Environmental Assessment
2006-378

Sloan Quarry Plan of Operations
N-77764

Prepared for:
Bureau of Land Management
Las Vegas Field Office

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1.1 INTRODUCTION

The Sloan Quarry is located south of the Las Vegas Valley near Sloan Nevada in Clark County (See Appendix A, Figure1). The Quarry is operated on private lands surrounded by Federal lands managed by the Bureau of Land Management Las Vegas Field Office (BLM).

Historically, on the lands contained within the patented mining claims known as the Sloan Quarry, mineral activities focused on the extraction of chemical grade limestone, limestone, and dolomite. However, in 1991, aggregate production became and has continued to be the primary focus of mineral extraction efforts at the Sloan Quarry.

Over the years, mineral extraction/processing activities have encroached on adjacent Federal lands to south and west of the quarry boundaries.

In November 2004, the Bureau of Land Management, Las Vegas Field Office (BLM) issued an Order of Noncompliance (Order) to Frehner Construction Co., Inc. The Order indicated that there were twelve areas of noncompliant uses on public lands and that there was not a current Plan of Operations for the quarry site. Additionally, the Order presented ten corrective actions necessary to correct the noncompliant issues identified.

In response, Frehner submitted documents in April 2006, entitled "Amendment to the Plan of Operation Permit #N-77764"(Amendment) and "Plan of Operations Sloan Quarry" (POSQ) to the BLM. Upon review of the documents, the BLM determined that the Amendment document adequately addressed the areas of noncompliance. However, BLM determined that the documents were not sufficient to meet the requirements of 43 CFR 3809.401 for a Plan of Operations. The BLM notified Frehner in a letter which identified the additional information necessary for a complete Plan of Operations.

Based on BLM's comments, Frehner submitted "Plan of Operations Permit #N-77764 and Reclamation Permit #0091 Sloan Quarry" in July 2006. On July 24, 2006 the BLM determined that the POO adequately fulfilled the requirements of 43 CFR 3809.401(b) and that the environmental review process as required by 34 CFR 3809.411(3) would be initiated.

It is important to note that the reference to Reclamation Permit #0091 is no longer valid. On March 18, 2004, the Nevada Bureau of Mining Regulation and Reclamation (NBMRR) issued a letter stating that the current sand and gravel operation at the Sloan Quarry is exempt from NAC 519A regulations. Therefore, a reclamation permit is not required from NBMRR and that Reclamation Permit #0091 has been closed.

1.2 PURPOSE AND NEED

The purpose of the proposed action is to correct those noncompliance issues identified in the November 2004 Order and to have a current Plan of Operations approved by BLM. The need for this proposed action is to allow Frehner Construction to continue to mine the material in the Sloan Quarry on patented mining claims, as efficiently as possible. The continued need for mineral material is expected into the near future for infrastructure and other public needs. In order to maximize the mineral material development within the Sloan Quarry it has become necessary to locate ancillary and support facilities as close to the quarry as possible without interfering with excavation activities. Therefore, Frehner Construction proposes to locate those facilities directly related to the operation and maintenance, on and adjacent to previously disturbed areas within current mill site claims on the south side of the quarry.

1.3 CONFORMANCE WITH APPLICABLE LAND USE PLANS:

This proposed action is in conformance with the Las Vegas Resource Management Plan, approved on October 5, 1998. The plan has been reviewed and the proposed action conforms with land use plan decision ***MN-1-j under the authority of the Mining Act of 1872 and under the authority of section 302 of the Federal Land Policy and Management Act of October 21, 1976 (FLPMA), as amended (43 U.S.C. 1732 et. seq.).***

1.4 RELATED NEPA DOCUMENTS:

The following documents are referenced for site specific and cumulative analysis pertaining to construction and air quality impacts, terms and conditions, and stipulations:

Environmental reviews and planning documents that have been considered in developing this project include the following:

A) Las Vegas Resource Management Plan EIS (RMP), ROD signed October 5, 1998.

The BLM's RMP provides management guidelines for lands within the Las Vegas District of the BLM in the form of objectives and management directions. Approximately 3.3 million acres of public land are managed by the BLM in Clark and Nye Counties. The RMP was approved in October 1998.

Chapter 2.0 Proposed Action and Alternatives

This chapter describes the alternative to the plan of action. Additionally, it defines the differences between the alternatives, especially in how the potential environmental impacts differ.

The alternatives were selected by linking the purpose and need of the project with the relevant environmental issues. The alternatives consist of the proposed action and the no action.

The proposed action consists of approving the Plan of Operations for the Sloan Quarry. Alternative A is the no action alternative, in which the Plan of Operations would not be approved.

2.1 PROPOSED ACTION: PLAN OF OPERATIONS

The proposed action consists of four (4) major areas on Federal lands (approximately 75.31 acres) on which reclamation efforts and/or new and continued uses are anticipated. Each of these four areas is comprised of current 5-acre mill site claims which were located between November 2000 and January 2006. While it is difficult to predict future needs, it is anticipated that the proposed plan of operations will be sufficient for at least 10 years.

Within the proposed project, approximately 38.4 acres have been previously disturbed and approximately 36.9 acres are undisturbed lands (Appendix A, Figure 2). The proposed Plan of Operations incorporates all the disturbed and undisturbed acreage and identifies the anticipated uses on the Federal lands. For those areas, approximately 7.5 acres, were continued activities are not anticipated, reclamation efforts will be conducted on previously disturbed lands.

Location

Located in Frehner Mill Site Claims 1, 2, 5, 6, 9-12, 19-22 in Township 23 South, Range 60 East, sec. 13: NESWSW, NWSESW, S2SESW, S2SWSE; Hansen Mill Site Claims 1-4 in Township 23 South, Range 60 East, sec. 13: S2SESE; Frehner Extension Claim #301 in Township 23 South, Range 60 East, sec. 13: SWNWSW; and Frehner Mill Site Claims 13 & 14 in Township 23 South, Range 60 East, sec. 14: NENESE.

These areas are depicted on a map in Appendix A, Figure 3.

Area #1 –- Frehner Mill Site Claims 20-22 and Hansen Mill Site claims 1-4 (Approx. 24.15 acres).

Public lands north of the railroad right of way will be used for the stockpiling of finished mineral aggregate products mined from private lands. Maximum tonnage that may be stockpiled on public lands in this area will not exceed 350,000 tons.

Disturbance will include; roadways associated with processing, stockpiling and transportation to market of stockpiled materials, building pads for stockpiles and storm drainage berms to direct storm waters. Crushed stone materials will be used for the construction of roadways, pads and berms. Original contours in this area will be modified to accommodate level surfaces for the building of product stockpiles.

No structures permanent or temporary will be built in this area. All stockpiling will be completed with mobile equipment rather than conveyor stackers. No paving or permanent road surfaces will be installed. Dust control will be via water trucks, magnesium chloride treatment and/or other chemical treatments.

Material stockpiled will be marketable material. Waste or deleterious materials will not be placed on public lands. Equipment used on public lands includes all equipment listed in the private lands sector less the drilling and blasting equipment. In addition to equipment previously listed, over the road haul trucks will access these public lands for the removal of material to market.

Area #2 -- Frehner mill site claims 1, 2, 5, 6, 9-12, and 19-22 (Approx. 42.16 acres)

Public lands south of the railroad right of way used to site a building, access road, storm water retention basin, wheel washing station, and provide space for parking, assembly, staging, parking, repair and maintenance of equipment used in the mining, transportation or final placement of materials mined on private lands.

Building

A large (400ft. x 110ft.) prefabricated steel building will be built on the northern boundary of claims 10 & 11. This building will be used primarily for maintenance and service of mining equipment and over the road haul trucks used to transport material from the mine site. The building will have 8" concrete floor with 24ft. x 16ft. footings, 8 inch asphalt apron measuring 400ft. x 90ft. and an office extension on the south side.

Water to the building will come from the north on private lands. A septic leach field will be completed on private lands to the north of the building. A sand trap will be installed at the collection point of all floor drain piping prior to discharge to the septic leach field.

Electrical supply to the new structure will include 1,200 feet of three phase overhead electrical conductor. The high voltage to medium voltage transformer will be located on private lands with the proper oil containment if the transformer is oil filled.

Total concrete requiring remediation in the building approximates 1,200 cubic yards. The asphalt apron requiring remediation (assuming 13lbs per square foot inch) approximates 1,875 tons. Total electrical conductor requiring remediation from public lands approximates 1,200 feet.

Access

A new access road to the proposed structure and parking areas will be extended from the existing paved Sloan access road. The new roadway will be approximately 1,670 feet in length, 60 feet wide, and paved to a thickness of 8 inches. Assuming 13lbs per square foot inch a total of 5,210 tons of asphaltic concrete will be utilized.

Retention Basin

On the south east corner of claim #2, a flood retention basin will be built to contain runoff from the up gradient areas in claims 1, 5, 6, 9 – 12. The basin will measure approximately 660ft. x 160ft., with a maximum depth of 7.5 feet. The spillway will be constructed of riprap. The containment walls of the basin will be created by dozing and grading the native materials into the berms. Tops and slopes of the berms will be covered with screened limestone to prevent erosion. This construction method will create the basin and berms required for containment without significant imported material requirements. It is estimated 1,000 tons of cover material and riprap will be required for completion of the basin.

Truck Wheel Wash Station

South of the Sloan access roadway on Frehner Mill Site claims #19 & #20, a truck wheel wash station will be constructed.

This station will have approximately 75 ft. x 12 ft. of asphalt paved approach and drive away roadway running parallel to the access roadway. Power to the station will be sourced from the Silver State Materials batch plant and will be buried in a single conduit. Mechanical and electrical equipment will consist of a series of pumps and the associated piping.

The station will be self contained with water retention basin capacity of approximately 35,000 gallons each. This capacity will have two division walls creating three settling basins. One basin will have a sloped access ramp for slimes removal with a front end loader. Concrete walls and weir will separate the basins. Hyperfloc® a flocculent type chemical may be introduced in the slimes retention basin to enhance particle drop out. A Material Safety Data Sheet obtained on Hyperfloc identified its RCRA status as “Not a hazardous waste” and there was no reportable quantity requirements under 40 CFR 302 (see Appendix B). Initial water charging and all make-up water requirements will be delivered to the station by water truck.

The system will be a closed loop with no water being discharged to public lands. Water from wheel washing will drain into the sloped ramp basin. Slimes from the settling basin will be removed with a front end loader and transported by mine truck to private lands.

Total excavation will be 418 cubic yards of material which will remain on federal lands in the plan area and approximately 131 yards of reinforced concrete will be required to

construct the station. Approximately 400 feet of conduit and cable will be buried at a depth of two feet and 93.5 tons of asphaltic concrete will be used to construct the approach and drive away roadways.

Parking

Claims 11 & 12 will have space dedicated for 200 parking spaces required to accommodate employee parking. This area will not be paved but will be graded and covered with limestone chips generated on private lands.

The balance of area #2, not already encumbered by one of the previously identified uses will primarily be used for the assembly, staging, parking, repair and maintenance of equipment used in the mining, transportation or final placement of materials mined on private lands.

All areas not cited for concrete or asphaltic paving will be graded with limestone chips mined from private lands used to dress the areas. Water will be used to control dust in these unpaved areas.

Area #3 - Frehner mill site #13 & 14 (Approx. 5.0 acres)

This area, located near the western boundary of the Sloan Quarry, has been used for stockpiling material, temporary storage of a cone type crusher, ready mix truck cleanout and stockpile of concrete waste without Agency authorization. The eastern portion of this area (approximately 1.5 acres) has been and will continue to be used for mobile equipment and sized limestone storage, as well as an earthen storm water diversion berm.

Approximately 3.5 acres of this area will be reclaimed in accordance with BLM specifications (Appendix A, Figure 4). All of the equipment and materials will be removed and the surface will be re-contoured and scarified in order to facilitate reclamation.

Area #4 - Frehner Extension Claim #301 (Approx. 4.0 acres)

Historically this area has been used for the storage of equipment. This activity is a result of misunderstanding of permitted activities allowed on mining claims by the mine operator.

This area will be reclaimed in accordance with BLM specifications (Appendix A, Figure 4). All of the equipment and materials will be removed and the surface will be re-contoured and scarified in order to facilitate reclamation.

2.1 ALTERNATIVE A: NO ACTION

For the purposes of NEPA analysis a No Action alternative is required to analyze the comparative consequences associated with the proposed action and the alternatives. For this analysis, the no action alternative would mean that the proposed plan of operations

would not be approved and the violations on Federal lands would not be resolved. It is probable that the efficient production of aggregate material at the Sloan Quarry may be compromised due to limited space within the current quarry operation for support facilities/structures. Additionally, the no action alternative would prevent the claimant from exercising their rights under the 1872 Mining Law to extract mineral from mining claims.

3.0 Affected Environment

The proposed project is on public lands in southern Clark County. This chapter will address the existing environment, or baseline environment, that may be affected by each of the alternatives. Impacts to these resources will be addressed in Chapter 4.0.

