



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Two River Field Office  
20711 Highway 164  
Durango, Colorado 81323



In Reply, Refer to:

3809

(COC-52049)

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7011 0470 0001 0908 2365

Christie Woodward  
Denison Mines USA  
1050 17th Street, Suite 950  
Denver, CO, US, 80265

TOPAZ MINE  
M-1980-055 HR  
MONITORING WELL  
APPROVAL

April 25, 2012

Dear Ms. Woodward,

Attached is a signed copy of the Decision Record and Categorical Exclusion Review for a minor mine plan modification to the Topaz Mine (COC-52049). The purpose of the mine plan modification is to allow for the installation of several monitoring wells and gathering associated groundwater baseline information at the mine site in association with the ongoing Environmental Assessment for the mine plan revision consolidation at the Sunday-Topaz mine complex, located in San Miguel Co. Colorado.

Sincerely,

Connie Clementson  
Field Manager

**FILE COPY**

Attachments:

- Cat Ex Review (9pp)
- Decision Record (6pp)
- Signed Mine Plan Mod. (7pp)

CC: DRMS Durango



# United States Department of the Interior Bureau of Land Management

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Decision Record  
Categorical Exclusion  
DOI-BLM-CO-SO10-2012-0040

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April 2012

## Denison Mines Monitoring Wells Installation

**Location:** Denison Sunday-Topaz Mine Area, Big Gypsum Valley, San Miguel County, Colorado. T: 44N, R. 18 W., 26NW, 10 SW, 15 SW, Elevation: 5600-6400'

***Applicant/Address:***

Denison Mines USA  
1050 17th Street, Suite 950  
Denver, CO, U.S. 80265ison Mine

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Tres Rios Field Office  
29211 Hwy 184  
Dolores, CO 81321  
970-882-6800 (phone)  
970-882-6841 (fax)



**DECISION RECORD**  
**Categorical Exclusion**  
**DOI-BLM-CO-SO10-2012-0040**

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***Denison Mines Monitoring Wells Installation***

**Decision to be made:**

Whether to authorize the drilling of six monitoring and compliance wells by Denison Mines as a minor mine plan modification to the Approved Denison Mines Topaz Mine (COC-52049) and what mitigation measures will be employed. If approved, the mine plan modification covers the collection of water samples from the wells.

**Authorities:**

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with:

H-1790-1-National Environmental Policy Act Handbook—(Public). Appendix 4.  
F #7 at 152: *“Approval of minor modifications to or minor variances from activities described in an approved exploration plan for leasable, salable, and locatable minerals.”*

**Compliance and Monitoring:**

Six monitoring wells will be drilled and access roads constructed to the Denison Mines’ Topaz mine. The purpose of the monitoring & compliance wells is to collect groundwater data that will be used as baseline data for an ongoing EA, as well as compliance monitoring. During monitoring, the wells will be purged and sampled. The wells will not be a source for industrial, livestock or potable water. Drilling operations will be monitored periodically to ensure they are being installed correctly.

All mitigation measures, terms and conditions of approval set out in Denison’s approved Topaz – West Sunday Plan of Operations (COC-52049) will be applied to this project, as applicable, unless otherwise specified in the CX, Decision Record, Drilling Plans, or conditions of approval. No production or operations are allowed by this mine plan modification. The project will be inspected on a regular basis and the wells reclaimed when no longer needed. A bond adequate to cover reclamation and abandonment of the wells will be required.

**Terms / Conditions / Stipulations:**

In addition to the existing Plan of Operations, the following language will be adhered to concerning the drilling of monitoring wells:

**THE FOLLOWING MEASURES ARE MANDATORY TO PROTECT WILDLIFE RESOURCES**

If drilling will take place between the migratory bird nesting season, May 15 to July 15, the well pad must be surveyed to be clear of nesting migratory birds. If migratory birds are found nesting

on the well pad or other proposed new disturbance, drilling activities must be postponed until the nestlings have fledged, in accordance with the Migratory Bird Treaty Act.

If drilling will take place during the raptors' breeding season, generally described between April and August, nest searches for raptors prior to any ground disturbance are warranted within ¼ mile from the well head. If any nests are found, a biological monitor (BLM or BLM-approved contractor) would need to be present during construction to avoid nest destruction disturbance. In the event a raptor nest is identified, the BLM has identified the following (BLM, 1991):

1. Raptors, including golden eagle, all accipiters, buteos, owls and falcons except kestrels, (raptors that are listed and protected by the ESA are addressed separately): No drilling eighth-mile radius of nest site until after the birds has fledged. Exception: The NSO area may be altered depending on the active status of the nest site or the geographical relationship of topographic barriers and vegetation screening to the nest site.
2. Timing restriction from February 1 to August 15 applies to a ¼-mile buffer around the nest site -- no drilling or construction would be allowed, but routine monitoring is acceptable. Exception: During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. Nest activity may be verified by inventorying the site at one-week intervals for a period of three weeks (i.e., three visits). Surveys must be done during the year of construction by a qualified biologist and accepted and documented the Surface Managing Agency (Tracy Perfors at 970-882-6856). The season limitation may also be suspended once the young have fledged and dispersed from the nest.

This decision becomes valid as soon as a bond adequate to cover the reclamation of the new disturbance is calculated by the Colorado Division of Mining Reclamation and Safety, and funds in that amount are contributed by Denison and accepted by DRMS.

These monitoring wells are in support of an ongoing Environmental Assessment for Denison's Sunday-Topaz Mines (CO-800-2007-104EA), but in no way approves any of the proposed actions or alternatives in that EA.

**CULTURAL RESOURCES** -- Prior to disturbance, a cultural resources survey will be performed to ensure that no sites on or eligible for the national register of historic places are impacted.

**PALEONTOLOGICAL RESOURCES** -- If significant vertebrate paleontologic resources (bone, teeth, footprints, etc) are encountered during ground disturbing activities for the project, that portion of the project will be halted until the Tres Rios geologist has been contacted to determine the next course of action (documentation, collection, avoidance, etc). Other segments of the project may continue while a determination is being made.

**PRE-CONSTRUCTION WALK-THROUGH** - The BLM geologist will perform a site walk through of the project area prior to the initiation of drilling or road construction.

