

# STATE OF COLORADO

## DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

1313 Sherman St., Room 215

Denver, Colorado 80203

Phone: (303) 866-3567

FAX: (303) 832-8106



### FORM 2 (Public File) NOTICE OF INTENT TO CONDUCT PROSPECTING OPERATIONS FOR HARD ROCK/METAL MINES

CHECK ONE:

☐

There is an NOI Number Already Assigned to this Operation

☐

P- (Please reference the file number assigned to this operation)

☐

New NOI

☐

Modification to an Existing NOI

NOI#

P-2013 -019 (Provide for Modifications to an existing NOI)

#### GENERAL OPERATION INFORMATION

Type or print clearly, in the space provided, ALL information described below.

#### I. GENERAL INFORMATION

1. **DATE NOI RECEIVED BY THE DIVISION:** \_\_\_\_\_ (office use only)

2. **PROJECT NAME:** Badger Mine

8. **PROSPECTOR:**

Name: Robert M Kennard

Title: \_\_\_\_\_

Company Name: K & B Mining LLC

Street: 7045 Hillgreen Dr.

P.O. Box: \_\_\_\_\_

City: Dallas

State: TX

Zip Code: 75214

Telephone Number: (817) 808-2220

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

**PERSON MLRB SHOULD CONTACT:**

Name: Craig Gardner

Title: Mine Manager

Company Name: Craig Gardner Services

Street: 845 35th Street

P.O. Box: \_\_\_\_\_

City: Boulder

State: CO

Zip Code: 80303

Telephone Number: (214) 457-6129

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

9. **APPLICATION FEE:** \$86. (NOIs and modifications require an \$86 fee which must accompany this notice or it cannot be processed by the Division).

10. **LOCATION INFORMATION:**

County: Boulder

PRINCIPAL MERIDIAN (check one) ☒ 6<sup>th</sup> (Colorado) ☐ 10<sup>th</sup> (New Mexico) ☐ (Ute)

SECTION (write number): S 28

TOWNSHIP (write number and check direction) T 2 North ☒ South ☐

RANGE (write number and check direction) R71 East ☐ West ☒

QUARTER SECTION (check one): ☒ NE ☐ NW ☐ SE ☐ SW

QUARTER/QUARTER SECTION (check one): ☐ NE ☐ NW ☐ SE ☒ SW

GENERAL DESCRIPTION: (the number of miles and direction to the nearest town and the approximate elevation):

Located 2.4 miles ESE of Jamestown, CO (80455), Elevation ranges from 6500'-7100 AMSL

NOTE: Supply longitude and latitude or UTM coordinates if lands have not been surveyed or as supplemental information to this NOI. GPS measurements will be acceptable for this purpose: \_\_\_\_\_

Corner 5, MS241A - 40°06'38.4358"N, 105°21'18.8623"W

11. **LAND OWNERSHIP**

Private ☒ Public Domain (BLM) ☐ National Forest (USFS) ☒  
 State ☐ State Sovereign Lands ☐ Other (please describe): \_\_\_\_\_

**If prospecting is located on BLM or USFS land the remaining section must be completed, otherwise go to section II Maps & Drawings**

12. **PROSPECTING ON BUREAU OF LAND MANAGEMENT (BLM) LAND AND U.S. FOREST SERVICE (USFS) LAND**

The Division and the BLM/USFS have entered into cooperative agreements that eliminate the need for a prospector to post a financial warranty with each agency and allow them to coordinate the review of the NOI in order to minimize administrative processing time and effort.

G. **CLAIMANT:**

Name: Pat Farr  
 Address: 2601 Willow Park St.  
Richland Hills, TX 76118  
 Telephone: (817) 845-9519  
 Fax Number: \_\_\_\_\_

H. **SITE/CLAIM INFORMATION:**

List names, serial numbers and provide legal description to nearest quarter-quarter section of all sites or claims (attach additional page, if necessary).

<u>NAME</u>	<u>SERIAL NUMBER</u>	<u>LEGAL DESCRIPTION</u>
Rosemary	CMC279638	6th PM, T2N R71W Sec28, NW 1/4, SW 1/16
Resthaven	CMC279639	6th PM, T2N R71W Sec28, NW 1/4, SW 1/16 & Sec 29, NE 1/4, SE 1/16
Rip Van Dam Apex	CMC279640	6th PM, T2N R71W Sec 28, NW 1/4, SW 1/16
Golden Princess	CMC279641	6th PM, T2N R71W Sec 28, NW 1/4, SW 1/16
Gold Eagle	CMC279642	6th PM, T2N R71W Sec 28, NW 1/4, SW 1/16
Gold Queen	CMC279643	6th PM, T2N R71W Sec 28, NW 1/4, SW 1/16

I. **LOCATION MAP:** Attach a USGS 7.5 minute quad, or similar map of adequate scale, which locates the prospecting site(s).

J. Are prospect sites (e.g., drill holes, trench locations, etc...) staked on the ground? Yes ☐ No ☐

K. Specify the Land Management Agency, Address and Telephone Number:

USDA Forest Service

2140 Yarmouth Ave.

Boulder, CO 80301

(303) 541-2500

L. The prospector is required to document that the NOI has been sent to the BLM or the USFS. Processing of the NOI will not begin until the prospector has submitted evidence acceptable to the Division that the NOI was sent to the BLM or USFS. Check one:

- ☐ Evidence of notification is attached to this NOI for BLM Land  
☒ Evidence of notification is attached to this NOI for USFS Land.  
☐ Other proof of notice is attached to this NOI

## II. MAPS & DRAWINGS

Accurate topographic base map showing the location of the proposed project must be submitted with this notice. The prospector may submit a U.S.G.S. 7.5 minute quadrangle, or similar map of adequate scale that:

3. identifies the proposed prospecting site(s) or activity areas involving surface disturbance. Activity areas include all drill holes, mud pits, excavations, trenches, adits, shafts, tunnels, rock dumps, stockpiles, impoundments and prospecting roads, and
4. includes sufficient detail to identify and locate known prospecting features and facilities that may be affected and those that are not anticipated to be affected. This includes the location of all drill holes, mud pits, excavations, trenches, adits, shafts, tunnels, rock dumps, stockpiles, impoundments and prospecting roads. Color photographs, adequately labeled (including date, orientation and location), of the prospecting site may be used to fulfill this requirement if included with the NOI submittal.

## III PROJECT DESCRIPTION

7. **Mineral(s) and/or Resource(s) being Investigated:** Gold (Au), Silver (Ag) and related Tellurium (Te) minerals

8. **Estimated dates of commencement and completion:**

Commencement: 02/12/2014

Completion: 12/31/2018

9. **Amount of material to be extracted, moved or proposed to be moved:** 250.00

10. **Identify the type or method of prospecting proposed and quantity (place an "X")**

- |  |   |   |  |
|--|---|---|--|
| <input checked="" type="checkbox"/> Cuts   | <input type="checkbox"/> Pits               | <input type="checkbox"/> Trenches                       | <input checked="" type="checkbox"/> Declines |
| <input checked="" type="checkbox"/> Shafts | <input checked="" type="checkbox"/> Tunnels | <input checked="" type="checkbox"/> Adits               |  |
| <input type="checkbox"/> Air Drilling      | <input type="checkbox"/> Fluid Drilling     | <input checked="" type="checkbox"/> Drilling & Blasting |  |

11. Describe proposed surface excavation or other land disturbance, including roads, pits, trenches, waste piles, drill pads and collar areas of underground workings, ponds, etc...

Restoration and maintenance of existing roads. Reopening of existing portals and installation of mine closures. Surface sampling and trenching including maintenance of work areas associated with portals, drill pads, and roads. Please see cover letter (R. Kennard, 1/8/2015) for general text description of project and proposed modifications. Relevant maps are attached as Appendix A.

12. **Proposed Disturbance** (approximate) Describe the proposed drilling to be conducted, including anticipated number of holes, diameter, depth, location, etc... Submit additional pages if necessary:

- A. Drill Pads: Quantity 2.00 Average Width 20.00 (ft) Average Length 20.00 (ft)  
 B. Drill Holes: Quantity 10.00 Depth 400.00 (ft) Diameter 2.36 (in)  
 C. Mud Pits: Quantity 1.00 Average Width 10.00 (ft) Average Length 10.00 (ft)  
 Average Depth 5.00 (ft)

Described proposed underground work, including reopening of old workings, advancement of adits or shafts, trenches, pits, cuts, rock dumps, or other types of disturbance, describe type, quantity and general dimensions:

Existing mine features (portals, etc.) will be reopened, rehabilitated and safeguarded and closed to allow for surveying, sampling and core drilling. Prospecting may include advancement of drifts and/or raises/winzes from existing underground workings subject to the total amount of material to be extracted (Sec. III, 3). Currently, 6 portals and four shafts are known to exist, 5 portals and all shafts have closures consistent with the DRMS' General Bid Specifications for mine closures. The remaining portal (upper level) shall be closed to meet this same standard. Any/all drilling shall occur on/from patented claims.

- F. Other Disturbances (please describe):

All equipment shall be mobile, including small shelters/storage sheds, excepting one small, permanent detached accessory shed installed on private land. No other disturbances are proposed.

- G. Indicate Chemicals and Fuels used or stored on site. List type, quantity and method to store.

Drilling muds (see attached MSDS') in 5 gallon containers, limited to one week's supply (approximately 50 gallons in total). Lubricating oils will be stored in 5 gallon containers, limited to one week's supply (approximately 10 gallons) Fuel will be stored in 5 gallon safety cans, limited to one week's supply (approximately 15 gallons in total). All other chemicals shall be household type (cleaning, lubricating, solvents, etc.) stored in small cans inside of safety cabinets, sheds or other secondary containment. All 5 gallon containers shall be stored sealed, excepting one (1) each during use.

- F. New Road(s): Length 650.00 (ft) Width 10.00 (ft)  
 Significantly Upgraded Road(s) Length 5,200.00 (ft) Width 10.00 (ft)

Are culverts or other crossings proposed? If so, please describe: \_\_\_\_\_

No culverts will be installed. One seasonal stream will be crossed on USFS land per USFS approved crossing point. As a result of significant flooding in 2013, many repairs have been made to established roads under guidance of the USFS.

Road established in 2014 and completed. No additional roads are proposed.



G. Total project area to be disturbed 1.00 (acres)

K. Describe the equipment to be used for the prospecting operations:

Hand tools, portable hydraulic core drill, hand operated pneumatic drills/tools, small rail equipment (ore cars, etc.), skid steer.

L. Describe and locate any structures to be constructed (i.e. stockpiles, ponds, impoundments):

One small detached accessory shed (≤120 sq. ft.) constructed upon the Badger mining claim, used as an office during prospecting. This structure will remain, post-prospecting to serve the land owner.

