

STATE OF  
COLORADO

EnviroScan - DNR, OGCC &lt;dnr\_ogcc.enviroscan@state.co.us&gt;

---

**Fwd: Cache docs**

1 message

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**Fischer - DNR, Alex** <alex.fischer@state.co.us>  
To: OGCC EnviroScan - DNR <dnr\_ogcc.enviroscan@state.co.us>  
Cc: Jim Hughes - DNR <jimo.hughes@state.co.us>

Wed, Jul 15, 2015 at 9:39 AM

Please upload this email and attachments as one document with the following information:

Unique identifier (REM/Spill/NOAV #, etc.): REMs: 7786, 7787, 7906, NOAV 200434664, Pit Facility 105645, Location ID: 313424, and API 083-0515014  
Document number (leave blank if one needs to be assigned):  
Date received: July 15, 2014  
Is data entry needed (Y/N): N  
Notes: July 15, 2015 COGCC email Correspondence to Monument Global

Thanks!

—

**Alex Fischer, P.G.**

**Environmental Supervisor, Western Colorado**



P 303.894.2100 x5138 | F 303.894.2109

1120 Lincoln Street, Suite 801, Denver, CO 80203

| [alex.fischer@state.co.us](mailto:alex.fischer@state.co.us) [www.colorado.gov/cogcc](http://www.colorado.gov/cogcc)

----- Forwarded message -----

From: **Fischer - DNR, Alex** <[alex.fischer@state.co.us](mailto:alex.fischer@state.co.us)>  
Date: Wed, Jul 15, 2015 at 9:32 AM  
Subject: Fwd: Cache docs  
To: Kerry Smith <[ksmith@monumentglobal.com](mailto:ksmith@monumentglobal.com)>, David Bower <[bower.dj@gmail.com](mailto:bower.dj@gmail.com)>, Sherry Ferrell <[sferrell@monumentglobal.com](mailto:sferrell@monumentglobal.com)>, Tom Fox <[tomfox@beyondbb.com](mailto:tomfox@beyondbb.com)>  
Cc: Pamela Leschak <[pleschak@blm.gov](mailto:pleschak@blm.gov)>, Jim Hughes - DNR <[jimo.hughes@state.co.us](mailto:jimo.hughes@state.co.us)>, Britta Beckstead <[Britta.K.Beckstead@state.co.us](mailto:Britta.K.Beckstead@state.co.us)>

Kerry,

The matters regarding the Cache Unit 6 and 9 has been turned into the COGCCs Enforcement Unit. Jim Hughes and I will work with Monument Global in coming into compliance but there are formalities that need to be followed. These formalities were previously presented in Monument Global's path forward, outlined in the May 7, 2015 "Warning Letter".

I do want reiterate that Monument Global is working at risk without approved workplans. Mr. Bower stated that he performed the work that is captured in Document Number 2315014 and has not provided any explanation to the comments/questions that I inquired about.

313424 Location 2315014 COGCC EMAIL CORRESPONDENCE TO MG JULY 2, 2015

07/02/2015

Mr. Bower has provided one approved Form 27 from 2013 and two Form 27s that have not been approved from 2013. Instead of working off 2013 information, perhaps it would be in Monument Global's best interest to review what they had planned for 2013 and incorporate the current 2015 site conditions.

Do note, that ALL samples shall be discrete and not composite and shall analyzed for the entire 910-1 constituent list, unless Monument Global follows the path forward had been outlined in the May 7, 2015 "Warning Letter" and provides an sound explanation on why the analyte suite should be reduced. The COGCC will take this under consideration only after receiving the supplemental reports via amended Form 27s for each of the locations, including Spill #4 of which a Form 19 (Spill/Release Report) has yet to be submitted. Mr. Bower indicated that this would be submitted by July 7, 2015.

As detailed in my July 2, 2015, email, it was reported on July 1, 2015, that allegedly, during the back fill of pit at the Cache Unit #12 (API 05-083-05145), fluids from the pit ran out into a man made diversion ditch toward a dry creek. It is alleged that Mr. Bower and Mr. Fox were on location when this occurred. **The Pit Facility associated with this particular well location SHALL be closed in accordance to the COGCC Rules under an approved Form 27 Site Investigation and Remediation Workplan.**

The COGCC is requiring 72 hours notification prior to any work being performed on site relating to the locations and incidents outlined in the "Warning Letter."

