



October 14, 2004

Mr. Mark Hesla Fulton Fuel Company 127 Main St. Shelby, MT 59474

Mr. Hesla,

Enclosed please find a copy of the Remediation Work Plan for CVID #7972, Crude Oil Release into Fred and George Creek, Toole County, Montana.

This Work Plan has been approved by Montana Department of Environmental Quality. The approval letter is also included with this letter. The only approval remaining for this work is that from the U.S. Army Corps of Engineers. I will be in contact with them to complete the process.

We will be preparing to conduct this operation as soon as possible, in coordination with you, your staff and any contractors that may be necessary to carry out the processes involved.

Please feel free to contact me with questions or concerns. I can be reached at the office (406) 655-9555, or on my cell (406) 671-7360.

We will assist on logistics and arrangements in any way I can. If possible, facilitation and completion of this work is anticipated to occur on or before the end of October, 2004.

Respectfully submitted,

HydroSolutions Inc.

Mark A. Nitz Project Geologist

Cc: Gary McDermott

Enc: Work Plan, MDEQ Approval Letter

# Remediation Work Plan Fulton Crude Oil Release into Fred and George Creek, Toole County, Montana (CVID #7972) MM. 2 18-04

Prepared by HydroSolutions Inc.

For Fulton Fuel Company, Shelby, Montana

September 29, 2004

# Site Background & Work to Date

The actions outlined in this Remediation Work Plan are intended to resolve the Fred and George Creek crude oil release site in Toole County, Montana. HydroSolutions, Inc. (HSI) has prepared this work plan on behalf of the Fulton Fuel Company, in response to the requirements specified by the Montana Department of Environmental Quality (MDEO), Remediation Division, Groundwater Remediation Program (04/29/2004 Notice of Violation letter; CVID #7972). It is intended that this work eventually lead to the issuance of a No-Further-Action letter by the Montana Department of Environmental Quality (MDEQ).

The crude oil release discovery was discussed in the Remedial Investigation Work Plan issued to MDEQ July 15, 2004 by HydroSolutions Inc on behalf of Fulton Fuel.

To date, Fulton Fuel, with HSI, has completed the background evaluation, characterization sampling along the creek, and addressed the management of surface cleanup issues associated with the release.

#### Scope of Work

The purpose of this proposed Remediation Work Plan is to provide guidelines and actions determined to be necessary for remediation of the crude oil release site at Fred and George Creek. Specific objectives of the remediation described herein are to:

- Remove contaminated soil and perform confirmation sampling at the release site;
- · Observe and assess cleanup by Fulton Fuel of visually stained soils and bank sediments in downstream locations up to 1 stream-mile downstream of the release point;
- Arrange for and affect proper disposal of contaminated soils at a one-time land
- Verify and document cleanup and disposal of absorbent materials.

The following scope of work describes the activities to be performed to meet the above project purpose and objectives.

## Source Area & Stream Soil Removal & Disposal

## Source Area Soil Removal and Backfill

A large backhoe or track hoe will be used to remove the contaminated soils in the release area. An area approximately 100 feet long, 15 feet wide, and 8 to 10 feet deep will be excavated, with the possibility for greater area, should over-excavation be necessary. Given the possibilities for over-excavation and soil bulking, we estimate removing from 800 to 1600 cubic yards of contaminated soil. The excavation will be backfilled from a gravel/sand depositiocated near the culvert crossing of the stream (Figure 1). The proposed backfill material is similar in composition to the stream bed and banks. The composition has been visually assessed by the HSI project geologist. The deposit is composed of sand, silt, clay, partially weathered stream cobbles, and small boulders. During backfill of the excavation we will attempt to restore the properties and dimensions of the original stream channel. The Army Corps of Engineers (COE) requires a copy of this Remediation Work Plan, approved by MDEQ, in order to approve adjustment or alteration of the stream bank. Attached to this Work Plan are a cross section (Figure 2 A) and an area plan map (Figure 2 B).

