FORM NO. 2 R 10/09

ARM 36.22.307, 601, 605, 1003, 1004, 1011, 1013, 1103, 1222, 1240, 1301, 1306, 1309, and 1417

Submit In Quadruplicate To:

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

RECEIVED
JUL - 8 2019
MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

SUNDRY NOTICES AND REPORT OF WELLS

Operator White Rock Oil & Gas, LLC

Address 5810 Tennyson Parkway, Suite 500

City Plano State TX Zip Code 75024

Telephone 214-981-1400 Fax 214-981-1401

Lease Name: Dynneson

Type (Private/State/Federal/Tribal/Allotted): Fee

Well Number: 2-31H

Location of well (1/4-1/4 section and footage measurements):
NWNE, ~~1173'~~ 772' FNL & ~~1854'~~ 1964' FEL

Unit Agreement Name:

Field Name or Wildcat: Elm Coulee

Township, Range, and Section: 24N, 58E, 31

API Number: 25 | 083 | 22536
State | County | Well

Well Type (oil, gas, injection, other): Oil

County: Richland

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans	☐	Subsequent Report of Mechanical Integrity Test	☐
Notice of Intention to Run Mechanical Integrity Test	☐	Subsequent Report of Stimulation or Treatment	☐
Notice of Intention to Stimulate or to Chemically Treat	☐	Subsequent Report of Perforation or Cementing	☐
Notice of Intention to Perforate or to Cement	☑	Subsequent Report of Well Abandonment	☐
Notice of Intention to Abandon Well	☐	Subsequent Report of Pulled or Altered Casing	☐
Notice of Intention to Pull or Alter Casing	☐	Subsequent Report of Drilling Waste Disposal	☐
Notice of Intention to Change Well Status	☐	Subsequent Report of Production Waste Disposal	☐
Supplemental Well History	☐	Subsequent Report of Change in Well Status	☐
Other (specify) Refrac	☑	Subsequent Report of Gas Analysis (ARM 36.22.1222)	☐
	☐		☐

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

The Dynneson 2-31H is planned to be a plug and perf re-entry refrac on an open hole lateral to prove the concept in Richland County, MT.

Please see attached supporting documentation.

BOARD USE ONLY

Approved JUL 17 2019
Date

Name Petroleum Engineer
Title

The undersigned hereby certifies that the information contained on this application is true and correct:

07/02/2019
Date

Signed (Agent)

Eric Linthicum, Regulatory Mananger
Print Name and Title

Telephone: 214-666-4826

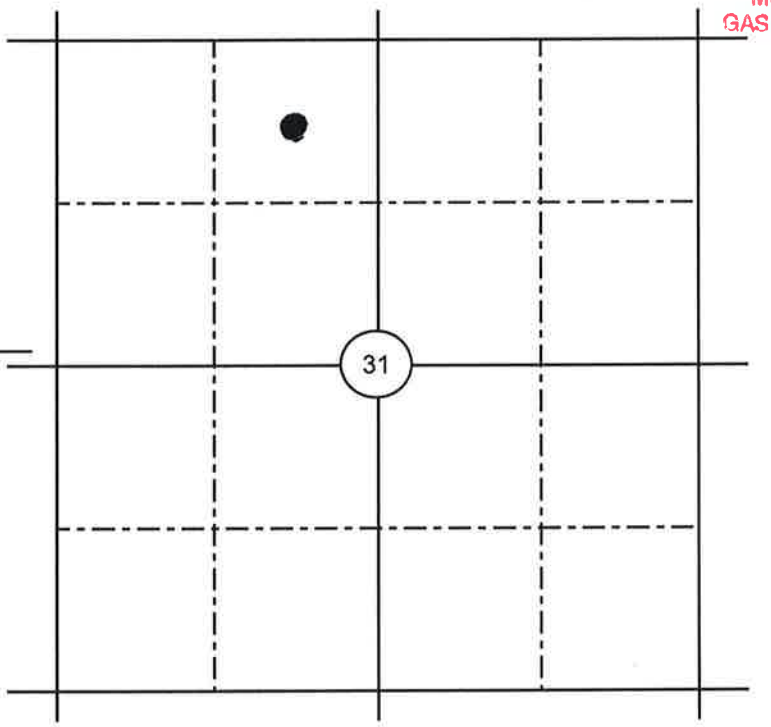
SUPPLEMENTAL INFORMATION

NOTE: Additional information or attachments may be required by Rule or by special request.