Please advise.

Regards,  
Alex

----- Forwarded message -----

From: **David Bower** <[bower.dj@gmail.com](mailto:bower.dj@gmail.com)>  
Date: Mon, Jul 6, 2015 at 12:27 PM  
Subject: Cache docs  
To: [jimo.hughes@state.co.us](mailto:jimo.hughes@state.co.us)

Jim,

looking through the previous comms regarding the cache spill events, I found these three docs pertaining to the spills. I don't know if they were filed, cant seem to find the relevant emails.

I will send out the reports from the sampling works carried out last week during the course of tomorrow, I have soil samples from #1, #3 and #4 to send out for assay. Do you prefer the full table 910-1 on these samples? The reporting for #4 will be sent in tomorrow, I have been trying to follow the threads for what was done previously

I will be travelling back to the sites on Thursday next to meet with Ryan Joyner to discuss the reclaim sites, if further samples are required for #2 I will obtain then then.

Cheers  
Dave Bower

—  
David J Bower.  
[bower.dj@gmail.com](mailto:bower.dj@gmail.com)

303 720 8324 Cell  
303 621 2461 home

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**Alex Fischer, P.G.**

**Environmental Supervisor, Western Colorado**



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**Alex Fischer, P.G.**

**Environmental Supervisor, Western Colorado**



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**3 attachments**

**Cache Unit Revised\_form27 Release #3 Signed.pdf**

 415K

 **Form 27 Cache Unit Release #2 final.pdf**  
2374K

 **Form 27 Cache Unit Release #1.pdf**  
1366K



# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

## SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

### CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe): \_\_\_\_\_

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 10430

Name of Operator: Monument Global Resources, Incorporated

Address: 12160 N. Abrams Road, Suite 610

City: Dallas State: TX Zip: 75243

Contact Name and Telephone:

Kerry W. Smith or Cindy Gray (SMA)

No: cell 575-937-8001 SMA cell 505-320-0912

Fax: 214-691-6822 SMA 505-326-0045

API Number: 05-083-05148

County: Montezuma

Facility Name: Flow Line

Facility Number: \_\_\_\_\_

Well Name: Cache #9

Well Number: \_\_\_\_\_

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, S2, T34N, R20W Latitude: 37 14.307' Longitude: 109 01.449'

### TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Crude and produced water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Dryland cattle grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Sandy clay with cobbles and gravel

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Abandoned water well greater than 2500 ft SW of end of release; release occurred in intermittent dry streambed

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):



Soils



Vegetation



Groundwater



Surface Water

Extent of Impact:

Approx. 1700 ft X &lt;2 ft down dry streambed

How Determined:

GPS

None yet due to no precipitation and run-off

### REMEDIAL WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Refer to Form 19 Tracking # 200372184. MGR personnel recovered some produced fluids with a vacuum truck. Contaminated soils intermixed with rock were aggressively treated with Bio Sorb, a commercially available organic oxidizer and sorbent. This combination of initial treatments appears to have limited the vertical penetration of hydrocarbon contamination to less than 12 inches.

Describe how source is to be removed:

Form 19 Tracking # 200372184 - the corroded pipeline which was the source of the release was replaced with new pipe and rerouted on risers to keep the pipeline out of the streambed. No source remains.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Aggressively treat the hydrocarbon contaminated soils in place within the arroyo bottom with solutions of Simple Green soap and a high nitrogen fertilizer in water. Heavily spray the impacted areas after handshovel scarification, where feasible. The soils surround boulders and cobbles and are partially covered with rock float. The soils should be treated as described every thirty days for a total of ninety days.





REMEDIATION WORKPLAN (Cont.)

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

**If groundwater has been impacted, describe proposed monitoring plan** (# of wells or sample points, sampling schedule, analytical methods, etc.):

No apparent impact to groundwater

**Describe reclamation plan.** Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

No excavation or significant disturbance is planned. Surface scarification of less than 12" will be accomplished by hand shovel to perform proposed remediation. As the release is in a dry intermittent streambed, no reseeding is appropriate. Sampling and testing of the soils in the impacted area will be performed at 120 days after beginning remedial activities. Three 5 point composite samples will be taken from three areas at 0" to -12" below surface within the dry streambed and analyzed for GRO/DRO by EPA SW846 Method 8015 and for BTEX by EPA SW846 Method 8021B. If laboratory results indicate that the remediated soils meet COGCC remediation standards, no further action will be taken. If standards are not met, the remediation approach will be reviewed and appropriate remedial actions proposed to COGCC.

**Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.**

**Is further site investigation required?** ☐ Y ☒ N If yes, describe:

**Final disposition of E&P waste** (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

No excavation has been nor is planned to be performed. Therefore, no solid wastes were generated. Liquids recovered during the initial response were returned to the production stream.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 9-7-12 Date Site Investigation Completed: 12-12-12 Date Remediation Plan Submitted: 5-16-13  
Remediation Start Date: upon COGCC approval Anticipated Completion Date: + 120 days Actual Completion Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Cynthia Gray for Kerry W. Smith

Signed: \_\_\_\_\_

Title: President

Date: 5-16-13

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

# State of Colorado Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

## SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

### CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe): \_\_\_\_\_

OGCC Employee:

☐ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Tracking No: \_\_\_\_\_

OGCC Operator Number: 10430

Name of Operator: Monument Global Resources, Incorporated

Address: 12160 N. Abrams Road, Suite 610

City: Dallas State: TX Zip: 75243

Contact Name and Telephone:

Kerry W. Smith or Cindy Gray (SMA)

No: cell 575-937-8001 SMA cell 505-320-0912

Fax: 214-691-6822 SMA 505-326-0045

API Number: 05-083-05148

County: Montezuma

Facility Name: Flow Line - old release

Facility Number: \_\_\_\_\_

Well Name: Cache #9

Well Number: \_\_\_\_\_

Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNW, S2, T34N, R20W NMPM Latitude: 37 14.510' Longitude: 109 01.564'

### TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc.): Old release of presumed crude and produced water

**Site Conditions:** Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Dryland cattle grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Rock cliff and sandy clay with boulders, cobbles and gravel

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Abandoned water well greater than 2500 ft SW of end of release;

release occurred on upper level and flowed down cliff face in drainage channel stopping short of intermittent dry streambed

**Description of Impact** (if previously provided, refer to that form or document):

Impacted Media (check):



Soils



Vegetation



Groundwater



Surface Water

Extent of Impact:

Approx. 3000 ft X &lt;2 ft down cliff to dry storm drainage

How Determined:

GPS

None yet due to no precipitation and run-off

### REMEDIALTION WORKPLAN

**Describe initial action taken** (if previously provided, refer to that form or document):

Refer to Form 19 Tracking # 200372183. MGRl personnel discovered stained soils and rock face in early inspection, indicating an old release before change of leasehold. Where accessible, contaminated soils intermixed with rock were treated by raking in Oil Hog, a commercially available organic oxidizer and sorbent. This combination of initial treatments appears to have supported the process of biodegradation of hydrocarbon contamination by indigenous microbes.

**Describe how source is to be removed:**

Form 19 Tracking # 200372183 - the old leaking pipeline which was the source of the release was replaced with new coated pipe. Old stained soils and impacted rock remains with the potential to release hydrocarbons when impacted by significant stormwater and weathering. Such secondary release will be contained by placement of absorbent booms in the storm drainage channel to prevent flow of hydrocarbons into the primary intermittent streambed until remediation of the impacts can be accomplished.

**Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:**

After notification to COGCC and the Landowner of record, MGRl will aggressively treat the hydrocarbon contaminated soils in place on top of the cliff, on the cliff face where accessible, and within the drainage bottom with solutions of Simple Green soap and a high nitrogen fertilizer in water. The impacted areas will be heavily sprayed after handshovel scarification, where feasible. The rocks and soils should be treated as described every thirty days for a total of ninety days.

Submit Page 2 with Page 1





REMEDIATION WORKPLAN (Cont.)

Tracking Number: \_\_\_\_\_  
Name of Operator: \_\_\_\_\_  
OGCC Operator No: \_\_\_\_\_  
Received Date: \_\_\_\_\_  
Well Name & No: \_\_\_\_\_  
Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

No apparent impact to groundwater

**Describe reclamation plan.** Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

No excavation or significant disturbance is planned. Surface scarification of less than 12" will be accomplished by hand shovel to perform proposed remediation in both the upper portion above the cliff face and the lower flow below the cliff. After clearance sampling and testing, scarification and application of the appropriate BLM prescribed seed mix will be performed in the area of impact on the upper level where there is no concentrated stormwater flow. As the release below the cliff is in a dry stormwater drainage, no reseeding is appropriate. Sampling and testing of the soils in the impacted area will be performed at 120 days after beginning remedial activities. Three 5 point composite samples will be taken from one area above the cliff and two areas within the dry drainage below the cliff and analyzed for GRO/DRO by EPA SW846 Method 8015 and for BTEX by EPA SW846 Method 8021B. If laboratory results indicate that the remediated soils meet COGCC remediation standards, no further action will be taken beyond the described reseeding above the cliff. If standards are not met, the remediation approach will be reviewed and appropriate remedial actions proposed to COGCC.

**Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.**

Is further site investigation required? ☐ Y ☒ N If yes, describe:

**Final disposition of E&P waste** (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

No excavation has been nor is planned to be performed. Therefore, no solid wastes have been nor will be generated. As the release was very old, no liquids were recovered during the initial response.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 9-7-12 Date Site Investigation Completed: 12-12-12 Date Remediation Plan Submitted: 5-17-13  
Remediation Start Date: upon COGCC approval Anticipated Completion Date: + 120 days Actual Completion Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Cynthia A. Gray for Kerry W. Smith

Signed: \_\_\_\_\_

Title: President

Date: 5-17-13

OGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_





Google earth

feet  
meters

2000  
700





FORM  
19  
Rev 6/99State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax: (303)894-2109



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RECEIVED

DEC 11 2012

Spill report taken by:

FACILITY ID:

## SPILL/RELEASE REPORT

This form is to be submitted by the party responsible for the oil and gas spill or release. Any spill or release which may impact waters of the State must be reported as soon as practicable; any spill over 20 bbls must be reported within 24 hours and all spills over five bbls must be reported within ten days. Submit a Site Investigation and Remediation Workplan (Form 27) when requested by the Director.

## OPERATOR INFORMATION

Name of Operator: SMITH ENERGY LLC 1989 OGCC Operator No: 10430  
Address: 2798 16th street  
City: Hopkins MN State: MN Zip: 55328  
Contact Person: \_\_\_\_\_

Phone Numbers

No: unknown

Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

## DESCRIPTION OF SPILL OR RELEASE

Date of Incident: unknown Facility Name & No.: cache fieldType of Facility (well, tank battery, flow line, pit): flow lineWell Name and Number: well #1 cache unit #9API Number: 05-083-05148County: montezumaQtrQtr: nwnwSection: 2Township: 34nRange: 20wMeridian: central

Specify volume spilled and recovered (in bbls) for the following materials:

Oil spilled: unknown Oil recov'd: \_\_\_\_\_ Water spilled: \_\_\_\_\_ Water recov'd: \_\_\_\_\_ Other spilled: \_\_\_\_\_ Other recov'd: \_\_\_\_\_Ground Water impacted? ☐ Yes ☒ NoSurface Water impacted? ☐ Yes ☒ NoContained within berm? ☐ Yes ☒ No

Area and vertical extent of spill: \_\_\_\_\_

Current land use: dry land cattle grazingWeather conditions: drySoil/geology description: rocky sand/clay mixIF LESS THAN A MILE, report distance IN FEET to nearest... Surface water: unknown wetlands: \_\_\_\_\_ buildings: 1700ftLivestock: \_\_\_\_\_ water wells: 2000ft Depth to shallowest ground water: unknownCause of spill (e.g., equipment failure, human error, etc.): unknown

Detailed description of the spill/release incident:

spill happen before I took over lease found oil stained dirt while walking gas line looking for leaks

## CORRECTIVE ACTION

Describe immediate response (how stopped, contained and recovered): 6ps start - N 37° 14,510' W 109° 01.564'

not sure if it was reported

Describe any emergency pits constructed:

How was the extent of contamination determined:

END N. 37° 14,367' W 109° 01.615'

Further remediation activities proposed (attach separate sheet if needed):

took in oil hog and raked into drainag to help remediate oil stains

Describe measures taken to prevent problem from reoccurring:

replaced pipeline with new coated pipe

## OTHER NOTIFICATIONS

List the parties and agencies notified (County, BLM, EPA, DOT, Local Emergency Planning Coordinator or other).

| Date | Agency | Contact | Phone | Response                    |
|------|--------|---------|-------|-----------------------------|
|      |        |         |       | not sure if it was reported |
|      |        |         |       |                             |
|      |        |         |       |                             |
|      |        |         |       |                             |

