

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: 30-025-38203				
		2. Well Name: RAVEN STATE #004				
		3. Well Number: 004				
HYDRAULIC FRACTURING FLUID DISCLOSURE ☒ Original ☐ Amendment		4. Surface Hole Location: Unit:E Lot:E Section:9 Township:18S Range:34E Feet from:2310 N/S Line:N Feet from:330 E/W Line:W				
		5. Bottom Hole Location: Unit:E Lot:E Section:9 Township:18S Range:34E Feet from:2310 N/S Line:N Feet from:330 E/W Line:W				
		6. Latitude: 32.7631794914272 Longitude: - 103.572999891472				
		7. County: Lea				
8. Operator Name and Address: MACK ENERGY CORP PO Box 960 11344 Lovington Hwy Artesia 88211		9. OGRID: 13837		10. Phone Number: 575-748-1288		
11. Last Fracture Date: 3/19/2013 Frac Performed by: Elite Well Services		12. Production Type: O				
13. Pool Code(s): 61910		14. Gross Fractured Interval: 8,335 ft to 8,402 ft				
15. True Vertical Depth (TVD): 9,478 ft		16. Total Volume of Fluid Pumped: 2,433 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)
Water		Carrier Base Fluid	Water	7732-18-5	100%	85.85184%
Sand (Proppant)		Proppant	Silicon Dioxide	14808-60-7	100%	10.84109%
RCS (Proppant)		Proppant	Silicon Dioxide	14808-60-7	100%	0.99277%
AMA-398	Chemplex, LC	Biocide	Tetrahydro-3,5-Dimethyl-2H-1,3,5-Thiadiazine-2-Thione	533-74-4	98%	0.01571%
Ammonium Persulfate	Chemplex, LC	Gel Breaker	Ammonium Persulfate	7727-54-0	98%	0.00661%
Claymax	Chemplex, LC	Clay Stabalizer	Choline Chloride	67-48-1	62%	0.05991%
			Water	7732-18-5	38%	0.03672%
Greenhib 679	Chemplex, LC	Scale Inhibitor	Glycerine	56-81-5	35%	0.05585%
			Trade Secret	Trade Secret	35%	0.05585%
			Water	7732-18-5	50%	0.07978%
Plexbor 101	Chemplex LC	Crosslinker	Ethylene Glycol	107-21-1	9.99%	0.01312%
			Potassium Metaborate	13709-94-9	30%	0.03943%
			Potassium Hydroxide	1310-58-3	5%	0.00657%
			Water	7732-18-5	75%	0.09857%
Plexbreaker 150	Chemplex, LC	Non-Emulsifier	Cocamide Diethanolamine Salt	68603-42-9	30%	0.02331%
			Diethanolamine	111-42-2	20%	0.01554%
			Methyl Alcohol	67-56-1	50%	0.03886%
			Trade Secret	Trade Secret	5%	0.00389%
Plexgel Breaker 10L	Chemplex, LC	Gel Breaker	Mannanase Enzymes	Trade Secret	2%	0.00127%
			Sodium Chloride	7647-14-5	15%	0.0095%
			Water	7732-18-5	90%	0.05698%
			Plexset 730	Chemplex LC	Activator	Secondary Alcohol Ethoxylate
Plexsurf 240 E	Chemplex LC	Surfactant	Methyl Alcohol	64-56-1	50%	0.01776%
			Methyl Alcohol	67-56-1	20%	0.01648%
			Alcohol Ethoxylate Surfactants	Trade Secret	20%	0.01648%
			Water	7732-18-5	80%	0.06593%
Plexgel 907 LE	PFP Technology	Polymer	Guar Gum	9000-30-0	50%	0.33122%
			Mineral Oil	64742-47-8	55%	0.36434%
			Bentonite Clay	14808-60-7	2%	0.01325%
			Surfactant	68439-51-0	2%	0.01325%
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: Deana Weaver		Title: Production Clerk		
Date: 3/20/2013						
E-mail Address: deanap@mackenergycorp.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.