

C/007/041 Incoming

OK

#3257

WEST RIDGE MINE  
COAL FINES ACCUMULATIONS  
MITIGATION & ABATEMENT PLAN

for:

*UTAH DIV. OIL, GAS & MINING  
CITATION No. 10033*

and

*UTAH DIV. WATER QUALITY  
VIOLATION & ORDER, DOCKET No. 109-01*

SUBMITTED: March 27, 2009

File in:  
 Confidential  
 Shelf  
 Expandable  
Refer to Record No. 0015 Date 03272009  
In C 0070041, 2009, Incoming  
For additional information

EXHIBIT 1

COVER LETTER  
&  
PLAN NARRATIVE



**WEST RIDGE**  
RESOURCES, INC.

**COPY**

P.O. Box 910, East Carbon, Utah 84520  
Telephone (435) 888-4000 Fax (435) 888-4002

Utah Division of Oil, Gas & Mining  
Utah Coal Program  
1594 West North Temple, Suite 1210  
P.O.Box 145801  
Salt Lake City, UT 84114-5801  
Attn: Daron Haddock  
Permit Supervisor

March 27, 2009

Utah Division of Water Quality  
288 North 1460 West  
PO Box 144870  
Salt Lake City, UT 84114-4780  
Attn: Jeff Studenka  
Environmental Scientist

Re: DOGM Citation No.10033  
DWQ Violation & Order, Docket No. I09-01

Dear Mr. Haddock and Mr Studenka:

This letter is provided in response to the above-referenced violations. These violations were issued as a result of excessive coal fines in the discharge water from the West Ridge Mine, and subsequent accumulations in the C Canyon drainage beyond the permit area below the minesite. Due to the common nature of these violations, both are addressed herein under a common response.

**PLAN NARRATIVE**

**1) Introduction**

As you know from previous correspondence, both verbal and written, we became aware of the accumulations in late January, 2009, and immediately notified the various state and federal agencies involved, namely Division of Oil, Gas & Mining (DOGM), Division of Water Quality (DWQ), Bureau of Land Management (BLM), Utah School & Institutional Trust Lands Administration (SITLA), and Utah Division of Water Rights (DWRights). Subsequent to the notification, there have been a number of on-site meetings to assess the situation, followed by several planning meetings designed to come to a consensus agreement among all the agencies as to the best plan to mitigate the discharge problem from the mine and the accumulations problem

File in:  
C:\070041.2009.Incoming  
Refer to:  
 Confidential  
 Shelf  
 Expandable  
Date 07-27-09 For additional information

RECEIVED

MAR 30 2009

DIV. OF OIL, GAS & MINING

# 3113

Haddock, Studenka  
March 2, 2009  
page 2

in the drainage. Samples of the material were collected and analyzed to make sure the material was not hazardous, toxic or acid-forming. These analyses were then factored in formulation of an acceptable containment and clean-up plan. Based on these site inspections and planning meetings, a conceptual plan has been agreed upon. This plan consists of an initial containment phase (Phase 1), followed later by a clean-up phase (Phase 2). The elements of this plan are described below.

## **2) Phase 1 Containment:**

Containment is to be accomplished by constructing four or five catchment structures at selected locations within the C Canyon drainage below the mine. These catchments are located at various intervals over a seven-mile stretch of the drainage, and all are accessible by way of existing roads. The location of these structures, at sites A, B, C, E and F, is shown on the attached map. It has subsequently been determined that site D will not be utilized at this time.

Each catchment structure will consist of a small stilling basin excavated out of the natural drainage channel, a small low-lying impoundment dam, and a series of siltation filtering devices installed below the dam. Therefore, each catchment is designed to employ elements of both settling and filtration. A bypass culvert will be constructed around each unit to allow the stream flow to be diverted around the stilling basin and filters at times when the basins are being cleaned or the filters are being replaced. A depiction of a typical catchment structure is shown on the attached drawing.

As coal-fines material accumulates in the stilling basins it will be cleaned out using a backhoe and/or a slurry pump. The material will then be hauled off-site and disposed of at an approved facility. The filtration devices consist of a series of excelsior log sediment traps, contained within steel holding boxes. These boxes are designed to hold the logs firmly in place and prevent the streamflow from bypassing under the logs or around the ends. The holding boxes are also designed to allow the logs to be quickly and easily replaced as needed with new ones as they fill up with accumulations. All clogged up, dirty logs will be removed from the site and will be disposed of at an approved facility, as part of a regular on-going maintenance program.

Due to the urgency of the situation, it was agreed early-on by all parties that a containment plan should be implemented as soon as possible in order to prevent the coal-fines material from migrating any further down the C Canyon drainage. Towards this end, BLM, DWRights, and SITLA have all issued expedited approvals to allow immediate construction of the catchment structures. BLM issued a right-of-way for catchment Site A on Feb. 9, and for the other sites and access roads on Feb. 23; DWRights issued channel alteration permits on Feb. 3; and SITLA issued right-of-entry agreements for the access roads on Feb. 17. It was also determined by DOGM that no SMCRA permits would be required for the catchments because they would be installed as part of the violation abatement process. Therefore, all necessary approvals are now

Haddock, Studenka  
March 27, 2009  
Page 3

in place to complete the installation of catchments at all locations.

Because of prior road authorizations, work was commenced at Site A on Feb. 11. This facility is now complete and functioning. Work then moved to Site F, the lowest unit downstream. It was felt that this site represented the last line of defense against future downstream fines migration, and was therefore assigned an elevated priority. This facility was completed on March 16. Construction at Site E was completed on March 23, and construction is now in progress at Site C. All containment catchments are expected to be complete by mid-early April, 2009. (Site B will be constructed only if needed as part of the Phase 2 clean-up operations as discussed below.)

It should be noted that these Phase 1 containment structures are temporary installations. They will be utilized as part of the Phase 2 clean-up operations, but under the current plan, the catchments will be reclaimed following the completion of the clean-up later this summer/fall. To aid in the future reclamation process, pre-construction digital photographs have been taken of all sites. Final reclamation will be done to restore the areas to their pre-construction status to the extent practicable. All reclamation will be done in accordance with the terms of the BLM right-of-way grant.

### **3) Phase 2 Clean-up:**

Prior to clean-up operations, the entire C Canyon drainage channel will be inspected by representatives of the various state and federal regulatory agencies and company representatives. It is anticipated that this inspection tour will take place sometime in mid-late April, after all the catchment structures are in place, and after the banks of the drainage channel have had a chance to dry out as part of the emergence of springtime weather. The purpose of this inspection tour is to assess the extent and magnitude of the coal-fines accumulation material, and to map the distribution as part of formulating the final clean-up plan. The accumulations are obviously greater closer to the West Ridge minesite and lessen exponentially downstream. At present there is some discussion among the various agencies that active cleaning techniques may be more appropriate in certain areas of higher concentrations, while passive, non-invasive natural processes may be more appropriate in areas of lesser accumulations. Following the inspection tour, a final consensus determination can then be made as to which areas should be actively cleaned, and which areas may be more suitable for passive cleaning.

The coal-fines accumulations are generally confined to a band along the outer edges of the channel, especially around rocks and other irregularities, where the water velocity is somewhat less. Based on previous preliminary field testing conducted with representatives of DOGM, the most effective method of cleaning would appear to be manual cleaning using soft-bristle household brooms. It is anticipated that the active clean-up would begin at the minesite where the accumulations are greatest, and gradually proceed downstream. By utilizing the existing

Haddock, Studenka  
March 27, 2009  
Page 3

mine discharge water in the channel, which flows at a consistent rate of about 800 gpm, the accumulations can be easily dislodged from the edge of the channel by a gentle swirling action of the brooms. The streamflow should then be sufficient to transport the dislodged material downstream to the nearest catchment structure, in this case Site A. It is possible that certain stretches of channel may require several passes of broom sweeping to be cleaned effectively. After the upper segment is cleaned, work will proceed downstream.

It is hoped that a majority of the material will be captured at the first (up-stream) catchment site through a combination of settling in the stilling basin and filtration in the excelsior log sediment traps. As the stilling basin fills up and/or as the excelsior logs become loaded, upstream cleanup efforts will be temporarily halted until the basin has been cleaned out and/or the loaded logs have been replaced with new ones. The operation will be finely co-ordinated to make sure that the rate of cleaning does not overwhelm the ability of the catchment units to process the suspended material. As mentioned previously, the collected material from the basins and the sediment logs will be hauled offsite to an approved disposal facility.

The clean-up operations will be conducted under complete oversight from the various regulatory agencies, at least initially when the operating parameters of the clean-up are being developed. Various test sections will be evaluated to determine the effectiveness of the in-stream clean-up techniques within differing channel morphologies, as well as the effectiveness of the catchment structures to capture the coal-fines for ultimate disposal. Alterations and adjustments to the cleanup plan can be made based on the results of the test sections.

The coal-fines have a variable size distribution so that the larger particles should be more easily captured through settling and filtration. A more problematic situation may involve the ultra-fine particles that naturally stay in suspension longer and may be more difficult to capture. Fortunately, since the heaviest cleanup will be focused closest to the mine, there will be a total of four catchment unit poised to assist in capturing the material. Material not contained at Site A can hopefully be contained at site C, and/or perhaps Site E, or ultimately at Site F, as the cleanup proceeds downstream. It is impossible to tell at this time how well the ultra-fine material can ultimately be contained, but agency representatives will be constantly apprised of the status of the effort, and condition-specific measures and adjustments can be made as warranted.

It is anticipated that cleanup operations will begin in late April or early May, after the interagency tour, and after a consensus has been reached as to the areas of active vs. passive treatment described above. This would allow cleanup operations to proceed through the remaining summer months, and allow for final reclamation to be completed in the September/October timeframe.

#### **4) Sediment Pond Contingency Plan:**

As stated previously, the biggest uncertainty at this time is how well the ultra-fine material can

Haddock, Studenka  
March 27, 2009  
Page 4

be contained and captured for disposal. As a final method of fines treatment, West Ridge Resources commits to a contingency plan of constructing a series of sediment ponds. If needed, these ponds would be constructed on SITLA land in Section 36 (near Site E) as shown on the attached location map. This installation would consist of a series (four or more) of large, shallow settling ponds located on the flats south of the drainage channel, and is generally depicted on the attached drawing. Water would be taken out of the channel through a gravity-flow diversion structure installed in the drainage channel, and would be conveyed to the ponds through a set of large transport pipes. The ponds would each be approximately 60' wide, up to 300' long, and about 4'-6' deep. Diverted stream water would slowly circulate from one pond to the next, and would ultimately discharge back into the channel. The treated discharge water would be subject to a UPDES permit issued by DWQ. The ponds could be equipped with internal filtering structures (filter cloth, excelsior logs, straw bales, or some combination thereof) to assist the capture of ultra-fine particles. The pond inlet could also be equipped with a chemical injection system to allow flocculant and/or coagulant agents to be utilized as part of the capture system if needed. It is hoped that the combination of settling, filtration and chemical treatment would be adequate to reduce the ultrafines to acceptable levels. The diversion structure would be designed so that only mine discharge clean-up water would be routed into the ponds for treatment, while flash-flow runoff from summer thunder storm events would be allowed to bypass the inlet and not report to the ponds.

It should be noted that this sediment pond facility would be constructed only if the regulatory agencies determined that such a facility is needed based on the results of the initial clean up effort. The company is proceeding with the necessary permits and approvals for this facility so that, in the event it is determined to be needed as a final part of the clean-up effort, all approvals will be in place at the time, and construction can start immediately. In this manner, the sediment ponds should be able to be in place and operational in time to allow the clean-up project to be completed by late summer or early fall. A Special Use Lease application for this facility was submitted to SITLA on March 3<sup>rd</sup>, and a Channel Alteration permit application will be submitted to DWRights in the near future for the inlet structure.

As with the Phase 1 catchment structures, the sediment pond facility (if constructed) would be a temporary installation and would be utilized only for the duration of the clean-up operation, after which it will be reclaimed. Because the facility would be installed as part of abating the violation, rather than as part of the long-term mining operation, the site will not require DOGM approval or amendment to the existing West Ridge Mine SMCRA permit. However, if constructed, the sediment pond facility will be installed as per the current DOGM guidelines, as well as any other SITLA requirements, regarding topsoil removal and storage, interim sediment control, reclamation, etc., to make certain that all environmental protection performance standards are complied with.

Haddock, Studenka  
March 27, 2009  
Page 5

**5) Status Reports:**

West Ridge proposes to provide updates to all relevant state and federal agencies regarding the status of permitting issues, construction progress, and anticipated near-term actions regarding the Phase 1 Containment and Phase 2 Clean-up operations, as well as plans, schedules, and progress updates on efforts being taken in the underground mining operations designed to bring the TSS and iron levels of the mine discharge water into long-term UPDES compliance. These updates would be provided every two weeks, or as often as needed, to make sure that all parties are kept informed and updated about the progress of the mitigation effort.

**6) Underground Water Treatment:**

Much of the mitigation plan involves activities within the underground mining operation. These actions must be co-ordinated with the overall development plans of the mine production. Because of the degree of variability inherent in the day-to-day mining operations, the best source of updates should come directly from the mine engineer and superintendent responsible for the underground mine planning. Therefore, the company proposes to submit a separate mine update from the operations managers as part of the regular status reports. Their initial report is attached to this submittal.

It should be noted that the company has already initiated a short-term re-routing of the underground piping system to enhance the retention time. Also, the Nalco Chemical Co. representative, who provides the chemicals for treating the iron, suggested that by increasing the application rate of the flocculant, that it should help drop out the TSS as well. Between the pipe rerouting and the increased chemical application, both the iron and TSS levels of the mine discharge water have come back into compliance levels from over the past two months (February and March, 2009) as shown on the attached water quality graph.

**7) Attachments:**

- |   |           |
|---|-----------|
| a) Plan Narrative, i.e., this letter        | Exhibit 1 |
| b) Copies of DOGM and DWQ Violations        | Exhibit 2 |
| c) Location Map                             | Exhibit 3 |
| d) Typical Catchment Structure<br>(Phase 1) | Exhibit 4 |

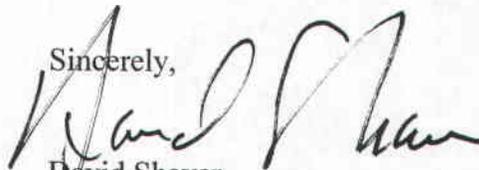
**COPY**

Haddock, Studenka  
March 27, 2009  
Page 6

- |  |           |
|--|-----------|
| e) Sediment Pond Layout (generalized view)<br>(Phase 2)                    | Exhibit 5 |
| f) Laboratory Analysis of Coal-Fines Material                              | Exhibit 6 |
| g) Mine Discharge Water Quality Graph                                      | Exhibit 7 |
| h) Underground Mine Status Report  | Exhibit 8 |
| i) Underground Mine Status Report Drawings<br>(Six each separate drawings) | Exhibit 9 |

Please note that the intent of this submittal is that it be reviewed by all parties involved, and can be altered as needed to make sure it comports to the general plan that was agreed upon earlier by the various state and federal regulatory and land management agencies. Once we have received everyone's comments and concurrence we will consider it a firm plan going forward. Copies of all approved rights-of-way, permits, and agreements from BLM, SITLA and DWRights are available upon request. If you have questions or comments please contact me at (435) 888-4017.