M. Describe anticipated relationship to surface water and groundwater (proximity to streams, penetration of ground water aquifers):

Prospecting is not anticipated to impact surface waters. Appropriate storm water controls will be/have been installed. Prospecting is not anticipated to impact groundwater as no known aquifer exists in the shallow bedrock. Minor (<1 gpm inflow) water appears seasonally as shallow meteoric inflow of surface water in existing workings and does not discharge. Water used in underground drilling shall be contained and recycled.

#### IV. OPERATION AND RECLAMATION MEASURES:

1. The Board suggests that a photographic record of the pre-prospecting and post-prospecting conditions be kept by the prospector. These photos should be taken from the same location and by the same method to clearly show the pre-prospecting condition of the land and the reclamation efforts. Upon completion of reclamation and request for bond or surety release, the Board may consider the photos as evidence of adequate reclamation, and thus, be able to act more quickly on the request for release.
2. Provide a description of the native vegetation of the area to be disturbed, including tree, shrub, and grass communities of the area. Color photographs, sufficient to adequately represent the ecology of the site and adequately labeled (including date, orientation and location), may be used in lieu of a written description. Based on the quality of the photographs, the Division may require additional detail.

The project is located in the transitional area between the foothills and subalpine vegetative zones. Conifer trees dominate over occasional deciduous trees typically found proximal to stream beds. Shrubs (Gambel oak, Mountain Mahogany, Sagebrush, etc.) cover sparse Wheat, Grama, and Switchgrasses. Typical Ratake-Cathedral-Rock outcrop soils are highly drained. Significant variation may exist between north and south facing slopes. Duffs under conifer stands tend to be somewhat naturally acidic. Photographs are included in attachments.

8. Describe the estimated topsoil depth and how topsoil will be salvaged, stockpiled and redistributed for the re-establishment of vegetation. Specify approximate topsoil redistribution depth:

Little to no topsoil exists at the site. If encountered, topsoil will be stockpiled with silt-containment, run-on/run-off erosion control and replaced as soon as possible. Temporary vegetative cover will be establish upon topsoil stockpiled longer than 180 days. Topsoil will be redistributed to match existing topsoil depths.

9. Describe how drill holes will be plugged (refer to Rule 5.4 of the Rules for required abandonment procedures):

Surface drill holes shall be plugged with bentonite and/or pozzolanic grout for the entire length of the hole. Drill hole locations will be marked with permanent or semi-permanent markers (posts) and re-seeded per the approved seed mix.

10. Describe how portals, adits, shafts, ponds, excavations, or other disturbances will be reclaimed (refer to Rule 3 and Rule 5 for specific reclamation performance standards). You may wish to contact the Division for closure specifications.

Portal areas shall be closed per Colorado Inactive Mine Program General Bid Specifications and revegetated with existing soils and approved seed mix. Portals have the following closures: #1 - Temporary wire mesh in timber frame door - to be replaced with an "Adit Door Closure" consistent with Standard Drawing No. 7; #2 - Concrete cast-in-place culvert with "Adit Door Closure" generally consistent with Standard Drawing No. 7; #3 - Steel clad, timber wall with door, consistent with BATF specifications for a Type 4 explosive magazine; #4 - "Bat Grate Adit Closure" consistent with Standard Drawing No. 6; #5 - "Grated Adit Closure" consistent with Standard Drawing No. 6; #6 - "Rock Bulkhead Closure" consistent with Standard Drawing No. 10. Shafts have closures consistent with Standard Drawing No. 4 and/or Backfill Closure specifications. Additional DRMS mine closures may exist on the property.

11. Describe how roads will be reclaimed or returned to their pre-prospecting (or better) condition:

All roads shall remain. Existing roads shall be maintained as in their pre-prospecting condition. (Addressed in original NOI and subsequent adequacy/deficiency dialogue - See Appendix B)

12. List the seed mixture to be used in the re-establishment of vegetation. See the attached seed mixture calculation to obtain PLS/acre. For assistance with formulating seed mixtures and rates, contact the local NRCS if on private land, BLM/USFS if on public land or State Land Board if on state land.

A. Provide plant name and seeding rate

Plant Name	Seeding Rate (PLS/acre)
Sideoats Grama	1.82
Blue Grama	0.63
Slender Wheatgrass	4.38
Junegrass	0.15
Western Wheatgrass- Arriba	3.17
Switchgrass	0.63
Little Bluestem	1.07
Green Needlegrass	1.93
Western Wheatgrass - Native	3.17
	16.95

B. Describe the method for seed bed preparation, and application method for grass/forb seeding:

Seed shall be hand spread upon native soil replacement in areas disturbed. Seed mix is Boulder County Land Use recommended "Foothills Seed Mix".

ALL saplings/seedlings are hereby removed from the reclamation plan.

**V. TERMS AND CONDITIONS FOR PROSPECTING OPERATIONS:**

3. Reclamation measures shall be fulfilled in a timely manner and completed within five (5) years of completion of prospecting activities.
4. The prospecting operations described in this Notice will be conducted in such a manner as to minimize surface disturbances. In addition to the measures required in Rule 5, precautions to be taken include:
  - A. Confinement of operations to areas near existing roads or trails, where practicable. Existing roads which are to remain as permanent roads after prospecting activities are completed shall be left in a condition equal to or better than the pre-prospecting condition;
  - B. Drilling shall be conducted in such a way as to prevent cuttings and fluids from directly entering any dry or flowing stream channel. Drill cuttings must be spread to a depth no greater than one-half (1/2) inch or buried in an approved disposal pit;

- C. Proper and timely abandonment of drill holes upon completion of drilling;
  - D. Reclamation of affected lands upon completion of operations or phases of an operation;;
  - E. Backfilling and revegetating any pits to blend in with the surrounding land surface;
  - F. Safeguarding mine entries, trenches and excavations from unauthorized entry at all times;
  - G. Disposal of any trash, scrap metal, wood, machinery, and buildings;
  - H. Control of noxious weeds within the area affected by the prospector
- 3. The prospecting operations shall be conducted in such a manner as to comply with all applicable local, state and federal laws and regulations including applicable state and federal air and water quality laws and regulations.
  - 4. The prospecting operations shall be conducted so as to minimize adverse effects upon wildlife to include covering of open drill holes until properly plugged.
  - 5. During the prospecting operations, the operator will perform the necessary stabilization and reclamation work to ensure those areas affected by prospecting activities are erosionally and geotechnically stable.
  - 6. All prospecting operations shall be in compliance with the Colorado Mined Land Reclamation Act, as amended (34-32-101 et seq. C.R.S.), and all rules and regulations currently in effect or promulgated pursuant thereto. See 2 CCR 407-1, Mined Land Reclamation Board Hardrock /Metal Mining Rules.

## **VI. ADDITIONAL TERMS AND CONDITIONS FOR PROSPECTING ON BLM/USFS LANDS**

- 4. The prospector will supply a copy of this NOI to the appropriate BLM and/or USFS office.
- 5. The prospector authorizes the MLRB to discuss the information in this Notice of Intent with the BLM and/or USFS.
- 6. If on BLM land, the prospector will complete reclamation to the standards described in 43 CFR 3809.1-3 (d) and implement reasonable measures to prevent unnecessary or undue degradation of lands during operations.

## **VII. FINANCIAL WARRANTY**

A financial warranty must be provided for the cost of reclamation of the disturbance described in this Notice. The prospector can either file a "One Site Prospecting Financial Warranty" or a "Statewide Financial Warranty." **The financial warranty must be submitted and approved by the Division prior to entry upon lands for the purpose of prospecting.**

An One-Site Prospecting Financial Warranty is usually filed by individuals or companies where prospecting activities are limited to a single area. It must be filed in the amount of \$2,000 per acre for land to be disturbed, or such other amount as determined by the Division, based on the projected costs of reclamation. A Statewide Financial Warranty is usually filed by companies with multiple prospecting sites. It must be filed in an amount equal to the estimated cost of reclamation per acre of affected land for all anticipated sites statewide. (You may increase the Statewide bond at any time in order to cover additional or expanded prospecting activities.)

**VIII. SIGNATURE REQUIREMENT**

Please place you initials on the line provided

RK I hereby verify that the foregoing information is true and accurate and commit to the reclamation of the aforementioned prospecting site as required by the Colorado Mined Reclamation Act and the rules as specified in the Hard Rock/Metal Mining Rules and Regulations and this NOI form.

RK I have enclosed the required permit fee.

RK I authorize the Division to contact and copy the BLM and/or USFS on any correspondence related to the prospecting operation, if the prospecting operation is located on federal public land.

RK I have also enclosed the appropriate reclamation surety amount or will post an amount as determined by the office, based on the projected costs of reclamation.

RK I understand that I am not authorized to create any surface disturbance until the surety amount is posted and approved in writing from the Division of Reclamation, Mining and Safety.

RK I accept and agree to comply with the foregoing terms and conditions and with all of the provisions of Rules 3 and 5, and C.R.S. 34-32-101.

RK I hereby certify that concurrent with submittal of this NOI to the Division, I have sent notice to the Boards of County Commissioners in the Counties where the proposed activities will occur. This notice also indicated that non-confidential information regarding the proposed activities will be available for review at the Division's website.

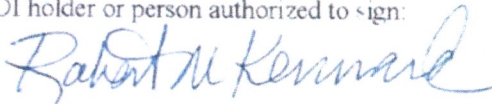
*This form has been approved by the Mined Land Reclamation Board pursuant to section 34-32-113, C.R.S., of the Mined Land Reclamation Act. Any alteration or modification of this form shall result in voiding any NOI issued on the altered or modified form and subject the operator to cease and desist orders and civil penalties for operating without a NOI pursuant to section 34-32-123, C.R.S.*

I, the undersigned, being the NOI holder or the person authorized to sign on behalf of the NOI holder, declare that the information given in this NOI form is true and correct.

