MINUTE ITEM C11

W 40632

Kruger

APPROVE A PROSPECTING PERMIT FOR MINERALS OTHER THAN OIL, GAS, GEOTHERMAL RESOURCES, SAND AND GRAVEL, SIERRA COUNTY

Consent Calendar Item C11 was moved and considered during the regular session.

Calendar Item C11 was presented by Al Willard, Supervising Mineral Resources Engineer, in regards to Tenneco Minerals proposing a mineral prospecting program consisting of drilling up to a maximum of 96 exploratory holes at 46 sites along existing dirt roads and jeep trails.

Fred Balderson wrote a letter on July 21st to Charles Warren, Executive Officer of State Lands Commission, and presented an addendum to the letter. This addendum stated his concern regarding the proposed negative declaration on Tenneco Minerals Company's application for a minerals prospecting permit.

Tom Young, Project Manger of Tenneco, advised that all drilling on adjacent property had been restored to its original state.

Commissioner Tucker asked for a report back on the restoration of this property and that a copy of this report be sent to Mr. Balderson.

The Calendar Item was approved 3-0.

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FREDERICK E. BALDERSTON
641 ALVARADO ROAD
BERKELEY, CALIFORNIA 94705

Charles Warren, Executive Officer
State Lands Commission
1807 - 13th St.
Sacramento, Ca. 95814

August 10, 1991

Dear Mr. Warren:

File Ref: W-406332, EIR ND:558.

This is an addendum to the letter of comments that we wrote to you on July 21, 1991, concerning the proposed negative declaration on Tenneco Minerals Company's application for a minerals prospecting permit in Antelope Valley, near Loyalton, California.

In our previous letter, we discussed several major issues of concern about the proposed negative declaration.

At page 1 of the Detailed Project Description, paragraph 1 states:

"The project site is accessible by travelling west from Loyalton on State Highway 49 for about four miles, and then south for about three miles on Antelope Valley Road to the site which is just south of the Antelope Mine which is located in Section 27. This route will provide the main access for drilling equipment to be used during the proposed project. These access roads will not require any modification or excessive maintenance work during the approximate eleven days of the drilling program."

"Antelope Valley Road", as it is referred to in the above paragraph, starts at Highway 49 and proceeds through our private property for a little more than two miles to our south boundary. There is no easement recorded on our property deed to show that this road is on a publicly owned right of way. Sierra County apparently began to undertake a modest amount of annual road maintenance in the early 1950's. Since that time, ranchers, hunters and visitors as well as the National Forest Service and the California Department of Fish and Game have used the road for light-weight vehicles and on an occasional basis.

We have not objected to this light usage since we acquired the property in 1975, but a change in the usage pattern or a widening or modification of the road would, in our view, require our permission. We have, in fact, notified Sierra County of our objection that recent road grading has widened the road several feet from its original width. We want to be sure that the State Lands Commission is aware that we reserve our rights with respect to any change in the pattern of usage of "Antelope Valley Road."

Cordially,

Fred Balderston

Judith Balderston

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MINUTE ITEM
This Calendar Item No. C11
was approved as Minute Item
No. 11 by the State Lands
Commission by a vote of 3
to 0 at its 8-12-91
meeting.

CALENDAR ITEM

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S 1

C 1 1

08/12/91
W 40632 PRC 7561
Kruger

APPROVE A PROSPECTING PERMIT FOR MINERALS OTHER THAN OIL, GAS, GEOTHERMAL RESOURCES, SAND AND GRAVEL, SIERRA COUNTY.

APPLICANT:

Tenneco Minerals Company
5301 Longley Lane, Suite 113
Reno, Nevada 89511

AGENT:

Tenneco Minerals Company
Attn: Thomas Young
P. O. Box 1035
Loyalton, Ca 96118

AREA, TYPE LAND AND LOCATION:

Approximately 320 acres of proprietary lands administered by the California Department of Fish and Game (CDFG) situated within the Antelope Valley Wildlife Area (WLA) and further described as portions of Sections 27, 28, 33 and 34, T21N, R15E, MDM:

Section 27: SW¼SW¼.

Section 28: SE¼SW¼, SW¼SE¼.

Section 33: SE¼NE¼, NE¼NW¼ and N½NE¼.

Section 34: NW¼NW¼.

These lands are located in east-central Sierra County and about five miles northeast of the town of Sierraville, California. Natural wildlife habitats within the WLA consist mostly of transitional range for migrating herds of mule deer.

PROPOSED PROJECT:

Tenneco Minerals proposes a mineral prospecting program which consists of drilling up to a maximum of 96 exploratory holes at 46 sites along existing dirt roads and jeep trails. The drilling

equipment to be utilized is compact and designed for operations in environmentally sensitive areas. Either small drilling rigs with large rubber tires or track-mounted drill rigs will be used during the project. Support equipment will include the minimum number of vehicles necessary to transport personnel and equipment. Vehicles will be restricted to existing dirt roads and access routes.

The drilling method for each hole employs reverse circulation. No mud pits or drilling fluids are required, and no hazardous materials will be used on the site. Core drilling might be used for a small number of the holes. Non-toxic drilling fluids will be used if core drilling becomes necessary. These fluids are contained in tanks while on site. The drill hole diameters will vary from 4-1/8 to 5-1/4 inches, and the total depth of each hole will be 200 vertical feet. The maximum displacement of subsurface material will be approximately 134 cubic yards if all 96 holes were to be drilled to maximum depth. Subsurface samples will be collected at regular intervals from either drill cuttings or core samples, and be assayed off-site for chemical signatures. Should water zones be encountered during drilling, these will be sealed off in accordance with existing State Department of Water Resources regulations.

Drill holes will be abandoned by backfilling each hole with drill cuttings and removing any casing or drill pipe left in the hole. Unused cuttings will be removed from the project area. Drill sites will not require any pad preparation and will be reseeded following abandonment. No new access routes are required and there will be minimal new surface disturbance. Some of the drill sites will necessitate going off-road with the track-mounted or rubber-tired drill rig. Surfaces in the off-road areas are rock-strewn, and covered by some bushes and clay-rich soil.

EIR ND 558, SCH# 91072018, was prepared and circulated for the proposed Antelope Valley Project. Several mitigation measures were incorporated into the project description prior to the public circulation of this document. With these measures included in the project, there is no substantial evidence that this project will have a significant adverse impact on the environment. In order to provide for the compatibility of a drilling program in the WLA with wildlife and recreational uses, CDFG has stipulated that no prospecting or reclamation activities be conducted during licensed deer hunting seasons scheduled for August 17th through September 8th and September 21st through October 6th. The later season would preclude any exploratory or reclamation activities following that season. No activities will

be allowed after October 6, 1991 that would conflict with the winter deer migration into Antelope Valley Wild Life Area. Activities can be resumed about May 15, 1992.