Information in this chapter is organized under the following headings:

3.1 GENERAL SETTING

The proposed project is located south of the Las Vegas Valley, near Sloan, Nevada in the Mojave Desert. The proposed project area is located adjacent to areas with significant topographic relief to the north and west. However, lands included in the proposed action are generally characterized as alluvial flood plain with ephemeral washes which flow in an easterly direction.

The region is characterized by climactic conditions such as bright sunshine, low levels of precipitation, dry air, and pronounced temperature fluctuations. Average yearly precipitation is 4.40 inches which occurs mostly as rainfall during the months of January and August. Daily temperature fluctuations of 20-30 degrees are commonly experienced due to the strong surface heating during the day and the rapid cooling at night due to dry air and clear skies. Seasonal temperature's range from a mean monthly maximum of 104˚F (40˚C) in July to a mean monthly minimum of 33˚F (0.6˚C) in January.

The prevailing wind direction is from the southwest and is generally light in the morning and stronger in the afternoon with gusts up to 30 miles per hour. The mean wind speed ranges from a low of 7.2 miles per hour (mph) in December to a high of 11 mph in April and June.

3.2 RESOURCES NOT TO BE IMPACTED

Research has indicated that the following resources would not be impacted by any of the alternatives:

- Areas of Critical Environmental Concern (ACEC) - The Arden ACEC is the closest ACEC to the project area. It is approximately 4-6 miles northwest of the project area.
- Farmlands, Prime/Unique- There are no farmlands within the project area.
- Floodplains- The analysis for surface water resources includes floodplains.
- National Conservation Areas- Red Rock Canyon NCA and Sloan Canyon NCA are the closest NCAs to the project site. At its closest point, Red Rock Canyon NCA is approximately 11 miles west of the project area and Sloan Canyon NCA is approximately 6 miles east of the project area.
- Native American Religious Concerns- No known native American religious concerns have been identified in this area.
- Noise- The activities associated with the proposed action are similar to those on the adjacent Sloan Quarry. Therefore, no impacts associated with noise are expected.
- Range Management- There are no active gazing allotments in the area.
- Socioeconomic- The proposed action is in direct support of current activities at the Sloan Quarry. The proposed relocation of facilities and use of federal lands does not constitute an expansion of the Quarry but rather is necessary to allow for continued operation.
- Wetlands and riparian zones- There are no wetlands or riparian zones within the project area.
- Wild and scenic rivers- There are no wild and scenic rivers within the project area.
- Geology- The proposed action will only disturb the surface of the Federal lands and therefore is not expected to have any impact on the geology.
- Paleontology- There are no known paleontolgical resources in the project foot-print.
- And, wilderness- The project is not within a wilderness area. The nearest wilderness area is 8-10 miles away.

3.3 AIR QUALITY

Air quality is determined by several factors, including landform, amount of contaminants emitted into the atmosphere, and meteorological conditions. In southern Clark County, stable atmospheric conditions, low mixing heights, and light winds during the night and morning hours provide opportunities for contaminants to accumulate. Atmospheric dispersion of pollutants generally improves by mid-afternoon.

3.3.1 Regulatory Framework

The proposed project is within the jurisdiction of the Clark County Department of Air Quality and Environmental Management (CCDAQEM). The CCDAQEM has the authority to regulate sources of air pollution in Clark County with U.S. Environmental Protection Agency (USEPA) oversight.

The effects of ambient air quality within an air basin depend mainly on the characteristics of the receptors and the type, amount, and duration of exposure. National Ambient Air Quality Standards specify the concentration and duration for which pollutants may cause adverse health effects. National primary ambient air quality standards define levels of air quality, with an adequate margin of safety to protect the public health. National secondary ambient air quality standards define levels of air quality, with an adequate margin of safety, to protect the public welfare from any known or anticipated adverse effects of pollutant. Where differences in local and national standards exist, the more stringent standards apply. The National Ambient Air Quality Standards were adopted by the State of Nevada and Clark County. These standards were set for sulfur oxides, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead.

Ambient Air Quality Standards and Regulations

The Clark County Air Quality Standards (CCAQS) were established in order to protect human health. The standards are presented in the following chart.

Table 1. Clark County Air Quality Standards.
Sulfur dioxide, PM_{10}, $PM_{2.5}$, carbon monoxide, ozone, nitrogen dioxide, and lead are monitored to protect human health.

Pollutant	Standard	Standard Value*	Standard Type
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	60 µg/m^3≥ (0.02 ppm)	Primary
	24-Hour Average	260 µg/m^3≥ (0.1 ppm)	Primary
	3-Hour Average	1300 µg/m^3≥ (0.5 ppm)	Secondary
Particulate Matter (PM_{10})	Annual Arithmetic Mean	50 µg/m^3≥	Primary and Secondary
	24-Hour Average	150 µg/m^3≥	Primary and Secondary
Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	15 µg/m^3	Primary and Secondary
	24-Hour Average	65 µg/m^3	Primary and Secondary
Carbon Monoxide (CO)	8-Hour Average	10 mg/m^3≥ (9.0 ppm)	Primary
	1-Hour Average	40 mg/m^3≥ (35.0 ppm)	Primary
Ozone (O_3)	8-Hour Average	157 µg/m^3 (0.08 ppm)	Primary and Secondary
	1-Hour Average	235 µg/m^3≥ (0.12 ppm)	Primary and Secondary
Nitrogen dioxide (NO_2)	Annual Arithmetic Mean	100 µg/m^3≥ (0.053 ppm)	Primary and Secondary
Lead (Pb)	Quarterly Average	1.5 µg/m^3≥	Primary and Secondary

* Parenthetical value is an approximate equivalent concentration.

Air Pollutants in Clark County

In order to regulate and enforce the CCAQS, the CCDAQEM operates air quality monitoring instruments to measure ambient concentrations of the criteria air pollutants mentioned in the chart above. Since the proposed project is within hydrographic basin 212, construction and ongoing operation must remain within the limits and air quality permits will be required from the CCDDAQEM.

3.4 BIOLOGICAL RESOURCES

This section provides a general overview of the plant and animal species found in the vicinity of the proposed project as well as identifying any sensitive species.

3.4.1 Botanical Resources

According to the SEIS, the proposed project area is generally characterized as a creosote-bursage scrub vegetation community and developed/urban.

The creosote-bursage scrub vegetation is the most extensive vegetation community in the Las Vegas Valley. Characteristic plants found within this community primarily include creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). The primary associated shrubs include blackbrush (*Coleogyne ramosissima*), Nevada tea (*Ephedra* ssp.), dalea (*Dalea* spp.), shadescale (*Atriplex confertifolia*), spiny hopsage (*Grayia spinosa*), spiny menodora (*Menodora spinescens*), desert thorn (*Lycium* spp.), ratany (*Krameriaceae parvifolia*), honey mesquite (*Prosopis glandulosa*), and brittlebush (*Encelia farinosa*). Other associated species include Joshua tree (*Yucca brevifolia*), Mojave yucca (*Y.schidigera*), prickly pear (*Optunia engelmannii*), Schockley's goldenhead (*Acamptopappus schockleyi*), and Indigo bush (*Dalea fremontii*).

Currently, the lands to the north and east of the proposed project area are utilized for industrial mineral development associated with the Sloan Quarry. Lands to the south and west are predominately vacant.

No known sensitive plant species occur within the proposed project area

3.4.2 Wildlife Resources

Wildlife species in the project area are those that have adapted to creosote-bursage scrub habitats with little cover and dry conditions. Since surface water is rare and transitory, no fish or amphibian species occur in the project area. A limited number of reptile, bird, and mammal species are likely to occur in the creosote-bursage scrub community of the project area.

The BLM is mandated to protect and manage sensitive wildlife species and their habitat. These special status species are either candidates for, or proposed for listing, under the Endangered Species Act (ESA) or species which have been designated by the BLM, state, or county as in need of special management.

At least 300 wildlife species have been recorded in the Las Vegas Valley area as either residents or as migrants or transients. These include over 240 species of mammals and approximately 25 species of reptiles and amphibians.

Several special status wildlife species which occur, or have the potential to occur, within the project area include: Allen's big-eared bat (*Idionycteris phyllotis*), banded gila monster (*Heloderma suspectum cinctum*), big free-tailed bat (*Nyctinomops macrotis*), California leaf-nosed bat (*Macrotus californicus*), chuckwalla (*Sauromalus obesus*), fringed myotis (*Myotis thysanodes*), greater western mastiff bat (*Umops perotis califonicus*), long-earred myotis (*Myotis evotis*), long-legged myotis (*Myotis volans*), pallid bat (*Antrozus pallidus*), spotted bat (*Euderma maculatum*), Townsend's western big-eared bat (*Plecotis townsendii townsendii*), and the Western small-footed myotis (*Myotis ciliolabrum*).

3.5 THREATENED AND ENDANGERED SPECIES

The U.S. Fish and Wildlife Service (USFWS) maintain the list of species protected under the Endangered Species Act. This list classifies species that are either Endangered, or

Threatened. Literature and database searches, as well as agency specialists, identified the potential of one protected animal that may utilize the identified lands, the threatened desert tortoise (*Gopherus agassizii*). Based on the survey data, tortoise densities in the proposed project area are estimated to be moderate.

3.6 MIGRATORY BIRDS

Under the Migratory Bird Treaty Act of 1918 and subsequent amendments (16 U.S.C. 703-711), it is unlawful to take, kill, or possess migratory birds. Executive Order 13186 issued January 11, 2001 further defines the responsibilities of Federal Agencies to protect migratory birds; a list of those protected birds can be found in 50 C.F.R. 10.13. Several species of songbirds and raptors including Black-throated Sparrow (*Amphispiza billineata*), Rufous-crowned Sparrow (*Aimophila ruficeps*), House Finch (*Carpodacus mexicanus*), Verdin(*Auriparus flaviceps*) Western Kingbird (*Tyrannus verticalis*), Say's Phoebe (*Sayornis saya*), Lesser Nighthawk (*Chordeiles acutipennis*), Western Burrowing Owl (*Athene cunicularia*), Red-tailed Hawk (*Buteo jamaicensis*), Ferruginous hawk (*Buteo regalis*), Golden eagle (*Aquila chrysaetos*), are known or have the potential to breed/nest in the vicinity of the proposed action.

3.7 NOXIOUS WEEDS

The Nevada Legislature has declared that it is the obligation and the responsibility of the owners and occupiers of land in Nevada to control all weeds designated as noxious by the Nevada Department of Agriculture. Chapter 555.005 of the Nevada Revised Statutes (NRS) defines a noxious weed as "any species of plant which is, or is likely to be, detrimental of destructive and difficult to control or eradicate." To control the weeds the landowner or user shall "cut, destroy or eradicate all weeds…before such weeds propagate and spread, and whenever required by the state quarantine officer" (NRS 555.150).

The following noxious weeds are found in Clark County: camelthorn (*Alhagi maurorum*), Russian knapweed (*Acroptilon repens*), yellow starthistle (*Centaurea solstitialis*), perennial pepperweed (*Lepidium latifolium*), saltcedar (*Tamarix* spp.), and puncture vine (*Tribulus terrestris*) (BLM, 2000).

The project area does not occur in an area of known distributions of noxious weeds. However, the proposed project activities include the clearing of lands capable of supporting vegetation native to the project area. The process of clearing these lands and the ensuing loss of native vegetation can make the area vulnerable to the establishment of noxious weeds. Native vegetation, left alone, can usually compete with noxious weeds. However, vehicles that may transport seeds of noxious weeds to the project area can give these weeds a competitive edge over native vegetation by depositing seeds where they would not naturally occur.

3.8 CULTURAL RESOURCES

Cultural resources are prehistoric and historic archaeological sites, districts, structures, or locations considered important to a culture, subculture, or a community for scientific, traditional, religious, or other reasons. Under Section 106 of the National Historic

Preservation Act (NHPA) of 1966, as amended, impacts to cultural resources must be determined prior to authorizing any Federal action or actions on Federal lands. In compliance with Section 106 of the NHPA, a cultural resource report was prepared for the project area as a part of a cultural resource Class III inventory completed by the University of Las Vegas Harry Reid Center for Environmental Studies (UNLV).

UNLV completed a comprehensive review of archaeology site files and conducted a Class III field inventory on the entire proposed project area on September 12 & 13, 2006. The Class III inventory resulted in the identification, recordation and evaluation of three previously recorded and three new cultural resource properties as well as two isolated occurrences (IOs). All six of the identified and documented cultural resource sites date to the historic period. The sites consist of a water pipeline, a segment of the San Pedro, Los Angeles & Salt Lake (SPLA&SL) rail line, the Sloan railroad siding, and three trash scatters.

The results of the survey were presented in a report entitled "A Cultural Resource Investigation of Approximately 100 acres for Ventajas, LLC Mineral Action, Sloan, Clark County, Nevada" BLM Report #5-2552.