**RECLAMATION BOND** -- A bond adequate to reclaim the wells and associated disturbance shall be submitted to BLM/CDRMS prior to construction. The bond may be incorporated into the bond for the Topaz Mine or may be separate.

### **PLAN CONFORMANCE AND CONSISTENCY:**

The proposed action and alternatives have been reviewed and found to be in conformance with one or more of the following BLM Land Use Plans and the associated decision(s):

Land Use Plan Name: San Juan/San Miguel RMP Date Approved/Amended: September 1985

The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decision(s):

The proposed project is in emphasis areas E and A, at a mine that was in operation at the time the plan was approved.

Emphasis area A's minerals guidance says: *"Allow mineral development in all areas not withdrawn from entry. Provide protective stipulations to limit impacts to livestock improvements or management practices."* (1985 SJ/SM RMP, Table 1, p. 27).

Emphasis area E's minerals general guidance states: *"Allow mineral development on all areas not specifically excluded from development. Provide protective stipulations to limit impacts to other resource values. Specific Management direction states: "Continue approved operations of 4500 acres of hard rock mining under 43 CFR 3809 regulations." (1985 SJ/SM RMP, Table 1-1, p. 41).*

### **Rationale for Decision:**

This Decision approves the drilling of six monitoring wells at Denison's Sunday-Topaz mine complex. The purpose of these wells is to collect environmental information pertaining to groundwater quality and depth. This is being approved as a minor mine plan modification for the Topaz Mine (COC-52049), and assumes all applicable stipulations, mitigation measures and other requirements applied to that mine plan or any successors, or as specified in the conditions of approval for this decision. This decision replaces a proposal for three wells which were never constructed. The purpose of these wells is to gather baseline data about groundwater, and to detect any contamination from mining.

<i>ID</i>	<i>Pad Area Ft<sup>2</sup></i>	<i>Access Ft</i>	<i>Access Width</i>	<i>Access Area Ft<sup>2</sup></i>
<i>CPL-S</i>	<i>10,000</i>	<i>401</i>	<i>15</i>	<i>6015</i>
<i>CPL-W</i>	<i>10,000</i>	<i>1668</i>	<i>15</i>	<i>25020</i>
<i>DR1</i>	<i>10,000</i>	<i>493</i>	<i>15</i>	<i>7395</i>

<i>AMB</i>	<i>10,000</i>	<i>217</i>	<i>15</i>	<i>3255</i>
<i>Int-N</i>	<i>10,000</i>	<i>573</i>	<i>15</i>	<i>8595</i>
<i>Int-S</i>	<i>10,000</i>	<i>114</i>	<i>15</i>	<i>1710</i>
<i>Fr<sup>2</sup> Total</i>	<i>60,000</i>			<i>51990</i>
<i>Total Acres</i>				<i>2.6</i>

***Table 1: Disturbance for each proposed well.***

Drilling could be initiated as soon as conditions permit, and would continue for approximately 4 weeks per monitoring well. Drilling should be done before December 1, 2012. Total disturbance from road construction and well pads is estimated at 100x100, but will be reclaimed to less than half that after drilling is complete. The access to the wells will be left open for the life of the mine and until the wells are no longer needed for monitoring purposes, at which time they must be reclaimed according to applicable State of Colorado well abandonment requirements. Any water produced from well drilling or sampling must be disposed of in a manner consistent with Federal, State, and Local laws.

Each well would be used to measure ground water levels, and to monitor groundwater chemistry. Sampling would be done according to standard sampling protocols. The wells are not to be used for livestock, potable water, or other ongoing consumptive uses, though pump tests, slug tests, drawdown, and other tests may be done to help constrain hydrogeologic characteristics of the aquifer(s). Water purged from the well bore during sampling events will be disposed of according to the laws of the State of Colorado.

As-builts, detailed lithologic, mud, gamma, and other applicable logs typically kept during monitoring well installation will be kept and submitted to BLM and DRMS.

The disturbance and abandonment costs of the monitoring wells shall be calculated and folded into Denison's bond for the Topaz mine. Construction of these monitoring wells, or their access may not begin until the bond has been submitted to DRMS and accepted by both BLM and DRMS.

**Protest/Appeal Language:**

Within 30 days of the receipt of this decision, the public has the right of appeal to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations at 43 CFR 4.400. Appeal and stay procedures are outlined in Form CO-050-1840-191. This project is a minimum impact permit decision and may therefore be implemented immediately and will remain in effect while appeals are pending.



Connie Clementson  
Field Office Manager  
Tres Rios Field Office

4.25.2012

Date

**Attachments:** Categorical Exclusion Review  
Project Maps and Well Construction Diagrams.

**United States Department of the Interior  
Bureau of Land Management**

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**Categorical Exclusion Not Established By Statute  
DOI-BLM-CO-SO10-2012-0040**

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**April 2012**

**Denison Mines Monitoring Wells Installation**

***Location:***

Denison Sunday-Topaz Mine Area, Big Gypsum Valley, San Miguel County, Colorado,  
T. 44N, R. 18 W., 26NW, 10 SW, 15 SW, Elevation: 5600-6400'

***Applicant/Address:***

Denison Mines USA  
1050 17th Street, Suite 950  
Denver, CO, US. 80265

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Tres Rios Field Office  
29211 Hwy 184  
Dolores, CO  
970-882-6800 (phone)  
970-882-6714 (fax)





**CATEGORICAL EXCLUSION DOCUMENTATION FORMAT WHEN USING  
CATEGORICAL EXCLUSIONS NOT ESTABLISHED BY STATUTE**

**A. Background**

BLM Office: Tres Rios Field Office Lease/Serial/Case File No: COC-52049

Proposed Action Title/Type: Denison Mines -- Topaz Monitoring Wells Installation

Location of Proposed Action: Denison Sunday-Topaz Mine Area, Big Gypsum Valley, San Miguel County, Colorado, T: 44N, R. 18 W., 26NW, 10 SW, 15 SW, Elevation: 5600-6400'.

Description of Proposed Action: Minor mine plan modification for monitoring wells to collect ground water data at an existing mine site.

