name		
	0 ( II 0 T	Well Number 745	
Operator (as registered with the OOG Address PO Box 1273	City Charleston	State WV	Zip 25314
rudi Coo	elly	State	
As Drilled location NAD 83/UTM	Attach an as-drilled plat, profile v Northing 4285816.27 m	iew, and deviation survey Easting 609193.40 m	
Top hole Landing Point of Curve	Northing N/A	Easting N/A	
Bottom Hole	Northing not measured (vertical wellbore)	Easting not measured (ver	ical wellbore)
Elevation (ft) 3397.5 GL	Type of Well □New ■ Exist	ing Type of Report	□Interim
Permit Type   Deviated   H	Iorizontal 🗆 Horizontal 6A 💄 Ve	rtical Depth Type	■ Deep □ Shallow
Funa of Operation = Convert = 1	Deepen □ Drill □ Plug Back	□ Redrilling ■ Rework	■ Stimulate
Type of Operation & Convert	Deepen   Dim   Fing Back	d Redfilling B Rework	a Stillulate
Well Type ☐ Brine Disposal ☐ CBN	M ■ Gas □ Oil □ Secondary Recove	ry 🗆 Solution Mining 📱 St	orage   Other
Funa of Completion Single - M.	and the same of the same		
I ADC OF COMPLETION # 2111816 [] IAIT	altiple Fluids Produced Brine	■Gas □ NGL □ Oil	□ Other
Type of Completion ■ Single □ Mu Drilled with □ Cable □ Rotary	iltiple Fluids Produced   Brine	■Gas. □ NGL □ Oil	□ Other
Drilled with □ Cable □ Rotary	altiple Fluids Produced   Brine	■Gas. □ NGL □ Oil	□ Other
and the second s		■Gas □ NGL □ Oil  mediate hole □ Air □ Muc	
Orilled with □ Cable □ Rotary  Orilling Media Surface hole □ Ai			
Orilled with	r □ Mud □Fresh Water Intern		
Orilled with □ Cable □ Rotary  Orilling Media Surface hole □ Ai	r □ Mud □Fresh Water Intern		
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)	r □ Mud □Fresh Water Intern		
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed	ir □ Mud □Fresh Water Intern □ Fresh Water □ Brine	nediate hole □ Air □ Mud	d □ Fresh Water □ Brin
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)	r □ Mud □Fresh Water Intern □ Fresh Water □ Brine □ Date drilling commenced	nediate hole □ Air □ Mud  N/A □ Date drilling	d □ Fresh Water □ Brin
Orilled with □ Cable □ Rotary  Orilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed	r □ Mud □Fresh Water Intern □ Fresh Water □ Brine	nediate hole □ Air □ Mud	d = Fresh Water = Brin
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework activities began	ir □ Mud □Fresh Water Intern □ Fresh Water □ Brine  Date drilling commenced  7/7/17 Date rework	nediate hole □ Air □ Mud  N/A □ Date drilling	ceased N/A 9/29/17
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework activities began	ir □ Mud □Fresh Water Intern □ Fresh Water □ Brine  Date drilling commenced  7/7/17 Date rework	N/A Date drilling	ceased N/A 9/29/17
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework □ activities began □  Verbal plugging (Y/N) N/A	ir □ Mud □Fresh Water Intern □ Fresh Water □ Brine  Date drilling commenced  7/7/17 Date rework	N/A Date drilling activities ceased	ceased N/A 9/29/17 REGULATION OF THE NOV
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework □ activities began □  Verbal plugging (Y/N) N/A	ir □ Mud □Fresh Water Intern □ Fresh Water □ Brine  Date drilling commenced	N/A Date drilling activities ceased	ceased N/A 9/29/17 REGULATION OF THE NOV
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework □ activities began □  Verbal plugging (Y/N) N/A  Please note: Operator is required to s	Date drilling commenced 7/7/17 Date permission granted  submit a plugging application within 5 december 1.5 d	N/A Date drilling activities ceased Granted by ays of verbal permission to	ceased N/A 9/29/17 REPORTED
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework □ activities began □  Verbal plugging (Y/N) N/A  Please note: Operator is required to s  Freshwater depth(s) ft none obse	Date drilling commenced 7/7/17 Date permission granted submit a plugging application within 5 derived during rework Open mine(s)	N/A Date drilling activities ceased Granted by ays of verbal permission to	ceased N/A 9/29/17 Plug  N/OV  Served during rework
Drilled with □ Cable □ Rotary  Drilling Media Surface hole □ Ai  Production hole □ Air □ Mud  Mud Type(s) and Additive(s)  N/A - no drilling performed  Date permit issued 7/20/17  Date rework □ activities began □  Verbal plugging (Y/N) N/A  Please note: Operator is required to s  Freshwater depth(s) ft none observes	Date drilling commenced  7/7/17 Date permission granted  submit a plugging application within 5 drived during rework  Yed during rework  Void(s) encounter  Void(s) e	N/A Date drilling activities ceased Granted by ays of verbal permission to	ceased N/A 9/29/17  PEROVICE OF NOV PROVICE NOV CENTRONICON CONTROL OF CONTRO