3.9 SOILS

The RMP identifies soils in the proposed project area as being deep to moderately deep gravelly (course to medium texture) stable fans and low foothills and shallow to moderately deep rocky-gravelly course textured.

3.10 LAND USE

The project is located within an area with the following adjacent land use categories: Rural Open Land (R-U) and Intense Manufacturing and Industrial activities (M-2).

The proposed project is located in unincorporated Clark County. Land ownership and land use adjacent to the proposed project are either open vacant lands or the Sloan Quarry. The nearest residential development is approximately 1 mile to the east along Sloan Road.

3.10.1 Land Uses within the Project Area

Within the area of the proposed project there are several existing Rights-of-Way (ROW) which either traverse or are immediately adjacent. The Union Pacific Railroad has one authorized linear ROW (CC-000360). Nevada Power has one authorized ROW overhead transmission line(s) (N-44110). Lastly, Sprint central telephone has one ROW for an underground line (N-60560).

3.11 ENVIRONMENTAL JUSTICE

According to Executive Order 12898 of February 11, 1994, all Federal actions must address and identify as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations in the United States. The subject action was evaluated and no disproportionately high or adverse human health or environmental effects were identified for minority or low-income populations.

3.12 MINERALS

The primary mineral resource in the project area is sand and gravel. Sand and gravel are used as construction and building material in the Las Vegas valley. It is also exported, primarily to Southern California. The material is principally derived from alluvium and alluvial fans.

No mineral extraction or processing will take place on the lands included in the proposed action. However, mineral material extracted and/or processed within the adjacent Sloan Quarry may be stockpiled on and transported across the proposed project lands.

3.13 RECREATION

No organized or designated recreational uses on the proposed project area. Current recreational activities consist of infrequent and passive use by off road vehicles and ATV's.

3.14 VISUAL RESOURCES

Visual resources consist of the natural and man-made features that give a particular environment its aesthetic qualities. These features may be natural appearing or modified by human activities. Together they form the overall impression of an area, referred to as its visual character. Landforms, water sources, vegetation and man-made features are treated as characteristic of an area if they are inherent to the formation, structure and function of the landscape. Visual character is evaluated to assess whether a proposed project would appear compatible with the existing setting or would contrast noticeably with the setting and appear out of place.

In order to identify and protect the visual resources on public lands, the BLM has created four Visual Resource Management (VRM) classes to provide a set of standards for the design and development of future projects and for rehabilitation of existing projects. The proposed project is in the VRM Class III. In a Class III VRM, actions are allowed which will alter the existing landscape but not attract or focus the attention of the casual viewer.

For the proposed project a Visual Contrast Rating Worksheet was completed for two Key Observation Points (KOP) identified for this project (see Appendix C).

The first KOP is at the intersection of I-15 and Sloan Road approximately 1.5 miles east of the project area. The existing structures associated with a cement batch plant, located on privately owned property, in the midground will likely obscure at least a portion of the proposed facilities. The linear shapes associated with the paved road and fence line

combined with the numerous geometric forms associated with signs and buildings result in a moderate level of existing contrast for both form and line. The existing structures colors of while and tan exhibit a weak to moderate contrast with the light tan, brown and light green of the natural terrain and vegetation. Additionally, the existing facilities provide a moderate scattered texture upon the visual landscape particularly in the midground.

The second KOP is from the intersection of Sloan Road and Cameron approximately 1 mile southeast of the proposed project area. The strong linear shape associated with the paved road in the foreground combined with the moderate vertical shapes associated with power poles and metal silo facilities in the midground result in a moderate to strong degree of contrast for both form and line. The existing structures colors of while, tan , and brown exhibit a weak to moderate contrast with the light tan, brown and light green of the natural terrain and vegetation. Additionally, the existing facilities provide a moderate scattered texture upon the visual landscape particularly in the midground.

3.15 WASTES, HAZARDOUS MATERIALS AND SOLIDS

Hazardous wastes are substances that may present a danger to public health and safety or to the environment because of quantity, concentration, or physical, chemical, or infectious characteristics. This definition includes those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

The project area is located on vacant federal lands and no known hazardous materials/waste have been identified.

3.16 WATER RESOURCES

This section presents an overview of the water resources in the project area. The purpose of this section is to identify the surface water and groundwater features that may be present around the project area.

3.16.1 Surface Water

The proposed project area is traversed by several small ephemeral washes and two large ephemeral washes. One of the large ephemeral washes flows through the northwestern and southern portions of the project area. The other large ephemeral wash extends from the Sloan Quarry south under the railroad tracks in the central portion of the project area.

3.16.2 Groundwater

Groundwater in the Las Vegas Valley area occurs in four general aquifer systems (Van Denburgh et al., 1982; Brothers and Katzer, 1988). The zones are defined as follows:

- Shallow zones are defined as being 0 to 30 feet below ground surface where groundwater is within 20 feet of the ground surface.
- Near-surface reservoir is defined as being 0 to 200 feet below the water table where the where the water table is greater than 20 feet below the water surface.
- Principal aquifers are generally greater than 200 feet below the water table.

- Regional carbonate aquifers occur at depths of several thousand feet.

The purpose of determining the ground water level is to analyze the potential effects of the proposed action on the ground water resources in the vicinity.

A review of data from the Nevada State Department of Water Resources web site (http://water.nv.gov) revealed several ground water wells in the vicinity of the proposed action. The recorded water level for these wells ranged from 380 feet to 837 feet below ground surface level. Therefore the proposed action does not occur in an area of shallow ground water.

Chapter 4.0 Environmental Consequences

This chapter is the scientific and analytic basis for the comparisons of the alternatives. In this section, the probable consequences (impacts and effects) of each alternative on all relevant environmental resources will be discussed.

Information in this chapter is organized under the following headings:

4.1 Proposed Action
4.2 Alternative A: No Action
4.3 Mitigation Measures
4.4 Cumulative Impacts

As stated in Chapter 3, research has indicated that the following resources would not be impacted by any of the alternative:

- Areas of Critical Environmental Concern (ACEC)
- Environmental Justice
- Farmlands, Prime/Unique
- Floodplains
- National Conservation Areas
- Native American Religious Concerns
- Paleontology
- Noise
- Range Management
- Socioeconomic
- Wetlands and riparian zones
- Wild and scenic rivers
- Geology
- And, wilderness.

The probable consequences that each alternative will have on air resources will be discussed in this section.

4.1 PROPOSED ACTION

The probable consequences that the proposed action may have on the resources identified in Chapter 3 will be discussed in this section.

4.1.1 Air Quality

In general the impacts associated with air quality are anticipated to be minor, temporary and short term in nature. Increased emissions of PM_{10} would likely occur as a result of soil disturbance associated with vegetation removal, construction activities, and movement of construction equipment However, the use of water during construction activities and the subsequent application of acceptable soil stabilizing techniques would reduce the potential emissions. Additionally, CCDAQEM has implemented a dust control permit program, whereby all construction activities within the Las Vegas Valley are subject to the permit process and associated terms and conditions, based on type and duration of the activity.

A slight increase in CO emissions may be realized as a result of implementing the proposed action. It is anticipated that the majority of vehicular and equipment sources of CO are already in use on the adjacent patented mining claims and therefore only a small number of additional vehicles and/or equipment would be required. However, any CO emission levels associated with the proposed action would have to comply with the October 2005 State Implementation Plan for CO as enforced by CCDAQEM.

A short-term slight increase in CO emissions may also be expected due to increased vehicle traffic and equipment usage during construction activities.

In early 2004, Argonne National Laboratory (ANL) in Argonne, Illinois prepared for the Bureau of Land Management (BLM) a Cumulative Las Vegas Valley Air Quality Modeling Assessment. Modeling results indicate attainment may be attained and maintained for all criteria pollutants out to the year 2018. A copy of the study is on file at the BLM Las Vegas Field Office and is available for public review or can be accessed on the BLM website at www.nv.blm.gov/vegas/Environmental/Projects/index.htm.

No new impacts to air quality would be expected.

4.1.2 Biological Resources

The proposed action will have the following effects on botanical resources and wildlife resources.

4.1.2.1 Botanical Resources

The proposed action will occupy approximately 75 acres, however approximately 39 acres have already been disturbed. Therefore, approximately 36 acres of existing native vegetation will be disturbed. The existing disturbance in areas #3 & #4 will be reclaimed utilizing salvaged cacti and yucca from the approximately 36 acres of new disturbance.

4.1.2.2 Wildlife Resources

Wildlife species in the general area include small mammals, rodents, birds and reptiles. Most of these species are common and widespread in distribution.

Direct and indirect potential impacts associated with loss of habitat and mortality from vehicular traffic may occur.

4.1.3 Threatened and Endangered Species

The proposed action has a may affect determination for the threatened desert tortoise (Gopherus agassizii). This project will not affect any other federally listed species or designated critical habitat. Section 7 consultation for this activity is covered under the Programmatic Biological Opinion for Multiple Use Activities (1-5-97-F-251) in area B contingent on compliance with the attached terms and conditions.

Mining activities within the requested public lands have occurred over time without authorization, wherein 38.4 acres of tortoise habitat have been disturbed. Trespass actions such as this are not covered under Section 7 Consultation. In accordance with BLM trespass protocols, the responsible party is being assessed tortoise fees at the current rate of $705/acre of disturbance.

A total of 38.4 acres of tortoise habitat was disturbed and the responsible party will be required to pay remuneration fees in the sum of $27,072.00 as a resolution of the trespass.

This analysis covers the remaining undisturbed acreage requested by the proponent.

This project will disturb a total of 36.91 acres of previously undisturbed habitat suitable for desert tortoises. The proponent will be required to pay remuneration fees of $26,021.55 based on the current rate of $705/acre of disturbance. Along with the fees associated with the 38.4 acres in trespass, the proponent will be required to pay a grand total of $53,093.55. The rate is subject to change as described in term and condition 3(g), if fees are paid after March 1, 2007. Remuneration fee payments must be accompanied by the attached fee payment form.

The project lies outside the Las Vegas Valley. The project site falls within moderate density tortoise habitat. Since tortoises have been found in the vicinity and undisturbed habitat exist within and adjacent to the project site, impacts to tortoise are possible. Desert tortoises could be killed or injured by equipment or vehicles during construction activities, during fence construction, or if the fence is damaged or not properly maintained.

On September 14, 2006 a site visit was conducted. During the visit Mark Slaughter, (BLM biologist) determined that tortoise fencing would not be necessary on the western boundary of the proposed project area in Frehner mill site #13. Instead, an earthen berm at least 2-3 feet high, of loose material will be utilized to prevent tortoise access to the Sloan Quarry Site. Along the other proposed project boundaries, tortoise fencing will be installed. To the extent practical, the tortoise fence shall be tied into existing structures (i.e. fences, culverts, etc.) immediately adjacent to the proposed project area(s).

4.1.4 Migratory Birds

Development of the proposed project would likely result in the loss of approximately 36.9 acres of currently undisturbed foraging, breeding and nesting habitat for migratory birds. Common species of migratory birds that forage, and/or breed and nest in the creosote-bursage vegetation community commonly include, but not limited to, the Black-throated Sparrow (*Amphispiza billineata*), Rufous-crowned Sparrow (*Aimophila ruficeps*), House Finch (*Carpodacus mexicanus*), Verdin(*Auriparus flaviceps*) Western Kingbird (*Tyrannus verticalis*), Say's Phoebe (*Sayornis saya*), Lesser Nighthawk (*Chordeiles acutipennis*), Western Burrowing Owl (*Athene cunicularia*), Red-tailed Hawk (*Buteo jamaicensis*), Ferruginous hawk (*Buteo regalis*), Golden eagle (*Aquila chrysaetos*). The proponent must comply with the Migratory Bird Treaty Act and avoid potential impacts to protected birds within the project area. A list of those protect birds are in 50 C.F.R. 10.13.

4.1.5 Noxious Weeds

The Federal Noxious Weed Act, Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. Executive Order 13112 issued February 3, 1999 further defines the responsibilities of Federal Agencies to prevent the introduction of invasive species and provide for their control by minimizing the economic, ecological and human health impacts that invasive species cause. The approval of the Plan of Operations for this project requires the proponent to comply with the Executive Order 13112 and prevent the spread or introduction of invasive species and noxious weeds.

Due to the anticipated surface disturbance associated with the proposed action, there is the potential for noxious weeds to grow within the project area. During construction and ongoing activities plants or seeds could be transported to public lands by construction vehicles. Certified weed-free materials will be used for site restoration. All procedures used to control noxious weeds will be in compliance with the Nevada State Weed Plan and the Nevada Revised Statutes, chapter 555.

4.1.6 Cultural Resources

All areas proposed for disturbance were evaluated for cultural resources in support of this project and the results are presented in BLM Cultural Resource Report 5-2552. There are six (6) historic properties within the area of potential effect (APE). The report did not recommend that any of the sites be eligible for nomination to the national register. However, final determination(s) regarding each site's eligibility will be dependent upon consultation with the Nevada State Historic Preservation Office.