**Land Use Plan Conformance**

Land Use Plan Name: San Juan/San Miguel RMP Date Approved/Amended: September 1985

The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decision(s):

The proposed project is in emphasis areas E and A, at a mine that was in operation at the time the plan was approved. Emphasis area A's minerals guidance says: "*Allow mineral development in all areas not withdrawn from entry. Provide protective stipulations to limit impacts to livestock improvements or management practices.* (1985 SJ/SM RMP, Table 1, p. 27)

Emphasis area E's minerals general guidance states: "*Allow mineral development on all areas not specifically excluded from development. Provide protective stipulations to limit impacts to other resource values.* Specific Management direction states: "*Continue approved operations of 4500 acres of hard rock mining under 43 CFR 3809 regulations.*" (1985 SJ/SM RMP, Table 1-1, p. 41)

**C. Compliance with NEPA**

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with:

H-1790-1-National Environmental Policy Act Handbook --(Public), Appendix 4, F #7 at 152: "*Approval of minor modifications to or minor variances from activities described in an approved exploration plan for leasable, salable, and locatable minerals*".

The activity is essentially the same as exploration drilling and exploration drilling has occurred under the existing plans.

This categorical exclusion is appropriate because the proposed action has been reviewed, and none of the extraordinary circumstances described in 43 CFR Part 46.215 apply.

BLM MANUAL Rel. 1-1710 Supersedes Rel. 1-1547 01/30/2008 Appendix 6 - 158 H-1790-1 - NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK -- (Public)  
BLM MANUAL Rel. 1-1710 Supersedes Rel. 1-1547 01/30/2008

I considered the impacts of this project, which are negligible, and have determined that the use of a Categorical Exclusion is appropriate for this project. Installation of monitoring wells is needed to evaluate further mining at the site, as well as the level of existing impacts at the site. Not installing the monitoring wells could potentially have a greater effect than installing them, because ongoing contamination, if any, would remain undetected for a greater period of time.

**D: Signature**

Authorizing Official: \_\_\_\_\_



Date: 4-25-2015

*Connie Clementson  
Field Office Manager  
Tres Rios Field Office*

**Contact Person**

For additional information concerning this CX review, contact:

James Blair  
Geologist  
BLM Dolores Public Lands Office  
29211 Hwy 185, Dolores, CO 81323  
[James\\_Blair@blm.gov](mailto:James_Blair@blm.gov)  
970-882-6862

### Categorical Exclusion Review Record

Resource	Y/N*	Assigned Specialist	Signature	Date
Air Quality	N	J. Blair	James J. Blair	4/24/12
Areas of Critical Environmental Concern	N	J. Blair	James J. Blair	4/24/12
Cultural Resources	N	Julie Bell	Julie Bell	4/24/12
Environmental Justice	N	J. Blair	James J. Blair	4/24/12
Farm Lands (prime or unique)	N	J. Blair	James J. Blair	4/24/12
Floodplains	N	Shauna or Joni	Shauna or Joni	4/24/12
Invasive Species Noxious Weeds	N	Mike Jensen	Mike Jensen	4-24-12
Migratory Birds	N	Ivan Messenger	Ivan Messenger	4/24/12
Native American Religious Concerns	N	Julie Bell	Julie Bell	4/24/12
Threatened, Endangered, or Candidate Species	N	Ivan Messenger	Ivan Messenger	4/24/12
Wastes (hazardous or solid)	N	J. Blair	James J. Blair	4/24/12
Water Quality (drinking or ground)	N	Shawna or Joni	Shawna or Joni	4/24/12
Wetlands / Riparian Zones	N	Shawna or Joni	Shawna or Joni	4/24/12
Wild and Scenic Rivers	N	J. Blair	James J. Blair	4/24/12
Wilderness	N	J. Blair	James J. Blair	4/24/12
Paleontology	N	J. Blair	James J. Blair	4/24/12

\*Extraordinary Circumstances apply.