**SIGNATURES MUST BE IN BLUE INK**

Signed and dated this 7th day of January

Signature of NOI holder or person authorized to sign:



Name (typed or print) Robert M. Kennard

Title/Position: Manager

MAC  
WHL

**K&B Mining LLC**

715 Aberdeen Way  
Southlake, TX 76092  
Telephone: 214-457-6129

**RECEIVED**

**JAN 11 2016**

**DIVISION OF RECLAMATION  
MINING AND SAFETY**

Via Hand Delivery & Email

January 8, 2016

Mr. Michael Cunningham  
Environmental Protection Specialist  
Division of Reclamation, Mining and Safety  
1313 Sherman St., Room 215  
Denver, CO 80203

**Re: Badger Mine, DRMS NOI ID#P2013-019, NOI Modification**

Mr. Cunningham,

K&B Mining LLC wishes to provide the necessary corrective action for mitigating the potential for possible violations. The problem and suggested corrective action stated by the Colorado Division of Reclamation, Mining and Safety ("DRMS") are included herein for context:

Corrective Action

***Problem Description:***

- *The Operator has constructed an unapproved office structure on site and has two unapproved closures.*

***Corrective Action:***

- *The operator shall submit a Modification of the NOI, with the required \$86 fee, to update and clarify the current approved NOI plan to reflect existing and proposed activities by the corrective action date.*

**K&B Mining LLC ("K&B") responds as follows:**

A detached accessory structure was constructed by a contractor near the upper portal under the exemption for structures under one hundred and twenty (120) square feet in the Boulder County Building Code Amendments (105.2) for the handling and storage of drill core. There are no utilities for the structure and it meets the criteria for exemption. In order to include this structure in the plan for the activities conducted under the NOI, **K&B hereby submits a modified Notice of Intent ("NOI") and the appropriate application fee (attached).**

The accessory structure was used by a previous contractor for the handling and storage of drill core however; it is currently not being used. Drill core is now being handled at the mobile accessory shed at the lower drill pad and stored offsite. K&B intends to keep the detached accessory structure near the upper portal beyond the activity conducted under the NOI in accordance with the wishes of the land owner. The structure is located entirely upon the patented Rip Van Dam Lode (MS 241A) and does not affect any Plan of Operations filed and/or approved with/by the United States Forest Service ("USFS"). The inclusion of this structure is referenced in Section 6, I of the submitted modification to the NOI. K&B further states that no site plan review is necessary for prospecting activity under Boulder County Land Use Code (Current Version – April, 2015).

K&B believes that the "unapproved closures" refer to:

- **Portal #1** – The Upper Level portal. This portal has a closure that does not currently meet the criteria for the Colorado Inactive Mine Reclamation Program closures ("CIMRP"). *It does secure the portal during uses and is currently locked.* This portal will be secured by an Adit Door Closure (Standard Drawing No. 7) consistent with the General Bid Specifications for CIMRP closures as part of K&B's planned reclamation. K&B's understanding is that the bonding for closure of this adit is provided for under the current financial warranty and that the reopening of this portal was included in the original NOI plans, thus no additional bonding should be necessary.
- **Portal #3** – "Secondary closure" – Closure adjacent to the Upper Level Portal. This closure was not anticipated within the submittal for the original NOI plan. Discovered during activity at the site, this portal was closed with a timbered and steel clad doorway and locked with double, shrouded padlocks, consistent with U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives ("BATFE") Type 4 Explosives Magazines (27CFR, §555.210). K&B believes that this closure generally meets the intent of the General Bid Specifications for CIMRP and that no additional bonding for long term closure should be necessary.

The attached modification to the NOI includes information regarding these (Section 4, Line 5), and other existing portals at the site. K&B believes that all other portals and/or shaft collars at the site have adequate closures. Most of these closures appear to have been installed under DRMS direction as part of the CIMRP and DRMS Abandoned Mined Land reclamation projects.



### Drill Pads/Surface Drilling

At this time, sites have not been selected for surface drilling. Should K&B elect to perform surface drilling, the drill used shall be a lightweight, manually or helicopter transportable rig drilling "B" sized core (~1.5" diameter). Should K&B elect to perform surface core drilling, in addition to underground drilling, sites will be selected entirely on patented property only. Drill pad preparation will be minimal; however K&B has proposed a 20' x 20' maximum disturbance per site (400 square feet). Drill water collection and recycling will be accomplished, at maximum, by the installation of a temporary "mud pit" of 100 square feet and 5 feet in depth. Total surface disturbance and grading associated with any proposed drilling under this modification is not to exceed 50 cubic yards.

### Additional Information

K&B has attempted to incorporate language within the attached modification to NOI that addresses adequacy concerns raised by the DRMS in the original NOI submittal and based on additional information gained by K&B during the current NOI activities. K&B believes that this language is consistent with the intent and plan in the original NOI submittal. This language includes clarification on chemicals and fuels (Section 3, Line 6E), discussion of completed roads (Section 3, Line 6F), minor refinement of seed mix and elimination of saplings (Section 4, Line 7A & B), etc. It is K&B's intent that this modification serves to merely clarify the original plan of work approved under the original NOI and does affect work done under any other permitting.

This letter and Notice of Intent to Conduct Prospecting is also submitted to the DRMS electronically on the same date.

Should you or your staff have any concerns or questions, please do not hesitate to contact K&B Mining LLC.

Thank you for your attention to this project. On behalf of K&B Mining LLC,



Robert "Rusty" Kennard  
General Manager

Enc: Notice of Intent to Conduct Prospecting Operations – Modification  
Appendix A – Maps  
Appendix B – Original NOI Deficiencies and Clarifications  
Appendix C – Evidence of Submittal to Boulder County and USFS



Cc: Boulder County Board of County Commissioners  
Post Office Box 471  
Boulder, CO 80306

United State Forest Service  
District Ranger  
2140 Yarmouth Ave.  
Boulder, CO 80301-1615

Craig Gardner  
Craig Gardner Services  
Via Email

Rusty Kennard  
K&B Mining LLC  
Via Email

Anthony Bruster  
K&B Mining LLC  
Via Email

Matt Collins  
Black Fox Mining LLC  
Via Email

## **Appendix A**

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### **Non-Confidential**

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#### **Maps & Photo**

Includes the following maps, etc:

Badger Mine Project – Site Location and Land Status  
Badger Mine Project – Site Topography and Features

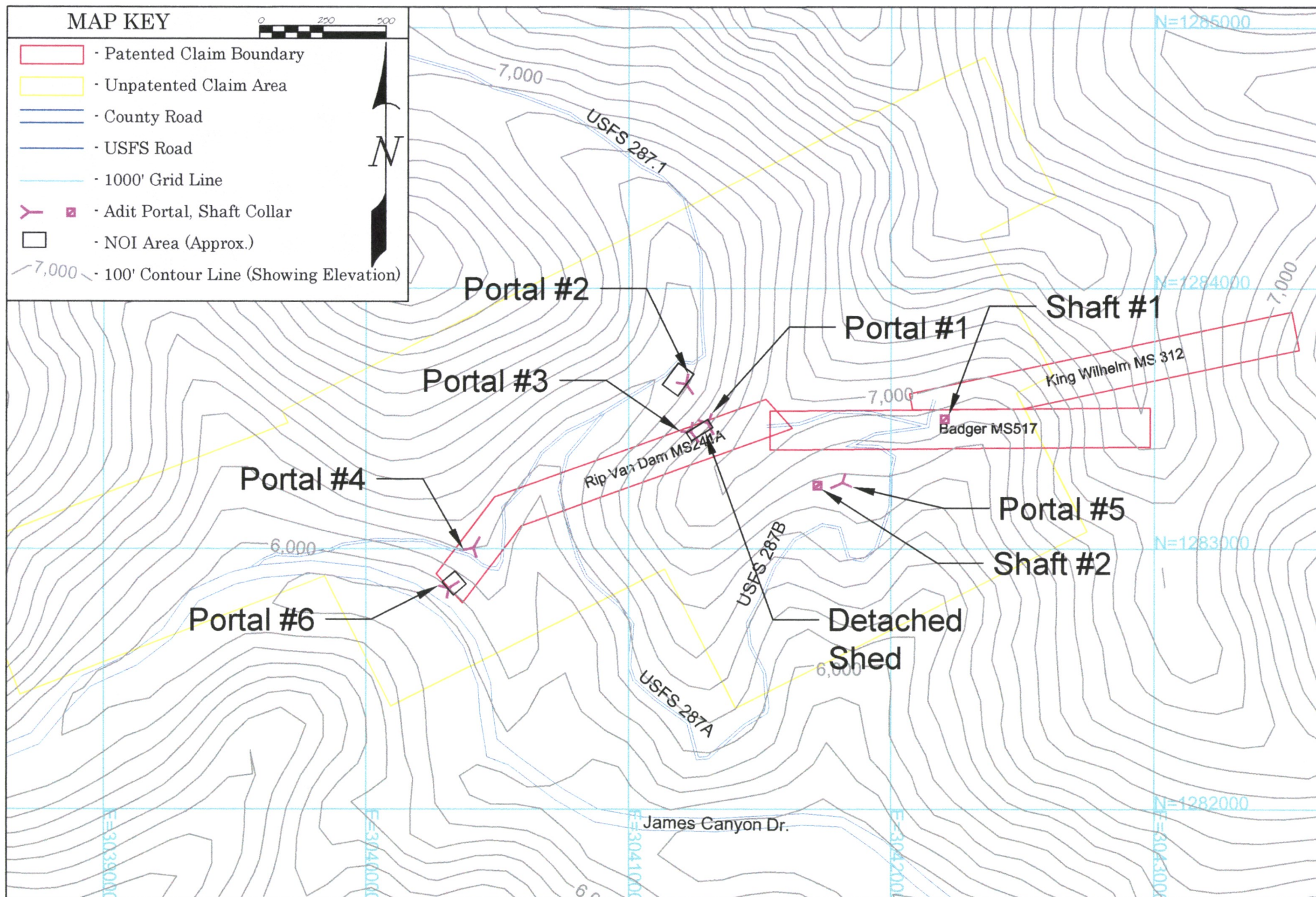
Includes the following photo:

Badger Mine Project – Portal #2, showing closure.









Notes: 100' Topography Contours from DEM courtesy of Boulder County GIS  
 Patented claims located per LS-09-038, LS-11-0201 Record of Survey  
 Coordinates are State Plane, Zone CO 0501, NAD83  
 Portal and shaft collar locations (D.Jonson, 1990) corrected from aerial photos  
 File Name: 20160108001 NOI Maps.dwg

Scale: 1"=500'  
 Date: 1/8/2016  
 Drawn By: MCC  
 Checked By: CG  
 Engineered By: MCC  
 Approved By: AKB  
 Revision: 0



BLACK FOX MINING LLC  
 MATT COLLINS, PE, QP

1508 Ridge Rd., Nederland, CO, 80466  
 Phone: (303) 303-570-6269  
 Email: mcollins@blackfoxmining.com

NOI P2013-019

Badger Mine Project

Site Topography and Features

DWG # 20160108001

Sheet # 2 of 2





Badger Mine Project, Portal #2 (Tinhorn Adit).

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**CONFIDENTIAL**

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**Original NOI Deficiencies and Clarifications**

From: DRMS Letter to K&B/Epic (1/21/2014)  
K&B/Epic email to DRMS (1/21/2014)  
DRMS Letter to K&B/Epic (2/4/2014)  
K&B/Epic email to DRMS (2/4/2014)

Includes attachments from K&B/Epic responses.

