Oil Coi 1220	ATION: Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Phenol / formaldehyde	9. 00 12. P 14. G	2. Well N 3. Well N 4. Surfac Unit:N Feet fro Feet fro 5. Bottor Unit:N Feet fro 6. latitu 7. Count FRID: 6: Toduction Type: Oross Fractured Inte Confidentia otal Volume of Flu 513,872 ga eroent of Re-Use W Not Disclos	30-025-41253 lame: THISTLE UNIT #048H lumber: 048H se Hole Location: Lot:N Section:34 To m:280 N/3 m:2561 EA m:280 N/3 m:2561 EA 32.2546997261604 137 10. Phone Number: Lea 137 10. Phone Number: Is lid Pumped: Is lid Pum	ownship:23S Range:33E S Line:S W Line:W ownship:23S Range:33E S Line:S W Line:W ongitude: 			
Tago San G FLUID COMPANY, LP rmed by: HES DN AND CONCENTR Purpose Base Fluid Acid Proppant Proppant Proppant Proppant Proppant Proppant Proppant Proppant Proppant Proppant	ATION: Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	9. 00 12. P 14. G 16. T 18. P (CAS #) Chemical # Service # 7732-18-5 7647-01-0 14808-60-7	3. Well N 4. Surface Unit:N Feet fro Feet fro 5. Botton Unit:N Feet fro 6. latitu 7. Count roduction Type: O ross Fractured Inte Confidentia otal Volume of Flu 513,872 ga ercent of Re-Use W Not Disclos	THISTLE UNIT #048H	S Line:S W Line:W ownship:23S Range:33E S Line:S W Line:W ongitude:			
San G FLUID COMPANY, LP rmed by: HES DN AND CONCENTR Purpose Base Fluid Acid Proppant	ATION: Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	9. 00 12. P 14. G 16. T 18. P (CAS #) Chemical # 7732-18-5 7647-01-0 14808-60-7	4. Surfac Unit:N Feet fro Feet fro 5. Botton Unit:N Feet fro 6. latitu 7. Count FRID: 6' roduction Type: O ross Fractured Inte Confidentia otal Volume of Flu 513,872 ga ercent of Re-Use W Not Disclos	048H 25 Hole Location: Lot:N Section:34 To m:280 N/5 m:2561 EA m:280 N/5 m:2561 EA 32.2546997261604 1 y: Lea 137 10. Phone Number: all aid Pumped: aids Pumped:	S Line:S W Line:W ownship:23S Range:33E S Line:S W Line:W ongitude:			
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Purpose Base Fluid Acid Proppant Proppant Proppant Proppant Proppant Proppant	Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	(CAS #) Chemical # Service # 7732-18-5 7647-01-0 14808-60-7	O ross Fractured Inte Confidentia otal Volume of Flu 513,872 ga ercent of Re-Use W Not Disclos	al iid Pumped: ils //ster in Fluid Pumped: Sed num Ingredient ntration in Additive (% by				
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Purpose Base Fluid Acid Proppant Proppant Proppant Crosslinker pH Control Additive	Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	(CAS #) Chemical # Service # 7732-18-5 7647-01-0 14808-60-7	Not Disclos Note Maxim Conce	/ater in Fluid Pumped: Ged num Ingredient ntration in Additive (% by				
Purpose Base Fluid Acid Proppant Proppant Proppant Crosslinker pH Control Additive	Ingredients Fresh Water Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	7732-18-5 7647-01-0 14808-60-7	Conce	ntration in Additive (% by	18. Percent of Re-Use Water in Fluid Pumped: Not Disclosed			
Acid Proppant Proppant Proppant Crosslinker PH Control Additive	Hydrochloric acid Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	7647-01-0 14808-60-7	mass)		Maximum Ingredient Concentration in HF Fluid (%			
Proppant Proppant Proppant Crosslinker pH Control Additive	Crystalline silica, quartz Crystalline silica, quartz Crystalline silica, quartz Hexamethylenetetramine	14808-60-7		100% 30%	84.16359% 0.41946%			
Proppant Crosslinker pH Control Additive	Crystalline silica, quartz Hexamethylenetetramine	14000 60 7	2 0	100%	3.52683%			
pH Control Additive		14808-60-7		100% 100%	7.96411% 2.37751%			
pH Control Additive	regin	100-97-0 9003-35-4		2% 5%	0.04755% 0.11888%			
