



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS MANAGEMENT PROGRAM

DEP USE ONLY	
Site ID	Primary Fac ID
Client	Subfacility Id

Completion Report

Well Information

If you are submitting this Completion Report attached to the Well Record, you only need to enter the well API # in this section.

Well Operator Range Resources-Appalachia, LLC	DEP ID# 141142	Well API # (Permit / Reg) 37-125-24015	Project Number	Acres 542
Address 380 Southpointe Blvd, Suite 300		Well Farm Name Weimer Lillian Unit	Well # 4H	Serial #
City Canonsburg	State PA	Zip Code 15317	County Washington	Municipality Chartiers
Phone 724-743-6700	Fax 724-743-6490	Email	USGS 7.5 min. quadrangle map Washington West	

Check the appropriate submission: Original Completion Report Amended Completion Report

STIMULATION BASE FLUID

List Water Management Plan Approved Water Source(s) that were used	Water Management Plan ID No.	Volume (Gallons)
1. PA American Water Co/Old Hickory Ridge Rd Meter Vault	Source 7	1,494,419
2. PA American Water Co/Arden Rd Meter Vault	Source 18	266,074
3.		
4.		
5.		
6.		
Recycled Water Used		2,297,337
Other Base Fluid(s)/Components Used		
1.		
2.		
Total Base Fluid(s)/Components Used		

PERFORATION RECORD

Stage No.	Perforation Date	Stage Perforated From	Stage Perforated To	Perf. Orientation (Vertical, Horizontal, Radial)	Formation
1	4/28/11	10,219'MD	10,027'MD	Horizontal	Marcellus Shale
2	4/28/11	9,931'MD	9,739'MD	Horizontal	Marcellus Shale
3	4/29/11	9,643'MD	9,451'MD	Horizontal	Marcellus Shale
4	4/29/11	9,355'MD	9,163'MD	Horizontal	Marcellus Shale
5	4/29/11	9,067'MD	8,875'MD	Horizontal	Marcellus Shale
6	5/2/11	8,779'MD	8,587'MD	Horizontal	Marcellus Shale
7	5/2/11	8,491'MD	8,299'MD	Horizontal	Marcellus Shale
8	5/3/11	8,203'MD	8,011'MD	Horizontal	Marcellus Shale
9	5/3/11	7,915'MD	7,723'MD	Horizontal	Marcellus Shale
10	5/3/11	7,627'MD	7,435'MD	Horizontal	Marcellus Shale
11	5/4/11	7,339'MD	7,147'MD	Horizontal	Marcellus Shale
12	5/4/11	7,051'MD	6,859'MD	Horizontal	Marcellus Shale

STIMULATION FLUID ADDITIVES-Continued											
Descriptive Additive Type	Chemical Component(s) listed on Material Safety Sheet of the Additive	CAS No. of Chemical Component	Chemical Component % By Volume in Additive	Chemical Component % By Volume used in Each Stage							
				Stage No. 7	Stage No. 8	Stage No. 9	Stage No. 10	Stage No. 11	Stage No. 12		
FR-200W	N/A	N/A	N/A	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
FR-300W	N/A	N/A	N/A	0.0440%	0.0375%	0.0340%	0.0317%	0.0323%	0.0319%	0.0319%	0.0319%
MX 588-2	N/A	N/A	N/A	0.0072%	0.0070%	0.0071%	0.0073%	0.0073%	0.0073%	0.0071%	0.0071%
NE100	N/A	N/A	N/A	0.0003%	0.0003%	0.0003%	0.0003%	0.0003%	0.0003%	0.0003%	0.0003%
FE100L	N/A	N/A	N/A	0.0009%	0.0009%	0.0009%	0.0009%	0.0009%	0.0009%	0.0009%	0.0009%
37% HCL	HCL	7647-01-0	37%	0.0513%	0.0515%	0.0525%	0.0515%	0.0521%	0.0524%	0.0524%	0.0524%
CI-100	Methanol	67-56-1	93%	0.0005%	0.0005%	0.0005%	0.0005%	0.0005%	0.0005%	0.0005%	0.0005%
CI-100	Propargyl Alcohol	107-19-7	4%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%	0.0000%
BMC B-8650	Glutaraldehyde	111-30-8	49%	0.0060%	0.0051%	0.0046%	0.0043%	0.0044%	0.0043%	0.0043%	0.0043%
BMC B-8650	Methanol	67-56-1	1%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%
CS-1135	4,4-Dimethylloxazolidine	51200-87-4	77%	0.0243%	0.0207%	0.0188%	0.0175%	0.0179%	0.0177%	0.0177%	0.0177%
CS-1135	3,4,4-Trimethyloxazolodine	75673-43-7	5%	0.0016%	0.0014%	0.0012%	0.0011%	0.0012%	0.0012%	0.0012%	0.0012%
CS-1135	2-Amino-2-methyl-1-propanol	124-68-5	1%	0.0003%	0.0003%	0.0003%	0.0002%	0.0002%	0.0002%	0.0002%	0.0002%
CS-1135	Formaldehyde Amine	56652-26-7	0%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%	0.0001%