## **Original NOI Deficiencies and Clarifications**

The following items are numeric adequacy concerns that the DRMS raised prior to approval of P2013-019, with sequential responses from Epic Construction/K&B Mining, LLC. Subsequent adequacy concerns are included, under the appropriate topic with the response from Epic/K&B. Formatting has been changed for clarity or to indicate author/response.

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- 1. The Application Form specifies that Mr. Pat Farr is the claimant for the Badger a Group of Mines. Please indicate what the relationship is between Mr. Farr and K&B Mining Company, LLC. – (DRMS, 1/21/2014)***

“The properties; the patented mining claims as well as the un-patented USFS claims are being leased from Mr. Pat Farr by Telluride Gold, LLC which has hired K&B Mining Company to manage the property.” – (Epic/K&B Response, 1/21/2014)

- 2. The Applicant has indicated that the prospecting activity will occur on private land and on USFS property. Please specify which of the affected areas correspond to private property and which correspond to USFS property.***

“See attached map.”

- 3. Under No. 3, Section III, Page 3 of the Application Form, the Applicant has stated the amount of material to be extracted or moved is ‘250’. Please specify the units for the amount of material proposed to be moved.***

“250 cubic yards.”

- (3) The Applicant has stated that a maximum of 250 cubic yards of material will be removed from underground. Please clarify if this material will originate from the upper or lower portal, or both. – (DRMS, 2/4/2014)***

“The 250 cubic yards of materials would likely be 75% from the lower and 25% from the upper tunnel.” – (Epic/K&B Response, 2/4/2014)

- 4. The Applicant has stated that the workings will be minimally advanced. Please specify the maximum distance that workings will be advanced.***

“Advances will be less than ten feet.”

***(2) The Applicant has stated that the workings will be advanced a maximum of 10 feet. Please clarify if the advancement of workings will take place at the upper or lower portal, or both.***

"Advancements of workings will take place in both upper and lower tunnels with a combined maximum of 10 feet, to allow for core drill to fit in drifts."

***5. The Applicant has stated that the existing portals will be opened to access the mine workings. Please clarify if there is more than one portal that will be used to access the mine workings. In addition please describe the existing closures at the portal(s).***

"Two portals will be opened for exploration. One is currently closed with a steel gate. The second is an open adit. Both portals will be closed with Colorado inactive mine closure doors, which will be closed at all times other than when working in side. The First is on USFS claims and the second is on private land."

***6. Please provide the Division with the specifications for the portal closure upon final reclamation. The specifications should include a standard drawing of the closure.***

"Both portals will close with Colorado inactive mine closure doors. See attachment."

***7. Please specify how the portal will be safeguarded during active prospecting operations.***

"See attached sketch. The doors will be lock with tamper proof locks."

***8. The Applicant has indicated that declines and shafts will be utilized during prospecting operations. Please specify how these mine features will be utilized for prospecting.***

"There are no declines or shafts being used for prospecting actives."

***9. The Applicant has indicated that a dry shelter may be installed on the work pad. Please provide the Division with specifications for the dry shelter; any structure that is not mobile will need to be accounted for in the financial warranty estimate.***



"No dry shelter is planned at this time, if that were to change it would be located on private property."

**(1) The Applicant has stated that no new shelter will be constructed. Please note that if a shelter is constructed, as part of prospecting activities, the Operator will need to submit and obtain approval of a modification to the NOI.**

"If a shelter were to be constructed as part of prospecting activities than the operator will modify NOI appropriately."

**10. Please specify how much diesel fuel will be stored at the site.**

"No diesel fuel will be stored on site."

**11. Please specify the distance from the work pad to the seasonal stream. In addition describe the BMP's which will be used to control stormwater and prevent pollutants from entering the seasonal stream.**

"The seasonal stream is 75ft from the portal, 20ft vertically from and 20ft horizontally from the work pad. Waddles, silt fences, berms and sumps for containing sediments will be used to prevent any run off from contaminating the seasonal stream. Standards of operating procedures and spill prevention methods will be implemented."

**12. The Applicant has indicated that all seed and straw will be applied using USFS standards. In order for the Division to calculate the financial warranty required for this operation, the Applicant must provide the following information:**

- a. Specify the seed application method (drill, broadcast)**
- b. Specify the mulch application rate and method**
- c. Specify the species of tree saplings to be planted and the number of each species to be planted**

"Seed will be applied by a broadcasting method; natural hydro-mulch will be applied. Approximately 125lbs/per acre. A maximum of 10 seedlings would be used white fir, ponderosa pine, and ponderosa pines are like to be used if necessary."

**13. The Applicant has indicated that topsoil will be salvaged and replaced at an average depth of two inches. Upon reviewing the photographs enclosed with the NOI application, it would appear that there is little to no topsoil to be salvaged from the affected areas. Please specify where the topsoil will be salvaged from and what**

***areas it will be applied to. In addition specify where topsoil will be stockpiled and how it will be stabilized while it is stockpiled.***

"There is little to no top soil however if it were to be encountered it will be stockpiled for redistribution. Stockpiles will be stored on private property and surrounded by waddles."

***14. The Applicant has stated that prospecting activities will include rehabilitation of the work pad around the portal area. Please specify the nature of the rehabilitation work that is required.***

"The work pad will be graded to control run-off."

***15. The applicant has stated that a culvert will be installed as part of upgrading the roads. Please specify the location and dimensions of the culvert and indicate if this is on the private road on or the USFS road.***

"The culvert has been changed to a low water crossing at this time at the USFS request."

***16. Please specify if there is any water being discharged from the mine portal(s).***

"No water is being discharged from the portals."

***17. Please specify if the material in the existing dump is acid generating. Is there any observable evidence that dump is acid generating?***

"To our knowledge the pile is not acid generating or does it appear to be."

***18. Please specify the distance between the portal and the work pad.***

"The portal and work pad are directly adjacent to each other."

***19. The Applicant has stated that the minimal excavation of overburden will be required to rehabilitate the existing portal. Please specify where the overburden will be stockpiled and where it will be placed during final reclamation.***

"During construction the overburden will be placed in front of portal in a stockpile; immediately stockpile will be back filled around portal for stability."

**20. The Applicant has stated that mine entrances will remain for the future mining operation if applicable. Please specify how many mine entrances exist at the mine site. Also, please clarify how these entrances will be left open, keeping in mind that the proposed reclamation plan calls for placing closures over the portal.**

"There are two portals entrances which will be closed with Colorado inactive mine doors with tamper proof locks. These will be the doors utilized during prospecting and possible future mining they will also be acceptable for as approved closure doors."

**21. Please specify the type of core drilling that will be conducted and specify the type and quantity of any fluids that will be utilized in the drilling program**

"See attached MSDS. Matex Environmentally safer drilling fluids will be used; these will be stored in 5 gallon buckets there will be no more than 5 gallons of each of the three chemicals on site at a time."

**22. The Applicant has indicated that a new segment of road will be constructed. Please specify the location of the new road segment and indicate if it will be on private property or on USFS property.**

"The new segment of land will be on private land only. See map."

**(4) The Applicant is proposing to construct a road across the landowner's patented claims in order to access the upper portal. In order for the road to remain in place following the completion of prospecting activities, the Applicant will need to provide a signed and notarized statement from the landowner indicating that they wish the road to remain for their use. Without a signed statement from the landowner, the Division will have to include the cost of reclaiming this road segment in the financial warranty calculation.**

"A signed and notarized letter from Pat Farr of Collidermill & Mining Inc. is on its way."



Main portal



Work Pad





Dump

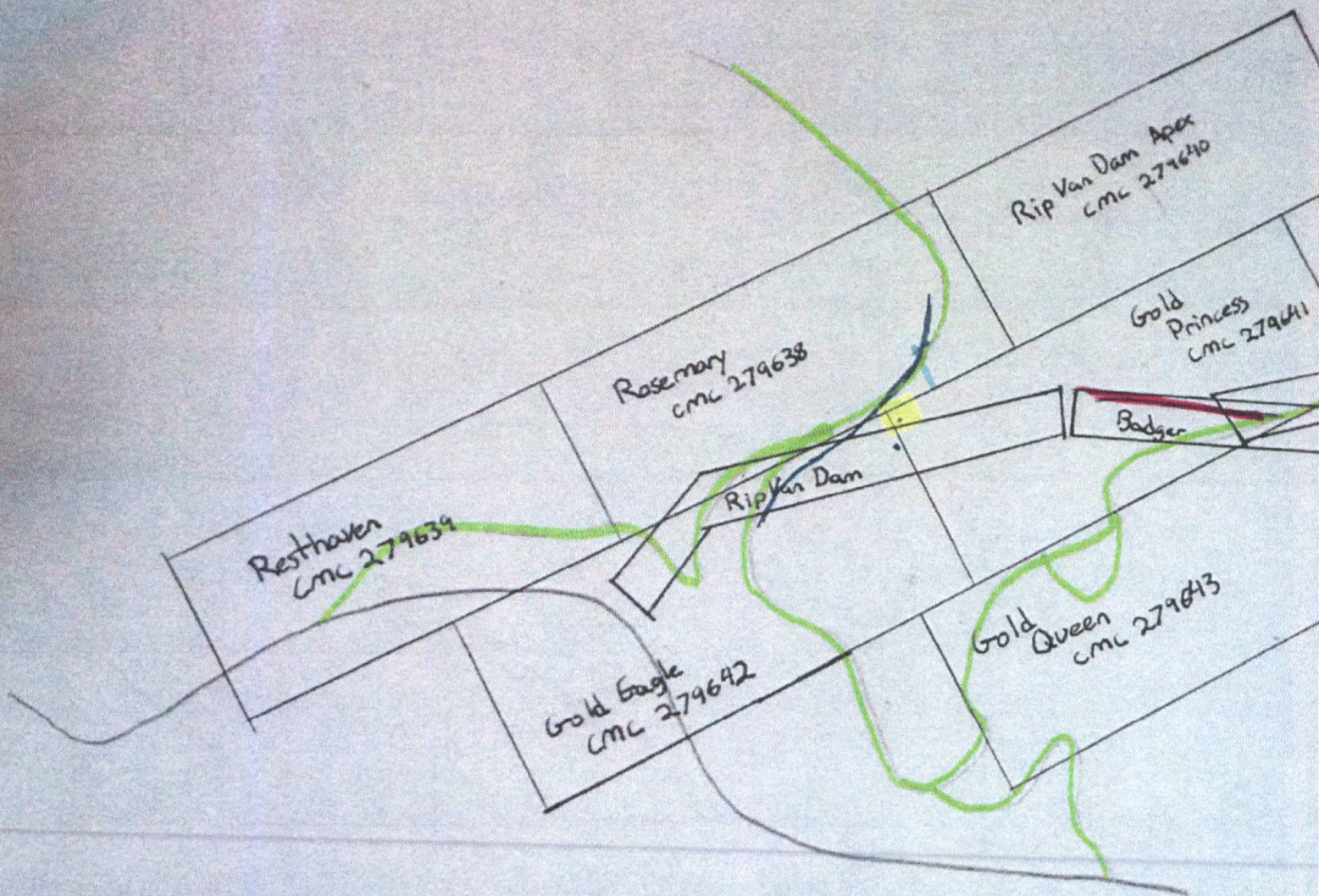
4964 111 NW  
(RAYMOND)