To ensure conformance with all mitigation measures, a staff member of the Commission will perform periodic inspections of the permit area.

SPECIFICATIONS OF THE PROSPECTING PERMIT:

Term: The primary term of this mineral prospecting permit shall be two years. In its discretion, the Commission may extend the term for one additional year.

Royalty: Royalty payable under the permit shall be 20 percent of the minerals secured from the permit area, and sold or otherwise disposed of or held for sale or other disposition.

Royalty payable under any preferential lease issued shall not be less than ten percent of the gross value of all mineral production from the leased lands, less any charges approved by the Commission made or incurred with regard to transporting or processing the State's royalty share of production or the equivalent Net Smelter Return (NSR). The determination of said royalty and charges shall be at the discretion of the Commission, and set forth in the lease.

P.R.C. 6890.5 provides that the Commission when entering into a lease for the extraction of commercially valuable minerals from lands owned by another State agency may provide the State agency receive land as payment for royalty due under the lease. Upon lease issuance and accrual of mineral royalties, CDFG could acquire up to 720 acres of ranch land adjacent to the WLA currently owned by the applicant. CDFG believes that these adjacent lands possess natural wildlife habitat equal to that in the Antelope Valley WLA.

Upon acquisition of these adjacent lands or additional lands or in-kind payments and at the end of each fiscal year, a sum equal to 50 percent of the revenue received by the State for this lease shall be available for appropriation by the California State Legislature for the support of, and apportionment and transfer by the State Controller to CDFG.

PREREQUISITE CONDITIONS, FEES AND EXPENSES:

1. Required filing fee, acreage deposit and permit processing fee have been submitted by the applicant.

2. At this time, the subject lands are not known to contain commercially valuable mineral deposits.

STATUTORY AND OTHER REFERENCES:

A. P.R.C.: Div. 6, sections 6890 and 6891.

B. Cal. Code Regs.: Title 2, Section 2200.

AB 884:

09/20/91.

OTHER PERTINENT INFORMATION:

1. In 1990, the Commission issued Mineral Prospecting Permit PRC 7417 on State proprietary lands within the WLA surrounding the Antelope Valley Project site to Tenneco Minerals for precious metals exploration. Geologic data collected from prospecting activities conducted under PRC 7417 indicate the Antelope Valley Project site contains exploratory targets that warrant subsurface testing to determine the nature and extent of possible gold mineralization.

   With the exception of a portion of Section 33, the environmental impacts to lands covered under the subject Antelope Valley Project (W 40632) have been previously analyzed in EIR ND 420, SCH# 87052507, in conjunction with the prior prospecting permit PRC 7417. At the conclusion of that project, the lands were inspected by State Lands Commission staff for compliance with the conditions in the authorization of PRC 7417. Staff determined that all mitigation and permitting conditions had been satisfactorily met.

2. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines, staff prepared a proposed Negative Declaration EIR ND 558 SCH# 91072018 for the Antelope Valley Project. The proposed Negative Declaration was circulated for public review pursuant to the provisions of CEQA. A copy of this environmental document is attached hereto as Exhibit "C". There is no substantial evidence that the Antelope Valley Project will have a significant effect on the environmental (14 Cal. Code Regs. 15074(b)).

3. Pursuant to P.R.C. Section 6895, upon establishing to the satisfaction of the Commission that a commercially valuable mineral deposit has been discovered within the limits of the permit area, the applicant may have a preferential right to a lease for a maximum of 320 acres embraced within the permit. Said right shall be subject to all necessary environmental approvals. The issuance of this permit shall not affect the discretion of the Commission in granting or denying such a lease because of environmental or other conditions.

4. The prospecting permit document shall provide for a performance bond or other security device of $25,000 in favor of the State.

5. Portions of the subject lands have been purchased through the Land and Water Conservation Fund. As such, approval was sought from the State Department of Parks and Recreation on the basis the proposed activity is a temporary non-conforming use of the subject lands. However, should the permittee apply for a preferential lease, Tenneco would have to provide equivalent acreage for the leased lands to be selected by DFG as consideration for the right to its lands.

APPROVALS OBTAINED:

1. Pursuant to P.R.C. Section 6890, the permit application and permit form have been approved by the Office of the Attorney General for compliance with relevant provisions of the law.

2. CDFG has approved the work to be performed under the authority of the permit, and has specified terms and conditions required to ensure the work shall be performed in a manner which is not inconsistent with the purposes for which the permitted lands are owned. Pursuant to P.R.C. Section 6890(c), CDFG has advised the Commission, in writing, that the proposed activity will not cause a net loss of wildlife habitat value or acreage in that area.

EXHIBITS:

A. Land Description.
B. Site Map.
C. Negative Declaration.

IT IS RECOMMENDED THAT THE COMMISSION:

1. CERTIFY THAT NEGATIVE DECLARATION EIR ND 558, SCH NO. 91072018, WAS PREPARED FOR THE ANTELOPE VALLEY PROJECT PURSUANT TO THE PROVISIONS OF CEQA, AND THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN.

2. ADOPT SAID NEGATIVE DECLARATION AND DETERMINE THAT THE PROJECT, AS PROPOSED, WILL NOT HAVE SIGNIFICANT EFFECT ON THE ENVIRONMENT.

3. DETERMINE THAT THE LANDS DESCRIBED IN THE PERMIT ARE NOT PRESENTLY KNOWN TO CONTAIN COMMERCIALLY VALUABLE MINERAL DEPOSITS.