Plot the location of the well or site that is the subject of this notice or report.

Range 58E

Township 24N



BOARD USE ONLY	CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Failure to comply with the conditions of approval may void this permit.

Custom Chemical Component Disclosure Report for: HF ad hoc

Start Date	7/2/2019	End Date	7/2/2019
State:	Montana		
County:	Richland		
API Number:	25083225360000		
Operator Name:	White Rock Oil & Gas LLC		
Well Name and Number:	Dynneson 2-31H		
Longitude:	-104.32200		
Latitude:	47.80279		
Long/Lat Projection:	NAD27		
Production Type:	Oil		
True Vertical Depth (TVD):	10,515		
Total Chemical Mass (lbs)*:	17,810,075		
Total Max. Ingredient Mass (lbs)*:	17,831,712		
Total Base NonWater Volume (gal)*:		<= This value will show blank on the screen. Please do not modify. If Hydrocarbon, N2 or CO2 is used as a carrier fluid, enter that volume manually in the XML file (using Notepad) after converting this Excel file.	
Total Base Water Volume (gal)*:	1,899,600	Total Product Volume (gal)*:	1,992,430

Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Weight (pounds)	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	BJ Services	Carrier	Water	7732-18-5	100.000000%	15,838,484.880000	88.822009%	
BIOC11139W	BJ Services	Biocide	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		3,119.074371	0.017492%	
FP-6L	BJ Services	Antifoamer	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		16.400000	0.000092%	
FraCare NE-03	BJ Services	Surfactant	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		15,846.000000	0.088864%	
FraCare SI 720	BJ Services	Scale Inhibitor	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		4,403.071400	0.024692%	
InnoFrac DP NW-TM	BJ Services	Diverter	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		432.180000	0.002424%	
Sand, White	BJ Services	Proppant	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		1,920,000.000000	10.767334%	
ThinFrac MP	BJ Services	Friction Reducer	MSDS and Non-MSDS Ingredients are listed below the green line.	Listed Below		49,410.511292	0.277093%	
Ingredients shown Above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown Below are Non-MSDS								
			2-propenoic, polymer with sodium phosphinate, sodium salt	71050-62-9	20.000000%	823.004000	0.004615%	
			Acetic acid	127-08-2	1.000000%	288.612800	0.001619%	
			Acetic acid, Potassium Salt	64-19-7	0.100000%	28.861280	0.000162%	
			Acrylamide Modified Acrylic Polymer	38193-60-1	60.000000%	17,316.767976	0.097112%	
			Alcohol ethoxylate	68439-46-3	2.500000%	396.150000	0.002222%	
			Benzyl-(C12-C16 Alkyl)-Dimethyl-Ammonium Chloride	68424-85-1	30.000000%	693.127638	0.003887%	
			Calcium Chloride	10043-52-4	5.000000%	205.751000	0.001154%	
			Crystalline Silica (Quartz)	14808-60-7	100.000000%	1,920,000.000000	10.767334%	
			Dipropylene glycol monomethyl ether	34590-94-8	5.000000%	792.300000	0.004443%	
			Esterfied phenolic polymer	129828-31-5	2.500000%	396.150000	0.002222%	
			Ethanol	64-17-5	5.000000%	115.521273	0.000648%	
			Ethylene glycol	107-21-1	30.000000%	1,927.633638	0.010810%	
			Glutaraldehyde	111-30-8	10.000000%	231.042546	0.001296%	
			Isopropanol	67-63-0	60.000000%	1,386.255276	0.007774%	
			Non-hazardous Ingredients	Trade Secret	100.000000%	16.400000	0.000092%	
			Oxyalkylated Alcohol	78330-21-9	5.000000%	1,443.063998	0.008093%	
			Petroleum distillates	64742-47-8	30.000000%	8,658.383988	0.048556%	
			Polylactide resin	9051-89-2	98.000000%	432.180000	0.002424%	
			Potassium Chloride	7447-40-7	1.000000%	41.150200	0.000231%	
			Sodium Chloride	7647-14-5	5.000000%	1,484.214198	0.008323%	
			Sorbian, mono-(9Z)-9octadecenoate	1338-43-8	5.000000%	1,443.063998	0.008093%	
			Sorbitan monooleate ethoxylate	9005-65-6	5.000000%	1,443.063998	0.008093%	
			Tetrasodium EDTA	64-02-8	0.100000%	28.861280	0.000162%	
			Water	7732-18-5	90.000000%	33,635.677976	0.188628%	