Environmental Coordinator: Tina Kincaid Transtrom

Date: 4/24/2012  
4/18/12

## ATTACHMENTS

Appendix 1: Extraordinary Circumstance to Categorical Exclusions Review

Appendix 2: Project Map

## Appendix 1: Extraordinary Circumstance to Categorical Exclusions

### Exceptions to Categorical Exclusion Documentation

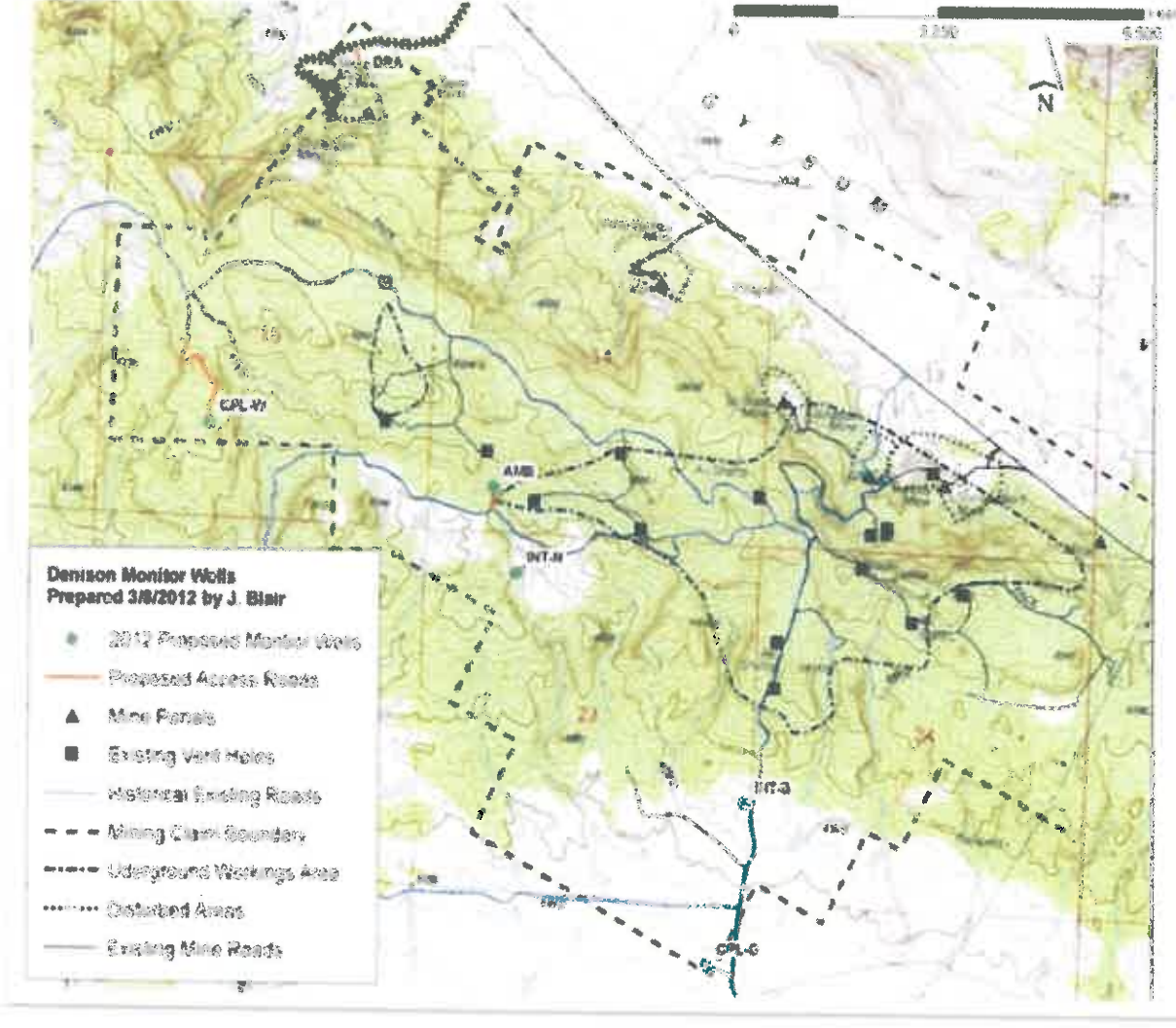
The action has been reviewed to determine if any of the extraordinary circumstances (43 CFR 46.215) apply. The project would:

Extraordinary Circumstances	
1. Have significant impacts on public health or safety.	
<b>No</b>	<b>Rationale:</b> The wells are to be drilled in an isolated area not frequented by the general public. Mitigation measures and conditions of approval will prevent the public from encountering any hazardous materials used (fuels, hydraulic fluids, etc), and only non-toxic, water-based drilling fluids will be used. The wells will be capped upon completion, and any produced water will be disposed of in a manner consistent with state law.
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.	
<b>No</b>	None of the identified natural resources, unique geographic areas, WSA's, etc. identified above, exist in the project area. Migratory bird surveys will be performed as a mitigation measure to prevent impacts to migratory birds. No other ecologically significant areas were identified.
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102 (2) (E)].	
<b>No</b>	<b>Rationale:</b> The purpose of this project is to obtain groundwater quality data associated with existing uranium mines. This will not change the groundwater quality. While uranium mining itself is often considered to be controversial, collection of baseline groundwater data is not, and is standard operating procedure at almost all large mine sites, not just for uranium, but for most mineral commodities.
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.	
<b>No</b>	<b>Rationale:</b> The impacts of this action are easily quantified and predictable, and the predicted impacts are insignificant.
5. Establish a precedent for future action or represent a decision in principal about future actions with potentially significant environmental effects.	

Extraordinary Circumstances	
No	<b>Rationale:</b> This action is part of ongoing analysis of a larger project. That action is the evaluation of a major mine plan modification for operations at the existing Denison Mines Sunday Topaz Mine Complex. The authorization of this project will not result in the automatic authorization of the larger project, however this projects is needed for the larger project to proceed. Conversely, data collected as a result of this project could result in the no-action alternative being selected for the larger project. This action will not set a precedent for future actions that would normally require environmental analysis. Only well installation and environmental monitoring is being considered. The wells being drilled are not exploration drill holes.
6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.	
No	<b>Rationale:</b> While the need for additional monitoring wells may be identified in the future, the number of monitoring wells required is likely to be low and will not result in significant cumulative effects. Potential impacts of any additional wells would be evaluated if and when they are proposed.
7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the Bureau.	
No	<b>Rationale:</b> No properties listed or eligible for listing on the National Register of Historic Places will be impacted. If cultural resources indicate the potential for any such conflicts, the project will be rerouted to avoid them, that segment of the project will be avoided.
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.	
No	<b>Rationale:</b> There will be no impacts to listed or proposed species. The appropriate level of review has been conducted and no coordination and cooperation with the U.S. Fish and Wildlife Service is required.
9. Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.	
No	<b>Rationale:</b> The project will not be in violation of any Federal, State, or local environmental law imposed for the protection of the environment, as listed above.
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).	

