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August 9, 2001 API#: 47-061-01406

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

Well Operator's Report of Well Work

Farm Name: Consolidation Coal Company	0	perator \	Well N	o.: St. Leo	CBM No.	L-4
Location: 1236.65	Q	uadrangl	e: <u>H</u>	undred		
District: Battelle	. (County:	Mono	ngalia		
Latitude: 9183.27' Feet South of	f 39	Deg.	40	Min.	00 Sec	;.
Longitude: 3048.58 Feet West of	80	Deg.	22	Min.	30 Sec	٥.
Company: Consol Energy, Inc. (North)		-			· · · · · · · · · · · · · · · · · · ·	
Company. Consor Energy, me. (North)	Casing &	Used I	n	Left In	Cement	Fill
	Tubing	Drillin		Well	Up Cu.	
Address: 1800 Washington Road	11 3/4"	30′		30′	GRTI	
Pittsburgh, PA 15241	8 5/8"	683.90	7	683.90′	212	
Agent: Edwin L. Merrifield	5 1/2"	2194.0	0'	2194.00′	431	
Inspector: Randal Mick						
Date Permit Issued: 4/26/01						·
Date Well Work Commenced: 5/11/01					·	
Date Well Work Completed: 6/18/01						
Verbal Plugging: N/A		:				
Date Permission granted on:				RECE	VED	
Rotary Cable Rig				Office of C Permit	il & Gas ling	3 .
Total Depth (feet): 2260				T Gittin	<u>9</u>	_
Fresh Water Depth (ft.): N/A	·			AUG 2	2001	
Salt Water Depth (ft.): N/A		<u> </u>		WV Depart	ment of	
				Environmenta	Protection	
Is coal being mined in area (N/Y)? No						
Coal Depths (ft.): 624, 697, 968, 1030, 1415	, 1698, 1865 a	and 2110				
OPEN FLOW DATA REFER TO A	ATTACHM	ENTS R	& C		*****	
Producing formation Gas: Initial open flow MCF/d	Oil: Initial	ne depth (f		Bbl/c		
Final open flow MCF/d	Final open	-	·	Bbl/d		
<u> </u>	•	now	Ilour		l.	
Time of open flow between initial and final tests Static rock pressure psig (surface pressure) after Hours						
Static rock pressure psig (surface pr			-	5		
Second producing formation		ne depth (f	·			
Gas: Initial open flow MCF/d	Oil: Initial	-	/	Bbl/c		
Final open flow MCF/d	Final open	flow	<u> </u>	Bbl/c	l	
Time of open flow between initial and final			Hours			
Static rock pressure psig (surface pr	•		Hour			
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 WELLBORF. REFER TO ATTACHMENTS A, B & C						
Signed: Coeffley Janning						
By: Will Forema	n			······································		
Date: 8/14/11						

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ATTACHMENT A St. Leo CBM No. L-4 Drill Log

Depth	Description
0-30	Тор
30-624	Sand/Shale
624-626	Coal
643-697	Sand/Shale
697-699	Coal (Waynesburg)
699-968	Sand/Shale
968-970	Coal (Sewickely)
970-1030	Shale
1030-1035	Coal (Pittsburgh)
1035-1155	Sand/Shale
1155-1300	Blue Rock (Limestone)
1300-1415	Shale
1415-1417	Coal (Bakerstown)
1417-1698	Sand/Shale
1698-1700	Coal (Middle Kittanning)
1700-1865	Sand/Shale
1865-1867	Coal (Lower Kittanning)
1867-2110	Sand/Shale
2110-2113	Coal (Quakertown)
2113-2260 (TD)	Sand/Shale

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WV Department of Environmental Protection

ATTACHMENT B

St. Leo CBM Well No. L-4 Completion

Permittee:

API Permit No.:

Company Well No.:

Completion Date:

Total Depth:

Consol Energy, Inc. (North)

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WW Department of Environmental Protection

	Zone 1	Zone 2	Zone 3	Zone 4
Coals	Kittanning	Middle Freeport	Pittsburgh	Redstone and
	Coals	and Bakerstown		Sewickley
Treatment				
Nitrogen (MSCF)	378	303	514	170
Water (BBLS)	216	138	241	134
Sand (SXS 16/30)	206	212	550	81
Top Perf.	1824	1338.5	1059	964
Bottom Perf.	1867.5	1702	1065	1030
# Perfs.	14	24	. 24	24
Perf Size	0.45	0.45	0.45	0.45
Break. Press.	3803	NA	842	2403
Avg. Rate	20	25	30	30
ISIP	Sanded Out	2659	2489	Sanded Out
Min	5	5	5	5
Min Press.	N/A	2027	2083	N/A
Avg. Press.	3571	3207	2578	2547
Stimulated	Yes	Yes	Yes	Yes
Stim. Date	05/30/2001	05/30/2001	06/07/2001	06/07/2001

ATTACHMENT C

St. Leo CBM Well No. L-4 Perforations

	Permittee:	Consol Er	nergy, Inc. (Nort	h) Office (Office of Oil & Gas Permitting		
	API Permit No.:	47-061-0	1406		2 4 2004		
	Company Well No.:	St. Leo C	BM Well No. L-4	AUG . AUG	2 1 2001		
	Total Coal Thickness:	22.4 ft.		WV De	WV Department of Environmental Protection		
	- · · · · · · · · · · · · · · · · · · ·			Elivioriii	Environmental Protection		
	Formation	Top of Coal	Bottam of Coal	Coal Thickness	Actual Perfs		
STAGE 1	Lower Kittanning	1867.2	1867.8	0.6			
	Lower Kittanning	1865.6	1866.9	1.3	1865.5-1867.5		
	Middle Kittanning	1824.5	1825.3	0.8	1824.0-1825.5		
			Total Coal	2.7	• .		
	141.111.5	1700	1702.4	2.4	1700-1702		
STAGE 2	Middle Freeport	1700	1524.0	0.5	1523-1524.5		
	Coal	1523.5					
	Bakerstown	1416.2	1417.0	0.8	1416-1417.5		
	Coal	1338.9	1339.2	0.3	1338.5-1339.5		
•			Total Coal	4.0			
STAGE 3	Pittsburgh No. 8	1058.1	1065.5	7.4	1059-1065		
	Pittsburgh Rider	1056.1	1057.0	0.9	**Not Perfed**		
	Pittsburgh Rider	1052	1053.8	1.8	**Not Perfed**		
			Total Coal	10.1			
	•						
STAGE 4	Redstone 8-A	1028.2	1029.8	1.6	1028-1030		
	Sewickley No. 9	964	968.0	4.0	964-968		
			Total Coal	5.6			

^{**} Perf with 4" guns, 4 Jet Shots per Foot, 120 degree Phasing

^{**} Isolate stages with FasDrill Frac Plugs