4. AUTHORIZE THE ISSUANCE OF A MINERAL PROSPECTING PERMIT TO TENNECO MINERALS COMPANY FOR A PRIMARY TERM OF TWO YEARS, FOR VALUABLE MINERALS OTHER THAN OIL, GAS, GEOTHERMAL RESOURCES, SAND AND GRAVEL ON 320 ACRES, MORE OR LESS, OF CALIFORNIA DEPARTMENT OF FISH AND GAME LANDS SITUATED WITHIN THE ANTELOPE VALLEY WILDLIFE AREA OF SIERRA COUNTY FURTHER DESCRIBED IN EXHIBIT "A", IN ACCORDANCE WITH THE STANDARD FORM OF PERMIT. ROYALTY PAYABLE UNDER THE PERMIT SHALL BE TWENTY PERCENT. ROYALTY PAYABLE UNDER ANY PREFERENTIAL LEASE ISSUED UPON THE DISCOVERY OF COMMERCIALLY VALUABLE MINERAL DEPOSITS SHALL NOT BE LESS THAN TEN PERCENT OF THE GROSS VALUE OF ALL MINERAL PRODUCTION FROM THE LEASED LANDS, LESS ANY CHANGES APPROVED BY THE COMMISSION MADE OR INCURRED WITH REGARD TO TRANSPORTING OR PROCESSING THE STATE'S ROYALTY SHARE OF PRODUCTION OR THE EQUIVALENT NET SMELTER RETURN (NSR). THE DETERMINATION OF SAID ROYALTY AND CHARGES SHALL BE AT THE DISCRETION OF THE COMMISSION.

EXHIBIT "A"

LAND DESCRIPTION

W 40632

Four parcels of land in Sierra County, State of California. Said parcels are more directly described as follows:

Parcel 1:

The SW 1/4 of the SW 1/4 of Section 27, T 21 N, R 15 E, MDM

Parcel 2:

The SE 1/4 of the SW 1/4 and the SW 1/4 of the SE 1/4 of Section 28, T 21 N, R 15 E, MDM

Parcel 3:

The SE 1/4 of the NE 1/4 and the NE 1/4 of the NW 1/4 and the N 1/2 of the NE 1/4 of Section 33, T 21 N, R 15 E, MDM

Parcel 4:

The NW 1/4 of the NW 1/4 of Section 34, T 21 N, R15 E, MDM

END OF DESCRIPTION

PREPARED JULY, 1991 BY LLB

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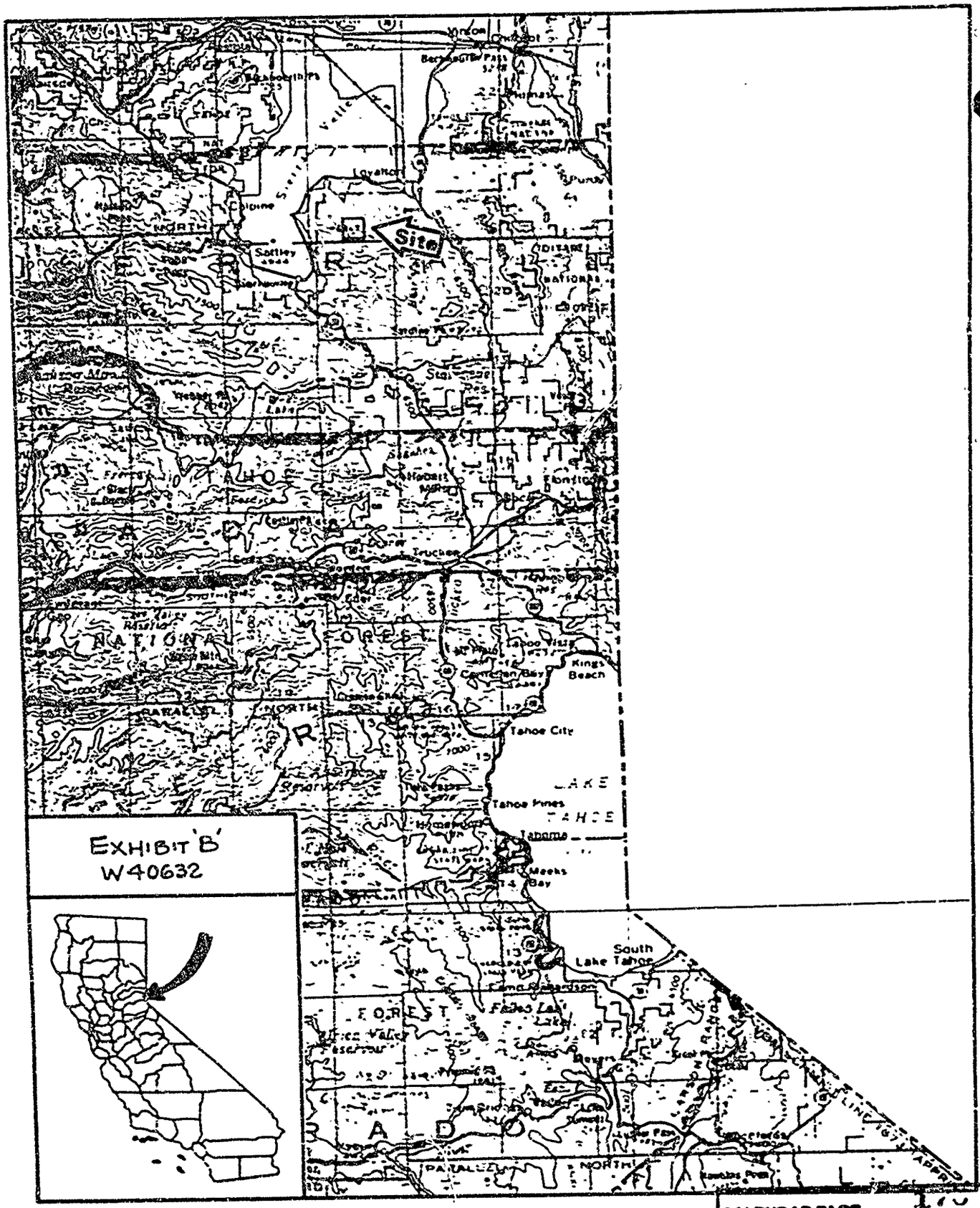

EXHIBIT 'B'
W40632

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Date: June 26, 1991

File: W 40632

ANTELOPE VALLEY PROJECT

Initial Study - Introduction

The State Lands Commission has received an application from Tenneco Minerals Company of Loyalton, CA to conduct a mineral prospecting activity, specifically an exploratory drilling program. The permit application was submitted on February 19, 1991 and was deemed complete on March 19, 1991. If approved by the Commission, the prospecting permit will have an initial term of two years. In its discretion, the Commission may extend the term of the permit for an additional year. The proposed project site is located in portions of Sections 27, 28, 33, and 34, T21N, R15E, MDM and contains approximately 320 acres:

Section 27: SW1/4SW1/4.
Section 28: SE1/4SW1/4, SW1/4SE1/4.
Section 33: SE1/4NE1/4, NE1/4NW1/4 and N1/2NE1/4.
Section 34: NW1/4NW1/4.

These are proprietary lands of the Antelope Valley Wildlife Management Area which are administered by California Department of Fish and Game (CDFG). The Management Area which contains approximately 4500 acres, was acquired by the Wildlife Conservation Board for CDFG in 1980.