Sincerely,



David Shaver  
Resident Agent

cc: Mike Robinson, BLM  
Kurt Higgins, SITLA  
Marc Stilson, DWRights

EXHIBIT 2

COPIES OF DOGM and DWQ  
VIOLATIONS



**Citation for Non-Compliance  
Utah Coal Regulatory Program**

1594 West North Temple, Salt Lake City, UT 84114  
Phone: (801) 538-5340 Fax: (801) 359-3940

**Citation #:** 10033

**Permit Number:** C0070041

**Date Issued:** 01/29/2009

**NOTICE OF VIOLATION**       **CESSATION ORDER (CO)**       **FAILURE TO ABATE CO**

Permittee Name: West Ridge Resources	Inspector Number and ID: 39 SDEMCZAK
Mine Name: West Ridge Mine	Date and Time of Inspection: 01/27/2009 10:00 am
Certified Return Receipt Number: Taken to mine	Date and Time of Service: 01/29/2009 10:00 am

**Nature of condition, practice, or violation:**  
Permittee added additional contributions of sediment to stream flow or to runoff outside the permit area. The permittee did not retain sediment/coal fines within the disturbed area. Coal fines were throughout the stream channel below the mine for a minimum of 2.5 miles.

**Provisions of Act, regulations, or permit violated:**  
R645-301-742.111, R645-301-742.112, R645-301-742.121, R645-301-742.210, R645-301-750, and R645-301-751

**This order requires Cessation of ALL mining activities. (Check box if appropriate.)**

<input type="checkbox"/> Condition, practice, or violation is creating an imminent danger to health or safety of the public.	<input type="checkbox"/> Permittee is/has been conducting mining activities without a Permit.
<input type="checkbox"/> Condition, practice, or violation is causing or can reasonably be expected to cause significant, imminent environmental harm to land, air, or water resources.	<input type="checkbox"/> Permittee has failed to abate Violation(s) included in <input type="checkbox"/> Notice of Violation or <input type="checkbox"/> Cessation Order within time for abatement originally fixed or subsequently extended.

**This order requires Cessation of PORTION(S) of mining activities.**

Mining activities to be ceased immediately: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Abatement Times (if applicable).

**Action(s) required:**  Yes  No

- 1) Immediately prevent, to the extent possible additional contributions of sediment to the stream flow.
- 2) Identify areas impacted by coal fines and submit information including chemical analysis of parameters outlined in Table 3 & 7 of the Division's Soil and Overburden Guidelines to the Division by February 28, 2009.
- 3) Submit a mitigation /clean-up plan and time schedule to DOGM and receive approval by March 27, 2009.
- 4) Submit a detail plan to prevent additional sediment to stream flow from happening again by March 27, 2009.
- 5) Clean-up Channel and reclaim all affected area by April 28,2009.

Dave Shayer  
(Print) Permittee Representative  
[Signature] 1/29/09  
Permittee Representative's Signature - Date

STEPHEN J. DEMCZAK  
(Print) DOGM Representative  
[Signature] 1/29/09  
DOGM Representative's Signature - Date

**SEE REVERSE SIDE Of This Form For Instructions And Additional Information**

**IMPORTANT – READ CAREFULLY**

Pursuant to the Utah Coal Mined Land Reclamation Act, Utah Code Ann. § 40-10-1 et. seq. (Act), the undersigned authorized representative of the Division of Oil, Gas, and Mining (DOGGM) has conducted an inspection and found that a Notice of Violation or Cessation Order must be issued.

This order shall remain in effect until it is modified, terminated or vacated by written notice of an authorized representative of DOGGM.

**1. PENALTIES.**

**Proposed assessment.** DOGGM assesses fines based upon a proposed recommendation by an assessment officer. If there is additional information you wish DOGGM to consider regarding the cessation order and proposed fine, please submit that to DOGGM within *15 days of the date this notice or order is served on you or your agent*. Such information will be used by the assessment officer in determining facts surrounding the violation(s) and amount of penalty. Once DOGGM has determined the proper penalty, it will serve the proposed assessment on you or your agent, no later than 30 days of the issuance of this notice or order. See Utah Admin. Code R645-401-600 et. seq.

The penalty will be final unless you or your agent file, within 15 days of receipt of the proposed assessment, a written request for an informal hearing before the assessment officer.

**Assessment.** For each violation included in this notice, a penalty of up to \$5,000 may be assessed for each separate day the violation continues.

If you fail to abate any violation within the time set for abatement or for meeting any interim step, you will be assessed an additional minimum penalty of \$750 for each day of continuing violation beyond the time set for abatement. You will be issued a Cessation Order requiring cessation of surface coal mining operations or the portion of the operations relevant to the violation.

**2. INFORMAL PUBLIC HEARING.**

On the reverse side of this page, an authorized representative has made a finding as to whether or not this notice requires cessation of mining. If this order or notice requires cessation of mining, expressly or in practical effect, you may request that an informal public hearing be held at or near the mine site. If you wish an informal public hearing be held, please contact an authorized representative from DOGGM. See Utah Admin. Code R645-400-350 et seq. Once an informal public hearing is scheduled, you will be notified of the date, time, and location of the hearing.

If this notice requires cessation of mining, it will expire within 30 days from the date you are notified unless an informal public hearing is held or waived, or the condition, practice, or violation is abated within the 30-day period.

**3. FORMAL REVIEW AND TEMPORARY RELIEF.**

You may appeal this notice or order to the Board of Oil, Gas, and Mining by submitting an application for hearing within 30 days of receipt of this notice or order. See Utah Admin. Code R645-300-164.300. Please submit the application for hearing to:

Secretary  
Board of Oil, Gas, and Mining  
1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801

If applying for a formal board hearing, you may submit with your petition for review a request for “*temporary relief*” from this notice. Procedures for obtaining a formal board hearing are contained in the Board’s Rules of Practice and Procedure and in Utah Admin. Code R645-401-800 et. seq.

**4. EFFECT ON PERMIT.**

The permit may be suspended or revoked if it is determined that a pattern of violations of the Act, regulations or permit conditions exists, and that the violations were caused by an unwarranted or willful failure to comply.

For further information, consult Utah Code Ann. § 40-10-20 through 40-10-23 and Utah Admin. Code R645-400-300 et. seq. and R645-401 et. seq., or contact the Division of Oil, Gas, and Mining at (801) 538-5340.



State of Utah

JON M. HUNTSMAN, JR.  
Governor

GARY HERBERT  
Lieutenant Governor

Department of  
Environmental Quality

William J. Sinclair  
Acting Executive Director

DIVISION OF WATER QUALITY  
Walter L. Baker, P.E.  
Director

Water Quality Board  
Joe Piccolo, *Chair*  
Paula Doughty, *Vice-Chair*  
David F. Echols  
Merritt K. Frey  
Darrell H. Mensel  
Leland J. Myers  
William J. Sinclair  
Jay Ivan Olsen  
Gregory L. Rowley  
Steven P. Simpson  
Daniel C. Snarr  
Phil Wright  
Walter L. Baker,  
*Executive Secretary*

February 10, 2009

**CERTIFIED MAIL**  
**(Return Receipt Requested)**

Mr. Bruce Hill, President & CEO  
UtahAmerican Energy, Inc. (UEI) &  
West Ridge Resources, Inc.  
P.O. Box 910  
East Carbon, UT 84520

Dear Mr. Hill:

Subject: Notice of Violation and Order, Docket No. I09-01, UPDES Permit No. UT0025640  
West Ridge Resources, Inc., West Ridge Mine.

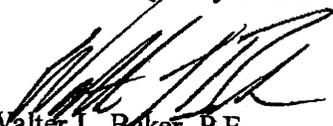
Enclosed is the Notice of Violation and Order (Order), Docket Number I09-01, issued to you by the Utah Water Quality Board and Division of Water Quality (DWQ). This Order has been issued in response to continued violations of the total iron and total suspended solids effluent requirements of your UPDES Permit for the above referenced facility.

A response is required within 30 calendar days of your receipt of the Order. After receiving your response DWQ will contact you with a proposed settlement agreement or to arrange a settlement meeting. Your continued cooperation with resolving this matter is appreciated.

If you have any questions or wish to discuss anything related to the Order, please contact Jeff Studenka of this office at (801) 538-6779, or by e-mail at [jstudenka@utah.gov](mailto:jstudenka@utah.gov).

Sincerely,

Utah Water Quality Board

  
Walter L. Baker, P.E.  
Executive Secretary

WLB: JAS: st

288 North 1460 West • Salt Lake City, UT  
Mailing Address: P.O. Box 144870 • Salt Lake City, UT 84114-4870  
Telephone (801) 538-6146 • Fax (801) 538-6016 • T.D.D. (801) 536-4414

[www.deq.utah.gov](http://www.deq.utah.gov)

Printed on 100% recycled paper

<p><b>IN THE MATTER OF WEST RIDGE RESOURCES, INC. 794 North "C" Canyon Road, PO Box 910 East Carbon, Utah 84520</b></p>	<p><b>NOTICE OF VIOLATION AND ORDER</b></p> <p><b>DOCKET NUMBER I09-01</b></p>
---	--

**A. STATUTORY AUTHORITY**

This **NOTICE OF VIOLATION and COMPLIANCE ORDER (NOV/CO)** is issued by the **UTAH WATER QUALITY BOARD (the BOARD)** under the Utah Water Quality Act, as amended, Utah Code Ann. §§ 19-5-101 to 19-5-123 (the **ACT**), including Utah Code Ann. §§ 19-5-104, 19-5-106, 19-5-111 and 19-5-115. This **NOV/CO** is also issued in accordance with the Utah Administrative Procedures Act, Utah Code Ann. §§ 63-46b-0.5 to 63-46b-23. The **BOARD** has delegated to the Executive Secretary of the **BOARD (Executive Secretary)** authority to issue such **NOTICES AND ORDERS** in accordance with 19-5-106(8) of the Utah Code.

**B. APPLICABLE STATUTORY AND REGULATORY PROVISIONS**

1. It is unlawful for any person to discharge a pollutant into waters of the state, unless the discharge is authorized by permit, per Utah Code Ann. § 19-5-107(1)(a). Waters of the State means "all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state.", per Utah Code Ann. § 19-5-102(18)(a).
2. Utah Administrative Code R317-8-4.1(1)(a) requires compliance with all conditions of said permit cited below and states that any permit noncompliance is a violation of the Act and is therefore grounds for enforcement action.
3. Part I.D. of the **WEST RIDGE RESOURCES, INC.** Utah Pollutant Discharge Elimination System (UPDES) permit # UT0025640 requires monthly monitoring of effluent flows, total suspended solids (TSS), total iron, oil & grease, pH, and total dissolved solids (TDS).
4. Part I.D. of the **WEST RIDGE RESOURCES, INC.** UPDES permit # UT0025640 requires the effluent concentrations to comply with the following provisions:
  - a. TSS monthly average shall not exceed 25 mg/L.
  - b. TSS weekly average shall not exceed 35 mg/L.
  - c. TSS daily maximum shall not exceed 70 mg/L.

- d. Total iron daily maximum shall not exceed 1.3 mg/L.
- e. Oil and grease daily maximum shall not exceed 10 mg/L.
- f. The pH daily minimum shall not be less than 6.5 standard units.
- g. The pH daily maximum shall not be more than 9.0 standard units.
- h. TDS daily maximum shall not exceed 2000 mg/L.

**C. FINDINGS OF FACT**

1. **WEST RIDGE RESOURCES, INC.** (hereinafter **WEST RIDGE**) owns and operates a bituminous coal underground mining facility located northwest of East Carbon City, in Carbon County, Utah.
2. **WEST RIDGE** was issued UPDES Permit # UT0025640 on May 1, 2006 that was subsequently modified on August 15, 2007, which allows and controls discharge from the industrial facility.
3. Effluent samples not meeting permit requirements, as reported by **WEST RIDGE** on Discharge Monitoring Reports (DMRs) for outfall 002, are summarized in the following table:

Month & Year	Total Iron (mg/L)	TSS (mg/L)
February 2008	1.46	103
May 2008	1.314	no exceedence
July 2008	no exceedence	27
September 2008	1.361	26
October 2008	no exceedence	29
December 2008	1.531	45
January 2009	1.824	53

**D. VIOLATIONS**

Based on the foregoing Findings of Fact, **WEST RIDGE** has violated the following:

1. Utah Code Ann. § 19-5-107(1)(a) for discharging "...a pollutant into waters of the state or to cause pollution which constitutes a menace to public health and welfare, or is harmful to wildlife, fish or aquatic life, or impairs domestic, agricultural, industrial, recreational, or other beneficial uses of water, or placing or causing to be placed any wastes in a location where there is probable cause to believe that it will cause pollution.", as listed and described in the Findings of Fact paragraph C.3.

2. Utah Code Ann. § 19-5-107(1)(a), Utah Administrative Code R317-8-4.1 (1)(a), and Part I.D of UPDES Permit # UT0025640 for violations of effluent discharge limits as listed and described in the Findings of Fact paragraph C.3.

#### **E. ORDER**

Any compliance schedules submitted by the *violator* as required by this Order must be submitted by the deadlines established in this Order and approved by the Executive Secretary. Once compliance schedules are approved by the Executive Secretary, the compliance schedule must be implemented according to the deadlines and requirements established in the compliance schedule(s) and/or this Order. Once approved, timeframes and requirements of any compliance schedule become equally binding on the *violator*.

Based on the foregoing **FINDINGS OF FACT** and **VIOLATIONS**, and pursuant to Utah Code Ann. § 19-5-107 and 19-5-111, **WEST RIDGE** is hereby **ORDERED** to:

1. Immediately initiate all action required to come into compliance with all applicable provisions of the Utah Water Quality Act, the Water Quality rules in the Utah Administrative Code, and UPDES permit # UT0025640.
2. Submit to the **EXECUTIVE SECRETARY**, within 30 days of receipt of this NOV/CO, a report which includes, but is not limited to the following:
  - a. An account of the conditions and events leading up to, and surrounding the un-permitted discharges described above,
  - b. Actions taken to remedy the situation surrounding the un-permitted discharges, and precautions taken to prevent future releases,
  - c. The current condition and status of the releases,
  - d. Any documented or reported damages to the water body or beneficial uses thereof,
  - e. Report any un-permitted discharges not identified above,
  - f. A plan to remediate any residual contaminants or damage from the spill, if any such exist.

#### **F. NOTICE**

This **NOV/CO** is effective immediately. **WEST RIDGE** may contest this **NOV/CO** by submitting a Request for Agency Action in writing as specified in Utah Admin. Code § R317-8-3. Any such Request must be received by the Executive Secretary within 30 days of the **NOV/CO**'s issuance or the **NOV/CO** shall become final.