U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY

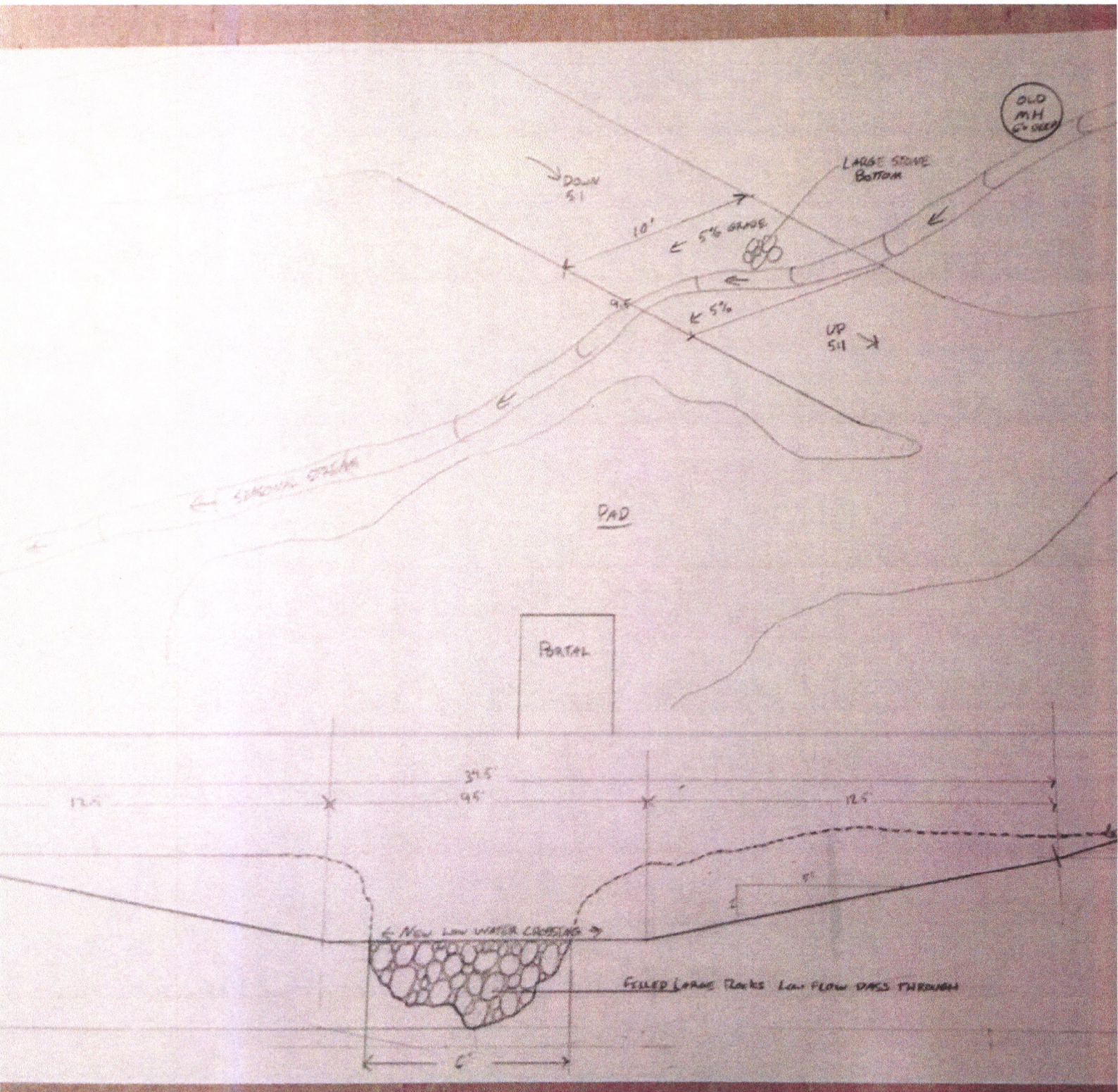




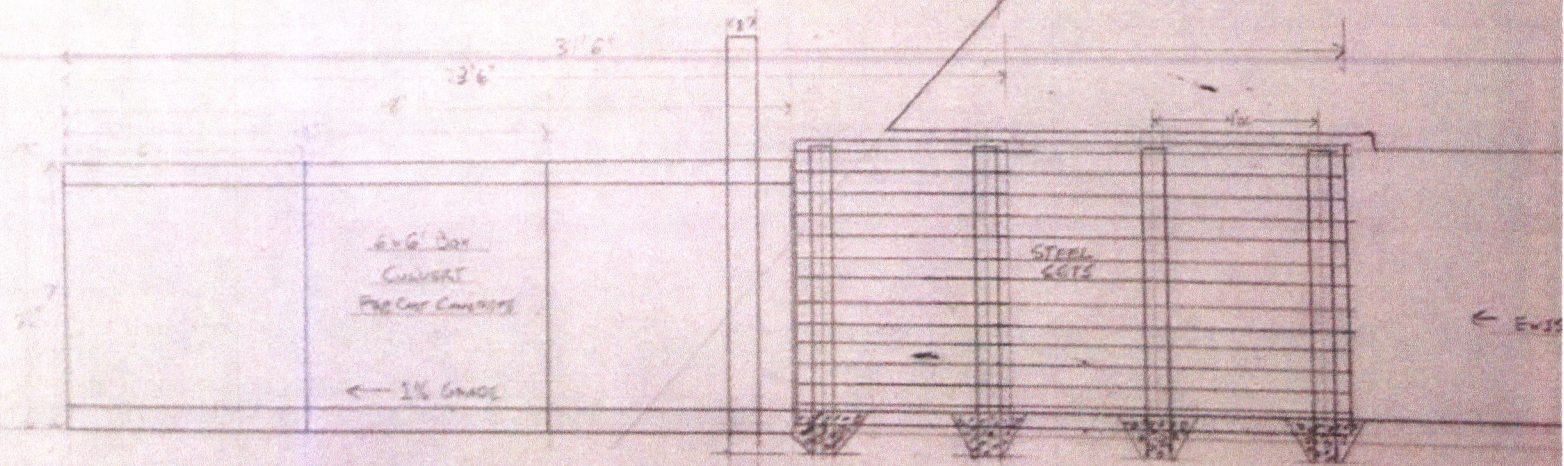
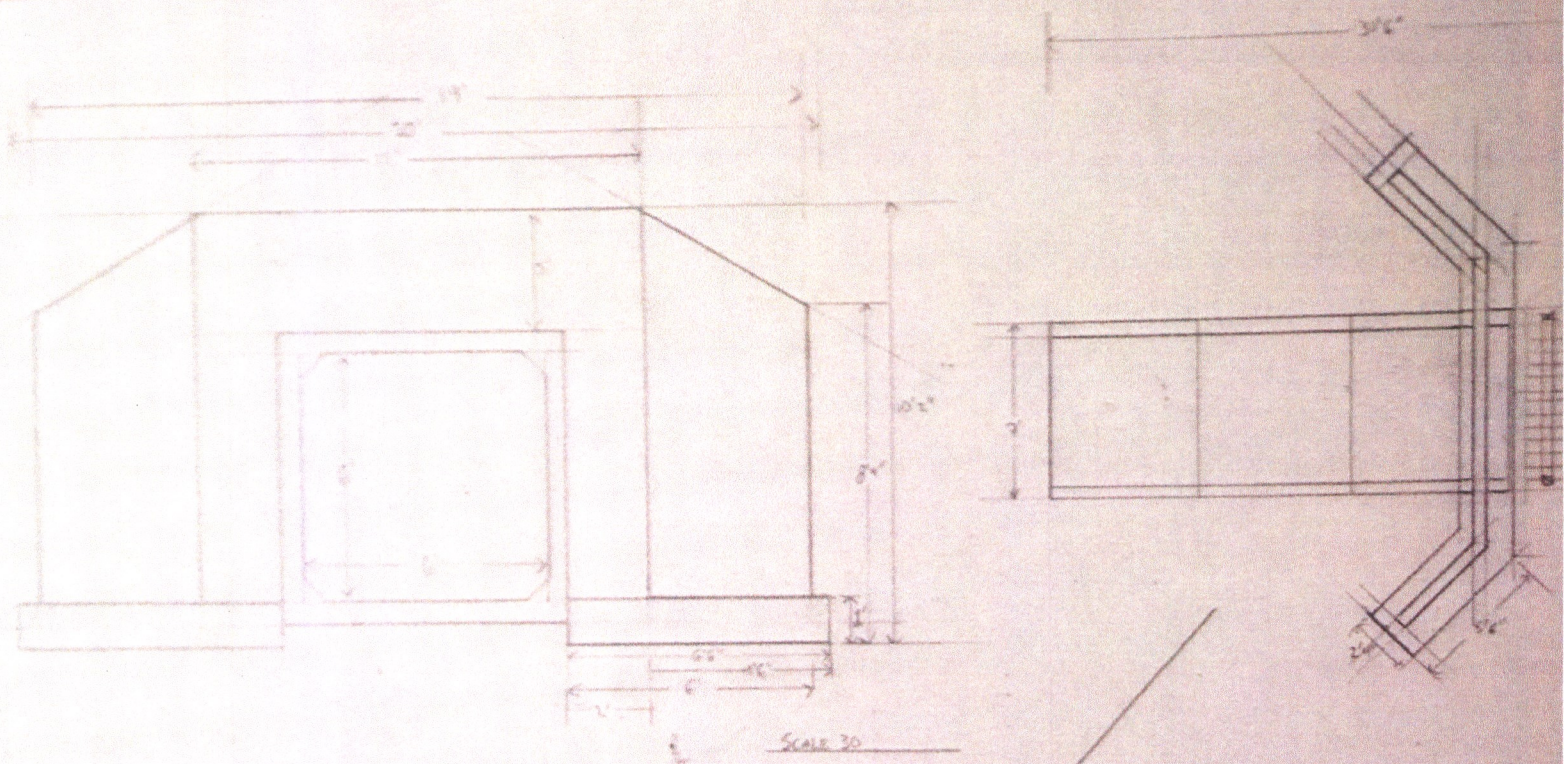


-  - Existing Forest Service Road
-  - New Road
-  - Existing Pad & Portal #1
-  - End of improvements to forest Service Roads