Except for the SE1/4NE1/4 of Section 33, the project site was analyzed in EIR ND 420, SCH# 87052507 in conjunction with Tenneco Minerals' prospecting permit PRC 7417.2 as part of an exploration program consisting of geologic mapping, surface sampling and geophysical surveys. In 1990, these lands were inspected by staff of the Commission to determine compliance with the terms of the prior authorization (PRC 7417.2). Staff determined that all conditions had been satisfactorily met.

The proposed project site is on the east side of the Sierra Nevada Range in east-central Sierra County. The site is about 5 miles northeast of the town of Sierraville and about 3.5 miles southwest of Loyalton, CA. The general area of the proposed project is uninhabited, and is adjacent to lands in the Tahoe National Forest.

The Initial Study/Mitigated Project-Proposed Negative Declaration includes an Introduction, Detailed Project Description, Environmental Setting, maps of the project area, an Environmental Impact Assessment, and attachments consisting of botanical and archaeological survey reports.

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Detailed Project Description

The project site is accessible by travelling west from Loyalton on State Highway 49 for about four miles, and then south for about three miles on Antelope Valley Road to the site which is just south of the Antelope Mine which is located in Section 27. This route will provide the main access for drilling equipment to be used during the proposed project. These access routes will not require any modification or excessive maintenance work during the approximate eleven days of the drilling program.

Sierra County's General Plan designates the vicinity of the project site as Intermediate Forest. This designation is compatible with mineral development. Presently, this area has no development. Current land uses include grazing and recreation. Past uses include some mining and logging operations.

Tenneco Minerals proposes a mineral prospecting program which consists of drilling up to a maximum of 96 exploratory holes at 46 sites along existing dirt roads and jeep trails. The drilling equipment to be utilized is compact and designed for operations in environmentally sensitive areas. Either small drilling rigs with large rubber tires or track-mounted drill rigs will be used during the project. Tracks on this type of rig are made with the minimum number of smooth cleats for positive traction, thereby reducing the evidence of passage. Both types of rigs will distribute the ground weight of the equipment more evenly, and are the least surface disturbing of any drilling equipment available. Support equipment will include the minimum number of vehicles necessary to transport personnel and equipment. Vehicles will be restricted to the existing dirt roads and access routes.

The drilling method for each hole employs reverse circulation. No mud pits or drilling fluids are required, and no hazardous materials will be used on the site. Core drilling might be used for a small number of the holes Non-toxic drilling fluids will be used if core drilling becomes necessary. These fluids are contained in tanks while on site. The drill hole diameters will vary from 4-1/8 to 5-1/4 inches, and the total depth of each hole will be about 200 vertical feet. The maximum displacement of subsurface material will be approximately 134 cubic yards if all 96 holes were to be drilled to maximum depth. Subsurface samples will be collected at regular intervals from either drill cuttings or core samples, and be assayed off-site for chemical signatures. Should water zones be encountered during drilling, these will be sealed off in accordance with existing State Department of Water Resources regulations.

Drill holes will be abandoned by backfilling each hole with drill cuttings, and removing any casing or drill pipe left in the hole. Excess cuttings will be used to return any of the drill sites to original contour. Unused drill cuttings will be removed from the project area. Drill sites will not require any pad preparation, and will be reseeded following abandonment. No new access routes are required, and there will be minimal new surface disturbance.

Some of the drill sites will necessitate going off-road with the track-mounted or rubber-tired drill rig. Off-road areas are shown on Figure 2 of the Special-Status Plant Survey attached hereto. Surfaces in the off-road areas are rock-strewn, and covered by some bushes and clay-rich soil.

Tenneco personnel will return any disturbed area to original contour and natural state to the extent possible. Reclamation activities will be conducted both during and after completion of the drilling program.

Mitigation Measures to be Incorporated into the Detailed Project Description:

With the incorporation of the following mitigation measures into the project description there is no substantial evidence that the Antelope Valley Project will have a significant adverse impact on the environment.

1. Mineral prospecting will not occur in the WLA during periods of recreational activity, specifically deer hunting seasons licensed by the Department of Fish and Game scheduled for Aug. 17 through Sep. 8 and Sep. 21 through Oct. 6. The later season would preclude any exploratory or reclamation work following that season.

2. Use of vehicles will be governed by a transportation plan subject to approval by Commission staff prior to project consideration by the Commission. Vehicles will maintain a speed of 15 miles per hour or below while at the project site.

3. Only drilling equipment as described in the project description above will be used throughout the span of the project.

4. Work sites will be consolidated according to a plan submitted to and approved by the Department of Fish and Game prior to site access.

5. A special status plant survey of the site has indicated one of the plant species observed, Lemmon's clover, is located between proposed drill sites 39 and 40. This plant will be avoided by the drilling equipment.

6. If any cultural resource is discovered during the course of the exploratory drilling program, an archaeologist shall be summoned to examine the site. Prospecting activity shall not be resumed until the site is cleared by the archaeologist.

7. Work shall be performed in a safe, professional manner according to accepted engineering practices.

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8. Drill sites 2, 6, 16, 25 as indicated in Figure 2 of the "Special-Status Plant Survey for Exploratory Drilling Adjacent to the Golden Dome Mine Project" are eliminated from the proposed drilling program because of potential effects on special status plants.

9. All drill pads or areas disturbed by drilling activities shall be scarified and seeded by hand-broadcasting. The seed mixture type may be either that provided by the U.S. Forest Service for use in the area or be in accordance with the "Erosion and Sediment Control Guidelines for Developing Areas in the Sierra."

10. Drillholes which do not encounter water shall be backfilled by replacement of drill cuttings into the hole. Drillholes which encounter water shall be abandoned in accordance with California Department of Water Resources Water Well Standards. Impervious sealing material is restricted to the use of bentonite clay only. Mixing of the bentonite clay is restricted to portable tanks or troughs only. No mud pits may be excavated. The top five feet of holes which are abandoned using bentonite clay shall be filled with drill cuttings so as to blend with the existing soil. Drill cuttings which are not utilized in backfilling operations shall be promptly removed from the State parcel.

11. Archaeological considerations:

    a. Move Drill Site #5 north a minimum of 30 meters, use existing road only, stake;

    b. Delete Drill Site #33, change access route to follow existing road, stake;

    c. Move Drill Site #46 south a minimum of 30 meters, access drill site via existing road, stake.

