

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

1. WELL API NO. 30-015-39892
2. Well Name: IRWIN 23 14 FEDERAL #002
3. Well Number: 002
4. Surface Hole Location: Unit:A Lot:A Section:23 Township:19S Range:30E Feet from:1300 N/S Line:N Feet from:725 E/W Line:E
5. Bottom Hole Location: Unit:A Lot:A Section:23 Township:19S Range:30E Feet from:1300 N/S Line:N Feet from:725 E/W Line:E
6. latitude: 32.649520541616 longitude: - 103.936545471931
7. County: Eddy

HYDRAULIC FRACTURING FLUID DISCLOSURE
 Original

 Amendment

8. Operator Name and Address: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld St Suite 600 Midland 79701	9. OGRID: 162683	10. Phone Number: 432-620-1938
11. Last Fracture Date: 8/13/2012 Frac Performed by: Halliburton	12. Production Type: O	
13. Pool Code(s): 5200	14. Gross Fractured Interval: 8,480 ft to 8,587 ft	
15. True Vertical Depth (TVD): 8,587 ft	16. Total Volume of Fluid Pumped: 53,405 bbls	

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)
Fresh Water	Cimarex				100%	83.8528%
FDP-S1041-12	Halliburton	Surfactant	Poly(oxy-1,2-ethanediyl), alpha-isodecyl-omega-hydroxy	61827-42-7	30%	0.05225%
			Complex alkylamine		5%	0.00871%
SAND - PREMIUM WHITE	Halliburton	Proppant	Crystalline silica, quartz		100%	10.99571%
CRC SAND	Halliburton	Proppant	Crystalline silica, quartz		100%	4.3299%
			Hexamethylenetetramine		2%	0.0866%
			Phenol / formaldehyde resin		5%	0.21649%
BC-140 X2	Halliburton	Initiator	Ethylene glycol		30%	0.01869%
			Monoethanolamine borate		100%	0.06231%
BA-40L BUFFERING AGENT	Halliburton	Buffer	Potassium carbonate		60%	0.02845%
SUPERSET W	Halliburton	Activator	Methanol		60%	0.00284%
			Ethoxylated nonylphenol	CBI	60%	0.00284%
BE-9	Halliburton	Biocide	Tributyl tetradecyl phosphonium chloride		10%	0.00204%
SP BREAKER	Halliburton	Breaker	Sodium persulfate		100%	0.07059%
WG-35 GELLING AGENT	Halliburton	Gelling Agent	Guar gum		100%	0.14094%
OPTIFLO-HTE	Halliburton	Breaker	Crystalline silica, quartz		30%	0.00173%
			Walnut hulls	Mixture	100%	0.00576%
WG-36 GELLING AGENT	Halliburton	Gelling Agent	Guar gum		100%	0.02175%
HCL 15%	Petroplex	Acid	Hydrochloric Acid	7647-01-0	15%	0.01482%
Cronox AK-50	Petroplex	Corrosion Inhibitor	Oxyalkylated Alkylphenol	CBI	30%	5E-05%
			Heavy Aromatic Naptha	64742-94-5	30%	5E-05%
			Isopropanol	67-63-0	30%	5E-05%
			Fatty Acids	CBI	10%	2E-05%
			Complex Alkylaryl Poly-Ester	CBI	10%	2E-05%
			Tar Bases, Quinoline Derivatives, Benzyl Chloride-Quaternized	72480-70-7	10%	2E-05%
			Formaldehyde	50-00-0	10%	2E-05%
			Acetylenic Alcohol	CBI	5%	1E-05%
			Propargyl Alcohol	107-19-7	5%	1E-05%
			Napthalene	91-20-3	5%	1E-05%
Citric Acid	Petroplex	Iron Control	Citric Acid	77-92-9	100%	0.00046%
EC9546A	Petroplex	Surfactant	Heavy Aromatic Naptha	64742-94-5	10%	2E-05%
			Isopropanol	67-63-0	60%	0.0001%
			Polyethylene Glycol	25322-68.3	5%	1E-05%
			Napthalene	91-20-3	1%	0%
			Phosphoric Acid Ester	CBI	10%	2E-05%
			Oxyalkylated Alcohol	CBI	10%	2E-05%
			Oxyalkylated Alkyl Alcohol	CBI	10%	2E-05%
Ingredients Listed Below This Line Are Part of the			Ethoxylated Nonylphenol	Confidential Business Information	0%	0%
			Water	7732-18-5	0%	0%

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

Signature: Signed Electronically Printed Name: Skipper Herring Title: Manager Stimulation Operations

Date: 9/16/2012

E-mail Address: sherring@cimarex.com

NMOCD does not require the reporting of information beyond MSDS data as described in 29 CFR 1910.1200. NMOCD does not require the reporting or disclosure of proprietary, trade secret or confidential business information.