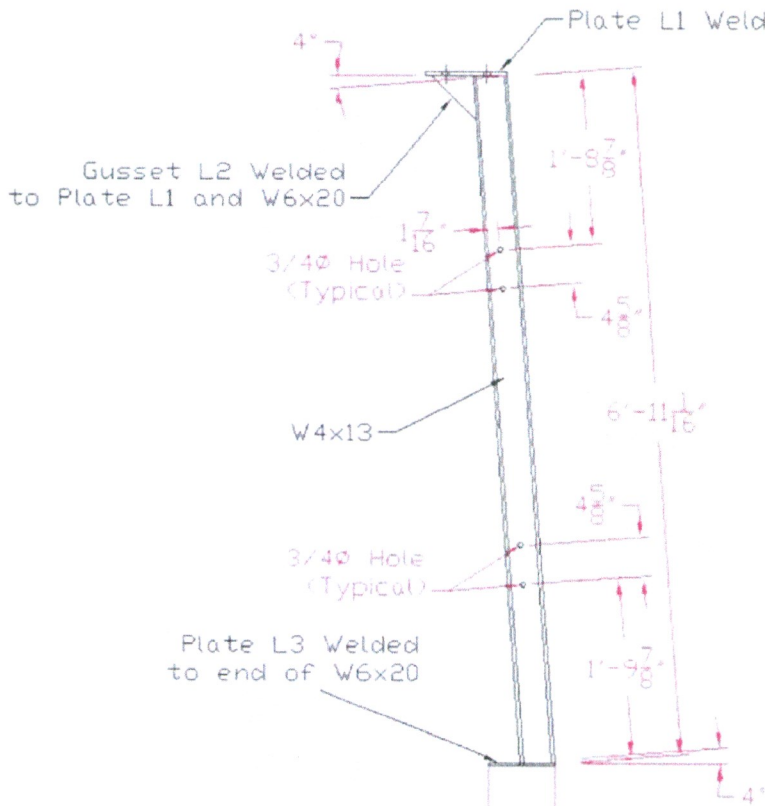




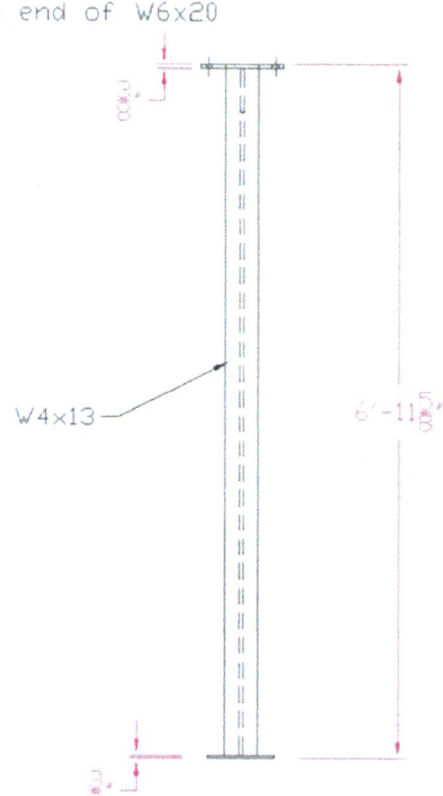




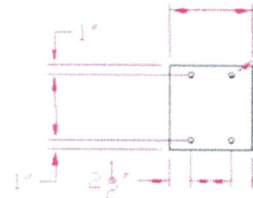




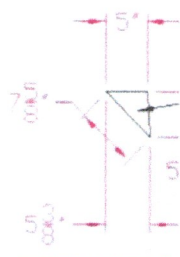
Elevation



Elevation-Section



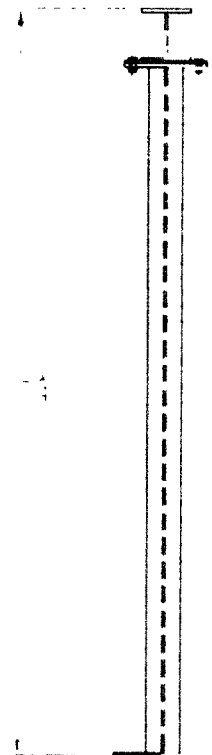
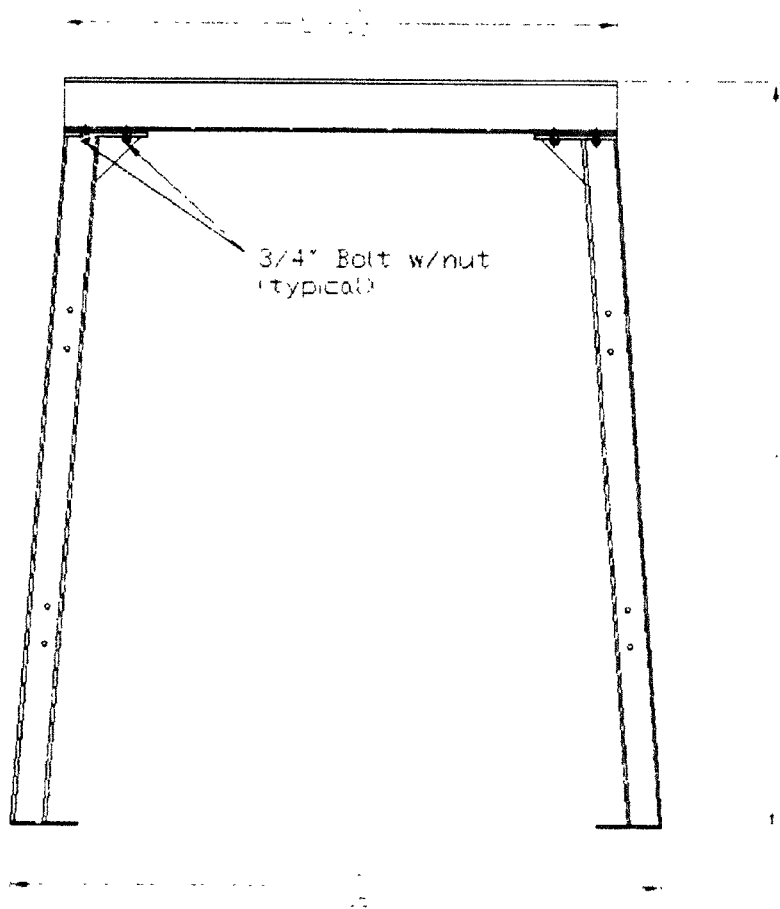
Plan - Plate



Elevation



Plan - Plate L3



Scale Var  
Driven by

# MATERIAL SAFETY DATA SHEET

OneShot HDD

## SECTION I – Product Identification

MANUFACTURER'S NAME:	Control Chemical (1989) Corporation
MANUFACTURER'S ADDRESS:	7016, 30 <sup>th</sup> Street S.E. Calgary, Alberta, Canada T2C 1N9 (403) 720-7044
EMERGENCY PHONE NUMBER:	
SUPPLIER IDENTIFIER:	
SUPPLIER'S ADDRESS:	
SUPPLIER'S EMERGENCY PHONE NUMBER:	
PRODUCT IDENTIFIER:	OneShot HDD
PRODUCT USE:	Drilling mud - Co-polymer of Acrylamide and Sodium Acrylate

## SECTION II – Hazardous Ingredients of Materials

Chemical Identity	Concentration	CAS#/NA#/UN#	LD (50)	LC (50)
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No regulated components.

This is not a WHMIS controlled product.

## SECTION III – Physical Data for Product

PHYSICAL STATE:	Solid
ODOUR AND APPEARANCE:	Granular white solid. Faint odour
ODOUR THRESHOLD:	Not available
SPECIFIC GRAVITY:	0.80
VAPOR PRESSURE:	Very low
VAPOR DENSITY (Air = 1):	Not available
EVAPORATION RATE:	Not available
BOILING POINT:	Decomposes
FREEZING POINT:	Not available
pH:	Not available
DENSITY (g/ml):	0.80
COEFFICIENT OF WATER / OIL DISTRIBUTION:	Not available

## SECTION IV – Fire and Explosion Hazard of Product

CONDITIONS OF FLAMMABILITY:	Requires a source of ignition, the presence of air, and a temperature greater than the flash point.
MEANS OF EXTINCTION:	Use dry chemical, foam, or carbon dioxide. Water may cause excessive slipperiness
FLASHPOINT AND METHOD OF DETERMINATION:	No flash point
UPPER EXPLOSION LIMIT (% by Vol):	Not available
LOWER EXPLOSION LIMIT (% by Vol):	Not available

# MATERIAL SAFETY DATA SHEET

OneShot HDD

AUTO-IGNITION TEMPERATURE:	Not available
FLAMMABILITY CLASSIFICATION:	Not available. Not a controlled product.
HAZARDOUS COMBUSTION PRODUCTS:	Not available
EXPLOSION DATA:	Not available
SENSITIVITY TO STATIC DISCHARGE:	Not available

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## SECTION V – Reactivity Data

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CHEMICAL STABILITY:	Stable under normal conditions. Hazardous polymerization will not occur
INCOMPATIBLE MATERIALS:	Avoid strong oxidizing and reducing agents.
CONDITIONS OF REACTIVITY:	Avoid contamination with reactive substances
HAZARDOUS DECOMPOSITION PRODUCTS:	Not available

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## SECTION VI – Toxicological Properties of Product

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ROUTES OF ENTRY:	
SKIN CONTACT:	No effects of exposure expected due to contact. Prolonged contact may cause skin irritation or dermatitis in some individuals.
SKIN ABSORPTION:	No known hazard due to skin absorption
EYE:	No effects of exposure expected with the exception of possible irritation
INHALATION:	May cause sneezing, slight irritation of nose and throat
INGESTION:	
ACUTE OVER EXPOSURE EFFECTS:	
CHRONIC OVER EXPOSURE EFFECTS:	Skin irritation or dermatitis may occur upon frequent or prolonged contact.
EXPOSURE LIMITS:	TWAEV = 0.03 mg/m <sup>3</sup> (skin) (Ont. Reg. 654/86).
IRRITANCY OF PRODUCT:	Eye: mild irritant.
SENSITIZATION TO MATERIAL:	Repeated or prolonged contact may cause sensitization in some individuals
CARCINOGENICITY, REPRODUCTIVE EFFECTS:	
TERATOGENICITY, MUTAGENICITY:	Not available
TOXICOLOGICALLY SYNERGISTIC PRODUCTS:	Not available

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## SECTION VII – Preventive Measures

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PERSONAL PROTECTIVE EQUIPMENT:	Chemical goggles, impervious gloves, and protective clothing as required to prevent contact. Use a mechanical-filter respirator as required to prevent exposure.
SPECIFIC ENGINEERING CONTROLS:	General ventilation with a good source of make-up air recommended for all indoor situations

## MATERIAL SAFETY DATA SHEET

### OneShot HDI

LEAK AND SPILL PROCEDURES:	Ventilate area. Wear rubber boots, gloves, and a self-contained breathing apparatus if ventilation is not adequate. Collect into waste container. Avoid raising dust. Wash spill site after material pickup. Water solutions are very slippery. May constitute a hazard following a spill
WASTE DISPOSAL:	Dispose of waste according to Federal, Provincial, and Municipal regulations.
HANDLING PROCEDURES AND EQUIPMENT:	Avoid prolonged or frequent contact when handling material. Do not inhale dust or breathe vapor. Wear a NIOSH approved mechanical-filter respirator, if adequate ventilation cannot be provided. Avoid skin or eye contact.
STORAGE REQUIREMENTS:	Keep container closed when not in use. Store in cool and dry location away from oxidizing and reducing agents.
SPECIAL SHIPPING INFORMATION:	Not Regulated.

