ExxonMobil
Global Services Company
Colony Shale Oil Project
P.O. Box 2567
Houston, Texas 77252-2567

April 19, 2012

ExxonMobil

Colorado Division of Reclamation Mining & Safety
Grand Junction Office
101 South 3rd Street, Suite 301
Grand Junction, Colorado 81501

Attention: Travis Marshall

Re: Mined Land Reclamation Board Permit No. M-1980-047
Colony Shale Oil Project
Technical Revision 16

Mr. Marshall:

Exxon Mobil Corporation respectfully requests administrative approval for the attached technical revision to State of Colorado Mined Land Reclamation Board Permit No. M-1980-047.

Should you have any questions regarding this application, you may contact me at 281-654-6246 or Roy Springfield at 713-431-7581. You may also email at roy.l.springfield@exxonmobil.com.

Sincerely,

Tom L Adams

Tom L. Adams
Colony Supervisor
ExxonMobil Global Services Co.
Acting for and on behalf of
Exxon Mobil Corporation

attachments:
Fee for $175.00
Attachment A (Location map)
Attachment B (Drawing showing "gas dam" & water re-route)
Attachment C (Reclamation cost estimate)

Technical Revision Submittal

APPLICATION FOR TECHNICAL REVISION TO STATE OF COLORADO MINED LAND RECLAMATION BOARD PERMIT NO. M-1980-047

Date received by the Division of Reclamation, Mining and Safety:

Applicant: Exxon Mobil Corporation

Contact Person: Tom L. Adams
Colony Supervisor
ExxonMobil Global Services Company
Acting for and on behalf of Exxon Mobil Corporation
Telephone Number: 281-654-6246
Fax Number: 281-654-6392

Mailing Address:
GSC–GP2–224
P. O. Box 2567
Houston, Texas 77252-2567

Alternate Contact:
Michele Thomas
Research Supervisor
ExxonMobil Upstream Research Company
P. O. Box 2189
Houston, Texas 77252-2189
Telephone Number: 713-431-7325
Fax Number: 713-431-6054

Application Fee: $175.00

Name of Operations: Colony Shale Oil Project

Location Information:

Garfield County, Colorado

Section 7, Township 5 South Range 95 West, 6th PM

Approximately 16 miles north of Parachute, Colorado

Approximate elevation: 7,000 – 8,000 feet

Map showing the location of the proposed project is included as Attachment A.

Land Ownership: Exxon Mobil Corporation
General Project Description:

ExxonMobil Upstream Research Company ("URC"), a subsidiary of Exxon Mobil Corporation, has an ongoing research program on the development of *in situ* oil shale conversion technology. As part of the ongoing research, ExxonMobil is conducting field experiments of this process at the Colony Oil Shale Mine.

Project Status:
ExxonMobil has advanced this technology by conducting a series of field experiments at the Colony Mine. Specifically, the following results have been achieved.

- Under TR-11 to the Colony reclamation permit, *in situ* planar heaters, EF1 and EF3 were constructed. After installing instruments for the measurement of temperature, voltage, current, and rock movement, EF1 and EF3 were each heated in a "low-temperature experiment" at temperatures up to 140°F.
- Under TR-12, EF1 and EF3 were each heated in a "medium-temperature experiment" at temperatures up to 300°F.
- Under TR-13 and TR-14, additional water monitoring wells and water drainage holes were drilled.
- Under TR-15, installation of a grout curtain beneath EF1 is in progress.

Technical Revision Description:
ExxonMobil is considering conducting a high-temperature experiment at Colony. Prior to conducting such an experiment, ExxonMobil would apply for an amendment to receive approval.

In preparation for such an experiment, ExxonMobil would install a vertical barrier or "gas dam" outside the entries of the South and North Drifts. The operator of record respectfully requests administrative approval to construct said "gas dam" with this application for Technical Revision.

The construction of the "gas dam" is proposed as a safety and environmental measure to direct produced gases to the mine ventilation and gas handling system. The "gas dam" would be built in front of the cliff face, 25-feet high, approximately 400-feet long. The "gas dam" will be constructed of steel framing and sheeting, and will have a concrete foundation. It will not be portable. See Attachment B.

Operational Considerations:

Land Disturbance: There would be no new surface disturbance.

Drilling: Other than rock bolts utilized as part of the "gas dam" foundation, there would be no drilling involved. Rock bolts, where utilized, would be installed into holes drilled with a jack-leg drill using epoxy resin.

Water Discharges: Water used (primarily for concrete foundations if mixed on site) would be extracted from surface water on the property, using ExxonMobil's existing water rights. Any excess would be returned to the surface water system as part of the mine outflow. The mine drainage water flowing from the incline would be re-routed to flow between the cliff face wall and the "gas dam". The diversion would be

constructed by burying an approximately sized 12" pipe. The pipe will be covered with fill material. See Attachment B.