Compliance with the provisions of this **ORDER** is mandatory. The information requested will be considered in the evaluation of the extent of your compliance with the Water Quality Act and its

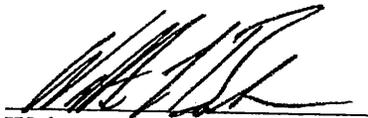
underlying regulations and permit. Failure to respond fully and truthfully, or to adequately justify such failure to respond, may subject **WEST RIDGE** to further civil penalties or criminal fines under Utah Code Ann. § 19-5-115.

All reports required under the Permit must be accompanied by the following certification, which is to be signed in accordance with Utah Administrative Code R317-8-3.4(4): "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

Utah Code Ann. § 19-5-115 provides that violation of the ACT or a related order may be subject to a civil penalty of up to \$10,000 per day of violation. Under certain circumstances of willfulness or gross negligence, violators may be fined up to \$25,000 per day of violation.

Signed this 10<sup>th</sup> day of February, 2009.

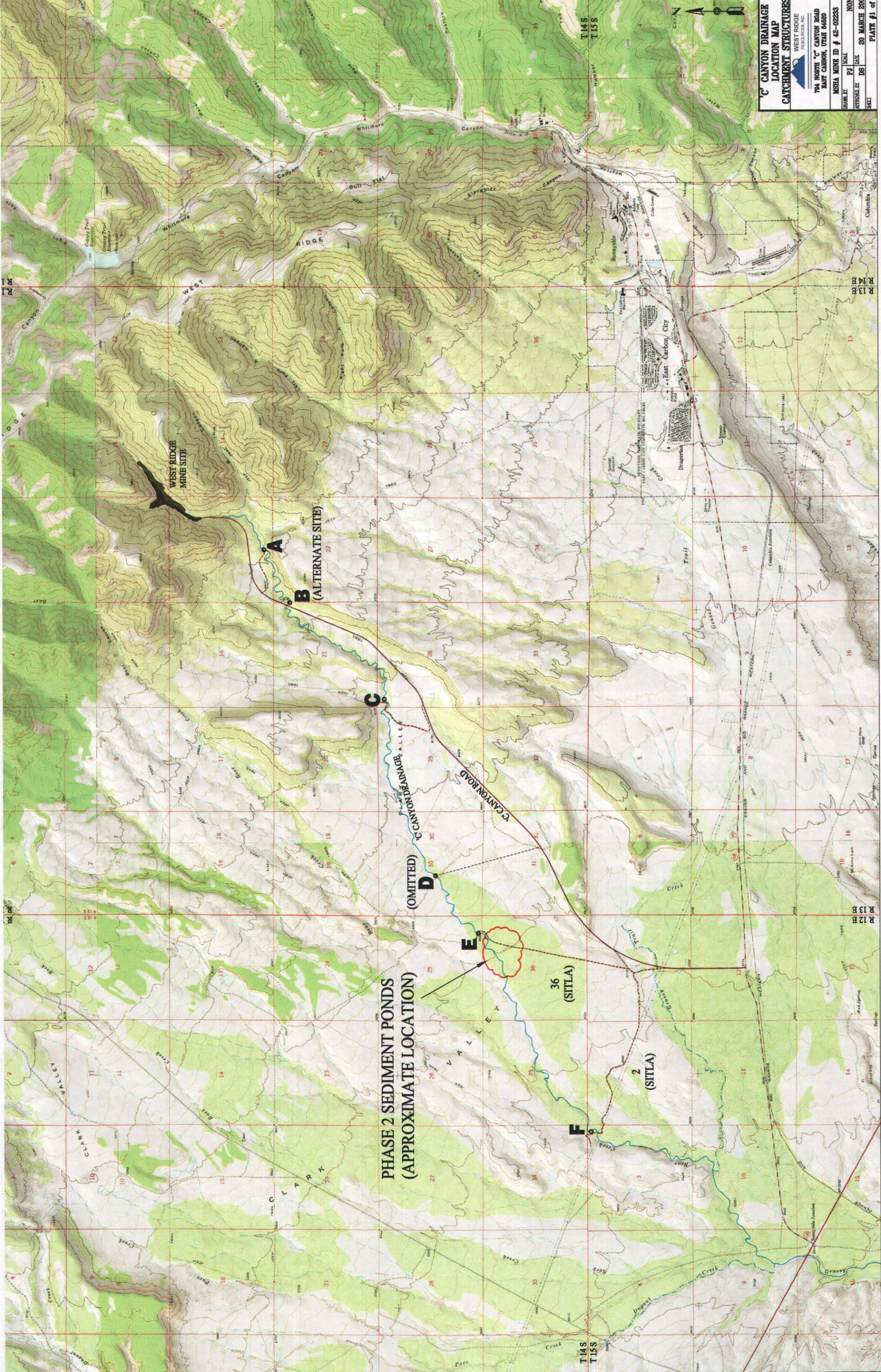
Utah Water Quality Board



Walter L. Baker, P. E.  
Executive Secretary

EXHIBIT 3

LOCATION MAP



**PHASE 2 SEDIMENT PONDS  
(APPROXIMATE LOCATION)**

**'C' CANYON DRAINAGE  
LOCATION MAP  
CATCHMENT STRUCTURES**

WEST RIDGE  
RESOURCES, INC.

704 NORTH 'C' CANYON ROAD  
EAST CARBON, VT 04830

MSHA MINE ID # 42-02253

CREATED BY: PJ  
SCALE: NONE  
REVISION: DS  
DATE: 20 MARCH 2009  
SHEET

PLATE #1 of 1

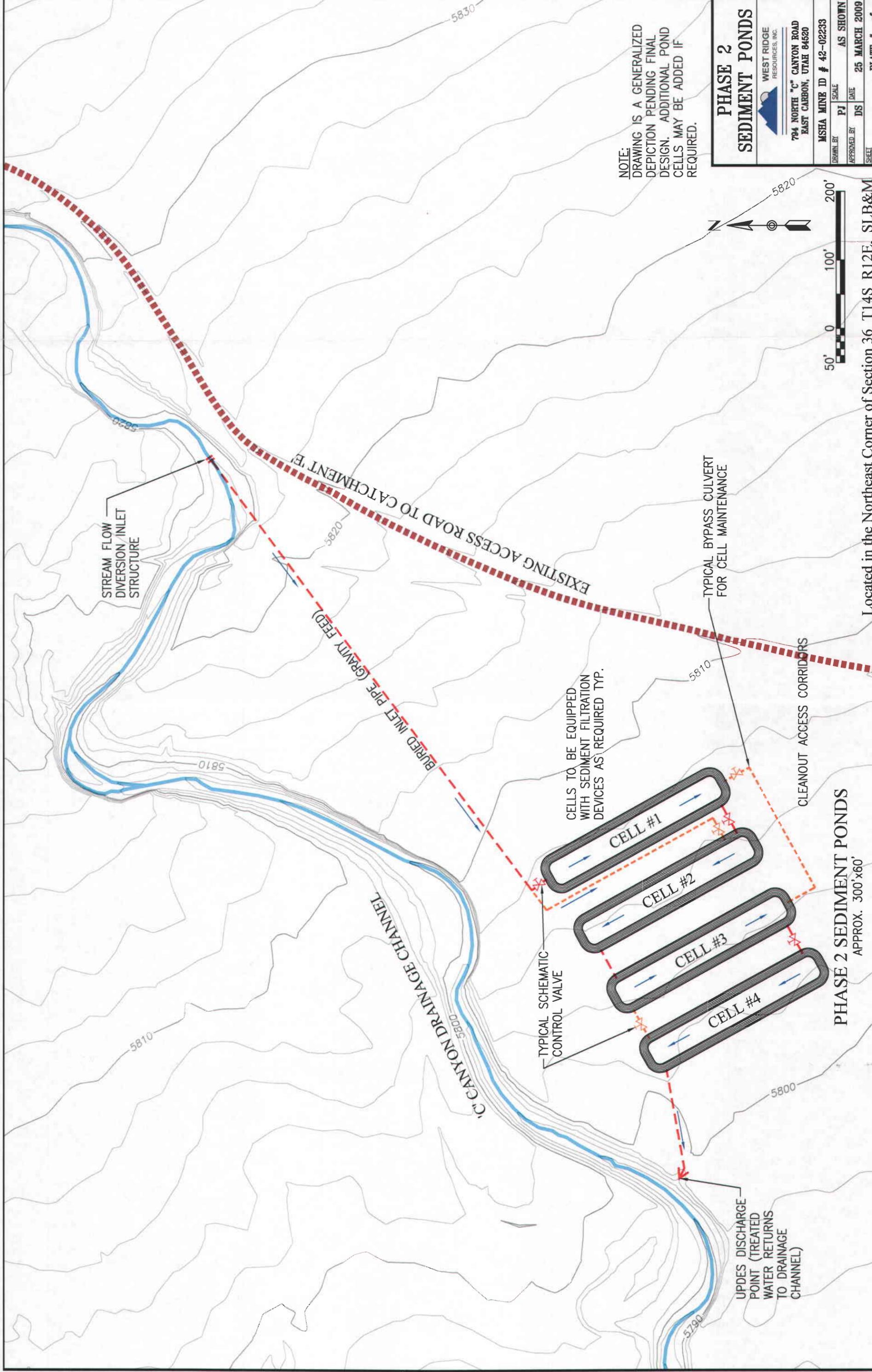
EXHIBIT 4

TYPICAL CATCHMENT STRUCTURE  
(PHASE 1)



EXHIBIT 5

SEDIMENT POND LAYOUT  
GENERALIZED VIEW  
(PHASE 2)



NOTE:  
DRAWING IS A GENERALIZED  
DEPICTION PENDING FINAL  
DESIGN. ADDITIONAL POND  
CELLS MAY BE ADDED IF  
REQUIRED.

<b>PHASE 2 SEDIMENT PONDS</b>	
WEST RIDGE RESOURCES, INC.	
704 NORTH "C" CANYON ROAD EAST CARBON, UTAH 84520	
MSHA MINE ID # 42-02233	
DRAWN BY PJ	SCALE AS SHOWN
APPROVED BY DS	DATE 25 MARCH 2009
SHEET	PLATE # - of -

Located in the Northeast Corner of Section 36 T14S R12E, SLB&M

**PHASE 2 SEDIMENT PONDS**  
APPROX. 300' x 60'

EXHIBIT 6

LABORATORY ANALYSIS  
of  
COAL-FINES ACCUMULATION MATERIAL



**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

February 16, 2009

Karla Knoop  
JBR Environmental Consultants, Inc.  
8160 So. Highland Dr. Stè A-4  
Sandy, UT 84093

463 West 3600 South  
Salt Lake City, Utah  
84115

TEL: (801) 943-4144  
FAX: (801) 942-1852

RE: West Ridge

Dear Karla Knoop:

Lab Set ID: L88902

American West Analytical Labs received 1 sample on 1/28/2009 for the analyses presented in the following report.

All analyses were performed in accordance to National Environmental Laboratory Accreditation Program (NELAP) protocols unless noted otherwise. If you have any questions or concerns regarding this report please feel free to call.

Thank you.

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Approved by: Jose G. Rocha  
Laboratory Director or designee

Report Date: 2/16/2009 Page 1 of 10

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



## INORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: West Ridge

Contact: Karla Knoop

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Lab Sample ID: L88902-01A  
Field Sample ID: **Sludge**  
Collected: 1/28/2009 12:15:00 PM  
Received: 1/28/2009

### TOTAL METALS

463 West 3600 South  
Salt Lake City, Utah  
84115

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Aluminum	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	30	6100 <sup>2</sup>
Antimony	mg/kg-dry	2/12/2009 10:42:44 PM	6020	1.2	1.8
Arsenic	mg/kg-dry	2/12/2009 10:42:44 PM	6020	0.73	11
Barium	mg/kg-dry	2/12/2009 9:34:00 PM	6020	13	280 ~
Beryllium	mg/kg-dry	2/12/2009 10:42:44 PM	6020	0.58	< 0.58
Cadmium	mg/kg-dry	2/12/2009 10:42:44 PM	6020	0.25	< 0.25
Chromium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	3.0	18
Cobalt	mg/kg-dry	2/12/2009 10:42:44 PM	6020	0.39	4.6
Copper	mg/kg-dry	2/12/2009 10:42:44 PM	6020	4.5	15
Iron	mg/kg-dry	2/4/2009 6:19:00 PM	6010B	150	18000 <sup>2~</sup>
Lead	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	15	< 15
Manganese	mg/kg-dry	2/12/2009 9:34:00 PM	6020	12	350 ~
Mercury	mg/kg-dry	2/13/2009 7:52:00 AM	7471A	0.12	< 0.12
Molybdenum	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	12	< 12
Nickel	mg/kg-dry	2/12/2009 10:42:44 PM	6020	5.8	17
Silver	mg/kg-dry	2/12/2009 10:42:44 PM	6020	0.44	< 0.44
Thallium	mg/kg-dry	2/12/2009 10:42:44 PM	6020	1.2	< 1.2
Tin	mg/kg-dry	2/12/2009 10:42:44 PM	6020	1.7	< 1.7
Titanium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	1.5	120
Vanadium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	1.5	10
Zinc	mg/kg-dry	2/12/2009 9:34:00 PM	6020	150	350 ~

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

~ - The reporting limits were raised due to high analyte concentrations.



**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

463 West 3600 South  
Salt Lake City, Utah  
84115

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

February 06, 2009

Karla Knoop  
JBR Environmental Consultants, Inc.  
8160 So. Highland Dr. Ste A-4  
Sandy, UT 84093

TEL: (801) 943-4144  
FAX: (801) 942-1852

RE: West Ridge

Dear Karla Knoop:

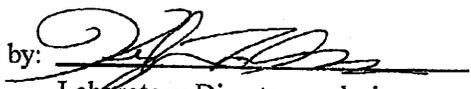
Lab Set ID: L88693

American West Analytical Labs received 1 sample on 1/28/2009 for the analyses presented in the following report.

All analyses were performed in accordance to National Environmental Laboratory Accreditation Program (NELAP) protocols unless noted otherwise. If you have any questions or concerns regarding this report please feel free to call. The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction and/or purging efficiency.

Thank you.

Approved by:

  
Laboratory Director or designee

Report Date: 2/6/2009 Page 1 of 17

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



## INORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: West Ridge

Contact: Karla Knoop

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Lab Sample ID: L88693-01B  
Field Sample ID: Sludge  
Collected: 1/28/2009 12:15:00 PM  
Received: 1/28/2009

### TOTAL METALS

463 West 3600 South  
Salt Lake City, Utah  
84115

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Results
Boron	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	150	< 150
Calcium	mg/kg-dry	2/4/2009 6:19:00 PM	6010B	2900	85000 <sup>2</sup>
Magnesium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	290	12000 <sup>2</sup>
Potassium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	290	1500
Selenium	mg/kg-dry	2/2/2009 8:53:21 PM	6020	2.5	3.7
Sodium	mg/kg-dry	2/4/2009 6:54:00 PM	6010B	290	1200

<sup>2</sup> - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.

~ - The reporting limits were raised due to high analyte concentrations.