Reviewed by:

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API 47- 075	_ 00007	Farm na	me_US Dept	of the Inte	rior	Well nu	mber_7451	
CASING	Hole	Casing		New or	Grade	Bas	sket I	Did cement circulate (Y/N)
STRINGS	Size	Size	Depth	Used	wt/fl			* Provide details below*
Conductor								
Surface			_					
Coal								
Intermediate I		ĺ					-	
Intermediate 2								
Intermediate 3								
Production			•					
Tubing								
Packer type and de	pth set	•	-	·	•			
Comment Details  CEMENT	No casing or tubing r	Number	Slun	ry	Yield	Volume	Cement	woc
DATA Conductor	of Cement	of Sacks	wt (p)	pg) (1	t ³/sks)	<u>(ft 1)</u>	Top (MD)	) (hrs)
Surface		-						
Coal								<del>-  </del>
ntermediate 1		+						
ntermediate 2	-	<del>-  </del>						
ntermediate 3					-	<u> </u>		<del>-   -</del>
Production								<del></del>
<b>Fubing</b>		<del>-   -</del>	<del>-  </del>					-
					<u> </u>			
Drillers TD (ft)		<del></del>		Loggers 7				
•	tion penetrated C	Oriskany -		Plug back	to (ft) <u>N/A</u>			<u> </u>
Plug back prod	cedure							
Kick off depth	(ft)							
Check all wirel	line logs run		□ density □ resistivity		ed/directio a ray			□sonic
Well cored	Yes B No	Convention	nal Side	wall	We	re cuttings co	llected DY	es ■ No
N/A	HE CENTRALIZ				ASING ST	RING		
	_							Office of Sand Gas
	OMPLETED A							NOA 3 0 5011
WAS WELL C	COMPLETED OF	PEN HOLE?	□ Yes ■ N	lo DET	AILS			WV Department at Environmental Protect
	ERS USED O							

Dage	of	
Page	OI.	

API 47- 075 - 00007 Farm name US Dept of the Interior

\_Well number\_7451

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
No	additional	perforations	during	rework	
	-				
	-				
	-				

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	9/27/17	4	3000	N/A	N/A	N/A	55	9000 gal HCl
								acid
<u></u>								
				ļ <u> </u>				BECENED COS
<u> </u>								RECEIVED Office of Oil and Gas
				ļ				- A 2017
			<u> </u>	<u> </u>			]	MOA 5 0 5011

Please insert additional pages as applicable.

W Department of Environmental Protection

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API 47- 075	_ 00007	Farm	name_US Dep	of the Int	erior	Well r	number_7	451	
PRODUCING	FORMATION(S	5)	DEPTHS						
Chert (natural g		2		TVD	5550 - 5625	MD			
Oriskany (natura		_		_1,0	5712 - 5915				
7,000					21.18.1.24.28				
Please insert ad	lditional pages as	s applicable.				_			
GAS TEST	□ Build up □	Drawdown	■ Open Flow		OIL TEST 🗆	Flow [	Pump		
SHUT-IN PRE	SSURE Surfa	ace 1870	psi Botto	m Hole	psi	DURAT	TION OF	TEST 0.7	5 hrs
OPEN FLOW	Gas 52000 mcfp	Oil	NGL bpd	bpd _	Water bpd		IEASUR nated		□ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN I MD	FT DESCRIBE			ECORD QUA	NTITYAND ., GAS, H <sub>2</sub> S, ETC)
	0		0		4				
					141				
Please insert ad	lditional pages as	s applicable.							
Drilling Contra	ctor N/A								
Address			City			State		Zip	
Logging Comp	any N/A								
Address			City			State		Zip	
Cementing Con	N/A								
Address	npany 1477		City	_		State		Zip	
	VauCa	Candaaa				_ 77****			
Stimulating Co Address Hall Rd		ergy Services	City	Buckhanno	0	State	wv	Zip 26201	
the state of the s	ditional pages as	s applicable.	City	Buckinginion		_ State	***	Zip <u>2020</u> ;	RECEIVED Gas
					risk in the	204 400	0072	Off	2 0 2017
Completed by Signature	James Amos	-1	Title St	WET Engine	Telephone		n . 11/	5/17	10 V 2 0 2017
Jigilatal C	Tom (	-un	Title of		e.,		Date III	25.44	WV Department of vironmental Protect