Abandonment: The "gas dam" would be abandoned by removing the steel sheeting and disassembling the steel frame. The steel will be removed from the site and sold as scrap. The concrete foundation will be broken into pieces suitable for burial on the mine bench. The pieces will be buried and covered with mine bench fill material. A reclamation cost estimate is provided. See attachment C.

Timing for Project work:
Pending DRMS approval, ExxonMobil plans to begin 3rd quarter 2012.

Financial Warranty:
The Exxon Mobil Corporation financial warranty currently in place will cover the construction and all reclamation costs.

Verification:
The undersigned, executing this application on behalf of Exxon Mobil Corporation, verifies that the foregoing information is true and accurate and commits to the reclamation of lands disturbed through activities conducted as a result of this technical revision to MLRB Permit No. M-1980-047, as required by the Colorado Mined Land Reclamation Act and the rules as specified in the Hard Rock/Metal Mining Rules and Regulations.

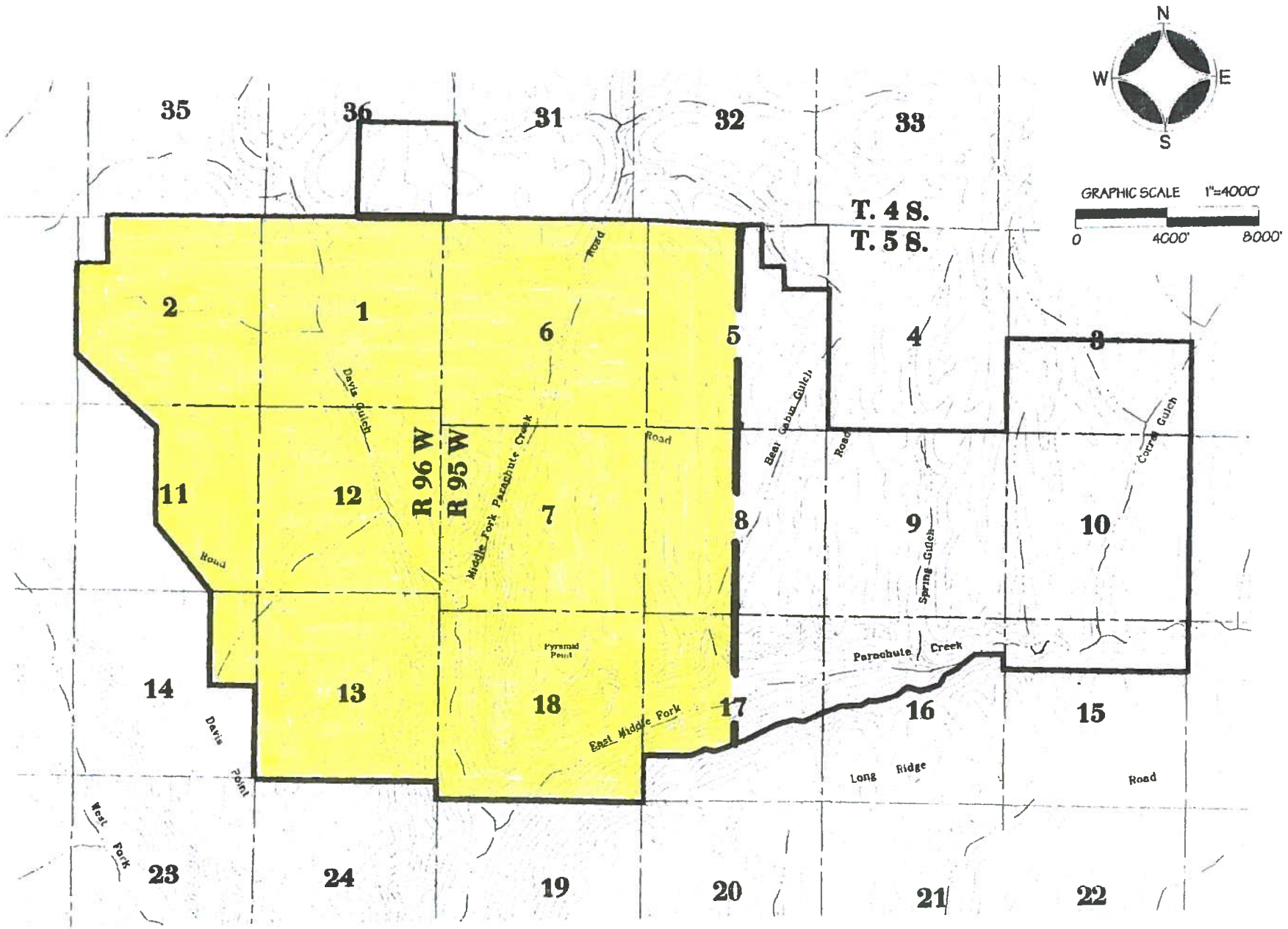
Signed and dated this 19th day of April, 2012.