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



## INORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: West Ridge

Contact: Karla Knoop

AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES

Lab Sample ID: L88693-01  
Field Sample ID: Sludge  
Collected: 1/28/2009 12:15:00 PM  
Received: 1/28/2009

463 West 3600 South  
Salt Lake City, Utah  
84115

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Analytical Result
Carbonate (As CaCO <sub>3</sub> )	mg/kg-dry	1/29/2009 6:20:00 AM	310.1	29	< 29
Conductivity	µmhos/cm	1/29/2009 5:30:00 AM	9050A	10	870 &
Nitrate (as N)	mg/kg-dry	1/29/2009 3:34:02 PM	353.2	0.029	< 0.029 &
pH @ 25° C	pH Units	1/28/2009 10:30:00 PM	9045D	1.00	7.92
Phosphorus, Total (as P)	mg/kg-dry	2/2/2009 10:59:32 AM	4500(P)F/B	7.4	290 ' 1
Total Volatile Solids	% of TS	2/3/2009 6:30:00 PM	160.4	0.010	16

& - Analysis is performed on a 1:1 DI water extract for soils.

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



## ORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: West Ridge

Contact: Karla Knoop

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Lab Sample ID: L88693-01D  
Field Sample ID: **Sludge**  
Collected: 1/28/2009 12:15:00 PM  
Received: 1/28/2009

Extracted: 1/29/2009  
Analyzed: 1/29/2009 9:59:00 PM

Analysis Requested: TPH by SW8015B

### Analytical Results

**TPH-DRO by 8015B/3545**

463 West 3600 South  
Salt Lake City, Utah  
84115

Units = mg/kg-dry

% Moisture: 66

Dilution Factor = 1

Compound

Reporting Limit

Analytical  
Result

Total Petroleum Hydrocarbon (DRO - C10-  
28)

59

3600

Surr: 4-Bromofluorobenzene

10-169

56.0

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Report Date: 2/6/2009 Page 4 of 17

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

463 West 3600 South  
Salt Lake City, Utah  
84115

February 16, 2009

Karla Knoop  
JBR Environmental Consultants, Inc.  
8160 So. Highland Dr. Ste A-4  
Sandy, UT 84093

TEL: (801) 943-4144  
FAX: (801) 942-1852

RE: Westridge

Dear Karla Knoop:

Lab Set ID: L88921

American West Analytical Labs received 1 sample on 2/12/2009 for the analyses presented in the following report.

All analyses were performed in accordance to National Environmental Laboratory Accreditation Program (NELAP) protocols unless noted otherwise. If you have any questions or concerns regarding this report please feel free to call. The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction and/or purging efficiency.

Thank you.

(801) 263-8686

Toll Free (888) 263-8686

Fax (801) 263-8687

e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Approved by: Jose G. Rocha  
Laboratory Director or designee

Report Date: 2/16/2009 Page 1 of 17

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



# ORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: Westridge

Contact: Karla Knoop

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Lab Sample ID: L88921-01B  
Field Sample ID: Sludge #2  
Collected: 2/12/2009 3:07:00 PM  
Received: 2/12/2009

Extracted: 2/13/2009  
Analyzed: 2/13/2009 2:43:00 PM

Analysis Requested: Semi-Volatiles by SW 8270C

## Analytical Results

## Semivolatile Organics by 8270C/3580A

463 West 3600 South  
Salt Lake City, Utah  
84115

Units = mg/kg-dry  
Dilution Factor = 1

% Moisture: 56

Compound	Reporting Limit	Analytical Result
Benzoic acid	340	< 340
Benzyl alcohol	140	< 140
2-Chlorophenol	110	< 110
2,4-Dichlorophenol	110	< 110
2,4-Dimethylphenol	110	< 110
4,6-Dinitro-2-methylphenol	340	< 340
2,4-Dinitrophenol	340	< 340
2-Methylphenol	110	< 110
3 & 4-Methylphenol	110	< 110
2-Nitrophenol	110	< 110
4-Nitrophenol	340	< 340
4-Chloro-3-methylphenol	140	< 140
Pentachlorophenol	340	< 340
Phenol	110	< 110
2,4,6-Trichlorophenol	110	< 110
2,4,5-Trichlorophenol	110	< 110
Acenaphthene	110	< 110
Acenaphthylene	110	< 110
Aniline	110	< 110
Anthracene	110	< 110
Benzidine	110	< 110
Benz(a)anthracene	110	< 110
Benzo(a)pyrene	110	< 110
Benzo(b)fluoranthene	110	< 110
Benzo(g,h,i)perylene	110	< 110
Benzo(k)fluoranthene	110	< 110
Bis(2-chloroethoxy)methane	110	< 110
Bis(2-chloroethyl)ether	110	< 110
Bis(2-chloroisopropyl)ether	110	< 110

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: L88921-01B  
 Field Sample ID: **Sludge #2**  
 Collected: 2/12/2009 3:07:00 PM  
 Received: 2/12/2009

Extracted: 2/13/2009  
 Analyzed: 2/13/2009 2:43:00 PM

**AMERICAN  
 WEST  
 ANALYTICAL  
 LABORATORIES**

Analysis Requested: Semi Volatiles by SW 8270C

**Analytical Results**

**Semivolatile Organics by 8270C/3580A**

Units = mg/kg-dry

% Moisture: 56

Dilution Factor = 1

Compound	Reporting Limit	Analytical Result
Bis(2-ethylhexyl)phthalate	110	< 110
4-Bromophenyl phenyl ether	110	< 110
4-Chloroaniline	110	< 110
Butyl benzyl phthalate	110	< 110
2-Chloronaphthalene	110	< 110
4-Chlorophenyl phenyl ether	110	< 110
Chrysene	110	< 110
Dibenz(a,h)anthracene	110	< 110
Dibenzofuran	110	< 110
1,2-Dichlorobenzene	110	< 110
1,3-Dichlorobenzene	110	< 110
1,4-Dichlorobenzene	110	< 110
3,3'-Dichlorobenzidine	110	< 110
Diethyl phthalate	110	< 110
Dimethyl phthalate	110	< 110
Di-n-butyl phthalate	110	< 110
2,4-Dinitrotoluene	110	< 110
2,6-Dinitrotoluene	110	< 110
Di-n-octyl phthalate	110	< 110
Fluoranthene	110	< 110
Fluorene	110	< 110
Hexachlorobenzene	110	< 110
Hexachlorobutadiene	110	< 110
Hexachlorocyclopentadiene	110	< 110
Hexachloroethane	110	< 110
Indene	110	< 110
Indeno(1,2,3-cd)pyrene	110	< 110
Isophorone	110	< 110
1-Methylnaphthalene	110	< 110
2-Methylnaphthalene	110	< 110
Naphthalene	110	< 110
2-Nitroaniline	110	< 110
3-Nitroaniline	110	< 110

463 West 3600 South  
 Salt Lake City, Utah  
 84115

(801) 263-8686  
 Toll Free (888) 263-8686  
 Fax (801) 263-8687  
 e-mail: awal@awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: L88921-01B  
Field Sample ID: **Sludge #2**  
Collected: 2/12/2009 3:07:00 PM  
Received: 2/12/2009

Extracted: 2/13/2009  
Analyzed: 2/13/2009 2:43:00 PM

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Analysis Requested: Semi Volatiles by SW 8270C

**Analytical Results**

**Semivolatile Organics by 8270C/3580A**

Units = mg/kg-dry

% Moisture: 56

Dilution Factor = 1

Compound	Reporting Limit	Analytical Result
4-Nitroaniline	110	< 110
Nitrobenzene	110	< 110
N-Nitrosodimethylamine	110	< 110
N-Nitrosodi-n-propylamine	110	< 110
N-Nitrosodiphenylamine	110	< 110
Phenanthrene	110	< 110
Pyrene	110	< 110
Pyridine	340	< 340
Quinoline	110	< 110
1,2,4-Trichlorobenzene	110	< 110
Surr: 2,4,6-Tribromophenol	10-228	62.6
Surr: 2-Fluorobiphenyl	10-179	130
Surr: 2-Fluorophenol	10-178	93.2
Surr: 4-Terphenyl-d14	10-143	87.5
Surr: Nitrobenzene-d5	10-328	83.1
Surr: Phenol-d6	10-218	100

463 West 3600 South  
Salt Lake City, Utah  
84115

(801) 263-8686  
Toll Free (888) 263-8686  
Fax (801) 263-8687  
e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer



# ORGANIC ANALYSIS REPORT

Client: JBR Environmental Consultants, Inc.  
Project ID: Westridge

Contact: Karla Knoop

**AMERICAN  
WEST  
ANALYTICAL  
LABORATORIES**

Lab Sample ID: L88921-01A  
Field Sample ID: Sludge #2  
Collected: 2/12/2009 3:07:00 PM  
Received: 2/12/2009

Analyzed: 2/14/2009 7:06:00 PM

Analysis Requested: 8260B/5030B

## Analytical Results

## VOCs (AWAL) by GC/MS 8260B

463 West 3600 South  
Salt Lake City, Utah  
84115

Units =  $\mu\text{g}/\text{kg-dry}$

Dilution Factor = 50

% Moisture: 56

Compound	Reporting Limit	Analytical Result
Dichlorodifluoromethane	230	< 230
Chloromethane	570	< 570
Vinyl chloride	110	< 110
Bromomethane	570	< 570
Chloroethane	230	< 230
Trichlorofluoromethane	230	< 230
1,1-Dichloroethene	230	< 230
1,1,2-Trichloro-1,2,2-trifluoroethane	230	< 230
Acetone	1100	< 1100
Carbon disulfide	230	< 230
Methyl Acetate	570	< 570
Methylene chloride	570	< 570
trans 1,2-Dichloroethene	230	< 230
Methyl tert-butyl ether	230	< 230
1,1-Dichloroethane	230	< 230
cis 1,2-Dichloroethene	230	< 230
2-Butanone	1100	< 1100
Chloroform	230	< 230
1,1,1-Trichloroethane	230	< 230
Cyclohexane	230	< 230
Carbon tetrachloride	230	< 230
Benzene	230	< 230
1,2-Dichloroethane	230	< 230
Trichloroethene	230	< 230
Methylcyclohexane	230	400
1,2-Dichloropropane	230	< 230
Bromodichloromethane	230	< 230
cis 1,3-Dichloropropene	230	< 230
4-Methyl-2-pentanone	570	< 570

(801) 263-8686

Toll Free (888) 263-8686

Fax (801) 263-8687

e-mail: awal@awal-labs.com

Kyle F. Gross  
Laboratory Director

Jose Rocha  
QA Officer

Report Date: 2/16/2009 Page 5 of 17

All analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. This report is provided for the exclusive use of the addressee. Privileges of subsequent use of the name of this company or any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This company accepts no responsibility except for the due performance of inspection and/or analysis in good faith and according to the rules of the trade and of science.



Lab Sample ID: L88921-01A  
 Field Sample ID: Sludge #2  
 Collected: 2/12/2009 3:07:00 PM  
 Received: 2/12/2009

Analyzed: 2/14/2009 7:06:00 PM

AMERICAN  
 WEST  
 ANALYTICAL  
 LABORATORIES

Analysis Requested: 8260B/5030B

**Analytical Results**

**VOCs (AWAL) by GC/MS 8260B**

Units = µg/kg-dry

% Moisture: 56

Dilution Factor = 50

Compound	Reporting Limit	Analytical Result
Toluene	230	< 230
trans 1,3-Dichloropropene	230	< 230
1,1,2-Trichloroethane	230	< 230
Tetrachloroethene	230	< 230
2-Hexanone	570	< 570
Dibromochloromethane	230	< 230
1,2-Dibromoethane	230	< 230
Chlorobenzene	230	< 230
Ethylbenzene	230	< 230
Xylenes, Total	230	330
Styrene	230	< 230
Bromoform	230	< 230
Isopropylbenzene	230	< 230
1,1,2,2-Tetrachloroethane	230	< 230
1,3-Dichlorobenzene	230	< 230
1,4-Dichlorobenzene	230	< 230
1,2-Dichlorobenzene	230	< 230
1,2-Dibromo-3-chloropropane	570	< 570
1,2,4-Trichlorobenzene	230	< 230
Naphthalene	230	270
Surr: 1,2-Dichloroethane-d4	72-139	101
Surr: 4-Bromofluorobenzene	71-144	97.3
Surr: Dibromofluoromethane	73-126	98.5
Surr: Toluene-d8	72-129	99.6

*The reporting limits were raised due to sample matrix interferences.*

463 West 3600 South  
 Salt Lake City, Utah  
 84115

(801) 263-8686  
 Toll Free (888) 263-8686  
 Fax (801) 263-8687  
 e-mail: awal@awal-labs.com

Kyle F. Gross  
 Laboratory Director

Jose Rocha  
 QA Officer

**West Ridge Solids Discharge  
Initial Analysis**

Analyte	Units	Analytical Result
pH	saturated paste standard units	7.92
Total Organic Carbon	%	16.3
Total Petroleum Hydrocarbons (DRO C10-28)	mg/Kg	3600
Total Volatile Solids	% of total solids	16
Acid Generation Potential	Tons CaCO <sub>3</sub> equivalent/1000 tons	53
Acid Neutralization Potential	Tons CaCO <sub>3</sub> equivalent/1000 tons	293
Acid-Base Potential	Tons CaCO <sub>3</sub> equivalent/1000 tons	240
Neutralization Potential	%	29.3
Sulfur (organic)	%	0.92
Sulfur (pyritic sulfide)	%	0.35
Sulfur (sulfate)	%	0.44
Total sulfur	%	1.71
Specific Gravity (of solids)	Gs	2.052

### DOGM-Requested Table 3 Analytes

Analyte	Units	Analytical Result
pH	saturated paste standard units	7.92
Saturation %	%	96.55
EC <sub>e</sub>	µmhos/cm	870
Sodium	mg/Kg	1200
Potassium	mg/Kg	1500
Magnesium	mg/Kg	12000
Calcium	mg/Kg	85000
Nitrate (as N)	mg/Kg	<0.029
Total Phosphorus (as P)	mg/Kg	290
Particle Size Analysis	% <200 sieve	75.5
CaCO <sub>3</sub>	mg/Kg	<29