4.1.7 Soils

A total of approximately 75 acres of surface disturbance will likely occur. Soils within the proposed project will be impacted by compaction and removal associated with grading, structure placement, and paving/surface covering activities.

4.1.8 Land Use

There are 3 authorized and pending ROWs within the project area. Any conflicts associated with the development of the proposed action will be resolved prior to construction.

4.1.9 Minerals

Since no mineral material will be extracted or processed within the proposed project area, no impacts to mineral resources are expected.

4.1.10 Recreation

The proposed action will eliminate open space, however since there are no existing or planned recreational uses within the project are no affect to recreational uses is expected.

4.1.11 Visual Resources

The proposed facilities are similar in form, line, and texture to the existing visual components on privately owned property in the foreground and midground resulting in a weak degree of visual contrast from KOP#1 and KOP#2. With the incorporation of the recommended mitigation measure regarding the color of the buildings and structures, the resulting degree of contrast with the existing visual landscape is expected to be weak to none. Due to the strong to moderate level of existing contrast in the current visual landscape, the proposed project is expected to result in a weak degree of contrast. Therefore, the proposed project is expected to alter the existing landscape to a minimal extent and would not attract the attention or focus of the casual viewer.

4.1.12 Wastes, Hazardous Materials and Solids

No hazardous materials will be stored within the proposed project area.

4.1.13 Water Quality

4.1.13.1 Surface Water

Surface water in the project vicinity is ephemeral in nature and associated with local storm events. These storm events are infrequent but can deposit a large amount of water in a short period. As a result, areas with actively disturbed or loose soils have the potential to experience high rates of erosion which results in increase sediment loads in storm water run-off from the project site. The proposed retention basin will serve to reduce storm water flows rates and allow sediment to precipitate out before continuing down stream.

4.1.13.2 Groundwater

No impacts to ground water are expected

4.2 ALTERNATIVE A: NO ACTION

4.2.1 Air Quality

No new impacts to air quality would be expected.

4.2.2 Biological Resources

The no action alternative will have the following effects on botanical resources and wildlife resources.

4.2.2.1 Botanical Resources

No direct impacts are expected. However, indirect impacts associated with currently approved uses, ROW's, and casual use actives would be expected to occur into the future.

4.2.2.2 Wildlife Resources

No impacts expected.

4.2.3 Threatened and Endangered Species

No direct impacts are expected. However, indirect impacts to the desert tortoise as it relates to habitat fragmentation and encroachment from development on adjacent parcels would be expected to continue.

4.2.4 Migratory Birds

No impacts to migratory birds are expected.

4.2.5 Noxious Weeds

Areas of current disturbance would not be managed for the control of noxouse weed species. Additional indirect impacts associated with unauthorized activities causing disturbance to the vegetation may continue to occur, which could in turn create a desirable habitat for noxious weeds.

4.2.6 Cultural Resources

No impacts are expected.

4.2.7 Geology and Soils

No impacts are expected.

4.2.8 Land Use

No impacts are expected.

4.2.9 Minerals

No impacts are expected.

4.2.10 Paleontology

No impacts to paleontology resources are expected.

4.2.11 Recreation

No direct impacts to recreational use are expected. However, indirect impacts associated with encroaching growth of Las Vegas will continue to occur, which will impact open space.

4.2.12 Visual Resources

No direct impacts to visual resources are expected, however indirect impacts as a result of continual growth may occur.

4.2.13 Wastes, Hazardous Materials and Solids

No direct impacts from hazardous materials are expected since no specific actions would be taken to disturb the ground. However, indirect impacts associated with unauthorized dumping may occur within the project area.

4.2.14 Water Quality

4.2.14.1 Surface Water

No direct impacts to surface water are expected. Indirect impacts associated with erosion from in frequent storm events would be expected to continue.

4.2.14.2 Groundwater

No direct impacts to ground water are expected, since ground water levels are at least 380 feet below the surface.

4.3 MITIGATION MEASURES

4.3.1 Air Quality

1. The Operator shall not violate applicable air standards or related facility siting standards established by or pursuant to applicable federal, state, or local laws or regulations. The Operator shall be responsible for dust abatement within the limits of the right-of-way/lease area and is responsible for obtaining all necessary permits from appropriate authorities for acceptable dust abatement and control methods (e.g., water). The Operator shall be solely responsible for all violations of any air quality permit, law or regulation, as a result of its action, inaction, use or occupancy of the plan area.

   Notwithstanding whether a violation of any air quality permit, law or regulation results, the Operator will cooperate with the Authorized Officer in implementing and maintaining reasonable and appropriate dust control methods in conformance with law and appropriate to the circumstances at the sole cost of the Operator.

   Prior to relinquishment, abandonment, or termination of this plan area, the Operator shall apply reasonable and appropriate dust abatement and control measures to all disturbed areas. The abatement and measures shall be designed to be effective over the long-term (e.g. rock mulch or other means) and acceptable to the Authorized Officer.

4.3.2 Biological Resources

4.4.2.1 Botanical Resources.

2. Mitigation efforts shall be taken to minimize impacts to vegetation during all phases of activities within the Plan of Operations area. All cacti and yucca plants that will be impacted by this project must be salvaged by a qualified salvage company in accordance with BLM protocols. Salvaged plants will be used in the reclamation efforts and will either be directly transplanted or stockpiled within the proposed project area. Topsoil will be stockpiled and utilized in post construction reclamation efforts.

3. The top 2-3 inches of soil in undisturbed areas shall be stockpiled on site for use in reclamation areas. This top soil layer contains native seeds which can serve as a natural "seed bank" for local plant species. When utilized during reclamation efforts the soil should be evenly distributed across the site at a 2-3 inch depth and left un-compacted.

4. Reclaimed areas shall be re-contoured to match the natural contours and lest scarified.

5. Reclaimed areas shall be monitored for seed germination and survival of salvaged plants. Seeding with a BLM approved mix will be completed if satisfactory results are not obtained within 3-5 years.

4.3.2.2 Wildlife Resources

6. Operator shall construct, maintain, operate and/or modify structures and facilities as directed by the Authorized Officer to protect and minimize adverse effects upon raptors and other wildlife.

7. Operator shall report wildlife fatalities, including raptor electrocutions that are discovered on or near project facilities.

4.3.3 Threatened and Endangered Species

8. Measures shall be taken to minimize take of desert tortoises due to project-related activities.

   a.. A qualified tortoise biologist, or designee of the Bureau, shall present a tortoise-education program to all foremen, workers, and other employees working on the project. The program will include information on the life history of the desert tortoise, legal protection for desert tortoises, penalties for violations of Federal and State laws, general tortoise activity patterns, reporting requirements, measures to protect tortoises, terms and conditions of the biological opinion, and

personal measures employees can take to promote the conservation of desert tortoises. The definition of "take" will also be explained. Workers will be encouraged to carpool to and from project sites. The program shall be approved by the Service prior to implementation. Specific and detailed instructions will be provided on the proper techniques to capture and move tortoises which appear onsite, in accordance with Service-approved protocol. Currently, the Service-approved protocol is Desert Tortoise Council 1994, revised 1999.

b. A speed limit of 25 miles per hour shall be required for all vehicles on the project site and unposted dirt access roads.

c. The Bureau must approve the selected consulting firm/biologist to be used by the applicant to implement the terms and conditions of the biological opinion or permit issued by the Bureau. Any biologist and/or firm not previously approved must submit a curriculum vitae and be approved by the Bureau before authorized to represent the Bureau in meeting compliance with the terms and conditions of the biological opinion. Other personnel may assist with implementing mitigation measures, but must be under direct field supervision by the approved qualified biologist.

   In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992), a qualified desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields as determined by the Bureau. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign, which should include a minimum of 60 days field experience. All tortoise biologists shall comply with the Service-approved handling protocol (Desert Tortoise Council 1994, revised 1999) prior to conducting tasks in association with terms and conditions of the biological opinion. In addition, the biologist shall have the ability to recognize and accurately record survey results.

d. All project areas including construction sites, access routes, staging areas, and fencelines, will be cleared by a qualified biologist before the start of construction or ground disturbance. The parcel shall be surveyed for desert tortoise using survey techniques which provide 100-percent coverage. During the tortoise active season, the pre-construction clearance shall be no more than 3 days before initiation of construction. During the tortoise inactive season, the pre-construction clearance shall be within 5 days before work begins.

e. Desert tortoises encountered experiencing heat stress will be placed in a tub by a qualified tortoise biologist with one inch of water in an environment with a temperature between 76 degrees F and 95 degrees F for several hours, until heat stress symptoms are no longer evident.

f. Tortoises and nests found shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Burrows containing tortoises or nests will be excavated by hand, with hand tools, to allow removal of the tortoise or eggs.

g. Tortoises that are moved offsite and released into undisturbed habitat on public land, must be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibernaculum in which it was found, or in an artificially constructed burrow in accordance with Desert Tortoise Council (1994, revised 1999).

h. Desert tortoises moved during the tortoise inactive season or those in hibernation, regardless of date, must be placed into an adequate burrow. If one is not available, one will be constructed in accordance with Desert Tortoise Council (1994, revised 1999). During mild temperature periods in the spring and early fall, tortoises removed from the site will not necessarily be placed in a burrow.

i. ***The project will require desert tortoise exclusion fencing.*** Fences will tie in to any existing fencing adjacent to the project area. The fence may be permanent or temporary, as determined on a case by case basis. Fenced areas will require an initial tortoise clearance of the fenceline prior to fence construction, and a tortoise clearance following fence construction. Project sites to be fenced with permanent tortoise-proof fencing must be fenced prior to the commencement of surface disturbance activities within the project site. Fencing will consist of 1-inch horizontal by 2-inch vertical mesh. The mesh will extend at least 18 inches above ground and, where feasible, 6 inches below ground. In situations where it is not feasible to bury the fence, the lower 6-12 inches of the fence shall be bent at a 90-degree angle towards the potential direction of encounter with tortoise and covered with cobble or other suitable material to ensure that tortoise or other animals cannot dig underneath, thus creating gaps through which tortoises may traverse. The height of tortoise-proof fencing will be a minimum of 18 inches above ground. The fence shall be inspected, and zero clearance maintained between the bottom of the fence and the ground.

j. If fence construction occurs during the tortoise active season, a qualified tortoise biologist shall be onsite during construction of the

tortoise-proof fence to ensure that no tortoises are harmed. If the fence is constructed during the tortoise inactive season, a biologist will thoroughly examine the proposed fenceline and burrows for the presence of tortoises no more than 5 days before construction. Any desert tortoises or eggs found in the fenceline will be relocated offsite by a qualified tortoise biologist in accordance with approved protocol. Tortoise burrows that occur immediately outside of the fence alignment that can be avoided by fence construction activities shall be clearly marked to prevent crushing.

Following Fence Construction: Prior to the commencement of project activities, all desert tortoises shall be removed from the site. A qualified biologist shall oversee the survey for and removal of tortoises using techniques providing 100-percent coverage of all areas. Two complete passes of 100-percent coverage will be accomplished. All desert tortoise burrows, and other species burrows which may be used by tortoises, will be examined to determine occupancy of each burrow by desert tortoises. Tortoise burrows shall be cleared of tortoises and eggs, and collapsed. Any desert tortoises or eggs found in the fenced area will be removed under the supervision of a qualified tortoise biologist in accordance with Service protocol.

k. After a project has been fenced and a tortoise clearance completed, if the operator encounters a desert tortoise in imminent danger, the operator shall move the tortoise out of harm's way and on to adjacent Bureau land. If the tortoise cannot be avoided or moved out of harm's way onto Bureau land, it shall be placed in a cardboard box or other suitable container and held in a shaded area until the Clark County pickup service or Bureau personnel can retrieve the tortoise.

l. On phased development projects, the operator may have the option with concurrence of the Bureau of initially fencing less than the total project acreage. The fenced area will be enlarged as the disturbance expands. To ensure that no tortoises are harmed, each new segment of fence will be constructed under the provision described in Terms and Conditions **1.k.** and **1.l.** above. Payment of the mitigation fee identified in
Term and Condition **3.d.** below, will be required prior to surface disturbance of each phase.

m. The operator shall inspect the fencing at least on a quarterly basis, to insure that it is in compliance with the standards described in Term and Condition **1.k** and **1.l.** above, and shall perform maintenance when needed including removing trash, sediment accumulation, and other debris. Temporary fencing shall be removed at the end of the construction activity. Permanent fencing may be removed upon

termination and reclamation of the project, or when it is determined by the Bureau and Service that the fence is no longer necessary. Monitoring and maintenance shall include regular removal of trash and sediment accumulation and restoration of zero ground clearance between the ground and the bottom of the fence, including re-covering the bent portion of the fence if not buried.

n. Where the Bureau allows or requires the installation of a temporary tortoise-proof fence, the fence shall include as much of the proposed construction site as feasible. This may in some cases require the installation of temporary fencing along access routes. Typical fence design should consist of 1-inch mesh or 1-inch horizontal by 2-inch vertical mesh (hardware cloth or plastic) and be installed flush with ground and extend at least 18 inches above ground. Temporary tortoise-proof fencing should not be buried.