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#### SECTION VIII – First Aid Measures

SPECIFIC FIRST AID PROCEDURES:	Skin contact: wash exposed area with soap and water. If irritation or abnormalities persist, call a physician. Eye contact: Immediately flush eyes with water for 15 minutes and call a physician. Inhalation: remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. Ingestion: do not induce vomiting. If conscious, dilute by giving two glasses of water. Call a physician immediately.
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#### SECTION X – Preparation Date of Material Safety Data Sheet

PREPARED BY:	Safety Committee
PHONE NUMBER OF PREPARER:	(403) 720-7044
DATE PREPARED:	January 02, 2012

The information contained herein is based on data believed to be reliable, but is presented without guarantee or warranty and Control Chemical (1989) Corporation disclaims any liability incurred from the use thereof.

# MATERIAL SAFETY DATA SHEET

## SODA ASH

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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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**TRADE NAME:** SODA ASH

**CHEMICAL CLASS:** Sodium carbonate

**APPLICATIONS:** Oil well drilling fluid additive Calcium precipitation

**EMERGENCY TELEPHONE:** 281-561-1600

**SUPPLIER:** Supplied by a Business Unit of  
M-I L.L.C.  
P.O. Box 42842, Houston, Texas 77242-2842  
See cover sheet for local supplier.

**TELEPHONE:** 281-561-1509

**FAX:** 281-561-7240

**CONTACT PERSON:** Sam Hoskin - Manager, Occupational Health

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### 2. COMPOSITION, INFORMATION ON INGREDIENTS

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INGREDIENT NAME:	CAS No.:	CONTENTS :	EPA RQ:	TPQ:
Sodium carbonate	497-19-8	100 %		

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### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW:

CAUTION! MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. Avoid contact with eyes, skin and clothing. Avoid breathing airborne product. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

amber white powder. Slippery when wet. A nuisance dust.

#### ACUTE EFFECTS:

##### HEALTH HAZARDS, GENERAL:

Particulates may cause mechanical irritation to the eyes, nose, throat and lungs. Particulate inhalation may lead to pulmonary fibrosis, chronic bronchitis, emphysema and bronchial asthma. Dermatitis and asthma may result from short contact periods.

**INHALATION:** May be irritating to the respiratory tract if inhaled.

**INGESTION:** May cause gastric distress, nausea and vomiting if ingested.

**SKIN:** May be irritating to the skin.

**EYES:** May be irritating to the eyes.

#### CHRONIC EFFECTS:

##### CARCINOGENICITY:

IARC: Not listed. OSHA: Not regulated. NTP: Not listed.



**ROUTE OF ENTRY:**

Inhalation Skin and or eye contact

**TARGET ORGANS:**

Respiratory system, lungs Skin Eyes

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#### 4. FIRST AID MEASURES

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**GENERAL:**

Persons seeking medical attention should carry a copy of this MSDS with them

**INHALATION:**

Move the exposed person to fresh air at once Perform artificial respiration if breathing has stopped. Get medical attention.

**INGESTION:**

Drink a couple of glasses water or milk Do not give victim anything to drink of he is unconscious Get medical attention

**SKIN:**

Wash skin thoroughly with soap and water Remove contaminated clothing Get medical attention if any discomfort continues

**EYES:**

Promptly wash eyes with lots of water while lifting the eye lids Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues

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#### 5. FIRE FIGHTING MEASURES

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**AUTO IGNITION TEMP. (°F):**

N D

**FLAMMABILITY LIMIT - LOWER(%):**

N D

**FLAMMABILITY LIMIT - UPPER(%):**

N D

**EXTINGUISHING MEDIA:**

Carbon dioxide (CO<sub>2</sub>), Dry chemicals Foam Water spray, fog or mist

**SPECIAL FIRE FIGHTING PROCEDURES:**

No specific fire fighting procedure given

**UNUSUAL FIRE & EXPLOSION HAZARDS:**

No unusual fire or explosion hazards noted

**HAZARDOUS COMBUSTION PRODUCTS:**

Irritating gases/vapors/fumes. Oxides of: Carbon, and Sodium

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#### 6. ACCIDENTAL RELEASE MEASURES

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**PERSONAL PRECAUTIONS:**

Wear proper personal protective equipment (see MSDS Section 8).

**SPILL CLEAN-UP PROCEDURES:**

Carefully sweep up and put in closed containers. Avoid making dust Do not contaminate drainage or waterways Repackage or recycle if possible

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#### 7. HANDLING AND STORAGE

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**HANDLING PRECAUTIONS:**

Avoid handling causing generation of dust. Wear full protective clothing for prolonged exposure and/or high concentrations. Eye wash and emergency shower must be available at the work place. Wash hands often and change clothing when needed. Provide good ventilation. Mechanical ventilation or local exhaust ventilation is required.

**STORAGE PRECAUTIONS:**

Store at moderate temperatures in dry, well ventilated area. Keep in original container.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

INGREDIENT NAME:	CAS No.:	OSHA PEL:		ACGIH TLV:		OTHER:		UNITS:
		TWA:	STEL:	TWA:	STEL:	TWA:	STEL:	
Sodium carbonate	497-19-8	5		3				mg/m <sup>3</sup> resp dust

**INGREDIENT COMMENTS:**

Exposure limits are for Particulates Not Otherwise Classified (PNOC)

**PROTECTIVE EQUIPMENT:****ENGINEERING CONTROLS:**

Use appropriate engineering controls such as, exhaust ventilation and process enclosure, to reduce air contamination and keep worker exposure below the applicable limits.

**VENTILATION:**

Supply natural or mechanical ventilation adequate to exhaust airborne product and keep exposures below the applicable limits.

**RESPIRATORS:**

Use at least a NIOSH-approved N95 half-mask disposable or reusable particulate respirator. In work environments containing oil mist aerosol use at least a NIOSH-approved P95 half-mask disposable or reusable particulate respirator.

**PROTECTIVE GLOVES:**

Use suitable protective gloves if risk of skin contact.

**EYE PROTECTION:**

Wear dust resistant safety goggles where there is danger of eye contact.

**PROTECTIVE CLOTHING:**

Wear appropriate clothing to prevent repeated or prolonged skin contact.

**HYGIENIC WORK PRACTICES:**

Wash promptly with soap and water if skin becomes contaminated. Change work clothing daily if there is any possibility of contamination.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>APPEARANCE/PHYSICAL STATE:</b>	Powder, dust.	
<b>COLOR:</b>	White	
<b>ODOR:</b>	Odorless or no characteristic odor.	
<b>SOLUBILITY DESCRIPTION:</b>	Soluble in water.	
<b>MELT./FREEZ. POINT (°F, interval):</b>	1564	
<b>DENSITY/SPECIFIC GRAVITY (g/ml):</b>	2.509	TEMPERATURE (°F): 68
<b>BULK DENSITY:</b>	48 lb ft <sup>3</sup> ; 769 kg.m <sup>3</sup>	
<b>VAPOR DENSITY (air=1):</b>	N/A	
<b>VAPOR PRESSURE:</b>	N/A	TEMPERATURE (°F)
<b>pH-VALUE, DILUTED SOLUTION:</b>	11.4	CONCENTRATION (%M): 1%

**10. STABILITY AND REACTIVITY**

10077 - SODA ASH

**STABILITY:** Nonnally stable

**CONDITIONS TO AVOID:**  
Reacts with hydrated lime to form sodium hydroxide.

**HAZARDOUS POLYMERIZATION:**  
Will not polymerize

**POLYMERIZATION DESCRIPTION:**  
Not relevant

**MATERIALS TO AVOID:**  
Strong acids

**HAZARDOUS DECOMPOSITION PRODUCTS:**  
No specific hazardous decomposition products noted

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## 11. TOXICOLOGICAL INFORMATION

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**Component:** Sodium carbonate

**TOXICOLOGICAL DATA:**

Corrosive effects	Eye irritation test	24 hours	Eye	Rabbit.	100 mg - Moderate Irritation
Corrosive effects		24 hours	Skin.	Rabbit.	500 mg - Mild Irritation

**TOXIC DOSE - LD 50:** 4090 mg/kg (oral rat)  
**TOXIC CONC. - LC 50:** 1200 mg m3 2h (inh-mus)

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## 12. ECOLOGICAL INFORMATION

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**ACUTE AQUATIC TOXICITY:**

This product is approved for use under the U.S. Environmental Protection Agency (EPA) Region IX (California) General NPDES Permit which regulates offshore discharges of drilling fluids. Contact M-I's Environmental Affairs Department for more information.

This product passes the mysid shrimp toxicity test required by the U.S. Environmental Protection Agency (EPA) Region VI (Gulf of Mexico) NPDES Permit, which regulates offshore discharge of drilling fluids, when tested in a standard drilling fluid. Contact M-I's Environmental Affairs Department for more information.

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## 13. DISPOSAL CONSIDERATIONS

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**WASTE MANAGEMENT:**

This product does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

**DISPOSAL METHODS:**

Recover and reclaim or recycle, if practical. Should this product become a waste, dispose of in a permitted industrial landfill. Ensure that containers are empty by RCRA criteria prior to disposal in a permitted industrial landfill.

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## 14. TRANSPORT INFORMATION

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**PRODUCT RQ:** N/A

10077 - SODA ASH

U.S. DOT:  
U.S. DOT CLASS: Not regulated

CANADIAN TRANSPORT:  
TDGR CLASS: Not regulated

SEA TRANSPORT:  
IMDG CLASS: Not regulated.

AIR TRANSPORT:  
ICAO CLASS: Not regulated.

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## 15. REGULATORY INFORMATION

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### REGULATORY STATUS OF INGREDIENTS:

NAME:	CAS No:	TSCA:	CERCLA:	SARA 302:	SARA 313:	DSL(CAN):
Sodium carbonate	497-19-8	Yes	No	No	No	Yes

### US FEDERAL REGULATIONS: WASTE CLASSIFICATION:

Not a hazardous waste by U.S. RCRA criteria. See Section 13

### REGULATORY STATUS:

This Product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372

SARA 311 Categories:

1 - Immediate (Acute) Health Effects

The components of this product are listed on or are exempt from the following international chemical registries.

