



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

DEP USE ONLY	
Site ID	Primary Fac ID
Client	Subfacility Id

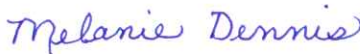
### Completion Report

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 - 081-20233- -		Project Number Acres 200
Address 100 Throckmorton St., Suite 1200			Well Farm Name Shohocken Hunt Club Unit	Well # 5H	Serial #
City Fort Worth	State TX	Zip Code 76102	County Lycoming	Municipality Cummings	
Phone 817 869-4158	Fax 817 869-1458	Email mdennis@rangeresources.com		USGS 7.5 min. quadrangle map Waterville	
Check the appropriate submission: <input checked="" type="checkbox"/> Original Completion Report <input type="checkbox"/> 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. Jersey Shores @ Larrys Creek and Pine Creek			PADWIS ID# 4410156	1,477,784	
2. Montoursville Borough (Howard Ave and Pool Road)			PADWIS ID# 4175501	725,573	
3. Williamsport Water Authority @ Sanitary Plant			PADWIS ID# 4189510	490,807	
4. LHP Management @ Fishing Creek			SRBC Docket # 20090906	172,892	
5.					
6.					
				Recycled Water Used	187,521
Other Bass Fluid(s)Components Used					
1.					
2.					
Total Base Fluid(s)/Components Used					3,054,577 Gallons
PERFORATION RECORD					
Stage No.	Perforation Date	Stage Perforated From	Stage Perforated To	Perf. Orientation (Vertical, Horizontal, Radial)	Formation
1	7/17/2011	12,300'MD	12,090'MD	Horizontal	Marcellus Shale
2	8/09/2011	11,985'MD	11,775'MD	Horizontal	Marcellus Shale
3	8/10/2011	11,670'MD	11,460'MD	Horizontal	Marcellus Shale
4	8/12/2011	11,355'MD	11,145'MD	Horizontal	Marcellus Shale
5	8/15/2011	11,040'MD	10,830'MD	Horizontal	Marcellus Shale
6	8/16/2011	10,725'MD	10,515'MD	Horizontal	Marcellus Shale
7	8/17/2011	10,410'MD	10,200'MD	Horizontal	Marcellus Shale
8	8/17/2011	10,095'MD	9,885'MD	Horizontal	Marcellus Shale
9	8/18/2011	9,780'MD	9,570'MD	Horizontal	Marcellus Shale





<b>STIMULATION INFORMATION (WELL)</b>			
Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date:
<b>STIMULATION INFORMATION (STAGE)</b>			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
<b>Stage No.:</b> 1	Stimulation Date: 08/09/2011	Pump Rate: 67.1	
Pressure (psi): 9,459	Shut-in Surface Pressure: 5,750	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 403,805	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 2	Stimulation Date: 08/10/2011	Pump Rate: 68.1	
Pressure (psi): 9,680	Shut-in Surface Pressure: 6,032	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 396,866	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 3	Stimulation Date: 08/11/2011	Pump Rate: 70.0	
Pressure (psi): 9,442	Shut-in Surface Pressure: 6,115	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 400,633	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 4	Stimulation Date: 08/15/2011	Pump Rate: 68.7	
Pressure (psi): 9,367	Shut-in Surface Pressure: 5,958	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 399,026	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 5	Stimulation Date: 08/16/2011	Pump Rate: 67.0	
Pressure (psi): 8,393	Shut-in Surface Pressure: 6,381	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 401,263	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 6	Stimulation Date: 08/17/2011	Pump Rate: 70.3	
Pressure (psi): 8,149	Shut-in Surface Pressure: 6,221	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 401,920	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)</b>			
Name <b>Frac Tech</b>	Name Multi-Chem	Name Cased Hole Solutions, Inc.	
Address 16858 IH 20	Address 2905 Southwest Blvd.	Address 1720 North Airport Rd.	
City – State- Zip Cisco, Texas 76437	City – State – Zip San Angelo, Texas 76904	City – State – Zip Weatherford, Oklahoma 73096	
Phone 817 850-1008	Phone 325 223-6200	Phone 580 772-3100	
<i>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.</i>			
<b>Well Operator's Signature</b>		<b>DEP USE ONLY</b>	
		Reviewed by:	Date:
Title: Regulatory Analyst	Date: 9/14/2011	Comments:	