* Total Chemical Mass is the total amount of Trade Name volume, supplied to the customer, converted to pounds.
* Total Max. Ingredient Mass is the summation of all masses listed in the Maximum Ingredient Weight (pounds) column.
* Total Product Volume is the total amount of Water plus Trade Name chemcial volume in gallons supplied by the customer or BJ Services, LLC.
* Total Base NonWater Volume is the total amount of non-water volume in gallons used on the hydraulic fracture treatment (eg. N2, Co2, Hydrocarbons).
* Total Base Water Volume is the total amount of water volume in gallons used on the hydraulic fracture treatment.
** Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information listed was obtained from the supplier's Safety Data Sheets (SDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the SDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an SDS is subject to 29 CFR 1910.1200(i) and Appendix D.

MONTANA BOARD OF OIL AND GAS ATTACHMENT TO FORM 2 "CONDITIONS OF APPROVAL"

A. Field Inspector must be notified at least **24 hours** in advance of the start of fracture stimulation operation.

B. 36.22.1106 SAFETY AND WELL CONTROL REQUIREMENTS – HYDRAULIC FRACTURING

(1) New and existing wells which will be stimulated by hydraulic fracturing must demonstrate suitable and safe mechanical configuration for the stimulation treatment proposed.

(2) Prior to initiation of fracture stimulation, the operator must evaluate the well. If the operator proposes hydraulic fracturing through production casing or through intermediate casing, **the casing must be tested to the maximum anticipated treating pressure**. If the casing fails the pressure test it must be repaired or the operator must use a temporary casing string (fracturing string).

> (a) **If the operator proposes hydraulic fracturing though a fracturing string, it must be stung into a liner or run on a packer set not less than 100 feet below the cement top of the production or intermediate casing and must be tested to not less than maximum anticipated treating pressure minus the annulus pressure applied between the fracturing string and the production or immediate casing.**

(3) A casing pressure test will be considered successful if the pressure applied has been held for 30 minutes with no more than ten percent pressure loss.

(4) A **pressure relief valve(s)** must be installed on the treating lines between pumps and wellhead to limit the line pressure to the test pressure determined above; the well **must be equipped with a remotely controlled shut-in device** unless waived by the board administrator should the factual situation warrant.

(5) **The surface casing valve must remain open** while hydraulic fracturing operations are in progress; the annular space between the fracturing string and the intermediate or production casing must be monitored and may be pressurized to a pressure not to exceed the pressure rating of the lowest rated component that would be exposed to pressure should the fracturing string fail.

History: 82-11-111, MCA; IMP, 82-11-111, MCA; NEW, 2011 MAR p. 1686, Eff. 8/26/11.

C. 36.22.1010 WORK-OVER, RECOMPLETION, WELL STIMULATION – NOTICE AND APPROVAL

(1) Within 30 days following completion of the well work, a subsequent report of the actual work performed must be submitted on From No. 2.