TSCA (U.S.)

RENECS (Europe)

DSL (Canada)

### STATE REGULATIONS:

### STATE REGULATORY STATUS:

This product or its components, if a mixture, is subject to following regulations (Not meant to be all inclusive - selected regulations represented) .

None.

PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity, and for which warnings are now required.

### CANADIAN REGULATIONS: LABELS FOR SUPPLY:



### REGULATORY STATUS:

This Material Safety Data Sheet has been prepared in compliance with the Controlled Product Regulations.

Canadian WHMIS Classification: D2B - Other Toxic Effects: Toxic Material

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**16. OTHER INFORMATION**

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**NPCA HMIS HAZARD INDEX:** 1 Slight Hazard  
**FLAMMABILITY:** 1 Slight Hazard  
**REACTIVITY:** 0 Minimal Hazard  
**NPCA HMIS PERS. PROTECT. INDEX:** E - Safety Glasses, Gloves, Dust Respirator

**USER NOTES:** N/A - Not applicable N/D - Not determined

**INFORMATION SOURCES:** OSHA Permissible Exposure Limits, 29 CFR 1910, Subpart Z, Section 1910.1000, Air Contaminants.  
  
ACGIH Threshold Limit Values and Biological Exposure Indices for Chemical Substances and Physical Agents (latest edition).  
  
Sax's Dangerous Properties of Industrial Materials, 9th ed., Lewis, R. J. Sr., (ed.), VNR, New York, New York, (1997).  
Product information provided by the commercial vendor(s).

**PREPARED BY:** Sam Hoskin/bb

**REVISION No./Repl. MSDS of:** 2/January 27, 1998

**MSDS STATUS:** Approved

**DATE:** June 16, 2000

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**DISCLAIMER:**

MSDS furnished independent of product sale. While every effort has been made to accurately describe this product, some of the data are obtained from sources beyond our direct supervision. We cannot make any assertions as to its reliability or completeness; therefore, user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since we cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding use and disposal of this product. Additional information will be furnished upon request to assist the user, however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.

# MATERIAL SAFETY DATA SHEET

## TORQUELESS HDD

Product Identification	
MANUFACTURER'S NAME:	Control Chemical (1989) Corporation
MANUFACTURER'S ADDRESS:	7016, 30 <sup>th</sup> Street S.E. Calgary, Alberta, Canada T2C 1N9 (403) 720-7044
EMERGENCY PHONE NUMBER:	
SUPPLIER IDENTIFIER:	
SUPPLIER'S ADDRESS:	
SUPPLIER'S EMERGENCY PHONE NUMBER:	
PRODUCT IDENTIFIER:	TORQUELESS HDD
PRODUCT USE:	Drilling Lubricant (Vegetable oil base)

Hazardous Ingredients of Materials		
Chemical Identity	Concentration	CAS# NA# UN# LD (50) LC (50)

This is not a hazardous or controlled product.

Physical Data for Product	
PHYSICAL STATE:	Liquid
ODOUR AND APPEARANCE:	Dark brown, distinctive
ODOUR THRESHOLD:	
SPECIFIC GRAVITY:	0.887
VAPOR PRESSURE:	Not established
VAPOR DENSITY (Air = 1):	Not established
EVAPORATION RATE:	Not established
BOILING POINT:	>300 degrees C
FREEZING POINT:	-18 degrees C
pH:	7.0 - 7.2
DENSITY (g/ml):	
COEFFICIENT OF WATER / OIL DISTRIBUTION:	Not available

Fire and Explosion Hazard of Product	
CONDITIONS OF FLAMMABILITY:	
MEANS OF EXTINCTION:	Foam, CO <sub>2</sub> , Dry Chemical, water spray
FLASHPOINT AND METHOD OF DETERMINATION:	290 degrees C - C.C.
UPPER EXPLOSION LIMIT (% by Vol):	Not available
LOWER EXPLOSION LIMIT (% by Vol):	Not available
AUTO-IGNITION TEMPERATURE:	Not available
FLAMMABILITY CLASSIFICATION:	
HAZARDOUS COMBUSTION PRODUCTS:	Not available
EXPLOSION DATA:	Not available
SENSITIVITY TO STATIC DISCHARGE:	None

Reactivity Data	
CHEMICAL STABILITY:	Stable
INCOMPATIBLE MATERIALS:	None
CONDITIONS OF REACTIVITY:	None
HAZARDOUS DECOMPOSITION PRODUCTS:	If burnt, oxides of sulphur

# MATERIAL SAFETY DATA SHEET

## TORQUELESS HDD

### Toxicological Properties of Product

ROUTES OF ENTRY:	
SKIN CONTACT:	Wash with soap and water
SKIN ABSORPTION:	None
EYE:	Flush with water for 15 minutes
INHALATION:	No hazard during normal use
INDIGESTION:	Do not induce vomiting, contact physician. Not toxic
ACUTE OVER EXPOSURE EFFECTS:	Inhalation: Not hazardous unless burning toxic fumes possible. Ingestion: Greater than 5000 mg/kg in rats. Eyes: Eye irritation not expected. Skin: No skin irritation or allergic reaction expected
CHRONIC OVER EXPOSURE EFFECTS:	Inhalation: Not hazardous unless burning toxic fumes possible. Ingestion: Greater than 5000 mg/kg in rats. Eyes: Eye irritation not expected. Skin: No skin irritation or allergic reaction expected
EXPOSURE LIMITS:	Not available
IRRITANCY OF PRODUCT:	Not an irritant
SENSITIZATION TO MATERIAL:	None
CARCINOGENICITY, REPRODUCTIVE EFFECTS:	Not available
TERATOGENICITY, MUTAGENICITY, TOXICOLOGICALLY SYNERGISTIC PRODUCTS:	Not available

### Preventive Measures

PERSONAL PROTECTIVE EQUIPMENT:	Not necessary
SPECIFIC ENGINEERING CONTROLS:	
LEAK AND SPILL PROCEDURES:	Although product is environmentally safe, spills should be contained and wiped up
WASTE DISPOSAL:	Although product is environmentally safe, spills should be contained and wiped up. Dispose according to Federal, Provincial or Municipal Laws
HANDLING PROCEDURES AND EQUIPMENT:	None
STORAGE REQUIREMENTS:	None
SPECIAL SHIPPING INFORMATION:	Not Regulated.

### First Aid Measures

SPECIFIC FIRST AID PROCEDURES:	Eyes: Flush with water for 15 minutes Ingestion: Do not induce vomiting, contact physician. Not toxic. Skin: Wash with soap and water.
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### Preparation Date of Material Safety Data Sheet

PREPARED BY:	Safety Committee
PHONE NUMBER OF PREPARER:	(403) 720-7044
DATE PREPARED:	January 02, 2012

The information contained herein is based on data believed to be reliable, but is presented without guarantee or warranty and Control Chemical (1989) Corporation disclaims any liability incurred from the use thereof.

# MATERIAL SAFETY DATA SHEET

## TORQUELESS HDD

Product Identification	
MANUFACTURER'S NAME:	Control Chemical (1989) Corporation
MANUFACTURER'S ADDRESS:	7016, 30 <sup>th</sup> Street S.E. Calgary, Alberta, Canada T2C 1N9
EMERGENCY PHONE NUMBER:	(403) 720-7044
SUPPLIER IDENTIFIER:	
SUPPLIER'S ADDRESS:	
SUPPLIER'S EMERGENCY PHONE NUMBER:	
PRODUCT IDENTIFIER:	TORQUELESS HDD
PRODUCT USE:	Drilling Lubricant (Vegetable oil base)

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Chemical Identity	Concentration	CAS#/NA#/UN# LD (50) LC (50)

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MEANS OF EXTINCTION:	Foam, CO <sub>2</sub> , Dry Chemical, water spray
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LOWER EXPLOSION LIMIT (% by Vol):	Not available
AUTO-IGNITION TEMPERATURE:	Not available
FLAMMABILITY CLASSIFICATION:	
HAZARDOUS COMBUSTION PRODUCTS:	Not available
EXPLOSION DATA:	Not available
SENSITIVITY TO STATIC DISCHARGE:	None

Reactivity Data	
CHEMICAL STABILITY:	Stable
INCOMPATIBLE MATERIALS:	None
CONDITIONS OF REACTIVITY:	None
HAZARDOUS DECOMPOSITION PRODUCTS:	If burnt, oxides of sulphur



# MATERIAL SAFETY DATA SHEET

## TORQUELESS HDD

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EXPOSURE LIMITS:	Not available
IRRITANCY OF PRODUCT:	Not an irritant
SENSITIZATION TO MATERIAL:	None
CARCINOGENICITY, REPRODUCTIVE EFFECTS:	Not available
TERATOGENICITY, MUTAGENICITY:	Not available
TOXICOLOGICALLY SYNERGISTIC PRODUCTS:	Not available

### Preventive Measures

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## Appendix C

CONFIDENTIAL

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**CONFIDENTIAL**

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### Evidence of Notification

Includes copies of certified mail receipts for copies of notifications to:

1/11/2016 – USFS – District Ranger, Cover Letter, DRMS website notification, Cover Letter (DRMS), Form 2 and Appendix A

1/11/2016 – Boulder County Commissioners, Cover Letter, DRMS website notification, Cover Letter (DRMS), Form 2, Appendix A

7015 0640 0004 4138 41

For delivery information, visit our website at [www.usps.com](http://www.usps.com).

**BOULDER, CO 80301**

**OFFICIAL USE**

Certified Mail Fee	\$3.45
Extra Services & Fees (check box, add fee)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.64
Total Postage and Fees	\$5.09

Sent To  
**USPS - DISTRICT MANAGER**  
Street and Apt. No., or PO Box No.  
**2140 YALMOUTH AVE**  
City, State, ZIP+4®  
**BOULDER, CO 80301-1615**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

0292 04  
NEDERLAND, CO 80466  
Postmark Here  
JAN 11 2016  
01/11/2016  
USPS

7015 0640 0004 4138 4649

**U.S. Postal Service™**  
**CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com).

**BOULDER, CO 80306**

**OFFICIAL USE**

Certified Mail Fee	\$3.45
Extra Services & Fees (check box, add fee)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.64
Total Postage and Fees	\$5.09

Sent To  
**BOULDER COUNTY BOARD of Commissioners**  
Street and Apt. No., or PO Box No.  
**P.O. Box 471**  
City, State, ZIP+4®  
**BOULDER, CO 80306**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

0292 04  
NEDERLAND, CO 80466  
Postmark Here  
JAN 11 2016  
01/11/2016  
USPS