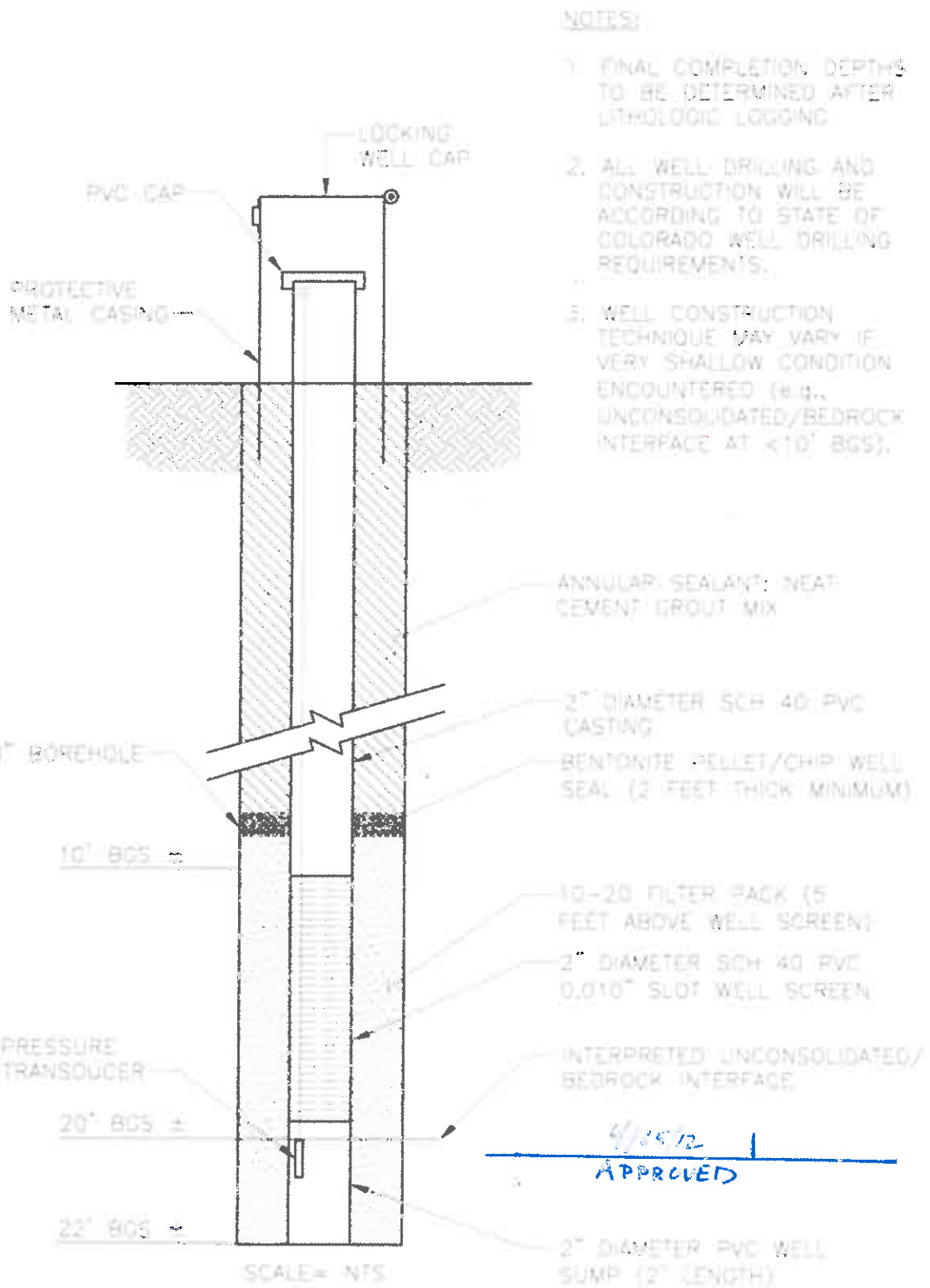
Extraordinary Circumstances	
<b>No</b>	<b>Rationale:</b> The area is sparsely populated and will have a negligible effect on all populations, including low income and minority populations.
11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).	
<b>No</b>	<b>Rationale:</b> The project was listed in the Schedule of Proposed Actions for the BLM Tres Rios Field Office, and no tribal concerns were identified.
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).	
<b>No</b>	<b>Rationale:</b> Mitigation measures have been incorporated into the project to prevent the introduction and spread of noxious weeds and non-native invasive species.