9. Measures shall be taken to minimize predation on tortoises by ravens drawn to the project area.

   This will involve a litter-control program. This program will include the use of covered, raven-proof trash receptacles, removal of trash from the construction site to the trash receptacles following the close of each work day, and proper disposal of trash in a designated solid waste disposal facility. Vehicles hauling trash to the landfill and leaving the landfill must be secured to prevent litter from blowing out along the road.

10. Measures shall be taken to minimize destruction of desert tortoise habitat, such as soil compaction, erosion, or crushed vegetation, due to project-related activities.

    a. If possible, overnight parking and storage of equipment and materials, including stockpiling, shall be within previously disturbed areas or areas to be disturbed which have been cleared by a tortoise biologist. If not possible, areas for overnight parking and storage of equipment shall be designated by the tortoise biologist which will minimize habitat disturbance.

    b. All vehicle traffic will be restricted to existing access roads. New access roads will be created only when absolutely necessary and only when approved by the Bureau. Routes for new access roads will be flagged by the tortoise biologist prior to surface disturbance.

    c. Project activity areas will be clearly marked or flagged at the outer boundaries before the onset of construction. All activities shall be confined to designated areas. Blading of vegetation will occur only to

the extent necessary and shall be limited to areas designated for that purpose by the Bureau or tortoise biologist.

d. Remuneration fees apply to future disturbance in tortoise habitat. Past disturbance or disturbance on land not considered to be tortoise habitat by a tortoise biologist, and approved by the Bureau, are not assessed a tortoise remuneration fee. Remuneration fees will be used to fund management actions which are expected to benefit the desert tortoise. Actions may involve: Habitat acquisition; population or habitat enhancement or protection; research that increases our knowledge of desert tortoise biology, habitat requirements, or factors affecting habitat attributes; reducing loss of individual animals, documenting the species' current status and trend, and preserving distinct population attributes or any other action described in the Management Oversight Group's report titled *Compensation for the Desert Tortoise* (Hastey, et al. 1991) or Recovery Plan.

e. Payment of a remuneration fee, currently set at $705.00 per acre, will be required for all projects *prior* to issuance of the lease, permit, notice to proceed, or other Bureau authorization, with the following exceptions:

   (1) Because many mining plans of operation are phased in over a number of years, remuneration fees may be collected prior to the beginning of each phase.

   (2) Mineral material sales and leases will be charged a fee of 25 cents per cubic yard up to the equivalent of $705.00 per acre of disturbance, or will be assessed $705.00 per acre for each phase of disturbance, at the discretion of the Bureau.

   The current rate of $705.00 per acre will be indexed for inflation as described in Term and Condition **3.g.** below.

f. <u>For Community Sand And Gravel Sales</u>: Fees will be assessed on the basis of cubic yards of material removed from project site. A fee of 25 cents per cubic yard will be applied until such time as the fees collected are equal to $705.00 per acre for each acre of surface disturbance, or the equivalent rate as indexed for inflation. The fee shall be paid directly to the Bureau while purchasing mineral materials at the Las Vegas District Office. The fee shall be deposited directly into the Bureau’s 5320 account.

g. This rate will be indexed for inflation based on the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U) on January 31 of each year, beginning January 31, 1998. Fees assessed

or collected for projects covered under this biological opinion after January 31st of each year will be adjusted based on the CPI-U. Information on the CPI-U can be found on the Internet at: *http://stats.bls.gov/news.release/cpi.nws.htm.*

The total fee for this project is $53,093.55 ($705.00 x 36.91 acres) + ($705 x 38.4 acres in trespass).

This fee will be paid directly to the Desert Tortoise Public Lands Conservation Fund (Account Number 730-9999-2315), administered by Clark County or any other administrator approved by the Bureau and Service. The administrator serves as the banker of these funds and receives no benefit from administering these funds. These funds are independent of any other fees collected by Clark County for desert tortoise conservation planning.

The payment shall be accompanied by the **Section 7 Fee Payment Form**, (Attachment) and completed by the payee. The project proponent or applicant may receive credit for payment of such fees and deduct such costs from desert tortoise impact fees charged by local government entities. Payment shall be by certified check or money order payable to Clark County Treasurer (or other administrator named by the Bureau and Service), and delivered to:

Clark County Desert Conservation Program
c/o Dept. of Air Quality and Environmental Management
Clark County Government Center
500 So. Grand Central Parkway, first floor (front counter)
Las Vegas, Nevada 89106
(Contact: (702) 455-5821)
Acct. No. 730-9999-2315

In addition, a copy of the Section 7 Fee Payment Form will be accompanied with a payment verification and delivered to:

The Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
Attn: Assistant Field Manager, Non-renewable Resources Division

h. Projects resulting in residual impacts will require the submission of a Bureau-approved reclamation plan, unless determined by the Bureau and Service that reclamation rehabilitation is not necessary. The reclamation plan will describe objectives and methods to be used,

species of plants and/or seed mixture to be used, time of planting, success standards, and follow-up monitoring. Depending upon the size and location of the project, reclamation could simply involve re-contouring, if needed, and rehabilitation and restriction of access points or could involve reclamation over the entire area of surface disturbance. Reclamation will be addressed on a case-by-case basis.

11. Measures shall be taken to ensure compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and consultation reinitiation requirements contained in the biological opinion.

    a. The project applicant shall notify the Bureau at least 10 days before initiation of the project. Notification shall be made to the Bureau's wildlife staff at (702) 515-5000.

    b. The Bureau wildlife staff (702/515-5000) and Service (702/515-5230) must be notified of any desert tortoise death or injury due to the project implementation by close of business on the following work day.

    c. All appropriate NDOW permits or letters of authorization shall be acquired prior to handling desert tortoises and their parts, and prior to initiation of any activity that may require handling tortoise.

    d. The project proponent must submit a document to the Bureau within 30 days of completion of the project showing the number of acres disturbed; remuneration fees paid; and number of tortoises taken, which includes capture and displacement, killed, injured, and harassed by other means, during implementation of programmatic actions.

    e. For tortoise removals in Clark County, the applicant shall make prior arrangements with Clark County's tortoise pickup service (702/593-9027) at least 10 days prior to the commencement of tortoise collection. Outside Clark County, initial notification shall be made to the Bureau as stated in Term and Condition **4.a.** above.

4.3.4 Migratory Birds

12 To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding/nesting season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.

13. If a project that may alter any breeding/nesting habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and

ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

4.3.5 Noxious Weeds

14. A weed management plan shall be prepared for and implemented with the plan area. This plan shall identify measures to be utilized in order to minimize the importation, spread, and germination of noxious weed species.

4.3.6 Visual Resources

15. Based on the review of the visual resources all structures and buildings will painted using the color Carlsbad Canyon (Munsell soil color chart 2.5 year 6/2) so as to blend into the visual landscape as much as possible.

16. Structures to be erected or stored on site should maintain a low and parallel plan to the horizon.

4.3.7 Wastes, Hazardous Materials and Solids

17. Should hazardous materials be spilled or deposited within the proposed plan area by the Operator, its agents or a third party, the Authorized Officer for the BLM Las Vegas Field Office shall be immediately notified. Any clean up or reporting requirements shall be completed in compliance with all applicable State and Federal laws and regulations.

18. Material Safety Data Sheets (MSDS) shall be submitted on a yearly basis for any chemicals utilized or stored in the plan area. This includes but is not limited to the flocculent used in the truck wheel wash station.

Chapter 5.0 Cumulative Impacts

Any past, current, or future projects within the vicinity of the proposed action, would be required to comply with all federal, state, and local regulations. Additionally, it is anticipated that one or more of the following list of conservation/protection requirements and existing NEPA documentation for public and private lands in Clark County would be applicable.

1) NRS 527.060-1.20 protects all cacti and yucca.
2) CCRFCD Supplemental Programmatic EIS
3) RMP EIS
4) Las Vegas Valley Disposal EIS
5) Clark County MSHCP EIS

Potential cumulative impacts associated with the proposed action are expected to be mostly associated with current/future management concerns and for several of the environmental resources. These management concerns relevant to the proposed action are associated with current BLM objectives as identified in recent documents planning/compliance documents.

The October 1998 RMP EIS identifies general management directions for the BLM on approximately 3.3 million acres of federal lands in Clark and a portion of southern Nye Counties in Nevada. Subsequent to the RMP, the BLM has completed several documents which are related to specific uses and/or geographic locations within Clark County. Additionally, the BLM completed analysis on lands in the Las Vegas Valley in December 2004 "Las Vegas Valley Disposal EIS "(FEIS) and the November 2004 "Supplemental Programmatic EIS" (SEIS). For the purposes of this discussion, both the FEIS and SEIS are included since thy address impacts on adjacent areas and are a more recent than the RMP.

The FEIS identified the management objectives for approximately 46,701acres in the Las Vegas Valley in conformance with the Southern Nevada Public Lands Management Act (PL 105-263) and the Clark County Conservation of Public Land and Natural Resources Act (PL 107-282).

The implementation of the proposed action would result in the disturbance of approximately 75 acres of additional federal lands. The FEIS analyzed the potential impacts associated with the disposal of approximately 46,701 acres of federal lands in the Las Vegas Valley. These lands would be transferred from federal management to private, public, or municipal entities either through a competitive bid process or in accordance with other federal regulations. Although the proposed project is located outside of the area analyzed in the FEIS, it would result in an additional impact to approximately 75 acres (0.1%) of the lands addressed. However, since the proposed action benefits the public, would utilize all of the lands for operational facilities, and is a small fraction of the lands in the Las Vegas Valley it is unlikely that there will be any

cumulative impact to BLM land planning in the future.

The SEIS identified the current flood control objectives on approximately 2,358 acres of federal lands in the Las Vegas Valley and Boulder City. While the SEIS did not identify the specific facilities in the proposed action, it did address numerous flood control facilities on lands in the proposed project area. The proposed facilities would result in an approximately 75 acres or approximately 3% increase in acreage over what was identified in the SEIS. The small amount of additional disturbance is not expected to result in additional cumulative impacts BLM land planning in the future. Additionally, in accordance with the SEIS any flood control projects in the area would have to address any direct, indirect, and cumulative impacts prior to being constructed.

Reasonable Foreseeable Future Projects

The following provides a listing of other projects that are similar and for which BLM has current applications for or is aware of, in the vicinity of the proposed project. These projects will require additional review and analysis beyond what is presented in this document. It is anticipated that specific impacts associated with the projects presented below would be addressed at the appropriate level of NEPA documentation and would incorporate the necessary mitigation measures. Cumulative impacts are expected to be addressed thru compliance with federal, state, and local regulations, as well as any relevant previously completed NEPA documentation.

- Facilities identified in the Clark County Regional Flood Control 10 year Plan
- Recreational and Public Purpose Act leases for schools and parks
- Local and regional infrastructure (i.e. roadways, utilities, etc.)

Description of Mitigation Measures and Residual Impacts:

1. Efforts shall be taken to minimize impacts to vegetation during all phases of activities within the PLAN OF OPERATIONS AREA/lease area. This will include the following components:
    A. All cacti and yucca must be salvaged.
    B. Salvaged material will be taken to the DTCC and/or incorporated into the restoration phase of any structures/facilities.
    C. A restoration and landscape plan must be submitted and reviewed by BLM for any structures/facilities. The restoration and landscape plan must include but is not limited to: a salvage plan for cactus and yucca; stockpile area and maintenance schedule, topsoil salvage, seeding, as well as earthworks and re-contouring efforts.

2. Efforts shall be taken to preserve surface and subsurface cultural and paleontological resources that may be encountered within the PLAN OF OPERATIONS AREA/lease area.

3. To mitigate the potential for adverse air and water quality impacts, all activities within the ROW/lease area shall be in conformance with all applicable Federal

and State air and water quality laws.

4. To mitigate the potential for adverse impacts to the desert tortoise, (*Gopherus agassizii*), all activities within the ROW/lease area shall be in compliance with the terms and conditions of **Biological Opinion File No. 1-5-96-F-23R.3 for the Las Vegas Valley.**

5. Efforts shall be taken to minimize impacts to wildlife during all phases of activities within the ROW/lease area.

6. Should hazardous materials be spilled or deposited within the ROW/lease area by the Operator, its agents or a third party, the Authorized Officer for the BLM Las Vegas Field Office shall be immediately notified. Any clean up or reporting requirements shall be completed in compliance with all applicable State and Federal laws and regulations.

7. The proponent must comply with the Migratory Bird Treaty Act and avoid potential impacts to protected birds within the project area. A list of those protect birds are in 50 C.F.R. 10.13. The following measures describe the most effective measures to avoid impacts:

   1) To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.