Spill/Release Tracking No: 200372183

State of Colorado  
Oil and Gas Conservation Commission

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Received  
6/25/2013 - KLS

## SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

## CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☒ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☐ Other (describe):

OGCC Employee:

☒ Spill ☐ Complaint  
☐ Inspection ☐ NOAV

Spill #200381625

Remediation #7906

OGCC Operator Number: 10430

Name of Operator: Monument Global Resources, Incorporated

Address: 12160 N. Abrams Road, Suite 610

City: Dallas State: TX Zip: 75243

Contact Name and Telephone:

Kerry W. Smith

No: cell 575-937-8001

Fax: 214-691-6822

API Number: 05-083-05148

County: Montezuma

Facility Name: Cache Unit

Facility Number: 7786

Well Name: Cache #9

Well Number:

Location: (Qtr Qtr, Sec, Twp, Rng, Meridian): NWNW, S2, T34N, R20W NMPM Latitude: 37 14.417' Longitude: 109 01.448'

## TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Pipeline release of produced water

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Dryland cattle grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Sandy clay and gravel

Potential receptors (water wells within 1/4 mi, surface waters, etc.): Abandoned water well greater than 2500 ft SW of end of release; intermittently dry creek bed (East McElmo Creek) located approximately 280 ft to south of release point; release flowed to southwest

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):



Soils

Extent of Impact:

162 ft X ranging from 10 ft to 2 ft wide on dryland

How Determined:

Field measured



Vegetation



Groundwater



Surface Water

None yet due to no precipitation and run-off

## REMEDIALATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

On June 10, 2013, MGRI personnel discovered stained soils and pothole indicating release from subsurface pipeline. Contaminated soils were treated by raking in approximately 10 bags of bio-sorbent to support the process of biodegradation of hydrocarbon contamination by indigenous microbes. A Souder, Miller & Associates representative visited the site on June 13, 2013, to conduct an assessment and collect samples for laboratory analysis (attached).

Describe how source is to be removed:

The old leaking pipeline, which was the source of the release, was shut in at the well head and tank battery. Upon surface owner approval, the pipeline will be exposed and repaired.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Contaminated surface and sub-surface soil will be excavated and removed. SMA will screen samples in the field using a calibrated PID, and collect a minimum of five 5-point composite samples (walls and floor) within the excavated area. Soils will be analyzed for all soil contaminants listed on Table 910-1. Contaminated soil will be disposed of via onsite land treatment, pursuant to Rule 907.e.





**REMEDIATION WORKPLAN (Cont.)**

Tracking Number: \_\_\_\_\_  
 Name of Operator: **Spill #200381625**  
 OGCC Operator No: \_\_\_\_\_  
 Received Date: \_\_\_\_\_  
 Well Name & No: \_\_\_\_\_  
 Facility Name & No: \_\_\_\_\_

OGCC Employee: \_\_\_\_\_

**If groundwater has been impacted, describe proposed monitoring plan** (# of wells or sample points, sampling schedule, analytical methods, etc.):

N/A

**Describe reclamation plan.** Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Reclamation will depend upon the extent of contamination; the area is sparsely vegetated.

**Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.**

Is further site investigation required? ☐ Y ☐ N If yes, describe:

**Final disposition of E&P waste** (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

**IMPLEMENTATION SCHEDULE**

Date Site Investigation Began: \_\_\_\_\_ Date Site Investigation Completed: \_\_\_\_\_ Date Remediation Plan Submitted: \_\_\_\_\_  
 Remediation Start Date: \_\_\_\_\_ Anticipated Completion Date: \_\_\_\_\_ Actual Completion Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: \_\_\_\_\_ Signed: \_\_\_\_\_  
 Title: \_\_\_\_\_ Date: \_\_\_\_\_

OGCC Approved: **Karen L. Spray** Digitally signed by Karen L. Spray  
DN: cn=Karen L. Spray, o=COGCC, ou=Environmental  
Protection Specialist, email=karenspray@gcc.state.co.us  
c=US  
Date: 2013.07.26 09:43:05 -0600 Date: \_\_\_\_\_

**Landfarmed material must be treated to meet Table 910-1 standards prior to removal/reuse or disposal.  
 If material to be taken to BLM or Ute surface, please contact them and arrange for appropriate approvals.**