**DOGM-Requested Table 7 Analytes**

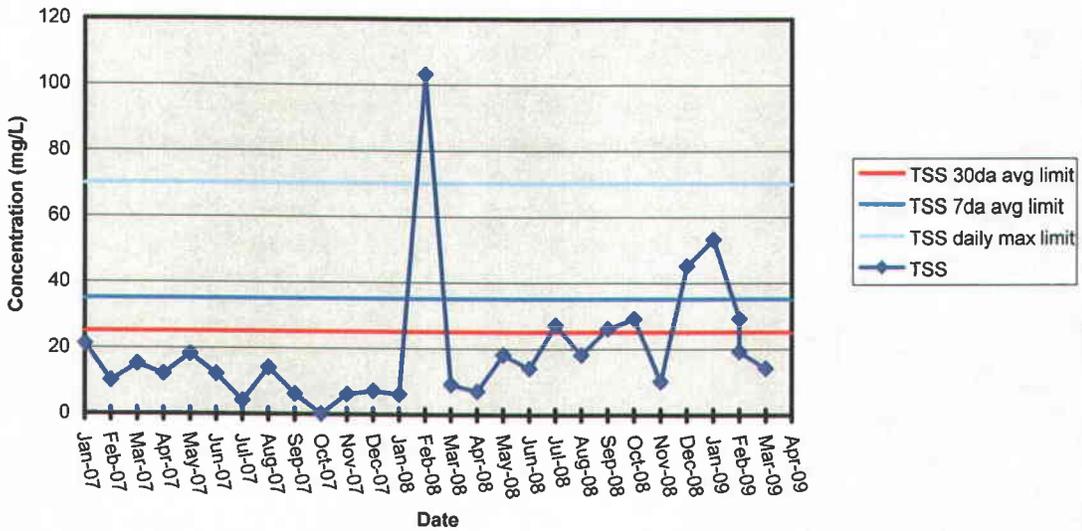
<b>Analyte</b>	<b>Units</b>	<b>Analytical Result</b>
<b>Total Organic Carbon</b>	%	16.3
<b>Selenium</b>	mg/kg	3.7
<b>Boron</b>	mg/kg	<150
<b>Acid Generation Potential</b>	Tons CaCO <sub>3</sub> equivalent/1000 tons	53
<b>Neutralization Generation Potential</b>	Tons CaCO <sub>3</sub> equivalent/1000 tons	293

EXHIBIT 7

MINE DISCHARGE WATER  
QUALITY GRAPH



**West Ridge Mine Discharge (Outfall 002)  
Reported TSS and Permit Limits**



**West Ridge Mine Discharge (Outfall 002)  
Reported Total Iron and Daily Max Permit Limit**

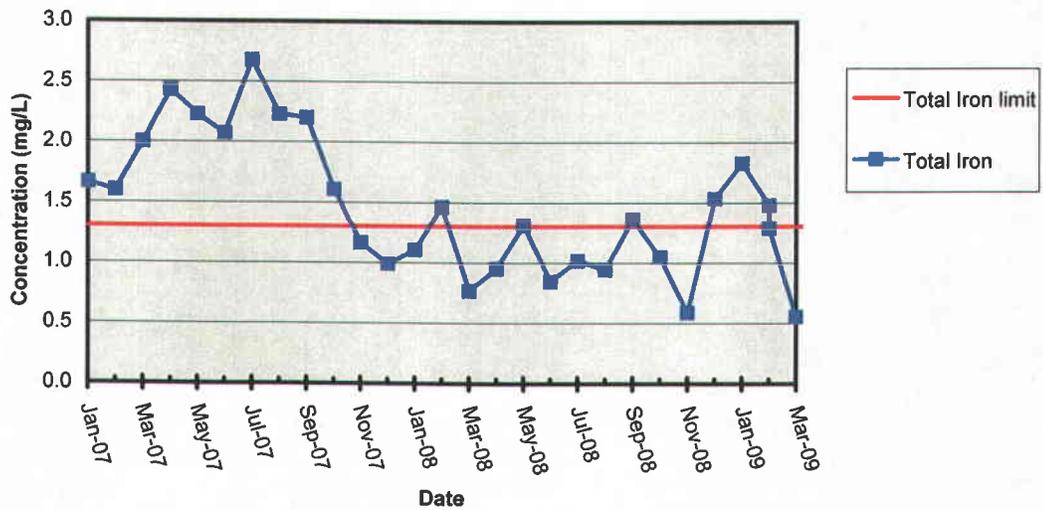
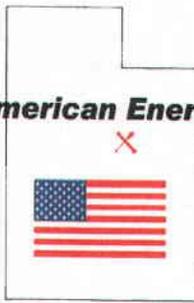


EXHIBIT 8

UNDERGROUND MINE STATUS REPORT  
NARRATIVE

**UtahAmerican Energy, Inc.**



**794 North "C" Canyon Road, East Carbon, Utah 84520**

**P. O. Box 910, East Carbon, Utah 84520**

**Phone: (435) 888-4000**

**Fax: (435) 888-4002**

March 26, 2009

David Shaver  
Westridge Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84542

Dear Mr. Shaver:

This memo is being written to discuss the proposed development of underground methods to provide additional retention time. The proposal includes a short term portion of the project and a long term portion of the project.

The short term proposal is intended to provide a treatment option until District 3 is mined and sealed. Seals are currently in place in Districts 1 and 2. Drainage is currently pumped from the Mains to 4<sup>th</sup> Right in District 1 and picked-up at 5<sup>th</sup> Right to be pumped to the surface. It is felt additional retention time is required to allow sufficient settling of the suspended solids contained in the mine water. A rerouting of the discharges lines has been done to allow for additional retention time.

The rerouting of the discharge lines will include the following: 1. The mine discharge from the Mains will be pumped to 8<sup>th</sup> Right in District 2, 2. The mine discharge pumped into 8<sup>th</sup> Right will be picked-up in 9<sup>th</sup> Right, 3. The 9<sup>th</sup> Right discharge will be pumped to 4<sup>th</sup> Right in District 1, and 4. The mine discharge will be collected at 5<sup>th</sup> Right to be pumped to the surface for discharge. This proposal will allow additional settling time in the area between 8<sup>th</sup> and 9<sup>th</sup> Right.

The short term proposal will be utilized for approximately one (1) month prior to the completion of seal construction in District 3. This portion of the project has been completed and is currently in use.

The long term proposal is being made to allow additional retention time for the remainder of the mine life. This proposal includes the following steps: 1. Mine discharge will be collected in sumps located in the Mains, 2. The water from the sumps in the Mains will be pumped to the 4<sup>th</sup> West or to the 1<sup>st</sup> West, 3. A series of retaining wall will be constructed to route the water, allowing for additional retention time, and 4. The water will either be picked up at 6<sup>th</sup> or 7<sup>th</sup> West for discharge to the surface. Catchments will be

constructed in 6<sup>th</sup> and 7<sup>th</sup> West to allow additional settling in this area. This proposal will be put into service in early April 2009.

The long term proposal is intended to be in use at the mine for the remainder of the mine life. One (1) attachment is included with this proposal, this attachment shows the routing of the lines for the short and long term solutions.

If you require additional information, feel free to call me at (435) 888-4016 or contact us at the address listed above.

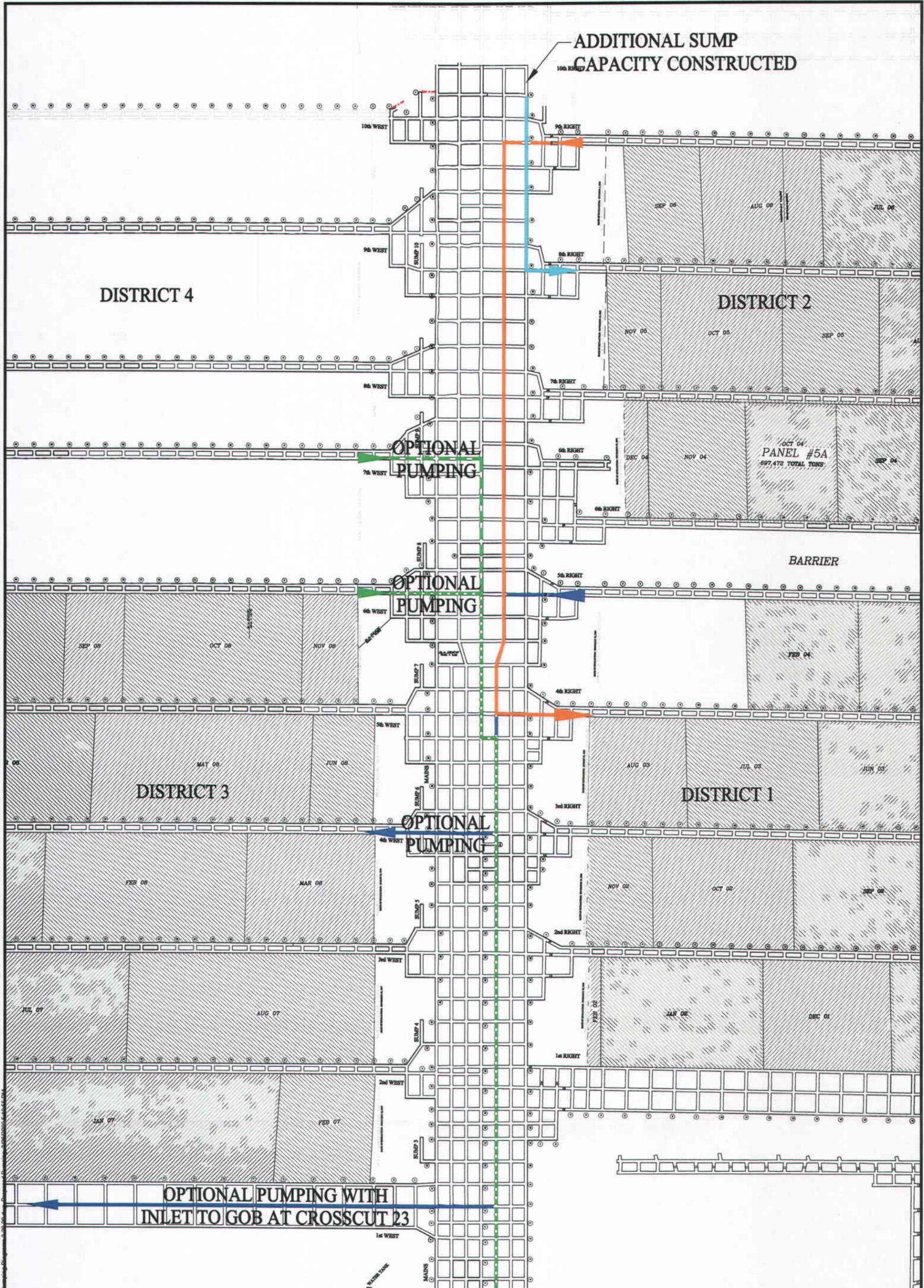
Sincerely,



David W. Hibbs  
Director, Engineering

**EXHIBIT 9**

**UNDERGROUND MINE STATUS REPORT  
DRAWINGS  
(Set of 6 separate drawings)**



**UtahAmerican Energy, Inc.**



794 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520  
 P.O. BOX 910, EAST CARBON, UTAH 84520  
 PHONE: (435) 888-4000 FAX: (435) 888-4002