Environmental Setting

Antelope Valley is on the east side of the Sierra Nevada Range, and is within a transitional area that exhibits characteristics of both the Sierra Nevada and Great Basin geomorphic provinces. The valley is a broad, relatively flat floor. The Antelope Valley project site is situated along the west side of the Valley. The terrain of the project site generally slopes north and east, and is covered by alluvium. Elevations range from about 5000 feet on the valley floor to 6800 on the surrounding ridges. Elevations at the project site vary from about 5400 to 5550 feet.

Forested ground covers much of the proposed project site. This includes junipers, Jeffrey pine, sagebrush and grasses. Soils are clay-rich and of variable thicknesses. Much of the terrain is wooded rolling hills, and there are no unique physical aspects at the site. There no habitable structures at the project site. The climate is relatively dry except for snowfalls,

and supports ecosystems typical of the western Great Basin. The surrounding ridges are also dominated by juniper and pine trees, mountain mahogany, grasses, sage and bitterbrush.

Wildlife

Natural habitats in the vicinity area of the Antelope Valley project consist mostly of transitional range for migrating herds of mule deer. No state or federally listed, candidate, or proposed rare, threatened, or endangered species or USFS sensitive species have been observed in the vicinity of the proposed project according to recent studies. The project site also appears to be suitable for goshawks, a USFS sensitive species, but none have been observed in the general area of the proposed project. These studies have identified several different types of habitats including pine forest areas, Juniper woodlands, brush areas and ephemeral creeks. The pine forest habitats are sparse to open stands. There are no dense forested stands occurring in the project area. These habitats support a moderate diversity of wildlife species consisting mostly of birds and some mammals. The proposed project site is situated near the edge of the range of pine forest distribution, and probably because of this location support, low densities of wildlife species.

Botanical Survey

A special status plant survey was conducted on the site of the Antelope Valley Project by Jones & Stokes Associates, Inc. of Sacramento, CA on May 9, 1991. The plant survey consisted of a reconnaissance of Tenneco Minerals' proposed drill sites and access routes. The objective of the survey was to determine if special status plants or their habitats are located at the proposed drill sites or along the access routes. All potential habitats of all special status plants potentially occurring in the area of the project site were evaluated.

Results of the survey indicate the following with regard to nine special status plants which could potentially occur in the project area:

Special Status Plants	Botanical Survey Results
Sierra Valley primrose Plumas ivesia Bailey ivesia	Habitats capable of supporting these plants were not present at the drill sit, routes.
lens-pod milkvetch Webber's milkvetch Dog Valley ivesia	No populations of these plants were observed in the area of the project sites.
Sierra Valley ivesia	This plant was growing in the area of the project, but no identifiable populations were observed in the drill sites or access routes.

Webber's ivesia	It may have been too early in the growing season to detect this species.
Lemmon's clover	One population of this species was found during the survey between proposed drill sites 39 and 40.

The survey concludes that the exploratory drilling program has the potential to affect special status plants, and that Tenneco Minerals has proposed to delete any activity which has the potential of causing impacts to special plants (see Number 8 above). A copy of the plant survey is attached hereto.

Cultural Resources

Archaeological Services, Inc. of Stockton, CA conducted a cultural resources investigation of the project site. A comprehensive archaeological records search covering the project site was completed on May 10, 1991 by the California Archaeological Inventory Information Center in Chico, CA. Results of the records search indicate that there are no recorded prehistoric sites of this type known to be located within the project boundaries. However, one site of this type has been recorded within a one mile radius of the project. Numerous sites of this type have been recorded in similar environmental zones to the north, south and west of the project site. With regard to historic resources, there are no previously recorded sites of this type known to be located within the boundaries of the project site or within a one mile radius. However, the search notes USGS Sierraville, Calif. 15 minute quadrangle map shows the presence of two sites in the vicinity of the site that are probably unrecorded historic cultural resources. The records search concludes that based on available information, portions of the site appear to be sensitive for cultural resources. A copy of this material is attached.

The field survey conducted by Archaeological Services is also attached hereto.

Geology

Antelope Valley is on the east side of the main Sierra Nevada Range. This is part of a volcanic geological terrain common to western portions of the Great Basin geomorphic province. However, because drainages empty through the Sierra Nevada, this valley is technically within the Sierra Nevada geomorphic province. Specific reasoning for consideration of this site as a viable prospect for precious metal mineralization is derived from the exploration program conducted to date. This includes the completion of several exploratory drillholes in the vicinity of the Antelope Mine on the east side of the valley, surface mapping and using geophysical surveys. These surveys have shown the rock material at the site is silicified and contains indications of pyritic minerals at depth. These targets warrant subsurface testing to determine the nature and extent of mineralization. Exploration data further indicate that the targets may occur in hydrothermally altered

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volcanic strata similar to other areas of known mineral development. Additional verification of the existence of precious metal mineralization is suggested by anomalous concentrations of indicator elements such as copper, silver, antimony, zinc and barium.

Mineral exploration and development have been conducted in the vicinity of the proposed project site since the mid 1800s especially around the abandoned Antelope Mine. As recently as the early 1970s, attempts have been made to develop showings of copper, silver and gold. Numerous prospect pits and abandoned mine works can be found throughout Antelope Valley.