   2) If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

      a**.** Migratory Bird Survey/Qualifications

      Under the Migratory Bird Treaty Act it is illegal to remove an active nest or young without an USFWS depredation permit. A qualified biologist is a person with adequate knowledge and experience of local birds and their behaviors who can identify and locate migratory birds and their nests within the project area. The biologist should know enough about local bird behaviors to identify adequate buffer sizes around the nests so the nesting/rearing of young will continue during project activities. The person should have a documented ornithology background, though a degree in that area is not necessary. Basically, we need to ensure that their observations are creditable and defendable. They should survey the site in a way to ensure that 100% coverage has been achieved. This method may

differ based on the community and topography. Their field notes and report should describe their methods and rationale for it to, once again, ensure that their observations are creditable and defendable.

b**.** Specific to Burrowing Owls (adapted from US Fish and Wildlife Service recommendations)

If authorization for the project is provided prior to the breeding season of burrowing owls (mid-March - August), collapse all burrows, holes, crevices, or other cavities on the construction site after a qualified project biologist thoroughly checks them for inhabitants. This will discourage owls from breeding on the construction site.

If authorization for the project is not provided until after the commencement of breeding season and burrowing owls can be seen within the area during surveys, you must rely on behavioral observations to determine their breeding status. If breeding behavior is observed, you should assume that an active nest is present and the area should be avoided until the chicks fledge to ensure the nest is not abandoned. The total nesting cycle takes a minimum of 74 days, during which time construction activity would need to cease on the site. Generally, eggs may be laid between mid-March to the end of May, and young may be present from mid-April through August.

A combination of the behaviors listed below may indicate the presence of an active nest, however these are meant to be used as a guide. For a proper determination of breeding status, a biologist with avian behavioral experience should be consulted to interpret the owls breeding status.

1.) A pair of owls is observed constantly at a site, then only one owl is seen. This is an indication that the pair may have chosen a nest burrow, and the female has gone below to lay and incubate eggs. Once incubation begins the female rarely leaves the burrow.

2.) An owl is frequently seen carrying food to the burrow. The male provides food for the female while she is incubating eggs. The best time of day to observe owls is dawn and dusk, but they can be active throughout the day. The male will most likely leave the food in front of the burrow and the female will come to the entrance to take the food. This is probably the best indication that the owls have an active nest.

3.) Only one owl has been seen for a while, but all of a sudden two owls are seen again. This would indicate that the eggs have hatched, and the female has emerged from the burrow to assist

the male in hunting for food to feed the chicks. The chicks will appear at the burrow entrance when they are about 10 days old.

8. Efforts shall be taken to prevent the spread or introduction of invasive or noxious weed species.

9. Clark County Regional Flood Control facilities will be subject to the terms and conditions as presented in the CCRFCD Supplemental Programmatic EIS.

Chapter 6.0 Literature Cited

Brothers, Kay and Terry Katzer 1988. Ground-Water Chemistry Changes Resulting From Stressed Aquifer Systems in Las Vegas Valley, Clark County, Nevada: Las Vegas Valley Water District report Prepared in cooperation with the Nevada Division of Environmental Protection.

Bureau of Land Management 1998. Proposed Las Vegas Resource Management Plan and Final Environmental Impact Statement. U.S. Department of the Interior, U.S. Bureau of Land Management, Las Vegas Field Office, Nevada.

Bureau of Land Management 2004. Las Vegas Valley Disposal Boundary Final Environmental Impact Statement (FEIS).

Bureau of Land Management and Clark County Regional Flood Control District 2004. Final Supplemental Environmental Impact Statement (FSEIS).

Clark County Department of Air Quality Management 2002. Monitoring Division: Department of Air Quality Management. Clark County Monitoring Division. Available on the Internet: http://www.ccairquality.org/.

United States Fish and Wildlife Service 1993. Biological opinion on the desert tortoise reinitiation.

Van Denburgh, A.S. H.R. Seitz, T.J. Durbin, and J.R. Harrill 1982. Proposed Monitoring Network for Ground-water Quality, Las Vegas Valley, Nevada: U.S. Geological Survey Open-File report 80-1286.

Chapter 7.0 Consultation and Coordination

Bureau of Land Management Las Vegas Field Office

Mark Chatterton	Assistant Field Manager Non- Renewable Resources
Adam Merrill	Geologist
Dave Fanning	Geologist
Christina Lund	Botany
Mike Moran	Hazmat
Susanne Rowe	Cultural Resources
Michael Johnson	Visual Resources
Bob Bruno	Recreation
Mark Slaughter	Wildlife, T/E Animals

Frehner Construction

Philip Nelson

Consultants

Bryan Nielson	Graymont Western U.S. Inc.
William Garrett	Ventajas LLC

Appendix A
MAPS

Appendix B
MSDA Sheet

Appendix C
VISUAL CONTRAST RATING WORKSHEETS

hychem, inc.

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product: **HYPERFLOC® AF 200, AF 300, AF 400, AF 300-H, AF 300-HH, AF 300 PWG, AF 300 G, and AF 1100 Series**

Supplier: **HYCHEM, INC.**
10014 N. Dale Mabry Highway, Suite 213
Tampa, FL 33618

Current Revision Date: 8/18/03 **Last Revision Date:** 5/18/00

Emergency Telephone Numbers: (800) 327-2998 - Hychem, Inc. (weekdays)
(800) 424-9300 - Chemtrec (24 Hours)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family: Anionic acrylamide copolymer powder.

3. HAZARDOUS IDENTIFICATION

Aqueous solutions or powders that become wet render surfaces extremely slipper

4. FIRST AID MEASURES

Inhalation: Move to fresh air.

Skin Contact: Wash with water and soap as a precaution. In case of skin irritation, consult a physician.

Eye Contact: Rinse thoroughly with plenty of water. In case of persistent eye irritation, consult a physician.

Ingestion: The product is not considered toxic based on studies on laboratory animals.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water, water spray, foam, dry powder, carbon dioxide (CO_2).

Special Fire-Fighting Precautions: Aqueous solutions or powders that become wet render surfaces extremely slippery.

Special Protective Equipment for Firefighters: No special protective equipment required.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No special precautions required.

Environmental Precautions: Do not contaminate water.

Methods for Cleaning Up: Do not flush with water. Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Do not breathe dust. Natural ventilation is adequate in absence of dusts.

Storage: Keep in a dry, cool place (0 - 35ºC).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Personal Protection Equipment

- **Respiratory Protection:** Dust safety masks are recommended where concentration of total dust is more than 10 mg/m^3.
- **Hand Protection:** Rubber gloves
- **Eye Protection:** Safety glasses with side shields. Do not wear contact lenses.
- **Skin and Body Protection:** Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

Hygiene Measures: Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Granular solid
Color:	White
Odor:	None
pH:	4 - 9 @ 5 g/l
Melting Point (ºC):	Not applicable
Flash Point (ºC):	Not applicable
Autoignition Point (ºC):	Not applicable
Vapor Pressure (mm Hg):	Not applicable
Bulk Density:	See Technical Bulletin
Water Solubility:	See Technical Bulletin
Viscosity (mPa s):	See Technical Bulletin

10. STABILITY AND REACTIVITY

Stability:	Product is stable, no hazardous polymerization will occur.
Materials to Avoid:	Oxidizing agents may cause exothermic reactions.
Hazardous Decomposition Products:	Thermal decomposition may produce: carbon oxides and nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

- **Oral:** LD50/oral/rat > 5000 mg/kg
- **Dermal:** The results of testing on rabbits showed this material to be non-toxic even at high dose levels.
- **Inhalation:** The product is not expected to be toxic by inhalation.

Irritation

- **Skin** The results of testing on rabbits showed this material to be non-irritating to the skin.
- **Eyes:** Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae.

Sensitization: The results of testing on guinea pigs showed this material to be non-sensitizing.

Chronic Toxicity: A two-year feeding study on rats did not reveal adverse health effects. A one-year feeding study on dogs did not reveal adverse health effects.

12. ECOLOGICAL INFORMATION

- **Fish:** LC50/Danio rerio/96 hours > 100 mg/l (OECD 203)
  (Based on results obtained from tests of analogous products)

- **Algae:** IC50/Clorella vulgaris/72 hours > 100 mg/l (OECD 201)
  (Based on results obtained from tests of analogous products)

- **Daphnia:** EC50/Daphnia magna/48 hr > 100 mg/L (OECD 202)
  (Based on results obtained from tests of analogous products)

Bioaccumulation: The product is not expected to bioaccumulate.

Persistence / Degradability: Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: In accordance with federal, state, and local regulations

Contaminated Packaging: Rinse empty containers with water and use the rinse water to prepare the working solution. Can be landfilled or incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

Not regulated by the Department of Transportation

15. REGULATORY INFORMATION

All components of this product are on TSCA and DSL inventories.

RCRA status: Not a hazardous waste.

Hazardous Waste Number: Not applicable.

Reportable Quantity (40 CFR 302): Not applicable.

Threshold Planning Quantity (40 CFR 355): Not applicable.

California Proposition 65 Information: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains a chemical(s) known to the State of California to cause cancer: residual acrylamide.

HMIS & NFPA Ratings:

	HMIS	NFPA
Health:	1	1
Flammability:	1	1
Reactivity:	0	0

16. OTHER INFORMATION

Person to Contact: A. Sands

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date 11-09-2006
District Las Vegas Field Office
Resource Area Las Vegas
Activity (program) Minerals

SECTION A. PROJECT INFORMATION

1. Project Name: Sloan Quarry Plan of Operations
2. Key Observation Point: KOP #1
3. VRM Class: Class III
4. Location: Township 23S, Range 61E, Section 19
5. Location Sketch: See attached

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to rolling terrain	Simple; mostly in mid and background	Moderate; buildings, powerlines, fence, metal silo structures, road.
LINE	Horizontal and linear	weak	Moderate verticle, geometric and linear.
COLOR	light tan + brown	light green	~~white~~ weak to Moderate; white, tan and brown
TEXTURE	Smooth	Smooth	Medium, scattered

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat	linear forms created by clearing	weak to Moderate; horizontal + linear.
LINE	Horizontal and linear	Smooth	weak to Moderate; horizontal + linear.
COLOR	Light tan, brown.	light green	Recomended tan or nuetral light color.
TEXTURE	Smooth	Smooth	Fine to Medium

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			X				X				X	
Line				X			X				X	
Color				X				X			X	
Texture				X			X				X	

2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☒ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Bill Garrett
Date: 11/9/06

SECTION D. (Continued)

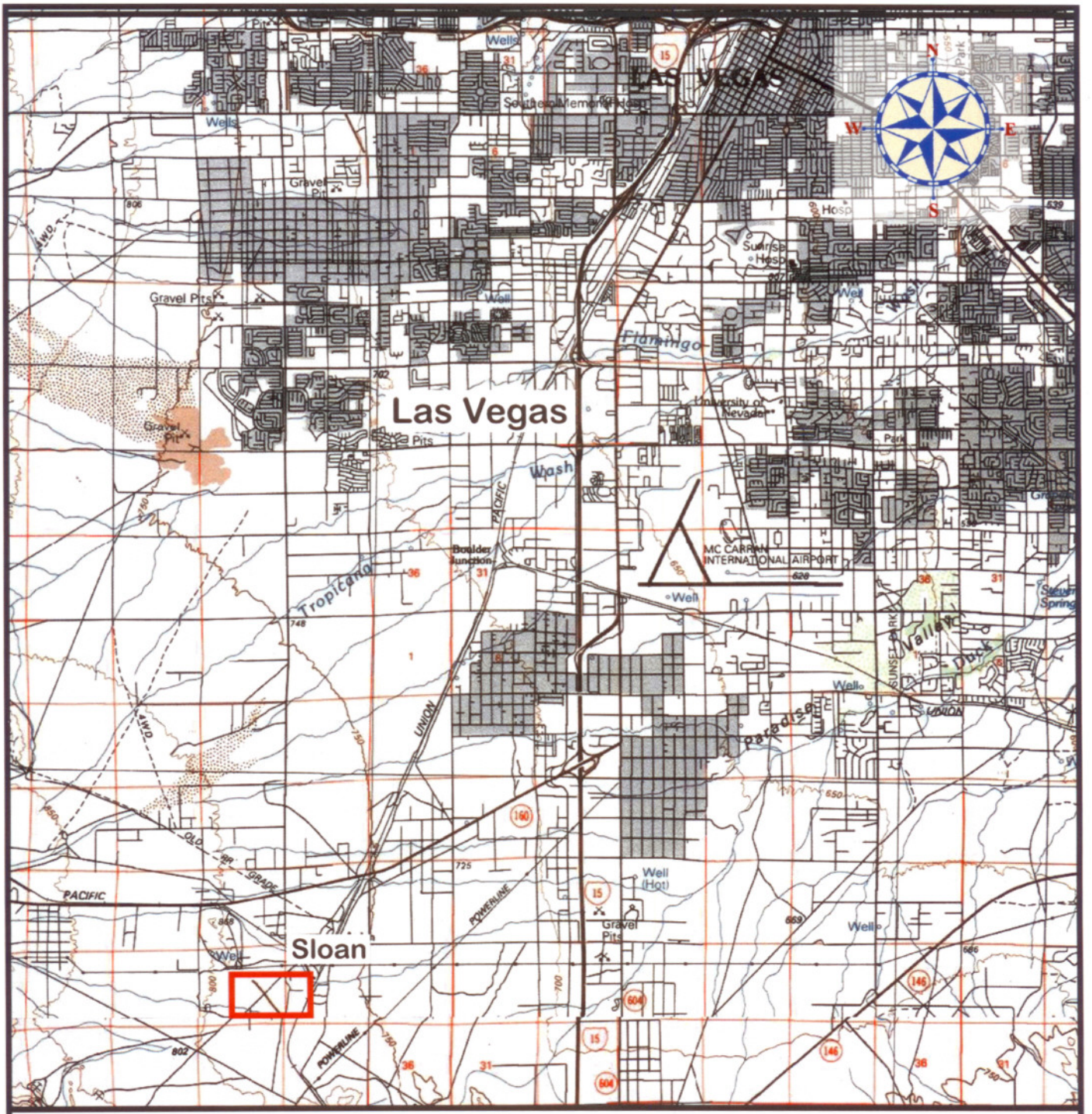
Comments from item 2.