**PROPOSED MINE WATER PUMPING DIAGRAM**

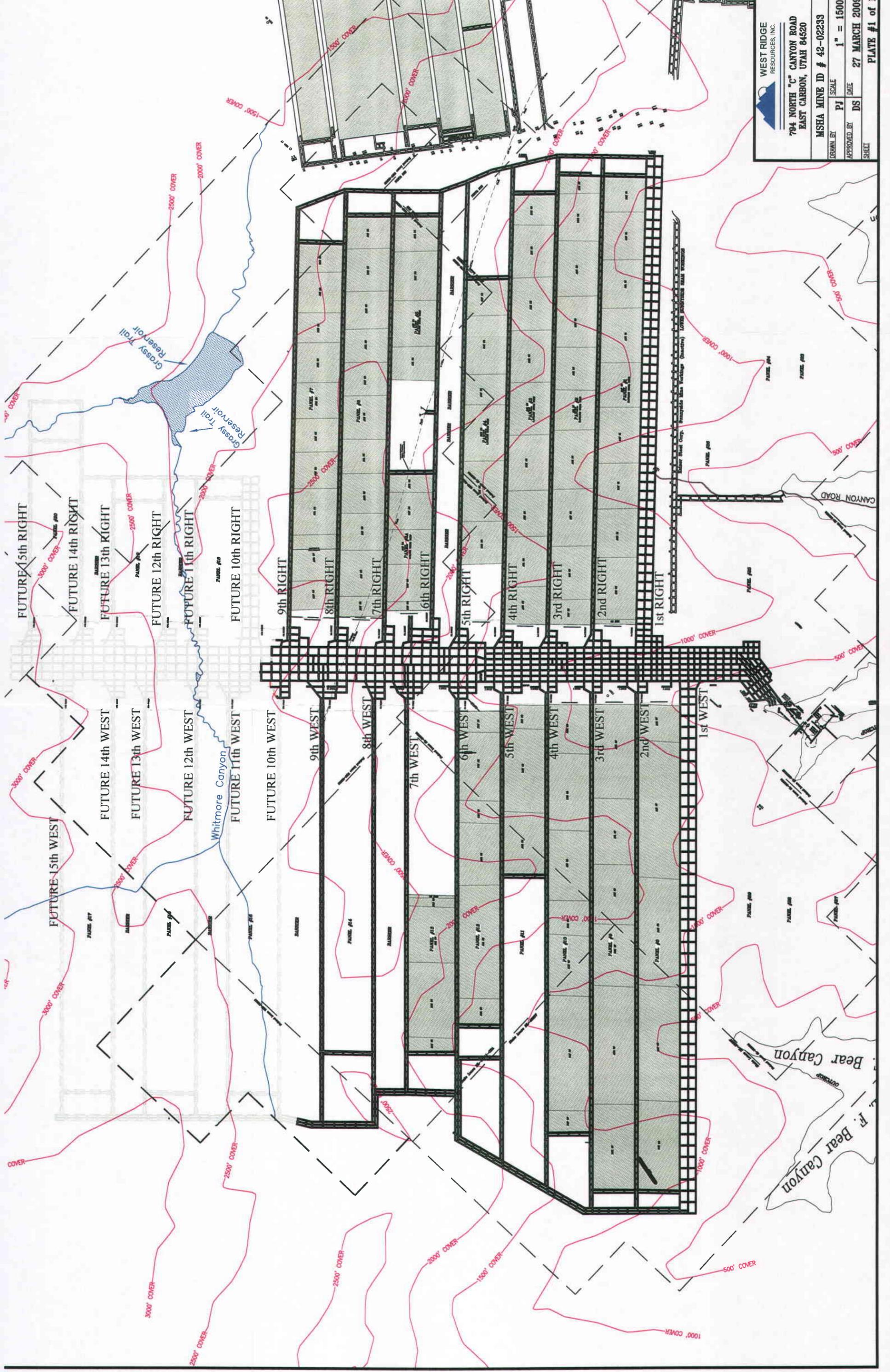
**WEST RIDGE RESOURCES, INC.**

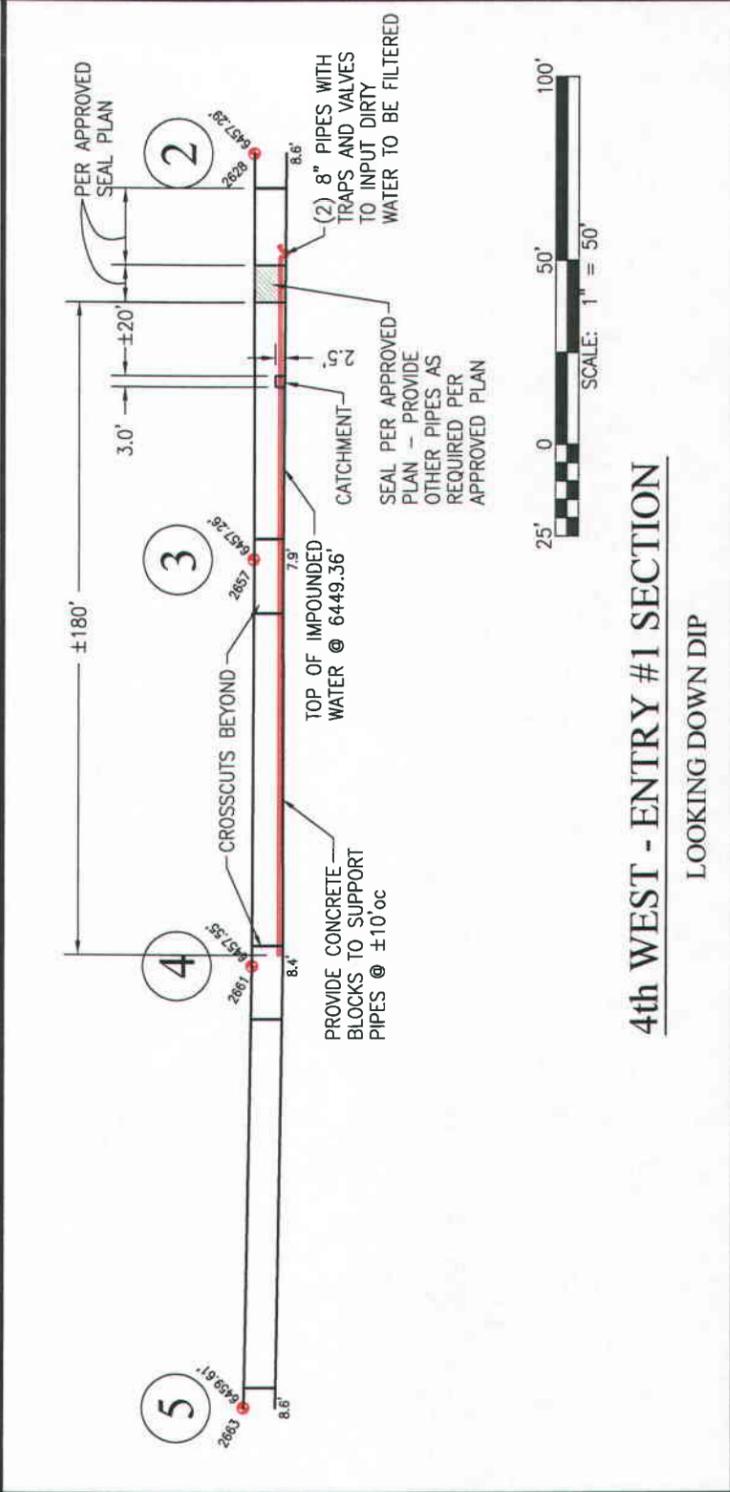
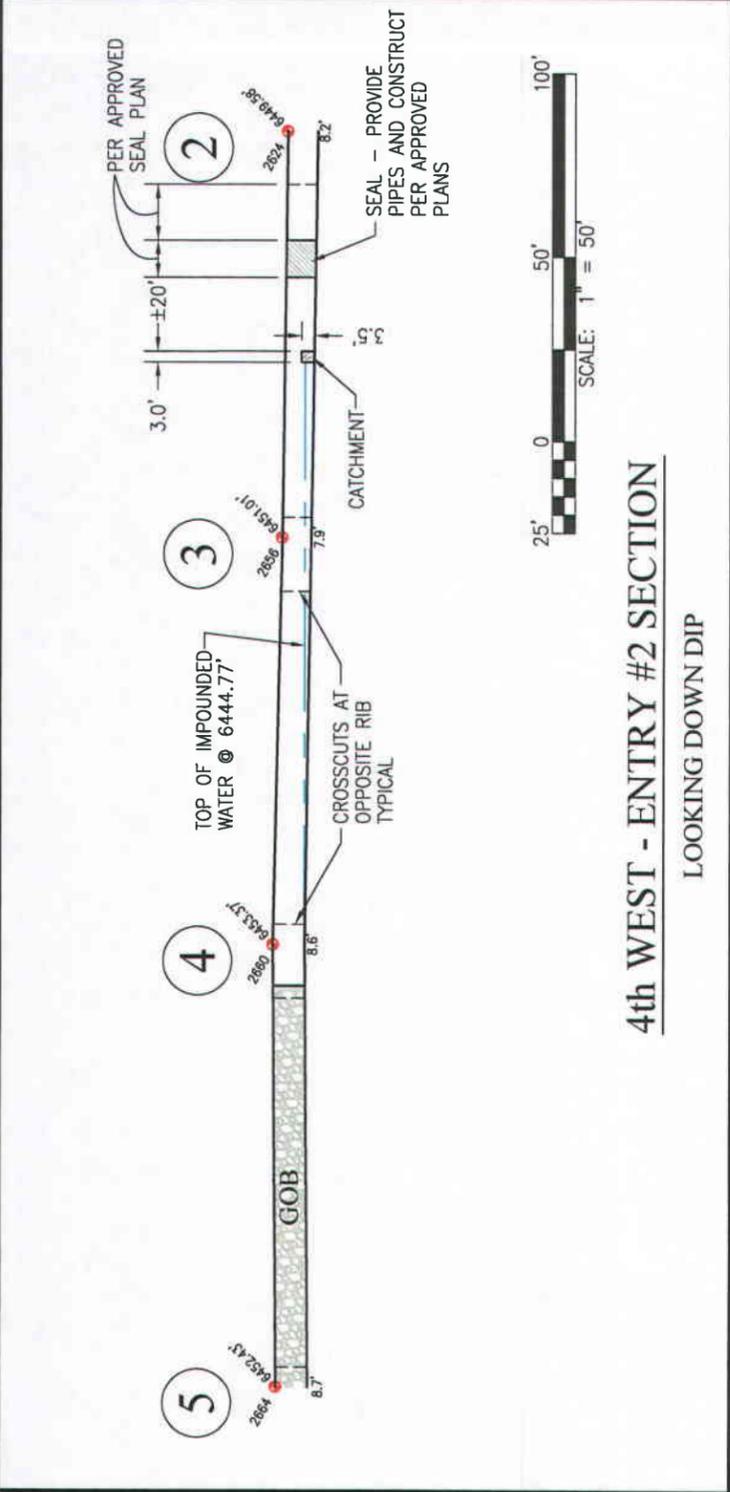
794 NORTH "C" CANYON ROAD  
 EAST CARBON, UTAH 84520

MSHA MINE ID # 42-02233

DRAWN BY	PJ	SCALE	1" = 600'
APPROVED BY	DH	DATE	26 MARCH 2009
SHEET			PLATE #2 of 2

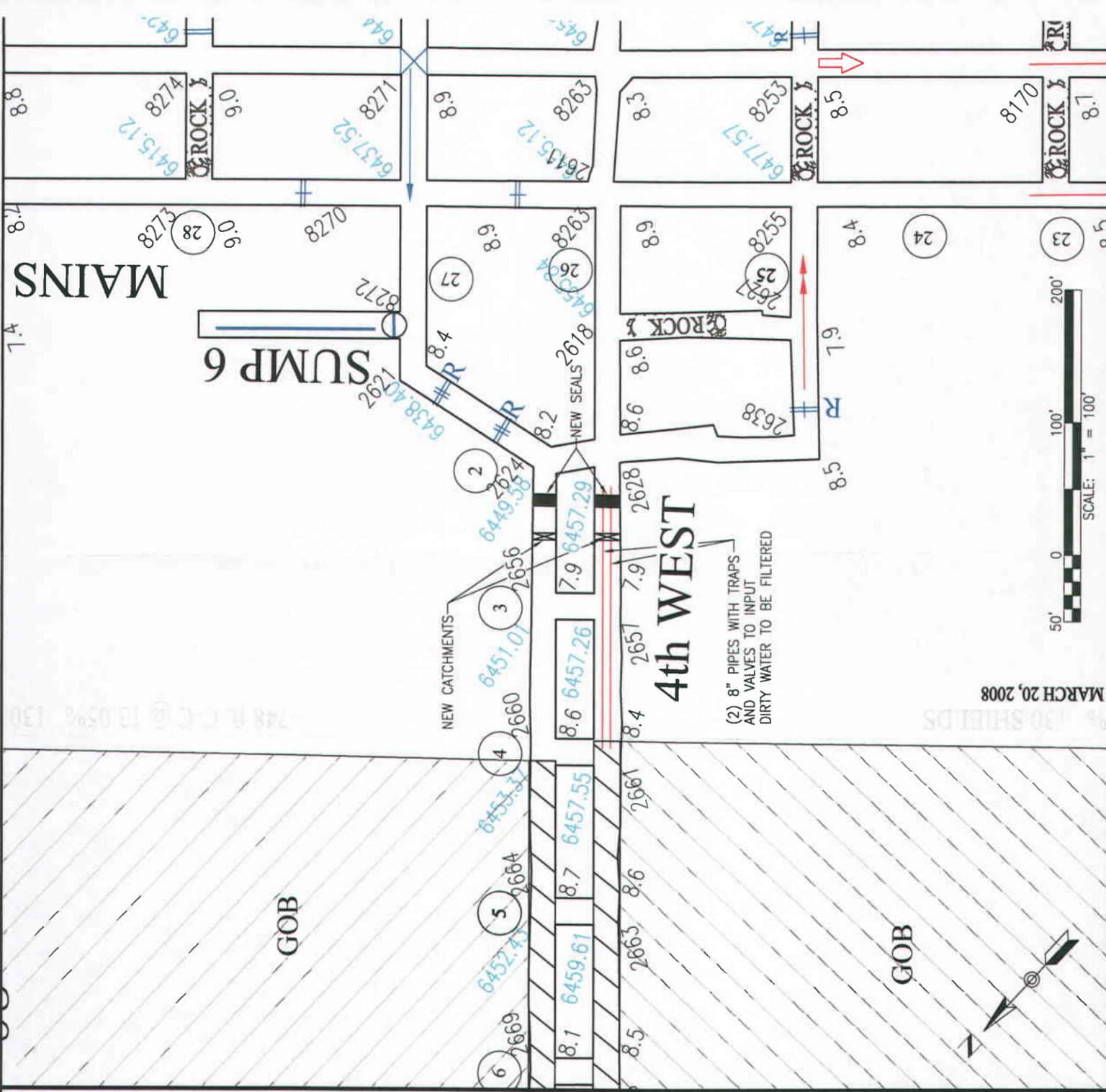

**WEST RIDGE RESOURCES, INC.**  
 794 NORTH "C" CANYON ROAD  
 EAST CARBON, UTAH 84520  
 MSHA MINE ID # 42-02293  
 DRAWN BY PJ SCALE 1" = 1500'  
 APPROVED BY DS DATE 27 MARCH 2009  
 SHEET PLATE #1 of 1





**NOTES:**

1. LOCATE AND CONSTRUCT SEALS PER APPROVED SEAL PLANS. PROVIDE PIPES THROUGH SEALS FOR AIR AIR SAMPLING, DE-WATERING, ETC. PER APPROVED PLANS.
2. IF MORE THAN ONE DRAINAGE PIPE IS INSTALLED IN A SEAL, THE HORIZONTAL DISTANCE BETWEEN THE PIPES MUST NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER. THE DISTANCE BETWEEN THE RIBS AND THE DRAINAGE PIPES SHALL NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER.
3. A LOW WEIR CATCHMENT, NO MORE THAN 12 INCHES HIGH, MUST BE CONSTRUCTED ACROSS THE TOTAL WIDTH OF THE ENTRY ON THE OUTBY SIDE OF EACH SEAL TYPICAL.



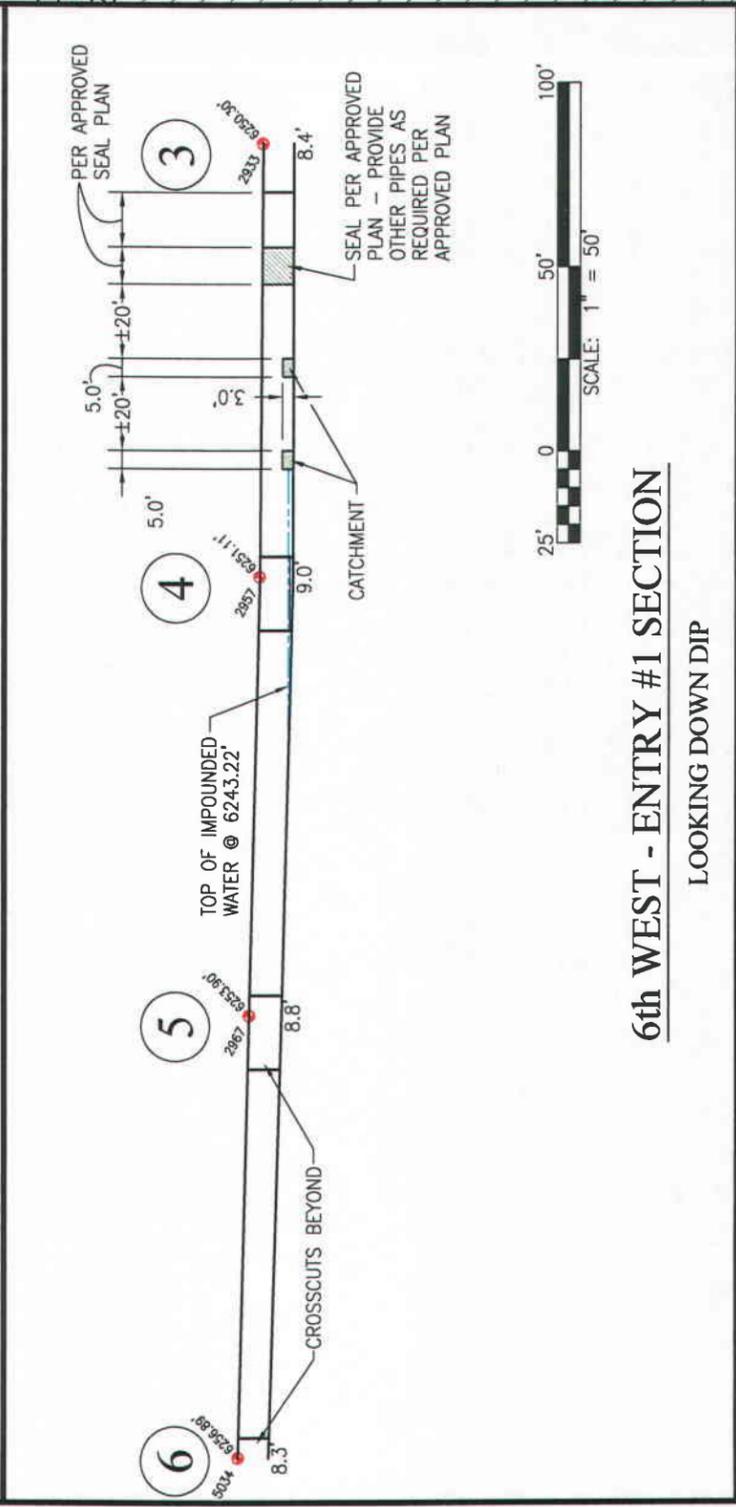
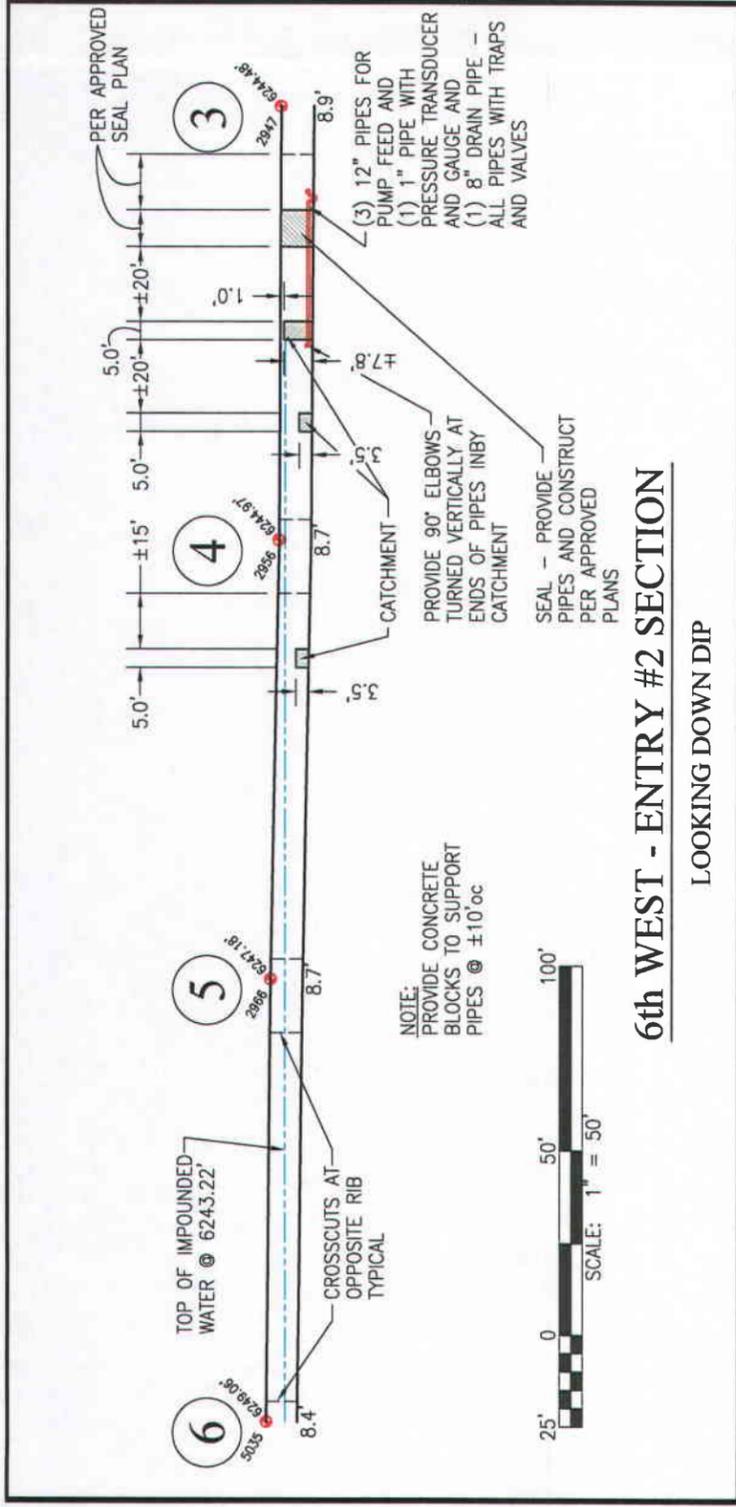
**LEGEND:**