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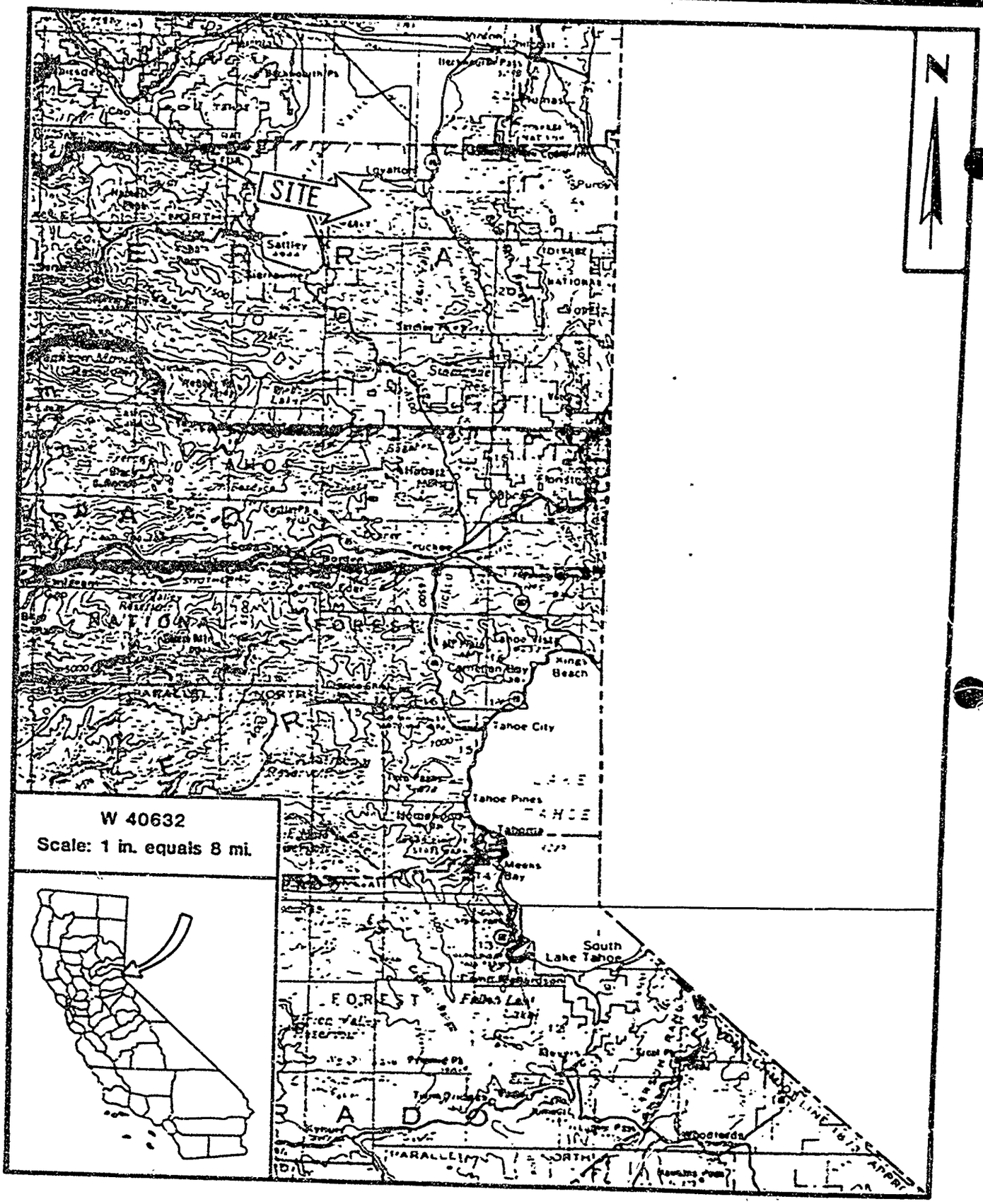

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U. S. G. S.

SIERRAVILLE, CALIF.

15 MINUTE QUAD.

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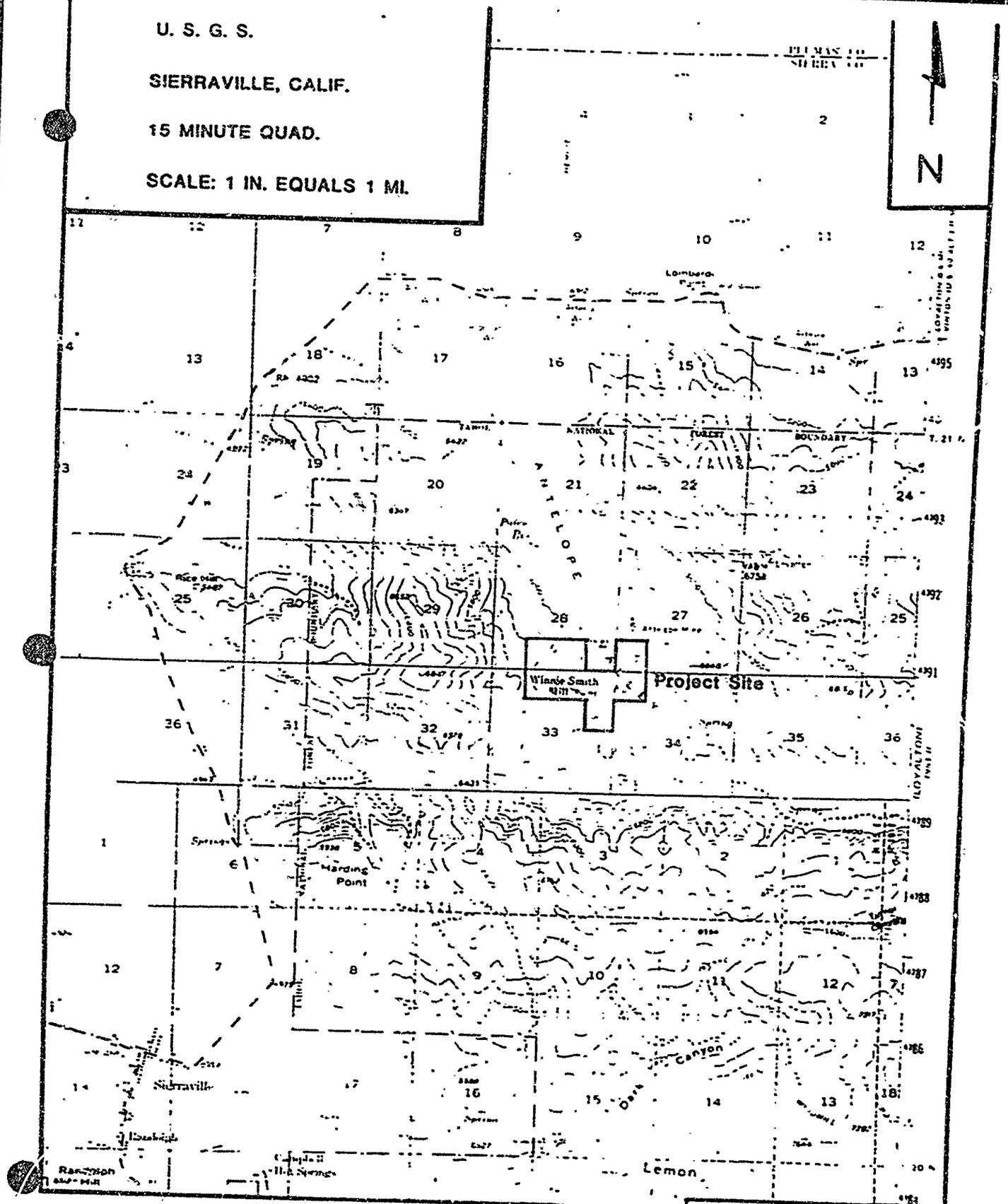