Please insert additional copies of this page if additional rows/stages are needed.

STIMULATION INFORMATION (WELL)

Open Flow Production: Omc/d @ 24hrs pos treatment	24 Hr. Open Flow Production: Omc/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date:
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STIMULATION INFORMATION (STAGE)


Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).

Stage No.: 1	Stimulation Date: 4/28/11	Pump Rate: 64.5
Pressure (psi): 8,128	Shut-in Surface Pressure: 3,455	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 305,368	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 2	Stimulation Date: 4/28/11	Pump Rate: 65.6
Pressure (psi): 7,795	Shut-in Surface Pressure: 3,656	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 302,748	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 3	Stimulation Date: 4/29/11	Pump Rate: 68.4
Pressure (psi): 7,947	Shut-in Surface Pressure: 3,696	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 300,747	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 4	Stimulation Date: 4/29/11	Pump Rate: 69.5
Pressure (psi): 7,776	Shut-in Surface Pressure: 3,896	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 299,163	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 5	Stimulation Date: 5/2/11	Pump Rate: 69.9
Pressure (psi): 7,203	Shut-in Surface Pressure: 3,711	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 300,595	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 6	Stimulation Date: 5/2/11	Pump Rate: 68.1
Pressure (psi): 7,045	Shut-in Surface Pressure: 3,758	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 299,768	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 7	Stimulation Date: 5/3/11	Pump Rate: 70.1
Pressure (psi): 7,502	Shut-in Surface Pressure: 3,950	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 302,661	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh

WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)

Name Frac Tech	Name Multi-Chem	Name Universal Well Servi ces
Address 16858 IH20	Address 200 Detroit Street	Address 730 Braddock View Drive
City - State - Zip Cisco, TX 76437	City - State - Zip Washington, PA	City - State - Zip Mt Braddock, PA 15465
Phone 817-850-1008	Phone 325-486-7489	Phone 724-430-6201

I do hereby certify to the best of my knowledge, information and belief that the information contained on this Completion Report is true and correct. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator's Signature	DEP USE ONLY
 Title: Completion Engineer: M. Ockree	Reviewed by: _____ Date: _____ Comments: _____
Date: 5/11/11	

STIMULATION INFORMATION (STAGE- Continued)

Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).

Stage No.: 8	Stimulation Date: 5/3/11	Pump Rate: 70.5
Pressure (psi): 7,310	Shut-in Surface Pressure: 3,908	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 300,687	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 9	Stimulation Date: 5/3/11	Pump Rate: 69.1
Pressure (psi): 6,953	Shut-in Surface Pressure: 3,998	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 304,275	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 10	Stimulation Date: 5/4/11	Pump Rate: 70.6
Pressure (psi): 6,893	Shut-in Surface Pressure: 4,032	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 300,441	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 11	Stimulation Date: 5/4/11	Pump Rate: 69.4
Pressure (psi): 6,893	Shut-in Surface Pressure: 4,020	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 300,089	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh
Stage No.: 12	Stimulation Date: 5/5/11	Pump Rate: 70.2
Pressure (psi): 6,585	Shut-in Surface Pressure: 4,042	5 Minute Shut-in Surface Pressure: N/A
Propping Agent Type: Sand	Propping Agent Amount: 303,536	Propping Agent Size: 100 Mesh, 40/70 Mesh, 30/50 Mesh