EXXON MOBIL CORPORATION
By ExxonMobil Global Services Co.
Acting for and on behalf of ExxonMobil Corporation

By Tom L Adams
Tom L. Adams

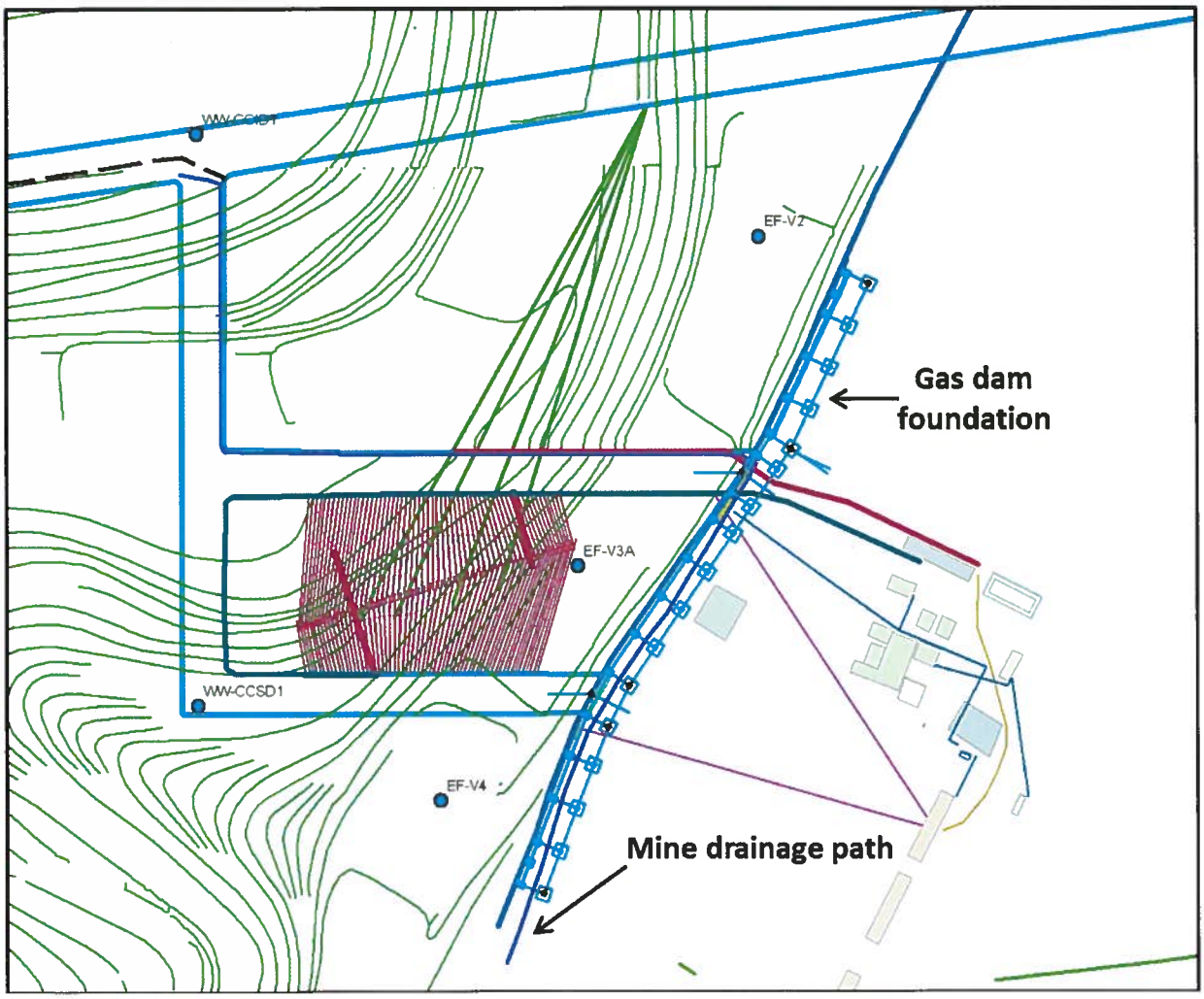
Title: Colony Supervisor

Attachment A



Attachment B

Location of re-routed mine drainage water



Attachment C

Reclamation Cost Estimate

Reclamation of the gas dam will involve two operations.

- First, the steel sheeting and steel frame would be dismantled and removed from the site. This would require 8 men working for 30 days, and would require two man-lifts for that period. The estimated cost for this operation is $70,000.00.
- Second, the concrete foundation for the "gas dam" would be broken up into pieces suitable for burial. The pieces would be buried on the mine bench and covered with mine bench fill. The gas dam foundation is approximately 190 cubic yards of concrete. Breakup and burial of this material is expected to cost $94./cubic yard, for a total operation cost of $40,000.00.

Combining these two operations the total reclamation cost for the gas dam is expected to be $110,000.00. Including a 100% contingency the cost could be as high as $220,000.00.