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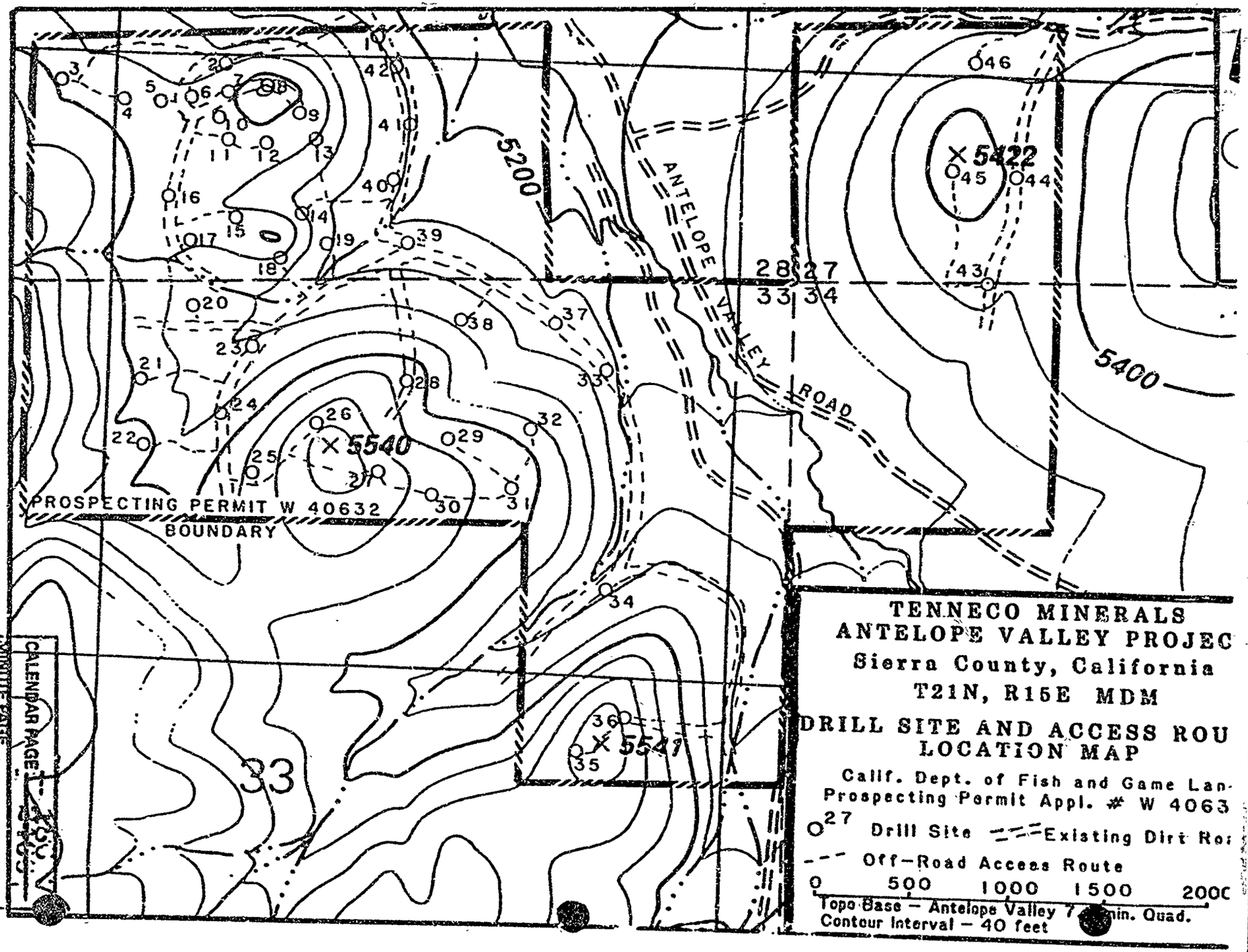
TENNECO MINERALS
ANTELOPE VALLEY PROJEC
Sierra County, California
T21N, R15E MDM
DRILL SITE AND ACCESS ROU
LOCATION MAP
Calif. Dept. of Fish and Game Lan
Prospecting Permit Appl. # W 4063
Drill Site
Existing Dirt Ro
Off-Road Access Route
0 500 1000 1500 200C
Topo Base – Antelope Valley 7 min. Quad.
Contour Interval – 40 feet
PROSPECTING PERMIT W 40632
BOUNDARY
ANTELOPE VALLEY ROAD
5200
5400
X 5540
X 5422
X 5541
28 27
33 34
33
CALENDAR PAGE
MINUTE PAGE

ENVIRONMENTAL IMPACT ASSESSMENT CHECKLIST

File Ref. W 40632

I. BACKGROUND INFORMATION

A Applicant Tenneco Minerals Company
35 E. First St.
Loyalton, CA 96118
Attention: Thomas Young

B. Checklist Date: 05/ 21 / 91

C Contact Person Eric Kruger

Telephone. (213) 590-5201

D Purpose proposed exploratory drilling program is to prospect for precious metals and other valuable minerals.

E Location portions of Sections 27, 28, 33 and 34 of T21N, R15E, MDM, Sierra County.

F Description Tenneco is proposing an exploratory drilling program that consists of drilling a maximum of 96 holes from 46 surface locations along existing dirt roads.

G. Persons Contacted Karl Kahre
California Dept. of Fish and Game-Region 2
1701 Nimbus Rd., Suite A
Rancho Cordova, CA 95670
(916) 355-7020
Roger Werner
Archaeological Services, Inc.
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II. ENVIRONMENTAL IMPACTS. *(Explain all "yes" and "maybe" answers)*

A. *Earth.* Will the proposal result in:

	Yes	Maybe	No
1. Unstable earth conditions or changes in geologic substructures?			X
2. Disruptions, displacements, compaction, or overcovering of the soil?	X		
3. Change in topography or ground surface relief features?			X
4 The destruction, covering, or modification of any unique geologic or physical features?			X
5 Any increase in wind or water erosion of soils, either on or off the site?		X	
6 Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?			X
7 Exposure of all people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?			X