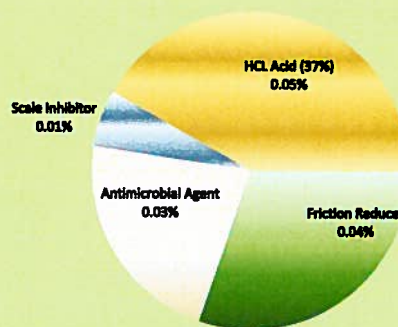
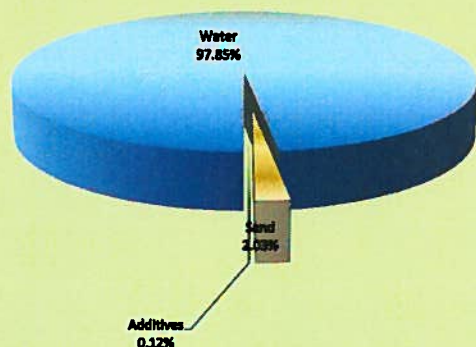


Weimer, Lillian Unit #4H
Well API: 37-125-24015

Completion Date: April 13, 2011
Township: Chartiers

% Composition of Hydraulic Fracture Fluid (by volume)						
Product Name	Additive	Purpose	Use and Dilution	Volume	Overall %	Common Uses
Water	Carrier Fluid	Creates fracture network in shale and carry proppant to the formation	Primary constituent	4,052,759 gal	97.85%	Water is the most abundant molecule on the Earth's surface
Sand	Sand	Allows fractures to remain open so gas can escape	Second most common constituent, making up almost 6% of the fluid	84,052 gal	2.03%	Drinking water filtration, play sand
FRW-300	Friction Reducer	Reduces friction between fluid and pipe	Diluted at one-half gallon per 1,000 gallons of water	1,535 gal	0.04%	Water treatment; soil conditioner; some children's toys
MC B-8650/Bioban	Antimicrobial Agent	Eliminates bacteria in the water that produce corrosive byproducts	Diluted at one-half gallon per 1,000 gallons of water	1,127 gal	0.03%	Water treatment, disinfectant, sterilize medical and dental equipment and surfaces
MX 588-2	Scale Inhibitor	Prevents scaling in pipe	Diluted at one-tenth gallon per 1,000 gallons of water	0,294 gal	0.01%	Water treatment, household cleaners, de-icing agent
HCL Acid (37%)	Perf Clean-Up	Dissolves cement and minerals to help initiate fractures	177 gallons per stage if required (non-diluted chemicals)	2,127 gal	0.05%	Swimming pool and household cleaner

Composition of Hydraulic Fracture Fluid (by volume)





Composition of Components in Marcellus Shale Hydraulic Fracturing Fluid

RANGE RESOURCES

Common Name & Supplier	Supplier Chemical Name	Common Description	Hazardous Component listed on MSDS	Purpose	MSDS Component Weight % of Chemical	Gallons MSDS Component in Well	Maximum Concentration of MSDS Component of Total Stage Fluid	
							% Vol	% Weight
7.5% HCl Mixture (FracTech)	37% HCL	concentrated HCl Acid	HCL	Cleans perforation	37.0%	2126.84	0.0513%	0.0218%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	24.76	0.0006%	0.0005%
			Propargyl Alcohol	Protects casing	5.0%	1.06	0.0000%	0.0000%
	NE100	Non-Emulsifier	No hazardous ingredients	Prevents emulsions	0.0%	N/A	N/A	N/A
FE100L	Iron Chelator	No hazardous ingredients	Prevents precipitation	0.0%	N/A	N/A	N/A	N/A
TOTAL							0.0520%	0.0223%
Friction Reducer (FracTech)	FRW-300	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	N/A	N/A	N/A
Scale Inhibitor (Multichem)	MX 588-2	Scale Inhibitor	No hazardous ingredients	prevents scale deposits	0.0%	N/A	N/A	N/A
Antibacterial Agent (Multichem)	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	619.21	0.0149%	0.0145%
			3,4,4-Trimethyloxazolidine		5.0%	40.53	0.0010%	0.0009%
			2-Amino-2-methyl-1-propanol		1.0%	8.49	0.0002%	0.0002%
			Formaldehyde Amine		0.5%	3.70	0.0001%	0.0001%
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	116.27	0.0028%	0.0041%
			Methanol		0.5%	1.16	0.0000%	0.0000%
TOTAL							0.0191%	0.0198%
SUMMARY							0.071%	0.042%