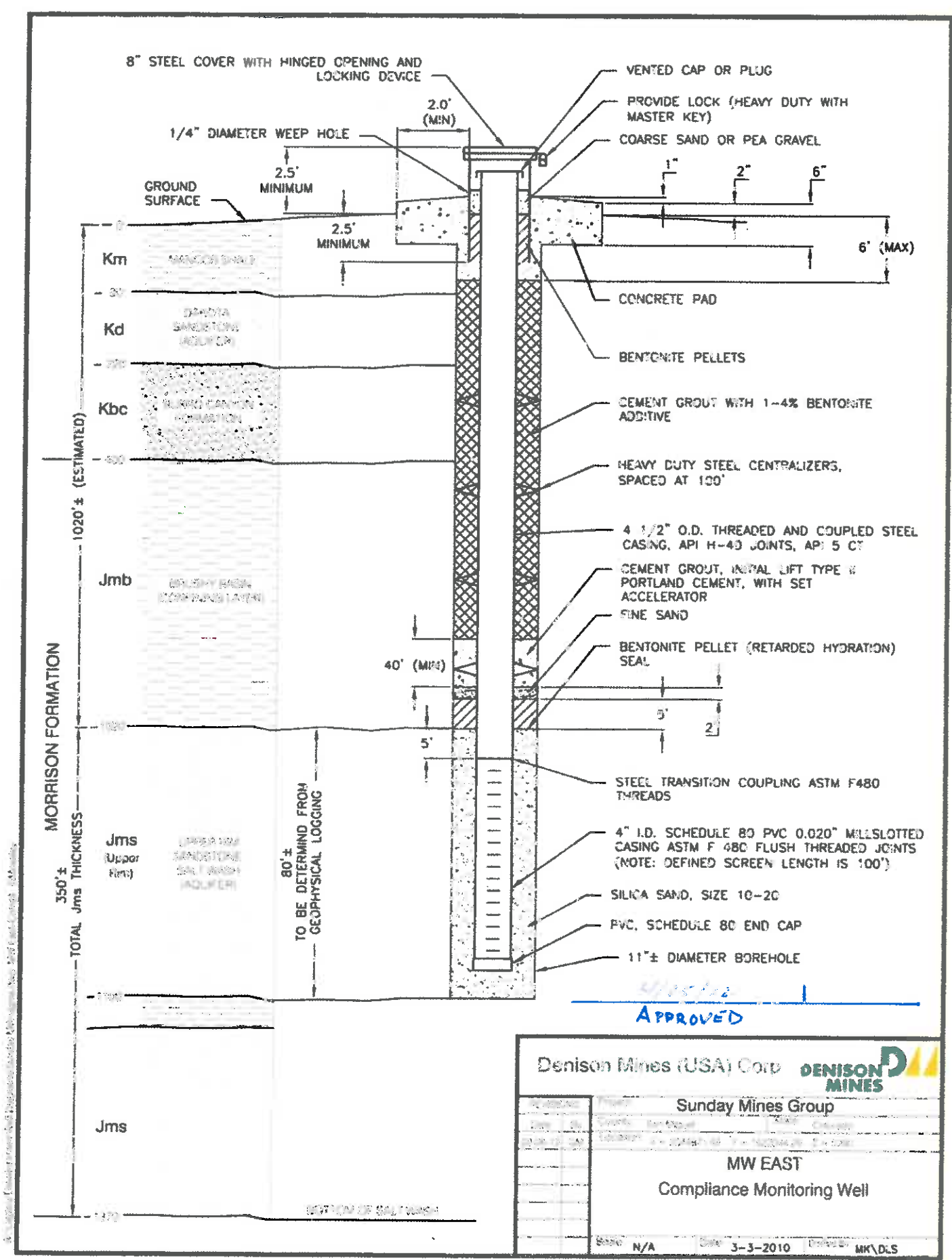
## Appendix 2: Project Map



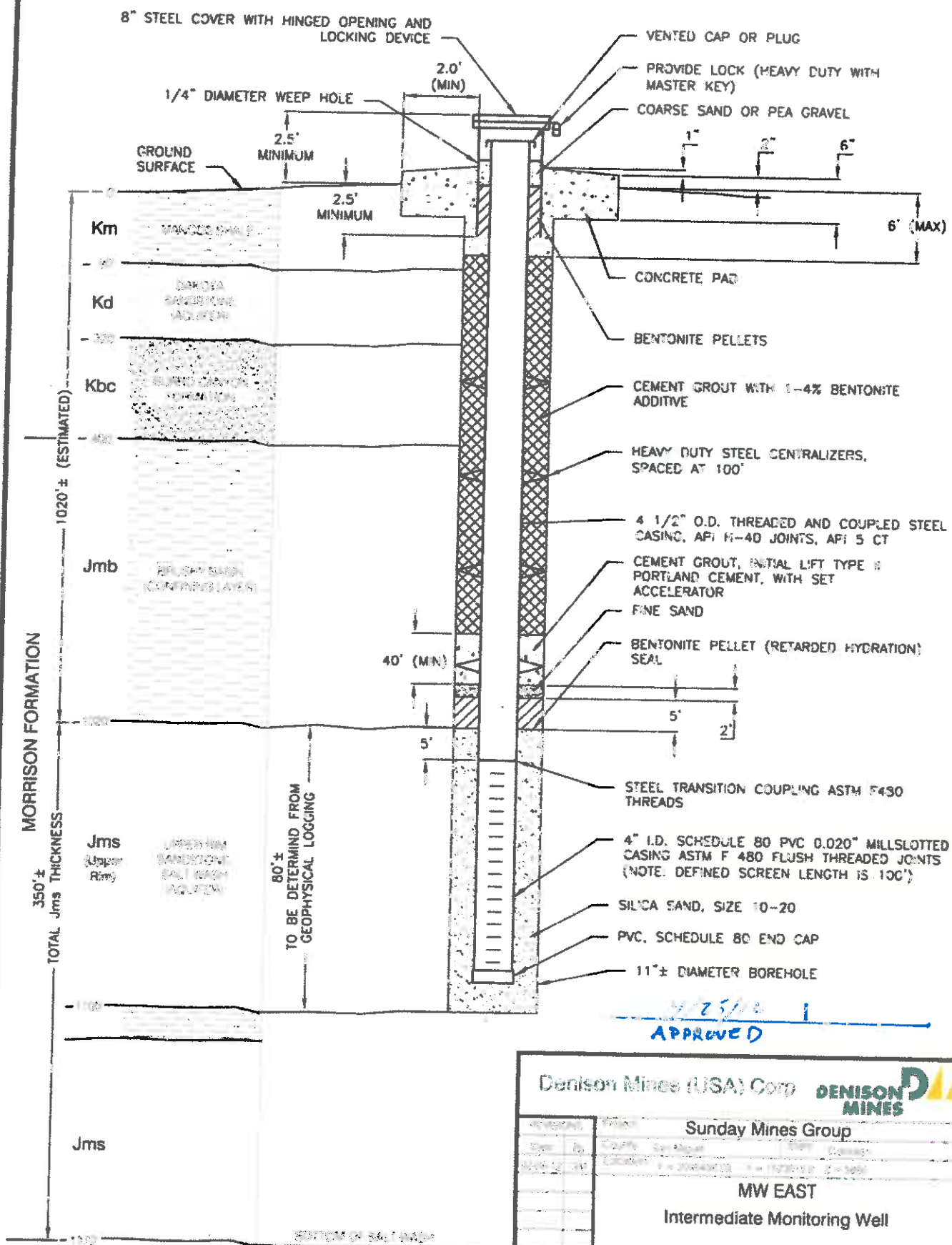
Map of Denison Drill Proposal





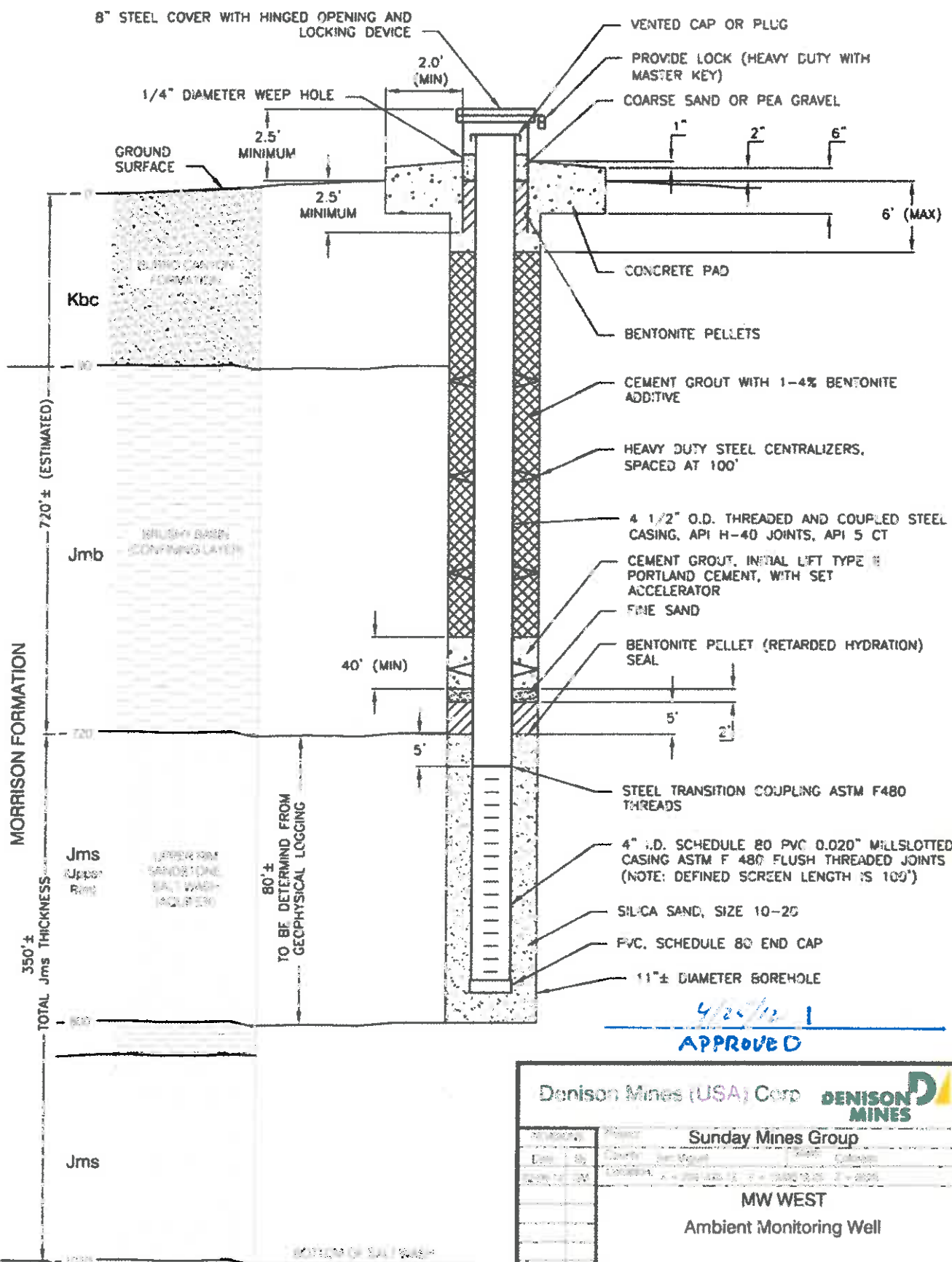


Denison Mines (USA) Corp		<b>DENISON MINES</b>	
Sunday Mines Group			
Project	MW EAST	Date	3-3-2010
Drawn by	MM/DLS	Checked by	MM/DLS
Reviewed by	MM/DLS	Approved by	MM/DLS