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1 Substantial air emissions or deterioration of ambient air quality?		X
2 The creation of objectionable odors?	X	
3 Alteration of air movement, moisture or temperature or any change in climate, either locally or regionally?		X
C *Water* Will the proposal result in		
1 Changes in the currents or the course or direction of water movements, in either marine or fresh waters?		X
2 Changes in absorption rates drainage patterns or the rate and amount of surface water runoff?		X
3 Alterations to the course or flow of flood waters?		X
4 Change in the amount of surface water in any water body?		X
5 Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?		X
6 Alteration of the direction or rate of flow of ground waters?		X
7 Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?		X
8 Substantial reduction in the amount of water otherwise available for public water supplies?		X
9 Exposure of people or property to water-related hazards such as flooding or tidal waves?		X
10 Significant changes in the temperature flow or chemical content of surface thermal springs?		X
D *Plant Life* Will the proposal result in		
1 Change in the diversity of species, or number of any species of plants (including trees shrubs, grass, crops and aquatic plants)?		X
2 Reduction of the numbers of any unique rare or endangered species of plants?		X
3. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?		X
4 Reduction in acreage of any agricultural crop?		X
E *Animal Life* Will the proposal result in.		
1 Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, or insects)?		X
2 Reduction of the numbers of any unique, rare or endangered species of animals?		X
3 Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	X	
4. Deterioration to existing fish or wildlife habitat?	X	
F *Noise* Will the proposal result in.		
1 Increase in existing noise levels?	X	
2 Exposure of people to severe noise levels?		X
G. *Light and Glare* Will the proposal result in		
1 The production of new light or glare?		X
H *Land Use* Will the proposal result in		
1 A substantial alteration of the present or planned land use of an area?		X
I *Natural Resources* Will the proposal result in		
1 Increase in the rate of use of any natural resources?		X
2 Substantial depletion of any nonrenewable resources?		X

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	Yes	Maybe	No
J. *Risk of Upset.* Does the proposal result in			
1. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset conditions?			X
2. Possible interference with emergency response plan or an emergency evacuation plan?			X
K. *Population.* Will the proposal result in:			
1. The alteration, distribution, density, or growth rate of the human population of the area?			X
L. *Housing.* Will the proposal result in			
1. Affecting existing housing, or create a demand for additional housing?			X
M. *Transportation/Circulation.* Will the proposal result in:			
1. Generation of substantial additional vehicular movement?			X
2. Affecting existing parking facilities, or create a demand for new parking?			X
3. Substantial impact upon existing transportation systems?			X
4. Alterations to present patterns of circulation or movement of people and/or goods?			X
5. Alterations to waterborne, rail, or air traffic?			X
6. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?			X
N. *Public Services.* Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
1. Fire protection?			X
2. Police protection?			X
3. Schools?			X
4. Parks and other recreational facilities?			X
5. Maintenance of public facilities, including roads?			X
6. Other governmental services?			X
O. *Energy.* Will the proposal result in:			
1. Use of substantial amounts of fuel or energy?			X
2. Substantial increase in demand upon existing sources of energy, or require the development of new sources?			X
P. *Utilities.* Will the proposal result in a need for new systems, or substantial alterations to the following utilities.			
1. Power or natural gas?			X
2. Communication systems?			X
3. Water?			X
4. Sewer or septic tanks?			X
5. Storm water drainage?			X
6. Solid waste and disposal?			X
Q. *Human Health.* Will the proposal result in:			
1. Creation of any health hazard or potential health hazard (excluding mental health)?			X
2. Exposure of people to potential health hazards?			X
R. *Aesthetics.* Will the proposal result in:			
1. The obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?			X
S. *Recreation.* Will the proposal result in			
1. An impact upon the quality or quantity of existing recreational opportunities?			

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1 *Cultural Resources*

Will the proposal result in the alteration of or the destruction of a prehistoric or historic archeological site?			X
2 Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?			X
3 Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?			
4 Will the proposal restrict existing religious or sacred uses within the potential impact area?			X

Mandatory Findings of Significance.

1 Does the project have the potential to degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X
2 Does the project have the potential to achieve short term, to the disadvantage of long-term, environmental goals?			X
3 Does the project have impacts which are individually limited, but cumulatively considerable?			X
4 Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X

III. DISCUSSION OF ENVIRONMENTAL EVALUATION *(See Comments Attached)*

IV. PRELIMINARY DETERMINATION

On the basis of this initial evaluation:

X I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

__ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared.

__ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Date 09 / 21 / 91

ERIC L. KRUGER
For the State Lands Commission

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Environmental Impact Assessment Checklist:

Discussion of Environmental Evaluation

A. Earth.

A1. The proposal will not result in unstable earth conditions or changes in geologic substructures. Maximum displacement of subsurface material is about 134 cubic yards from drill holes locations scattered throughout the 320 acre project site.

A2. The proposal will probably result in minimal displacement of surface material during the proposed drilling program. However, this should be a short term condition as Tenneco will return any disturbed area to original contour and natural state to the extent possible during reclamation.

A3. The proposal will not result in any significant change in topography or relief features. New surface disturbance will be minimal.

A4. The proposal will not result in any destruction, covering or modification of any unique geologic or physical features. There are no known unique surface features at this site, and new surface disturbance is minimal.

A5. The proposal may increase soil erosion in areas of surface material displacement. Reclamation of the proposed project area is to begin during and after the completion of exploratory drilling. This should eliminate any erosional condition caused by short term surface disturbance.

A6. The proposal will not result in any changes of near shore areas since there are none of those types of environments in the Antelope Valley project site.

A7. The proposal will not result in exposure of people or property to geologic hazards. New surface disturbance is mimimal, and the extent of the project is exploratory.

B. Air.

B1. The proposal will not result in substantial air emissions. Tenneco will use compact drilling equipment.

B2. The proposal may result in creation of objectionable odors in the immediate vicinity of the drilling equipment. This would be a temporary condition that would dissipate rapidly and will not extend past the completion of drilling.

B3. The proposal will not result in climatic changes. The drilling equipment will not produce extensive energy during the project to change local or regional air movement, moisture or temperature.

C. Water.

C1. The proposal will not result in any changes in water movement since the project site does not contain bodies of marine or fresh waters.

C2. The proposal will not result in any changes to surface water runoff. Fluids, if required, will be contained in on-site tanks.

C3. The proposal will not result in any changes in the coruse of flood water since the amount of surface water at the site is negligible.

C4. The proposal will not result in any changes to amounts of surface water since no bodies of standing water exist within the project site.

C5. The proposal will not result in any discharge into surface waters since fluids to be used on-site will be contained in tanks. No permanent bodies of water exist on the site.

C6. The proposal will not result in any alteration of groundwater since the drill holes will be only about 200 feet. If water zones are encountered, these will be abandoned according to standards of the California Department of Water Resources.

C7. The proposal will not result in any change in the quantity of groundwater. Water zones will sealed if encountered, and the extent of the drilling is limited to small diameter holes. There will be minimal new surface disturbance, and no interception of aquifers by cuts or excavations is proposed.

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