State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505						Revised November 6, 2013									
						WELL API NO. 30-015-43773 Well Name: PINTAIL 23 26 FEDERAL COM #010H Well Number: 010H									
								HYDRAULIC FF	RACTURING F	LUID				4. Surface Hole Location:	250 - 205
								DISCLOSURE						Feet from: 330	rownship:25S Range:26E N/S Line:N E/W Line:W
⊠ Original □ Amendment							Fownship:25S Range:26E								
Amendment						Feet from:1980	E/W Line:W longitude: -104.1559336								
						7. County: Eddy									
8. Operator Name and Address: CIMAREX ENERGY CO. OF COLORADO 202 S. Cheyenne Ave, Ste 1000 Tulsa 74103					9. OGRID:	162683 10. Phone Numb	918-295-1763								
	2017 Frac Performed by	Halliburton			12. Production	т Туре:									
13. Paol Code(s): 96890					14. Gross Fra	oss Fractured Interval: 8,873 ft to 8,951 ft									
15. True Vertical Depth (TVD):					16. Total Volu	olume of Fluid Pumped:									
8,951 ft 17. Total Volume of Re-Use Water Pumped:					18,151,905 gals 18. Percent of Re-Use Water in Fluid Pumped:										
N/A 19. HYDRAULIC FLUID	COMPOSITION AN	ID CONCENTRA	TION:		N	ot Disclosed									
Trade Name	Supplier	Purpose	Ingredients	(CAS #) Chemic Service #	cal Abstract	Maximum Ingredient Concentration in Additive (% by mass)	Maximum Ingredient Concentration in HF Fluid (% by mass)								
Fresh Water Cla-Web II	Operator Halliburton	Base Fluid Clay Stabilizer	Water Listed Below	7732-18-5 Listed Below		100%	86.92971% 0%								
FDP-S1176-15	Halliburton	Friction Reducer	Listed Below	Listed Below		0%	0%								
FDP-S1225-15 HAI-OS ACID INHIBITOR	Halliburton Halliburton	Surfactant Corrosion Inhibitor	Listed Below Listed Below	Listed Below Listed Below		0%	0%								
MC B-8614	Halliburton	Biocide	Listed Below	Listed Below		0%	0%								
HCI	Halliburton	Solvent	Listed Below	Listed Below		0%	0%								
OptiKleen-WF Pro-Hib 320	Halliburton Performance	Concentrate Scale Inhibitor	Listed Below Listed Below	Listed Below Listed Below		0%	0% 0%								
	Chemical Company	Octaic minibitor	1-11-77-11-11-12-77-77-77-77-77-77-77-77-77-77-77-77-77	Listed Below		233									
DC-229	Performance Chemical Company	Scale Inhibitor	Listed Below	Listed Below		0%	0%								
SAND	Halliburton	Proppant	Listed Below	Listed Below		0%	0%								
MSDS and Non-MSDS Ingredients are listed below						0%	0%								
the Ingredients	Listed Above	Listed Above	9-Octadecenamide, n,n-bis-2(hydroxy-	93-83-4		5%	0.00279%								
			ethyl)-,(Z) Alcohols, C12-13, ethoxylated	66455-14-9		30%	0.02568%								
			Alcohols, C12-16, ethoxylated	68551-12-2		5%	0.00428%								
			Amine	Proprietary		0.1%	2E-05%								
			Amine salts Ammonium chloride	Proprietary 12125-02-9		1% 5%	0.00023% 0.00279%								
			Ammonium	Proprietary		30%	0.0027370								
			compound Castor oil,	61791-12-6		5%	0.00279%								
			ethoxylated Chlorine compound	Proprietary		30%	0.00641%								
			Crystalline silica, quartz	14808-60-7		100%	12.95337%								
			Ethans!				0.0000								
			Ethanol Ethoxylated alcohols	64-17-5 Proprietary		1% 30%									
			Ethoxylated alcohols Ethylene oxide	Proprietary 75-21-8		30% 0.01%	1E-05% 1E-05%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil	Proprietary 75-21-8 Proprietary		30% 0.01% 30%	1E-05% 1E-05% 1E-05%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0		30% 0.01% 30% 30% 60%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8		30% 0.01% 30% 30% 60% 30%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0		30% 0.01% 30% 30% 60%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2		30% 0.01% 30% 30% 60% 60% 50% 0.1%	0.00025% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary		30% 0.01% 30% 30% 60% 60% 5% 0.1%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0.01672% 0.01672%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary		30% 0.01% 30% 30% 60% 5% 0.1% 30%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0% 2E-05% 0.01672% 0.01672% 0.00043%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7		30% 0.01% 30% 30% 60% 50% 50% 0.11% 30%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0% 2E-05% 0.01672% 0.01672% 0.01672%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl chlorides Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary		30% 0.01% 30% 30% 60% 5% 0.1% 30%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0% 2E-05% 0.01672% 0% 0.00043% 0.00043%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl chlorides Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide Sobitan, mono-9-	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary 68424-85-1		30% 0.01% 30% 30% 60% 60% 50% 0.11% 30% 10% 55%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0.001672% 0.01672% 0.01672% 0.01672% 0.00124%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary amine Quaternary amonium compounds, benzyl- C12-16-alkyldimethyl chlorides Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide Sobitan, mono-9- octadececenoate, (Z) Sodium chloride	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary 68424-85-1		30% 0.01% 30% 30% 60% 50% 0.11% 30% 60% 55% 0.11% 55%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0.00672% 0.01672% 0.01672% 1.00043% 0.00043% 0.00124% 1E-05% 0.00279% 0.003%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary amine Quaternary ammonium compounds, benzyl- c12-16-alkyldimethyl chlorides Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide Sobitan, mono-9- octadececenoate, (Z) Sodium chloride Sodium perborate tetrahydrate Sodium Polyacrylate	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary 68424-85-1 68527-49-1 1338-43-8 7647-14-5 10486-00-7 9003-04-7		30% 0.01% 30% 30% 60% 30% 60% 55% 0.11% 30% 10% 5% 5% 5%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0.01672% 0.01672% 0.01672% 1E-05% 0.01672% 0.001672% 0.00043% 0.00124% 1E-05% 0.00279% 0.00377% 0.00317%								
			Ethoxylated alcohols Ethylene oxide Fatty acids, tall oil Glutaraldehyde Hydrochloric acid Hydrotreated light petroleum distillate Methanol Olefins Phosphoric acid Polyacrylate Propargyl alcohol Quaternary amine Quaternary ammonium compounds, benzyl- C12-16-alkyldimethyl chlorides Reaction product of acetophenone, formaldehyde, thiourea and oleic acid in dimethyl formamide Sobitan, mono-9- octadececenoate, (Z) Sodium chloride Sodium perborate tetrahydrate	Proprietary 75-21-8 Proprietary 111-30-8 7647-01-0 64742-47-8 67-56-1 Proprietary 7664-38-2 Proprietary 107-19-7 Proprietary 68424-85-1 68527-49-1 1338-43-8 7647-14-5 10486-00-7		30% 0.01% 30% 30% 60% 30% 60% 55% 0.1% 309% 10% 55%	1E-05% 1E-05% 1E-05% 0.00747% 0.01315% 0.01672% 5E-05% 0.01672% 0.01672% 0.01672% 1E-05% 0.01672% 0.00124% 0.00124%								

Date:

3/2/2017

sherring@cimarex.com

ire the reporting of information beyond MSDS data as

Manager Stimulation
Title: Operations