Compliance Monitoring Well			
Scale	N/A	Date	3-3-2010
Drawn by	MM/DLS	Checked by	MM/DLS



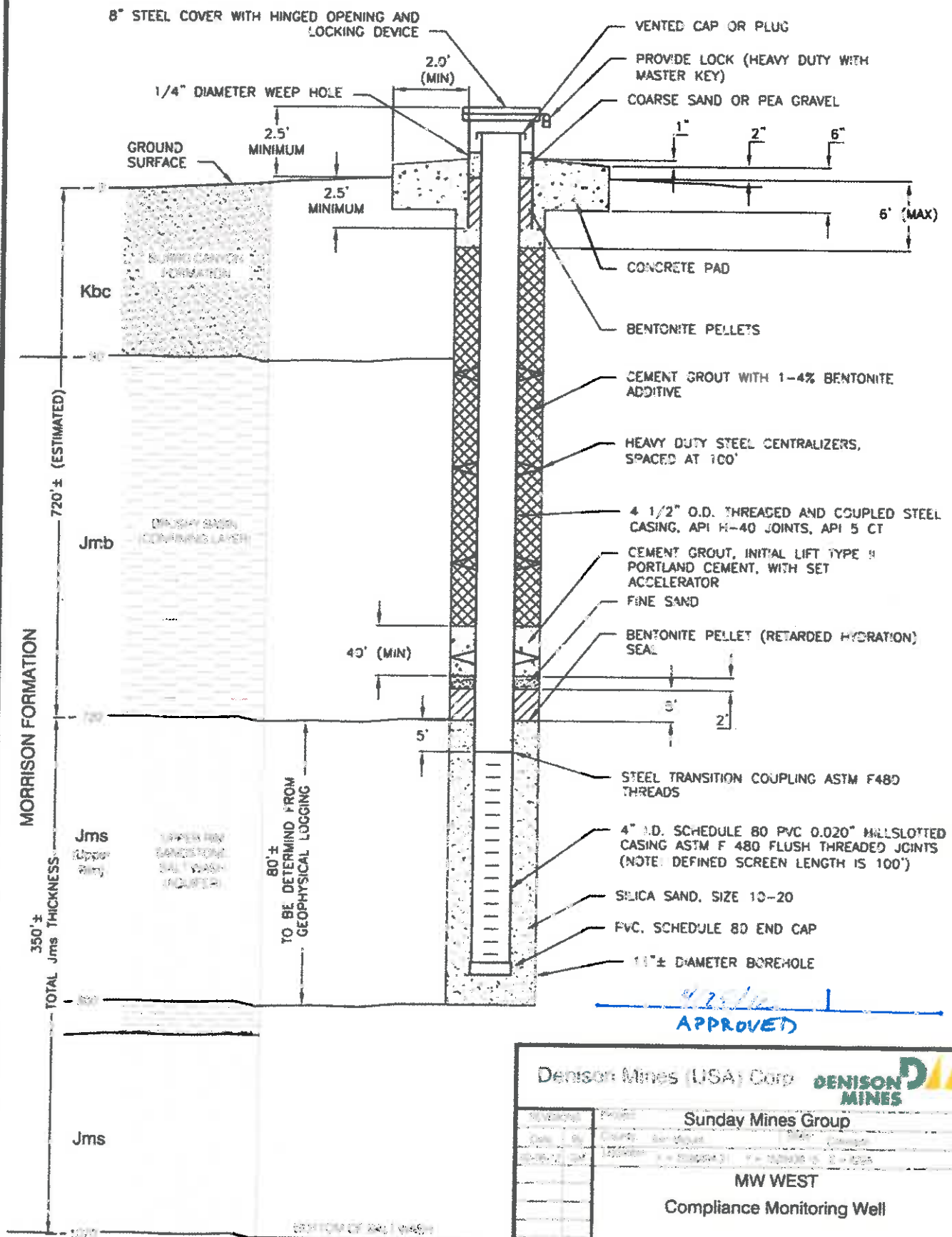
4/25/20  
APPROVED

Denison Mines (USA) Corp		<b>DENISON MINES</b>	
Sunday Mines Group			
Project	Location	Client	Contract
MW EAST	1-200-4000	1-100-0000	2-1000
MW EAST			
Intermediate Monitoring Well			
Block	N/A	Date	3-3-2010
Drawn by	MK/DLS		