In the event there is flowing surface water at or near the source contamination site, measures would be taken to temporarily divert the water around the source area and back into the stream at a location suitable to maintain the integrity of the excavation vicinity. Equipment necessary for a diversion would be considered if diversion is determined to be probable. The diversion is anticipated to consist of a pipe set in the stream bed or culvert approximately 25 feet above the source area. The pipe would be set in a sand bags or a temporary diversion dam of soil and heavy plastic sheeting. Water would be returned to the channel downstream from the excavation area at a reasonable point.

#### Downstream Stained Soil/Contamination Area Removal

A crew from Fulton Fuel will use hand tools to remove the stain areas below the first containment dike. Each area of stain was visually assessed during the August/September field site assessment. Areas of most visible, stain will be removed first. Hand tool removal of stained soils will continue until observable stain areas are no longer present. It is planned to complete removal of these stained/contaminated soils prior to the rise of groundwater and the resumption of stream flow through the site.

Additional soil and sediment sampling at the source area will be conducted as indicated by field observations. Confirmation soil samples will be collected at downstream removal points that would be considered worst case, after the cleanup process is complete. Up to five soil samples are anticipated at this time.

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It is Fulton Fuel's intent to be proactive about cleanup of stained and contaminated areas of soil. Post-remediation confirmation sampling should indicate any likelihood of potential continued contamination from downstream locations.

Confirmation Sampling & Analysis

HSI will select locations within the excavation for confirmatory sampling. These locations will be selected based on visual observation of potential worst case contamination and observably 'clean' zones. All confirmation samples from the excavation will be fractionated and analyzed for PAH (using EPA Method 8270), unless values are below the 50 ppm RBSL.

HSI will obtain confirmation samples from up to 5 points downstream of the release area. Sample locations will be selected based on worst case points prior to remediation activities. Three of these samples will be fractionated and analyzed for PAH for comparison with RBSLs and background values. Up to 2 stream bed sediment samples will also be taken using similar criteria.

All soil samples will be analyzed for TEH through EPH screening methods and compared to RBSLs from Tables 1 & 2 for RBCA. Stream bed sediment analysis results will be discussed further with MDEQ to develop appropriate screening levels.

In the event there is water in the stream during excavation, water samples may be collected from the vicinity of the excavation and the siphon dam, as well as up to five points in between, based on observation of presence of contaminant and/or potential zones of accumulation. These samples will be analyzed for TEH through EPH screen and for VPH. Necessity for fractionation and PAH analysis will be determined following discussion with MDEQ.

Land Farm Application & Utilization

Contaminated soils removed in this action will be treated at a one-time land farm to be authorized by MDEQ. The proposed land farm site is located in Township 37 N, Range 4 E, Section 7 SE1/4 of the SW 1/4. The site is a sparsely used field behind a maintenance facility. The operator indicated it is suitable, and its use limited to an extent that spreading contaminated soil would not hamper their daily activities. The site can be isolated and accessibility limited or prevented. The site is located in the Whitlash Gas & Oil Field and is owned and operated by Fulton Fuel. This site would only be utilized by Fulton Fuel after the land farming is completed. Fulton Fuel will till and manage the area, consistent with recommendations from the MDEQ. A preliminary search of Montana's Groundwater Information Center (GWIC) database indicated groundwater to be 60 feet or greater below ground surface. A map of the area accompanies the land farm application, being sent separately.

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# **Evaluation and Reporting**

Following receipt of laboratory results, the field and laboratory data will be reviewed for quality assurance and summarized in spreadsheet formats. The locations of the confirmation samples will be represented on a base map.

Our field observations, analytical results and a discussion of our findings and conclusions will be included in a Remediation Report that will be forwarded to the MDEQ. Recommendations for continued monitoring, and remediation, if warranted, along with proposed schedules, will be included in that report

### Schedule

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Field activities will commence following approval of this Work Plan by FFC and the MDEQ. The field work is tentatively scheduled for the first week of October, assuming availability of personnel and equipment. Normal laboratory turn-around is approximately three weeks. The Remediation Report will be submitted within three weeks following receipt of laboratory analytical reports.

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