To: Scott Kluska[skluska@cteh.com]; stillots@nd.gov[stillots@nd.gov]; Peronard, Paul[Peronard.Paul@epa.gov]
Cc: Roberts, Kris D.[kroberts@nd.gov]; rithompson@mt.gov[rithompson@mt.gov]; Hvinden, Dave C.[dhvinden@nd.gov]
From: Bohrer, Mark F.
Sent: Tue 8/19/2014 1:09:18 PM
Subject: RE: Red River Supply - Water Disposal

Scott,

The Oil and Gas Division will allow this water to be used for hydraulic fracturing.

Mark Bohrer

UIC Manager/Petroleum Engineer

NDIC-Oil and Gas Division

600 East Blvd-Dept 405

Bismarck ND 58505-0405

Phone: (701) 328-8020

Web Site: https://www.dmr.nd.gov/oilgas

From: Scott Kluska [mailto:skluska@cteh.com]
Sent: Sunday, August 17, 2014 1:41 PM
To: Tillotson, Steve J.; Peronard.Paul@EPA.Gov
Cc: Roberts, Kris D.; Bohrer, Mark F.; Thompson, Ricknold
Subject: RE: Red River Supply - Water Disposal
Importance: High

Steve,

There appears to be some possible interest from a couple companies that have indicated that they may be able to utilize the fire water in the frac tanks for their Frac'ing operations. Attached are some analytical results from a couple samples taken from the frac tanks. As you will see there is just about nothing of any significance in these sample results. Do you think it would be allowed from the State's perspective that this water be used for this process? Representatives are coming today to look at the water and possibly take samples.

Thanks

Scott Kluska

Sr. Consultant

Center for Toxicology and Environmental Health, LLC (CTEH)

5120 North Shore Drive

North Little Rock, AR 72118

Office: 501-801-8500

Cell: 908-399-8875

1-866-869-2834 [24–HOUR ER Help Desk]

www.cteh.com

From: Tillotson, Steve J. [mailto:stillots@nd.gov]
Sent: Wednesday, August 13, 2014 4:43 PM
To: Scott Kluska; Peronard.Paul@EPA.Gov
Cc: Roberts, Kris D.; Bohrer, Mark F.; Thompson, Ricknold
Subject: RE: Red River Supply - Water Disposal

RE cleanup of water from Red River Supply fire:

I believe the Treatment plant is regulated by the Division of Oil and Gas

I do not see a problem with disposal of the solids in the manner characterized; however,

If you need to contact someone in Montana - check with

Ricknold Thompson

Solid Waste Management Section

1520 E. 6th Ave.

P.O. Box 200901

Helena, MT 59620

(406) 444-5345

rithompson@mt.gov

The Department of Health does not have authority over disposal of liquids down a Class II SWD.

That is also Oil and Gas- check with Mark Bohrer: (701) 328-8023

Steve Tillotson

Assistant Director

Solid Waste Program Manager

Division of Waste Management

North Dakota Department of Health

918 E Divide Ave - 3rd Floor

Bismarck ND 58501-1947

P: 701.328.5163

F: 701.328.5200

Email: stillots@nd.gov

Website: http://www.ndhealth.gov/wm/

Please Keep North Dakota Clean

From: Scott Kluska [mailto:skluska@cteh.com]
Sent: Wednesday, August 13, 2014 1:46 PM
To: Peronard.Paul@EPA.Gov
Cc: Roberts, Kris D.; Tillotson, Steve J.
Subject: Red River Supply - Water Disposal

Gentleman,

Some folks from Flatland Water Solutions / Flatland Disposal Solutions looked at the results of the fire water waste characterization samples and came and collected a couple samples from a few frac tanks yesterday. They took them back to their facility to analyze them. They then came back to us with a proposal to treat the water at their facility in Alexander, ND. Their Treatment Facility Permit # is: 19085 and for the subsequent solids from the separation it would go to Oaks Disposal Landfill / Buckhorn Landfill permit #: 528.

The following is an excerpt from their proposal on how they plan to treat the waste liquids.

***Undetermined concentrates of various frac chemicals such as Breakers, Crosslink's, Gelling Agents and Surfactants all have*

activating characteristics that cannot be determined with the volume of fluids. With the shear points and coagulation points unknown Flatland will evaluate each load and determine the best process for turbidity, and proper disposal measured against a baseline quality control parameter will then be executed. Processing procedures for the fluids discharged off

tankers will go through a shaker, separating fluids back through Optimizer (centrifuge) and the solids into transfer container

for certified land fill disposal. The fluids released from the optimizer are then sent to a Rotary Drum Filter. The Rotary Drum

Filter works to effectively removes solid particles from "dirty" fluids and sludges, producing dewatered dry waste and

recirculated clarified water, which is then pumped down the SWD well. The solids (dry waste) is then hauled to certified Land

Disposal.

Please let me know if you are ok with this liquid waste going to Flatland Disposal Solutions.

Thanks

Scott Kluska

Sr. Consultant

Center for Toxicology and Environmental Health, LLC (CTEH)

5120 North Shore Drive

North Little Rock, AR 72118

Office: 501-801-8500

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