-	Potassium formate Sodium hydroxide	590-29-4 1310-73-2		60% 30%	0.01693% 0.00355%			
	Glutaraldehyde Alkyl (C12-16)	111-30-8 68424-85-1		30% 5%	0.00589% 0.00098%			
A at attack	dimethylbenzylammonium chloride			0000	0.000408/			
Additive	Ammonium salt Potassium hydroxide	Confidential Bus Information 1310-58-3	iness	60% 5%	0.02919%			
Activator	Potassium metaborate Methanol	13709-94-9 67-56-1		60% 60%	0.0092% 0.01292%			
Frieties Deduces	Ethoxylated nonylphenol	Confidential Bus	iness	60%	0.01292%			
Friction Reducer Surfactant	Hydrotreated light petroleum distillate 2-Butoxyethanol	64742-47-8		30% 10%	0.01738%			
	Ethoxylated Alcohols Methanol	Proprietary 67-56-1		30% 70%	0.0656% 0.15306%			
Gelling Agent	Potassium chloride Guar gum	7447-40-7 9000-30-0		5% 100%	0.01093% 0.15695%			
Breaker	Ammonium persulfate Crystalline silica, quartz	14808-60-7		30%	0.00488% 0.00146%			
Concentrate	Sodium perborate	10486-00-7		100%	0.00039% 0.00537%			
	Acrylate polymer	Confidential Bus Information	iness	0%	0%			
	Alcohols, C12-16, ethoxylated	68551-12-2		0%	0%			
		Information		W1567100	0%			
	Ammonium chloride	Information 12125-02-9		0%	0%			
	stearate complex		inacc	0%	0%			
	Crystalline silica, quartz	Information 14808-60-7	illess	0%	0%			
	Cured acrylic resin	Information		0%	0%			
		Information			0%			
3	Quaternary amine	Information		0%	0%			
	Quaternary amine		iness	0%	0%			
	Quaternary amine	Confidential Bus	iness	0%	0%			
	Silica gel Sodium carboxymethyl	112926-00-8		0% 0%	0% 0%			
	cellulose Sodium chloride	7647-14-5		0%	0%			
	Sodium sulfate	7757-82-6		0%	0% 0%			
	polyoxyethylene derivative Sorbitan, mono-9-	1338-43-8		0%	0%			
	octadecenoate, (Z) Surfactant mixture	Confidential Bus	iness	0%	0%			
	Surfactant mixture		iness	0%	0%			
on shown on this disclosure for	Water m is true and complete to the be	7732-18-5	nd belief.	0%	0%			
Printed Name: Derek B	erg		Title: El	ngineering Technician				
	Gelling Agent Breaker Breaker Concentrate on shown on this disclosure form Printed Name: Derek Breaker	Ethoxylated Alcohols Methanol Potassium chloride Gelling Agent Breaker Ammonium persulfate Crystalline silica, quartz Sodium persulfate Concentrate Acrylate polymer Alcohols, C12-16, ethoxylated Amine salts Amine salts Ammonium chloride Bentonite, benzyl (hydrogenated tallow alkyl) dimethylammonium stearate complex Borate salts Crystalline silica, quartz Cured acrylic resin Fatty acid tall oil amide Polyacrylamide copolymer Quaternary amine Quaternary amine Quaternary amine Quaternary amine Silica gel Sodium carboxymethyl cellulose Sodium sulfate Sorbitan monooleate polyoxyethylene derivative Sorbitan, mono-9- octadecenoate, (Z) Surfactant mixture Water Water Printed Name: Derek Berg	Ethoxylated Alcohols Proprietary Methanol 67-56-1 Potassium chloride 7447-40-7 Gelling Agent Guar gum 9000-30-0 Breaker Ammonium persulfate 7727-54-0 Crystalline silica, quartz 14808-60-7 Breaker Sodium persulfate 7775-27-1 Concentrate Sodium perborate 10486-00-7 tetrahydrate Acrylate polymer Confidential Businformation Alcohols, C12-16, 68551-12-2 ethoxylated Amine salts Confidential Businformation Ammonium chloride 12125-02-9 Bentonite, benzyl (hydrogenated tallow alkyl) dimethylammonium stearate complex Borate salts Confidential Businformation Crystalline silica, quartz 14808-60-7 Cured acrylic resin Confidential Businformation Fatty acid tall oil amide Confidential Businformation Polyacrylamide copolymer Confidential Businformation Quaternary amine Confidential Businformation Silica gel 112926-00-8 Sodium carboxymethyl cellulose	Ethoxylated Alcohols Proprietary	Ethoxylated Alcohols			