The proposed project is approximately 1.5 miles West of KOP#1. The existing structures associated with a cement batch plant in the midground will likely obscure at least a portion of the proposed facilities. The linear shapes associated with the paved road and fencline combined with the numerous geometric forms associated with signs and buildings result in a moderate level of existing contrast for both form and line. The existing structures colors of while and tan exhibit a weak to moderate contrast with the light tan, brown and light green of the natural terrain and vegetation. Additionally, the existing facilities provide a moderate scattered texture upon the visual landscape particularly in the midground. The proposed facilities are similar in form, line, and texture to the existing visual components in the foreground and midground resulting in a weak degree of visual contrast from KOP#1. With the incorporation of the recommended mitigation measure regarding the color of the buildings and structures, the resulting degree of contrast with the existing visual landscape is expected to be weak to none. Due to the generally moderate level of existing contrast in the current visual landscape, the proposed project is expected to result in a weak degree of contrast. Therefore, the proposed project is expected to alter the existing landscape to a minimal extent and would not attract the attention or focus of the casual viewer.

Additional Mitigating Measures (See item 3)

The proposed buildings and other structures should be painted a light tan or other neutral color to blend in with the existing structures and natural background.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1985—461-988/33094



LEGEND

Project Area

Source Map:
National Geographic TOPO
Nevada
100K Map Series

N-77764

NEPALV # 2006-378

Figure 1

VENTAJAS

Map Click: ○ Select Property ○ Zoom In ◉ Zoom Out ○ Pan ○ Measure

KOP #1

I-15 and Sloan Rd

Site

N


KOP #1
Site
11/09/2006

Form 8400-4
(September 1985)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

VISUAL CONTRAST RATING WORKSHEET

Date 11/09/2006
District Las Vegas Field office
Resource Area Las Vegas
Activity (program) Minerals

SECTION A. PROJECT INFORMATION

1. Project Name: Sloan Quarry Plan of Operations
2. Key Observation Point: KOP #2
3. VRM Class: Class III
4. Location: Township 23S, Range 61E, Section 19
5. Location Sketch: See attached.

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat to rolling terrain	Simple	Strong to moderate: road, power lines, silo structures.
LINE	Horizontal and linear	Weak	Strong linear; moderate verticle + geometric
COLOR	Light tan, brown	light green	Tan + brown
TEXTURE	Smooth	Smooth	Medium, scattered

SECTION C. PROPOSED ACTIVITY DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Flat	linear forms created by clearing	weak to moderate horizontal and linear.
LINE	Horizontal and linear	Smooth	weak to moderate horizontal and linear
COLOR	Light tan, brown	light green	Recomended tan or other light nuetral color.
TEXTURE	Smooth	Smooth	Fine to medium

SECTION D. CONTRAST RATING ☐ SHORT TERM ☒ LONG TERM

1. DEGREE OF CONTRAST

ELEMENTS	FEATURES: LAND/WATER BODY (1) Strong	Moderate	Weak	None	VEGETATION (2) Strong	Moderate	Weak	None	STRUCTURES (3) Strong	Moderate	Weak	None
Form			X				X				X	
Line				X			X				X	
Color				X				X			X	
Texture				X			X				X	

2. Does project design meet visual resource management objectives? ☒ Yes ☐ No (Explain on reverse side)

3. Additional mitigating measures recommended ☒ Yes ☐ No (Explain on reverse side)

Evaluator's Names: Bill Garrett
Date: 11/9/06

SECTION D. (Continued)

Comments from item 2.

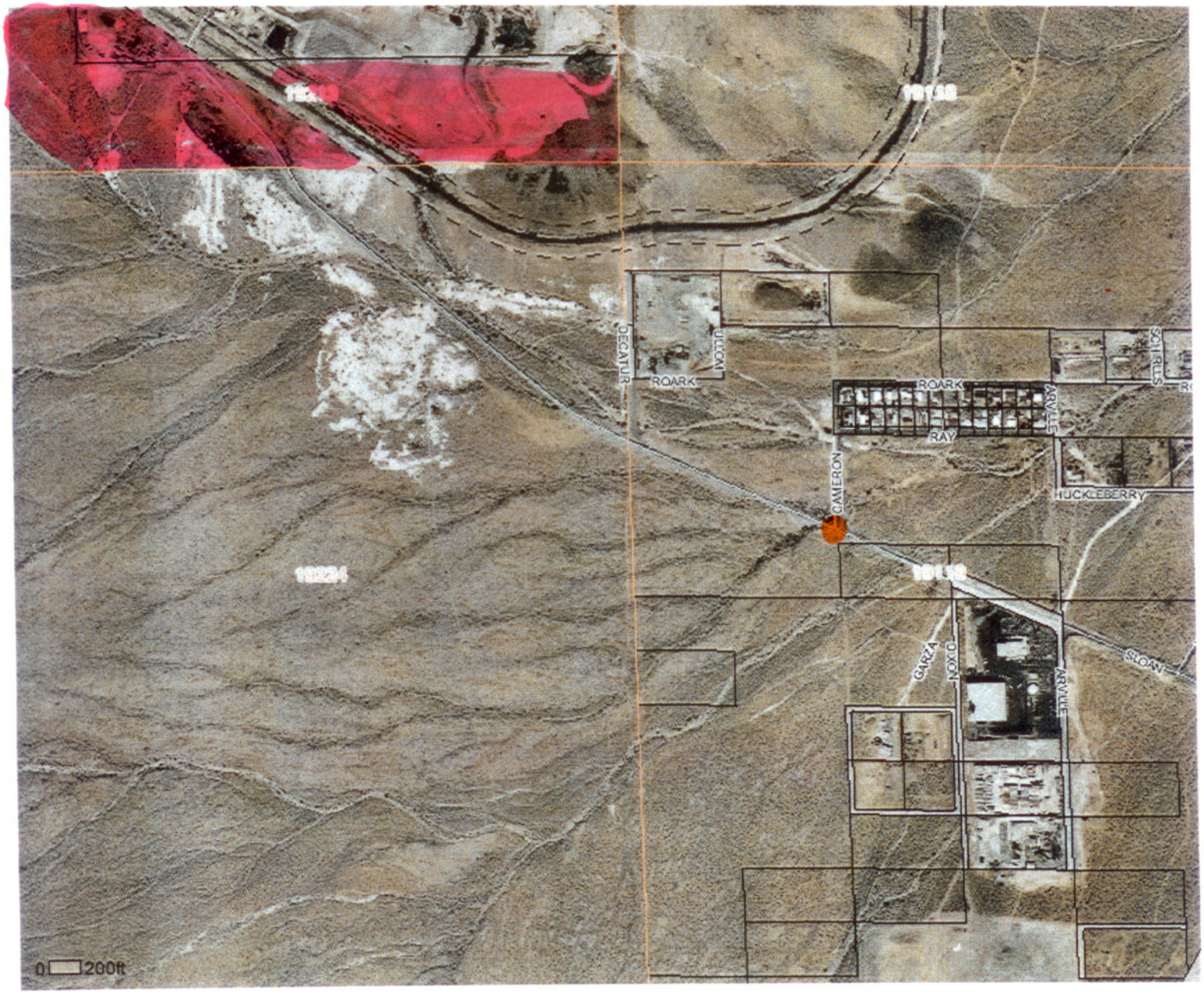
The proposed project is located approximately 1 mile Northwest of KOP#2. The strong linear shape associated with the paved road in the foreground combined with the moderate vertical shapes associated with power poles and metal silo facilities in the midground result in a moderate to strong degree of contrast for both form and line. The existing structures colors of while, tan , and brown exhibit a weak to moderate contrast with the light tan, brown and light green of the natural terrain and vegetation. Additionally, the existing facilities provide a moderate scattered texture upon the visual landscape particularly in the midground. The proposed facilities are similar in form, line, and texture to the existing visual components in the foreground and midground resulting in a weak degree of visual contrast from KOP#2. With the incorporation of the recommended mitigation measure regarding the color of the buildings and structures, the resulting degree of contrast with the existing visual landscape is expected to be weak to none. Due to the strong to moderate level of existing contrast in the current visual landscape, the proposed project is expected to result in a weak degree of contrast. Therefore, the proposed project is expected to alter the existing landscape to a minimal extent and would not attract the attention or focus of the casual viewer.

Additional Mitigating Measures (See item 3)

The proposed buildings and other structures should be painted a light tan or other neutral color to blend in with the existing structures and natural background.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1985—461-988/33094

