Submit within 45 days of well completion

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Revised February 15, 2012

1. WELL API NO.
30-039-31174

2. Well Name:
JICARILLA A #007M

3. Well Number:
007M

HYDRAULIC FRACTURING FLUID DISCLOSURE

☒ **Original**

☐ **Amendment**

4. Surface Hole Location:
Unit:N Lot:N Section:17 Township:26N Range:05W
Feet from:1268 N/S Line:S
Feet from:1658 E/W Line:W

5. Bottom Hole Location:
Unit:N Lot:N Section:17 Township:26N Range:05W
Feet from:1268 N/S Line:S
Feet from:1658 E/W Line:W

6. latitude: 0 longitude: 0

7. County:
Rio Arriba

8. Operator Name and Address:
ENERVEST OPERATING L.L.C.
1001 Fannin Street
Suite 800
Houston 77002

9. OGRID: 143199

10. Phone Number: 713-659-3500

11. Last Fracture Date: 9/16/2013 Frac Performed by: Halliburton

12. Production Type:
G

13. Pool Code(s):
71599, 72319

14. Gross Fractured Interval:
4,898 ft to 7,620 ft

15. True Vertical Depth (TVD):
7,740 ft

16. Total Volume of Fluid Pumped:
366,503 gals

17. **HYDRAULIC FLUID COMPOSITION AND CONCENTRATION:**

Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemical Abstract Service #	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)
2% KCL Water	Operator	Base Fluid	2% KCL Water		100%	79.10882%
Premium Prop	Halliburton	Proppant	Sintered Bauxite	1318-16-7	100%	11.72699%
			Crystalline silica, quartz	14464-46-1	5%	0.58635%
Nitrogen Liquified	Halliburton	Fluid	Nitrogen	7727-37-9	100%	6.04626%
CRC Sand	Halliburton	Proppant	Crystalline silica, quartz	14808-60-7	100%	2.15336%
			Phenol/formaldehyde resin	900-35-4	5%	0.10767%
			Hexamethylenetetramine	100-97-0	2%	0.04307%
Hydrochloric Acid 10%-30%	Halliburton	Solvent	Hydrochloric Acid	7647-01-0	30%	0.20509%
LGC-36-UC	Halliburton	Liquid Gel Concentrate	Naphtha, hydrotreated heavy	64742-48-9	60%	0.03976%
			Guar Gum	9000-30-0	60%	0.03976%
LoSurf-300D	Halliburton	Non-ionic Surfactant	Ethanol	64-17-5	60%	0.03789%
			Heavy aromatic petroleum naphtha	64742-94-5	30%	0.01895%
			Naphthalene	91-20-3	5%	0.00316%
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5%	0.00316%
			1, 2, 4 Trimethylbenzene	95-63-6	1%	0.00063%
HC-2	Halliburton	Additive	Inner salt of alkyl amines	Confidential	30%	0.02286%
			Sodium chloride	7647-14-5	30%	0.02286%
FR-66	Halliburton	Friction Reducer	Hydrotreated light petroleum distillate	64742-47-8	30%	0.01838%
OptiKleen-WF	Halliburton	Concentrate	Sodium perborate tetrahydrate	10486-00-7	100%	0.0065%
BioVert	Halliburton	Diverter	Polyactide Resin	Proprietary	100%	0.00346%
Optiflo-HTE	Halliburton	Breaker	Walnut hulls	Mixture	100%	0.022%
			Crystalline silica, quartz	14808-60-7	30%	0.00066%
GBW-30 Breaker	Halliburton	Breaker	Carbohydrates	Confidential	100%	0.0011%
			Hemicellulase enzyme	9012-54-8	30%	0.00033%
HAI-OS acid inhibitor	Halliburton	Corrosion Inhibitor	Methanol	67-56-1	60%	0.00046%
			Propargyl alcohol	107-19-7	10%	8E-05%
Non-MSDS ingredients			Aluminum silicate	1302-76-7	0%	11.72699%
			Aluminum oxide	1344-28-1	0%	3.5181%
			Iron oxide	1309-37-1	0%	1.1727%
			Water	7732-18-5	0%	0.76612%
			Titanium dioxide	13463-67-7	0%	0.58635%
			Oxyalkylated phenolic resin	Confidential	0%	0.01895%
			Polyacrylamide copolymer	Confidential	0%	0.01838%
			Oxyalkylated phenolic resin	Confidential	0%	0.00632%
			Glycerine	56-81-5	0%	0.00381%
			Sodium Chloride	7647-14-5	0%	0.00306%
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl) demethyl, salts with bentonite	68953-58-2	0%	0.00331%
			alcohols, C12-16, ethoxylated	68551-12-2	0%	0.00306%
			Fatty alcohol polyglycol ether surfactant	9043-30-5	0%	0.00066%
			Cured crylic resin	Confidential	0%	0.00066%
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	0%	0.00061%
			sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	0%	0.00061%
			Fatty acids, tall oil	Confidential	0%	0.00023%
			Reaction product of acetophenone, formaldehyde thiourea and oleic acid in dimethyl formamide	68527-49-1	0%	0.00023%
			Alcohols, C14-C15, ethoxylated	68951-67-7	0%	0.00023%
			Enzyme	Confidential	0%	0.00011%
			Crystalline silica, quartz	14808-60-7	0%	7E-05%
			Olefins	Confidential	0%	4E-05%
			Olefins	Confidential	0%	4E-05%
			Cured acrylic resin	Confidential	0%	2E-05%
			Olefins	Confidential	0%	1E-05%
			Olefins	Confidential	0%	1E-05%

18. I, as Operator, hereby certify that the information shown on this disclosure form is true and complete to the best of my knowledge and belief.

Signature: Signed Electronically Printed Name: Ronnie Young Title: Regulatory Director

Date: 11/6/2013

E-mail Address: ryoung@enervest.net

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