	PRIMARY ESCAPEWAY		BELT ENTRY/BELT AIR
	SECONDARY ESCAPEWAY		INTAKE ENTRY
	PROPOSED SEAL		RETURN ENTRY
	EVALUATION POINT		BLEEDER/BLEEDER AIR
	MP DIRECTION & QUALITY POINT		OVERCAST
	CHECK CURTAIN		BOX CHECK
	FIRE DOORS		REGULATOR
	VENTILATION DOOR		EQUIPMENT DOORS
			STOPPING

**UtahAmerican Energy, Inc.**

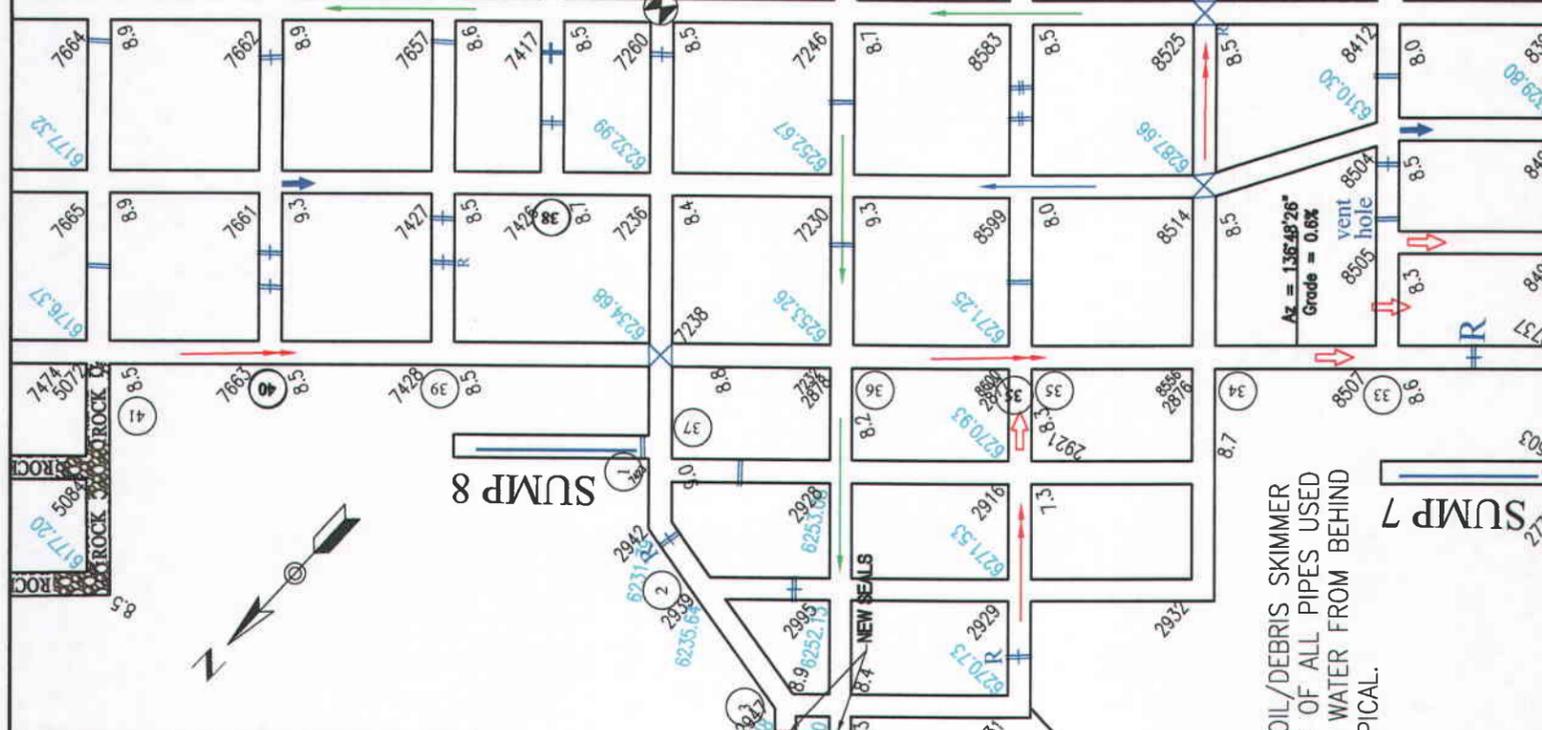
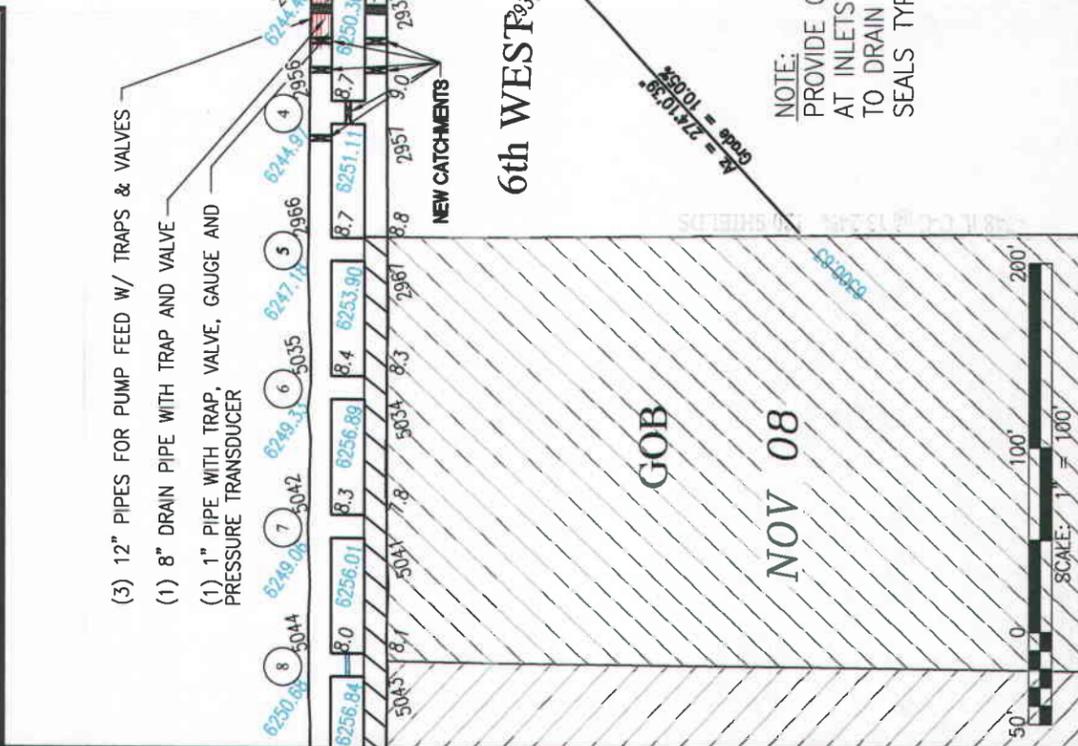
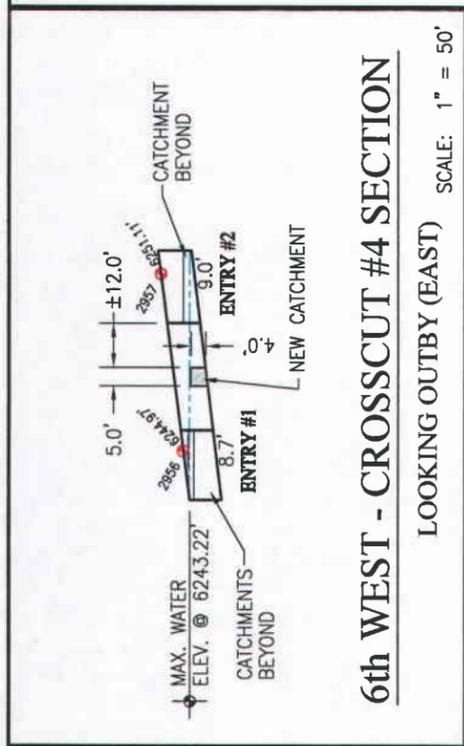
WEST RIDGE RESOURCES, INC.  
794 NORTH "C" CANYON ROAD  
EAST CARBON, UTAH 84520  
PHONE: (435) 888-4000 FAX: (435) 888-4002

MSHA MINE ID # 42-02233  
DRAWN BY PJ SCALE AS SHOWN  
APPROVED BY DH DATE 12 MARCH 2009  
SHEET



**NOTES:**

1. LOCATE AND CONSTRUCT SEALS PER APPROVED SEAL PLANS. PROVIDE PIPES THROUGH SEALS FOR AIR AIR SAMPLING, DE-WATERING, ETC. PER APPROVED PLANS.
2. IF MORE THAN ONE DRAINAGE PIPE IS INSTALLED IN A SEAL, THE HORIZONTAL DISTANCE BETWEEN THE PIPES MUST NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER. THE DISTANCE BETWEEN THE RIBS AND THE DRAINAGE PIPES SHALL NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER.
3. A LOW WEIR CATCHMENT, NO MORE THAN 12 INCHES HIGH, MUST BE CONSTRUCTED ACROSS THE TOTAL WIDTH OF THE ENTRY ON THE OUTBY SIDE OF EACH SEAL TYPICAL.