4/25/10  
APPROVED

Denison Mines (USA) Corp		<b>DENISON MINES</b>	
Sunday Mines Group			
Location	Site	Project	Client
East	10	1000'	1000'
MW WEST			
Ambient Monitoring Well			
Scale	N/A	Date	3-3-2010
		Drawn By	MK/DLS

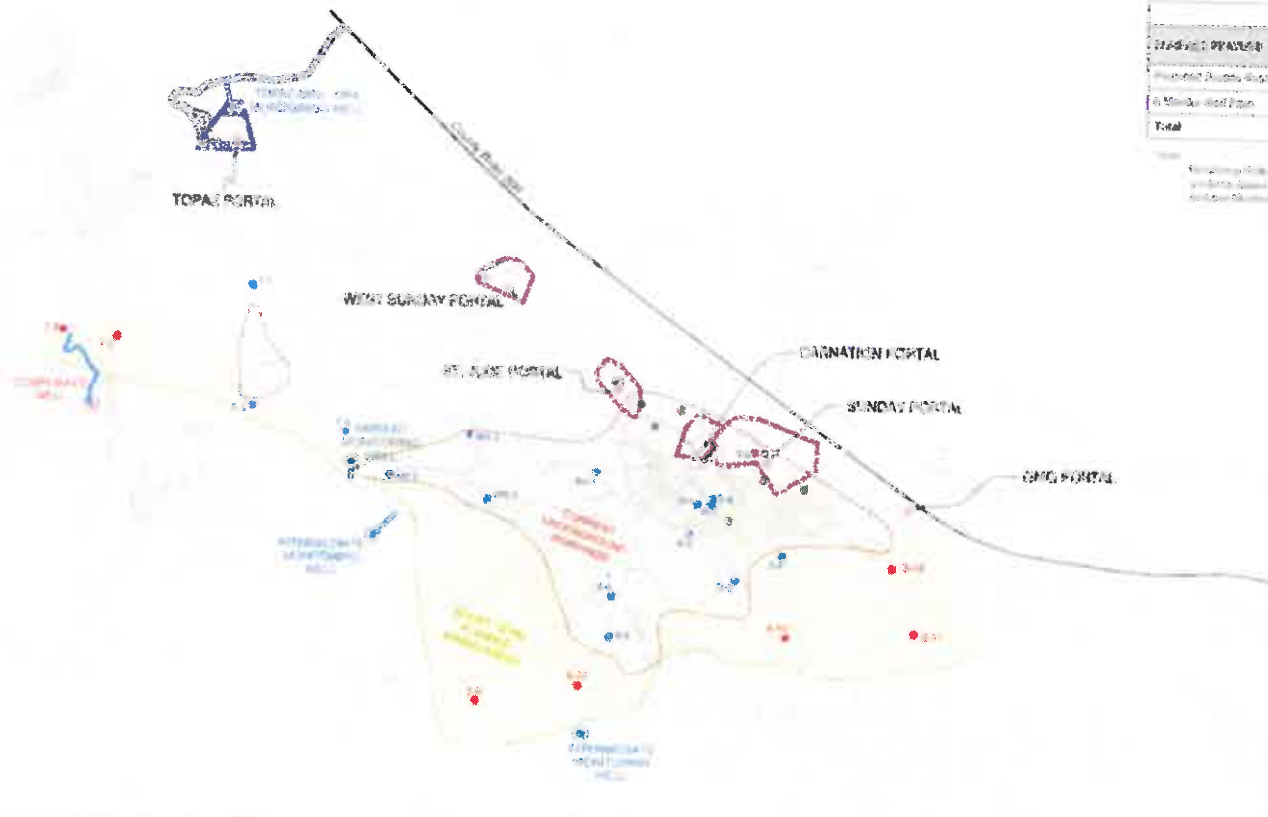


Denison Mines (USA) Corp		<b>DENISON MINES</b>	
Division	Project	Sunday Mines Group	
Date	Drawn	Checked	Reviewed
10/26/09	10/26/09	10/26/09	10/26/09
MW WEST			
Compliance Monitoring Well			
Scale	N/A	Date	3-3-2010
Drawn by	MK/DLS		



ESTIMATED AREAS				
STAGING PLACES	LEADEN	SILVER	OROWAYS PT.	AREAS
Estimated Areas (Acres)	1,407	10	10,304	1.00
Estimated Areas (Acres)	100	10	10,304	1.00
<b>Total</b>			<b>22,533</b>	<b>1.00</b>

Notes: 1. Estimated Areas (Acres) are based on a 100-foot buffer around the perimeter of the mine. 2. The area between the perimeter of the mine and the perimeter of the 100-foot buffer is the estimated area. 3. The area between the perimeter of the mine and the perimeter of the 100-foot buffer is the estimated area.



# LEGEND

- 100-FOOT BUFFER AROUND MINES
- NATURALLY OCCURRING MINES
- ONCE-PAID FOR MINES
- ESTIMATED AREAS
- PROPOSED ACCESS ROADS
- HISTORIC MINE PORTALS
- EXISTING MINE PORTALS
- PROPOSED MINE PORTALS
- PROPOSED MINE PORTALS
- PROPOSED MINE PORTALS
- PROPOSED MINE PORTALS
- PROPOSED MINE PORTALS

4/25/10  
APPROVED



Denison Mines (USA) Corp. DENISON MINES

Sunday Complex

SUNDAY MINE'S  
MONITOR WELL LOCATIONS