STIMULATION INFORMATION (WELL)			
Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Open Flow Production: 0mcf/d @ 24hrs pos treatment	24 Hr. Shut-in Pressure: N/A @ 24hrs post treatment	Flow Back Date:
STIMULATION INFORMATION (STAGE)			
Complete a separate record for each stimulation stage. (Please insert additional copies of this page for additional stages).			
<b>Stage No.:</b> 7	Stimulation Date: 08/17/2011	Pump Rate: 69.2	
Pressure (psi): 8,359	Shut-in Surface Pressure: 5,621	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 398,556	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 8	Stimulation Date: 08/1/2011	Pump Rate: 67.4	
Pressure (psi): 8,151	Shut-in Surface Pressure: 5,934	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 398,152	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b> 9	Stimulation Date: 8/19/2011	Pump Rate: 68.9	
Pressure (psi): 8,078	Shut-in Surface Pressure: 5,709	5 Minute Shut-in Surface Pressure: NA	
Propping Agent Type: Sand	Propping Agent Amount: 397,862	Propping Agent Size: 100 mesh/30-50 Mesh	
<b>Stage No.:</b>	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
<b>Stage No.:</b>	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
<b>Stage No.:</b>	Stimulation Date:	Pump Rate:	
Pressure (psi):	Shut-in Surface Pressure:	5 Minute Shut-in Surface Pressure:	
Propping Agent Type:	Propping Agent Amount:	Propping Agent Size:	
WELL SERVICE COMPANIES (Provide the name, address, and telephone number of all well service companies involved.)			
Name <b>Frac Tech</b>	Name Multi-Chem	Name Cased Hole Solutions, Inc.	
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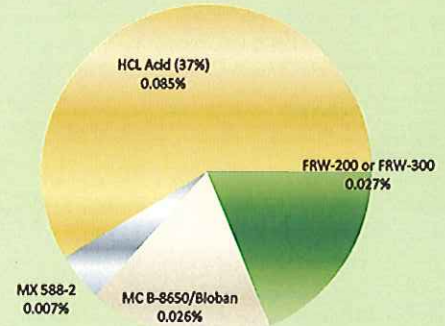
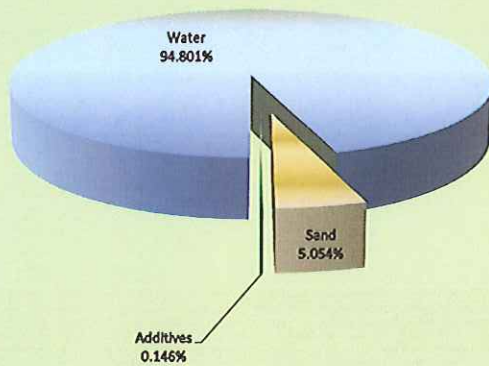
Shohocken HC 5-H  
Well API: 37-081-20233

Completion Date: 8/19/11  
Township: Cummings

**% 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	3,050,742 gal	94.801%	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	162,633 gal	5.054%	Drinking water filtration, play sand
FRW-200 or FRW-300	Friction Reducer	Reduces friction between fluid and pipe	Diluted at one-half gallon per 1,000 gallons of water	0,870 gal	0.027%	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	0,844 gal	0.026%	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	0,223 gal	0.007%	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)	2,747 gal	0.085%	Swimming pool and household cleaner

**Composition of Hydraulic Fracture Fluid (by volume)**





Wellname: Shohocken HC 5-H  
Township: Cummings

WELL API#: 37-081-20233  
Completion Date: 8/19/11

### 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%	2747.17	0.0854%	0.0345%
	CI-100	Corrosion Inhibitor	Methanol	Protects casing	95.0%	31.98	0.0010%	0.0007%
			Propargyl Alcohol	Protects casing	5.0%	1.37	0.00004%	0.00004%
	NE100	Non- Emulsifer	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
						<b>TOTAL</b>	<b>0.0864%</b>	<b>0.0353%</b>

Friction Reducer (FracTech)	FRW-200 or FRW-300	Friction Reducer	No hazardous ingredients	Reduce friction down casing	0.0%	N/A	N/A	N/A
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Scale Inhibitor (Multichem)	MX 588-2	Scale Inhibitor	No hazardous ingredients	prevents scale deposits	0.0%	N/A	N/A	N/A
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Antibacterial Agent (Multichem)	Supplier	Antibacterial Agent	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
	Bioban	Antibacterial Agent	4,4-Dimethyloxazolidine	eliminates bacteria in water	78.0%	463.72	0.0144%	0.0133%	
			3,4,4-Trimethyloxazolidine		5.0%	30.35	0.0009%	0.0009%	
			2-Amino-2-methyl-1-propanol		1.0%	6.36	0.0002%	0.0002%	
			Formaldehyde Amine		0.5%	2.77	0.0001%	0.0001%	
	BMC B-8650	Antibacterial Agent	Glutaraldehyde	eliminates bacteria in water	50.0%	87.07	0.0027%	0.0037%	
			Methanol		0.5%	0.87	0.00003%	0.00004%	
						<b>TOTAL</b>	<b>0.0184%</b>	<b>0.0182%</b>	

<b>SUMMARY</b>	by vol %	by weight %
	0.105%	0.054%