**UtahAmerican Energy, Inc.**

WEST RIDGE RESOURCES, INC.  
794 NORTH "C" CANYON ROAD  
EAST CARBON, UTAH 84520  
MSHA MINE ID # 42-02233

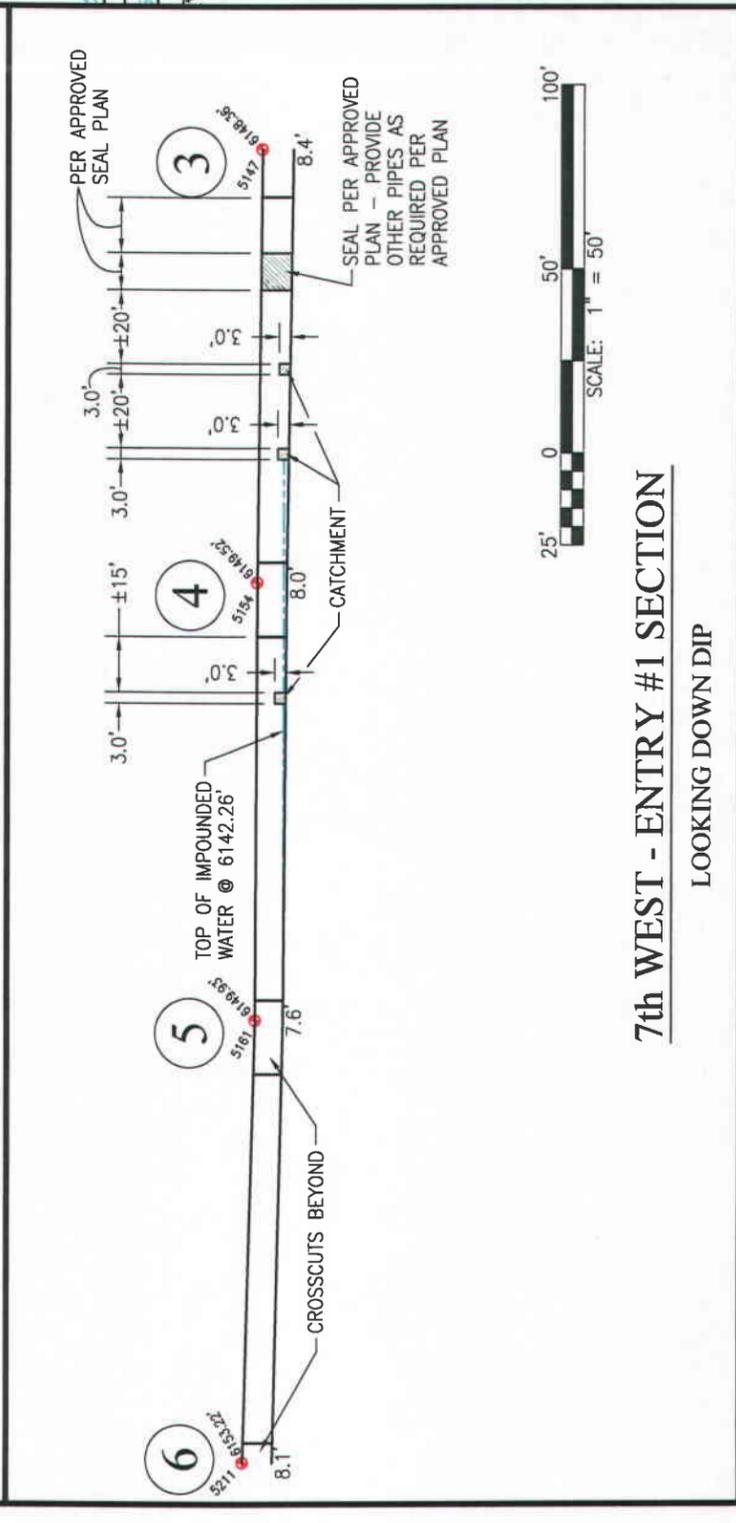
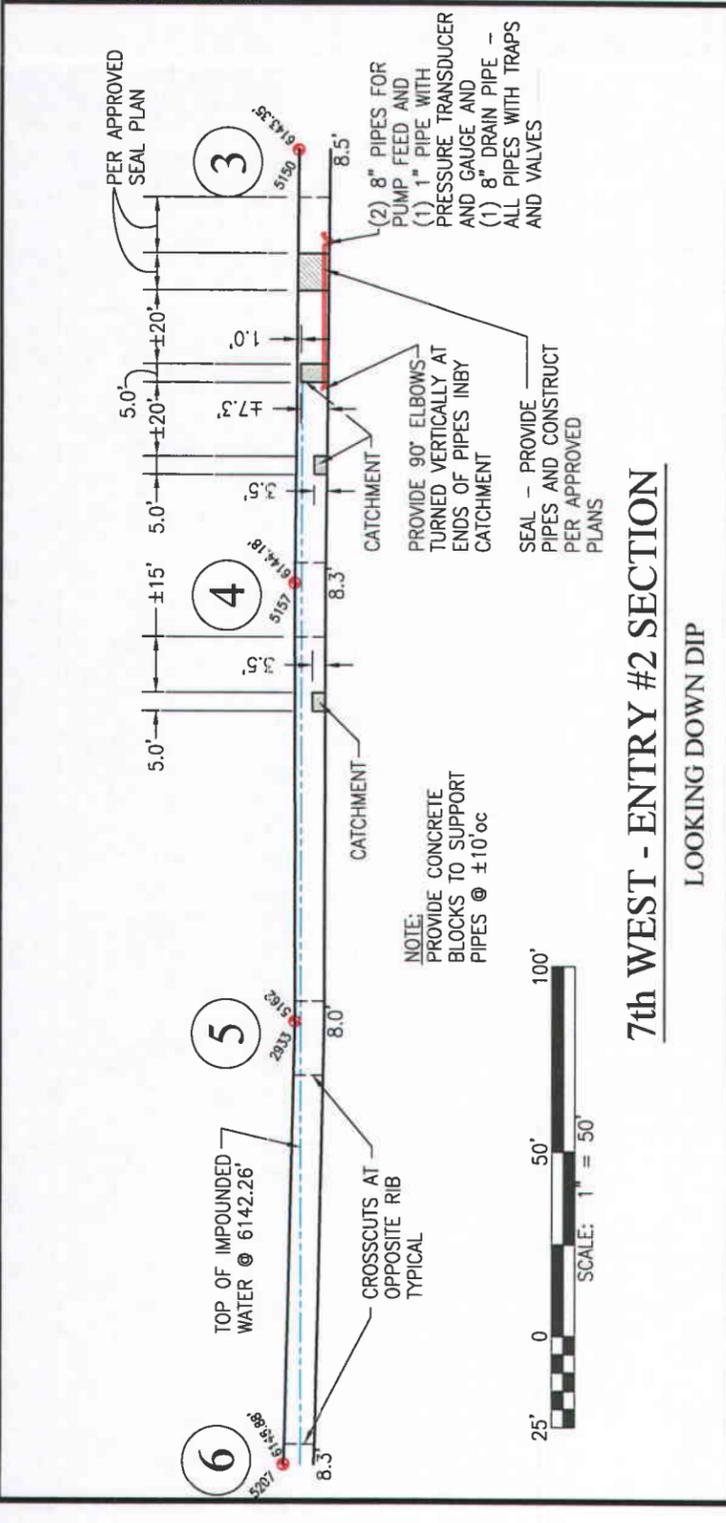
DESIGNED BY: PJ SCALE: AS SHOWN  
APPROVED BY: DJH DATE: 24 MARCH 2005  
REVISION 2

794 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520  
P.O. BOX 910, EAST CARBON, UTAH 84520  
PHONE: (435) 888-4000 FAX: (435) 888-4002

PLATE #1 of 1

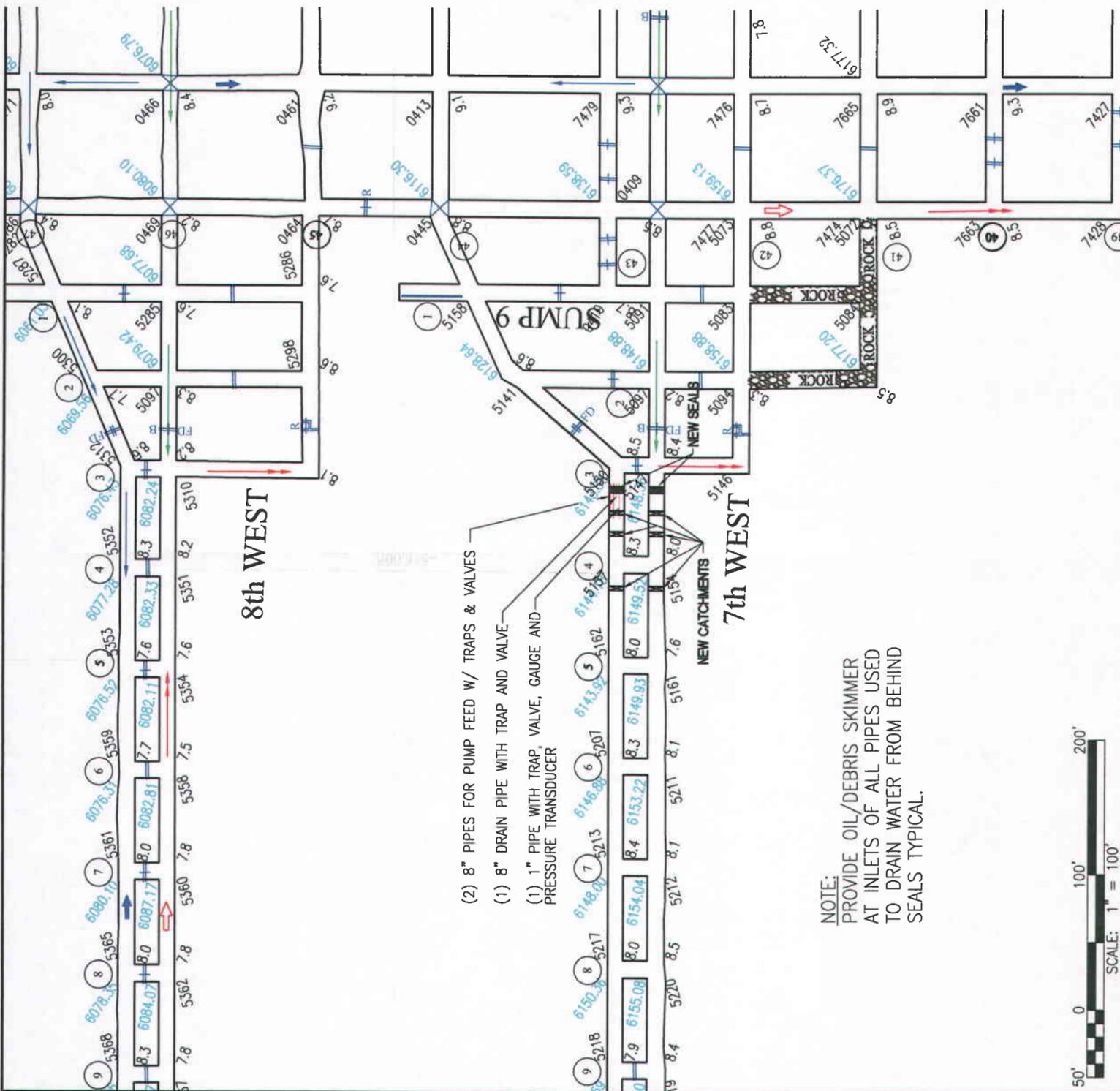
**LEGEND:**

- PRIMARY ESCAPEWAY
- SECONDARY ESCAPEWAY
- PROPOSED SEAL
- EVALUATION POINT
- MP DIRECTION & QUALITY POINT
- CHECK CURTAIN
- FIRE DOORS
- VENTILATION DOOR
- BELT ENTRY/BELT AIR
- INTAKE ENTRY
- RETURN ENTRY
- BLEEDER/BLEEDER AIR
- OVERCAST
- BOX CHECK
- REGULATOR
- EQUIPMENT DOORS
- STOPPING



**NOTES:**

1. LOCATE AND CONSTRUCT SEALS PER APPROVED SEAL PLANS. PROVIDE PIPES THROUGH SEALS FOR AIR AIR SAMPLING, DE-WATERING, ETC. PER APPROVED PLANS.
2. IF MORE THAN ONE DRAINAGE PIPE IS INSTALLED IN A SEAL, THE HORIZONTAL DISTANCE BETWEEN THE PIPES MUST NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER. THE DISTANCE BETWEEN THE RIBS AND THE DRAINAGE PIPES SHALL NOT BE LESS THAN 2-1/2 TIMES THEIR OUTSIDE DIAMETER.
3. A LOW WEIR CATCHMENT, NO MORE THAN 12 INCHES HIGH, MUST BE CONSTRUCTED ACROSS THE TOTAL WIDTH OF THE ENTRY ON THE OUTBY SIDE OF EACH SEAL TYPICAL.



**7th WEST SEALS AND CATCHMENTS**

**UtahAmerican Energy, Inc.**

WEST RIDGE RESOURCES, INC.  
794 NORTH "C" CANYON ROAD  
EAST CARBON, UTAH 84520

MSHA MINE ID # 42-02233

SCALE AS SHOWN

DATE 24 MARCH 2009

REVISION 1

PLATE #1 of 1

794 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520  
P.O. BOX 910, EAST CARBON, UTAH 84520  
PHONE: (435) 888-4000 FAX: (435) 888-4002

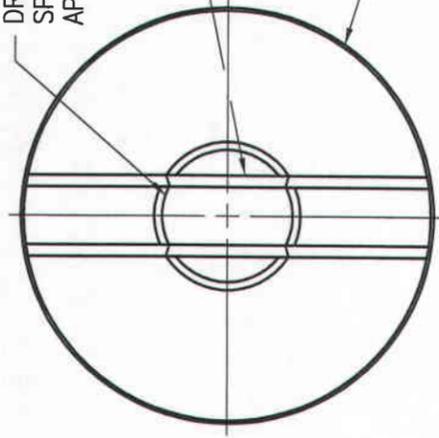
**LEGEND:**

- PRIMARY ESCAPEWAY
- SECONDARY ESCAPEWAY
- PROPOSED SEAL
- EVALUATION POINT
- MP DIRECTION & QUALITY POINT
- CHECK CURTAIN
- FIRE DOORS
- VENTILATION DOOR
- BELT ENTRY/BELT AIR
- INTAKE ENTRY
- RETURN ENTRY
- BLEEDER/BLEEDER AIR
- OVERCAST
- BOX CHECK
- REGULATOR
- EQUIPMENT DOORS
- STOPPING

SCALE: 1" = 100'

**NOTE: PROVIDE (1) OIL/DEBRIS SKIMMER AT EACH DRAIN PIPE AT EVERY CATCHMENT/SEAL REQUIRING DRAIN PIPES. COORDINATE WITH SITE SPECIFIC PLANS AND APPROVED SEAL PLANS.**

DRAIN PIPE PER SITE SPECIFIC PLANS AND APPROVED SEAL PLANS

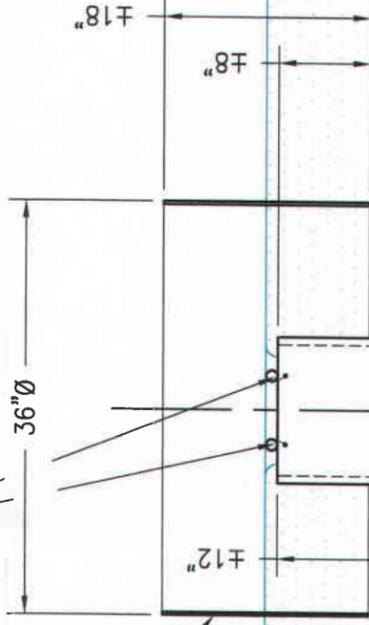


**OIL/DEBRIS SKIMMER  
PLAN VIEW**

(2) #4 REBAR OR ROOF BOLTS ATTACHED TO CULVERT SKIMMER & RESTING ON DRAIN PIPE - SECURELY WIRE TO DRAIN PIPE WITH GALVANIZED WIRE (OR EQUIVALENT)

36" DIA. CULVERT OIL/DEBRIS SKIMMER ROUGHLY CENTERED OVER DRAIN PIPE

APPROXIMATE WATER LEVEL



DRAIN PIPE PER SITE SPECIFIC PLANS AND APPROVED SEAL PLANS ±18"

90° ELBOW TURNED VERTICAL ±18"

CONCRETE BLOCK TO SUPPORT DRAIN PIPE TYPICAL

IMPOUNDED WATER

MINE FLOOR

CATCHMENT

DRAIN PIPE EXTENDS THROUGH CATCHMENT AND EXTENDS THROUGH SEAL OUTBY - COORDINATE WITH SITE SPECIFIC PLANS AND APPROVED SEAL PLANS

**UtahAmerican Energy, Inc.**

**TYPICAL DRAIN PIPE OIL/DEBRIS SKIMMER**

WEST RIDGE RESOURCES, INC.	
784 NORTH "C" CANYON ROAD EAST CARBON, UTAH 84520	
MSHA MINE ID # 42-02233	SCALE 3/4" = 1'-0"
DRAWN BY PJ	DATE 19 MARCH 2009
APPROVED BY DH	SHEET

784 NORTH "C" CANYON ROAD, EAST CARBON, UTAH 84520  
P.O. BOX 910, EAST CARBON, UTAH 84520  
PHONE: (435) 888-4000 FAX: (435) 888-4002