Map Click: ○ Select Property ○ Zoom In ○ Zoom Out ● Pan ○ Measure



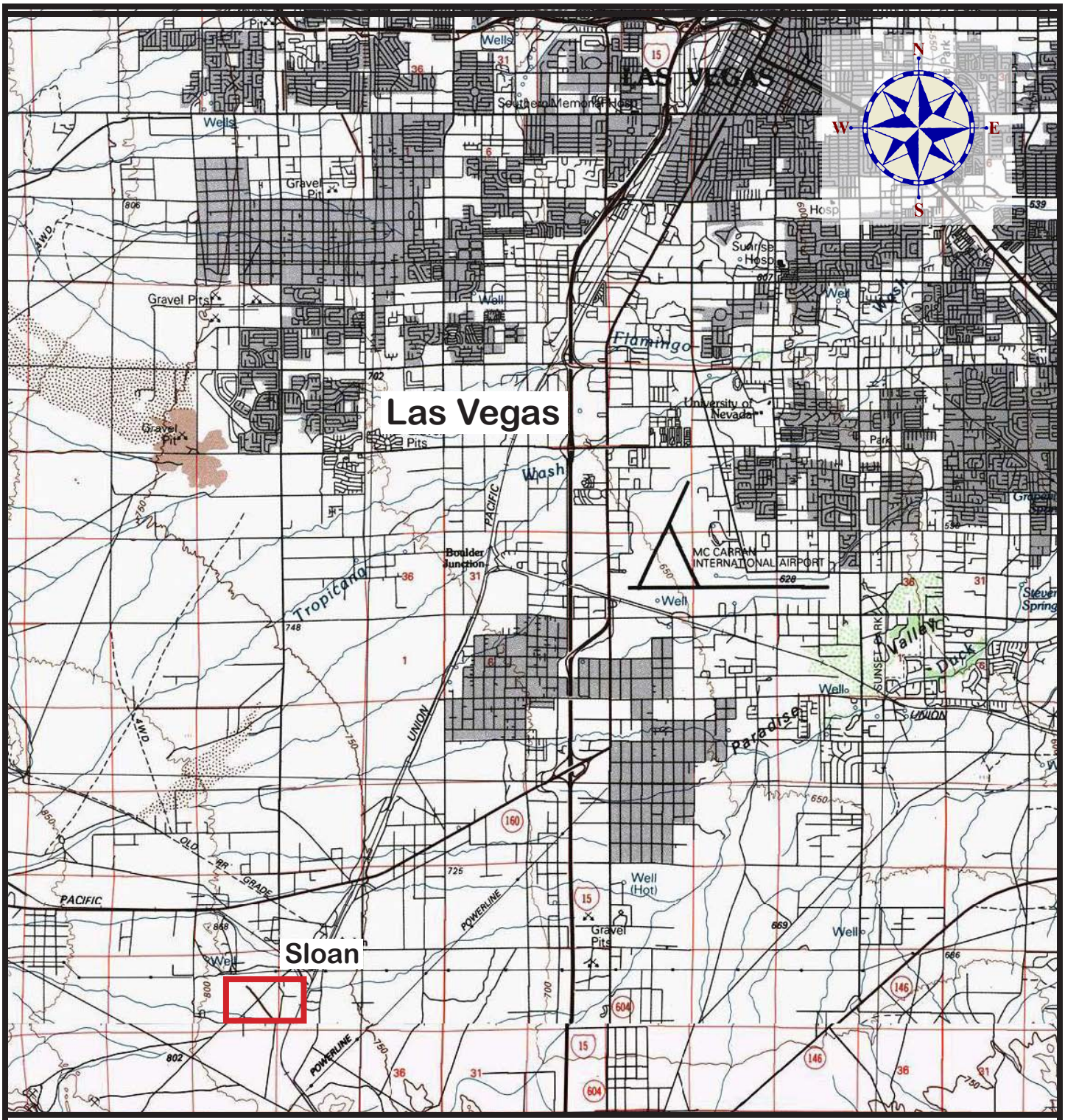
KOP # 2

Sloan Road and Cameron

Site

N ↑


KOP #2
Site
11/09/2006



LEGEND

Project Area

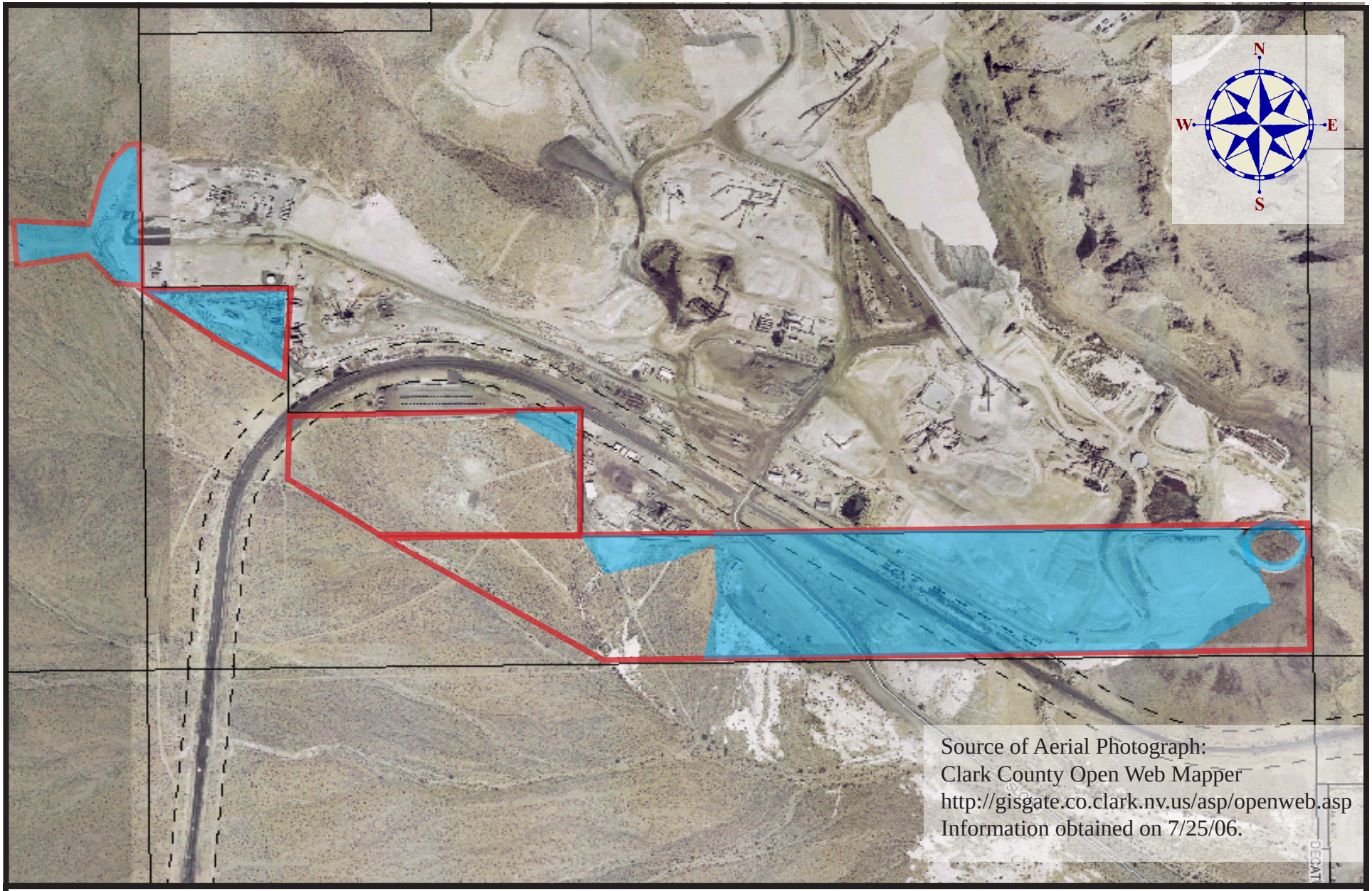
Source Map:
National Geographic TOPO
Nevada
100K Map Series

N-77764

NEPALV # 2006-378

Figure 1

VENTAJAS LLC



LEGEND

Project Area

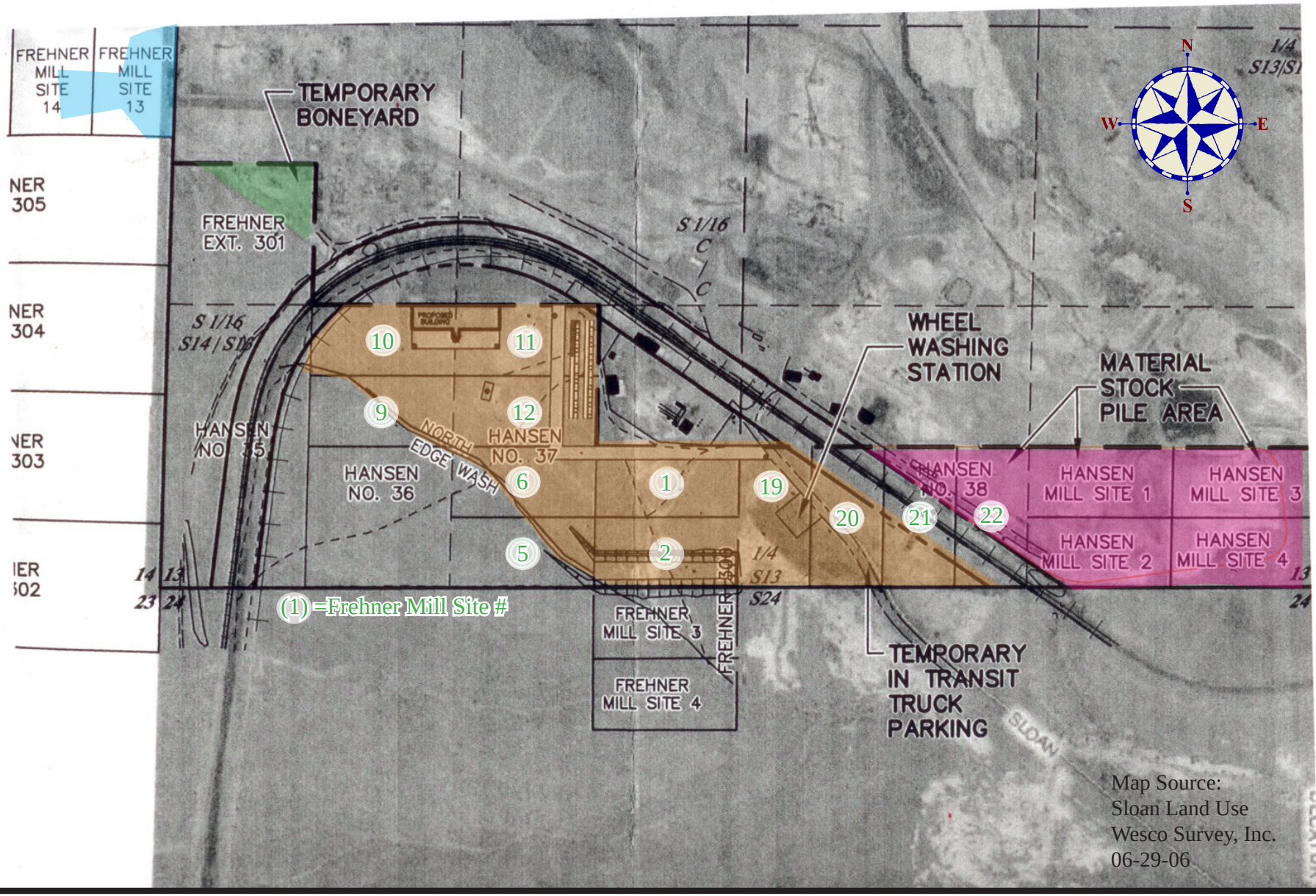
Existing Disturbance
(38.4 acres)

N-77764

NEPALV # 2006-378

Figure #2

VENTAJAS LLC



LEGEND

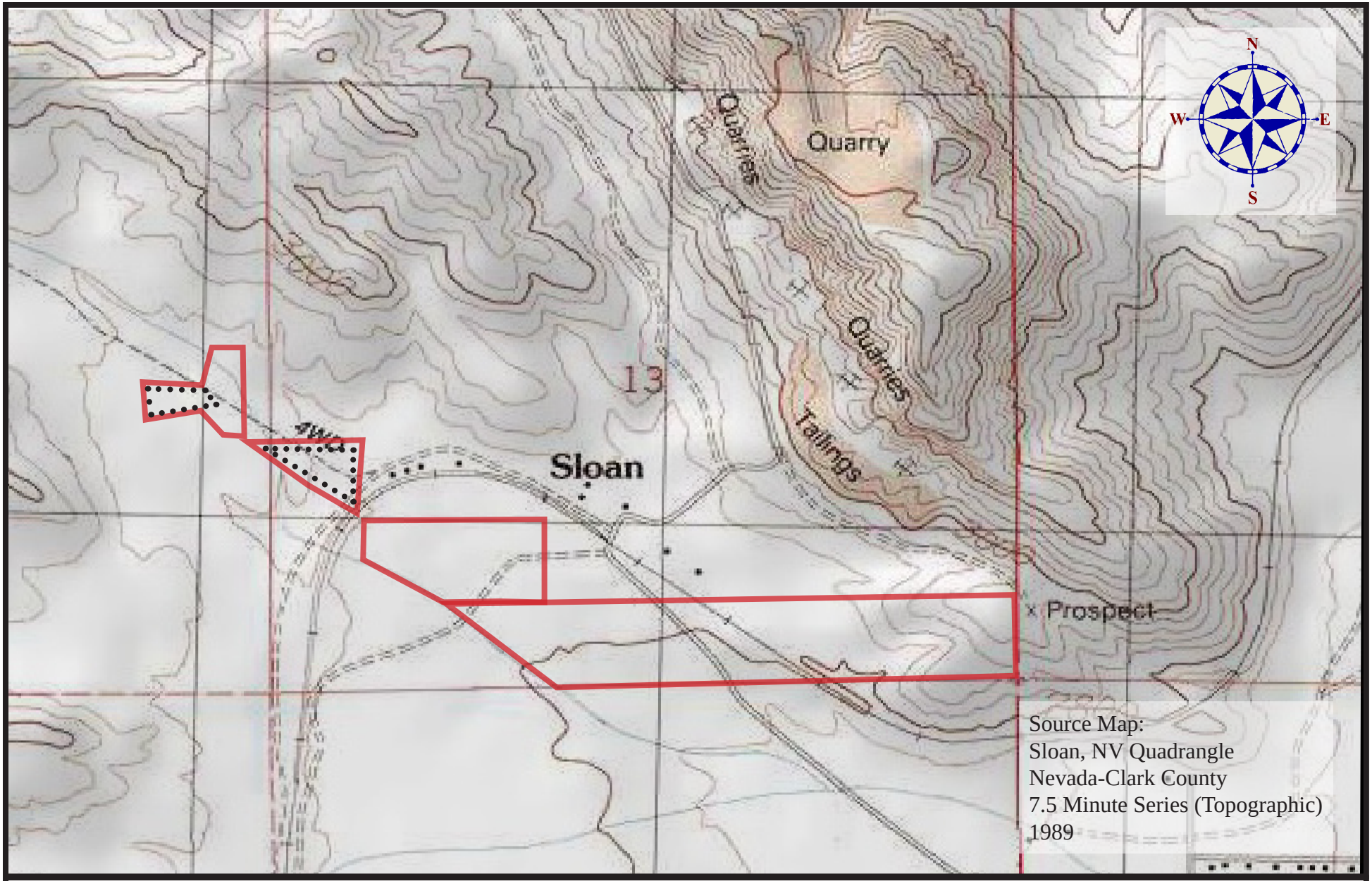
- Area #1
- Area #2
- Area #3
- Area #4

N-77764

NEPALV # 2006-378

Figure #3

VENTAJAS LLC



LEGEND

Project Area

Reclamation

N-77764

NEPALV # 2006-378 (T23S R60E Section 13 & 14)

Figure 4.

VENTAJAS LLC