

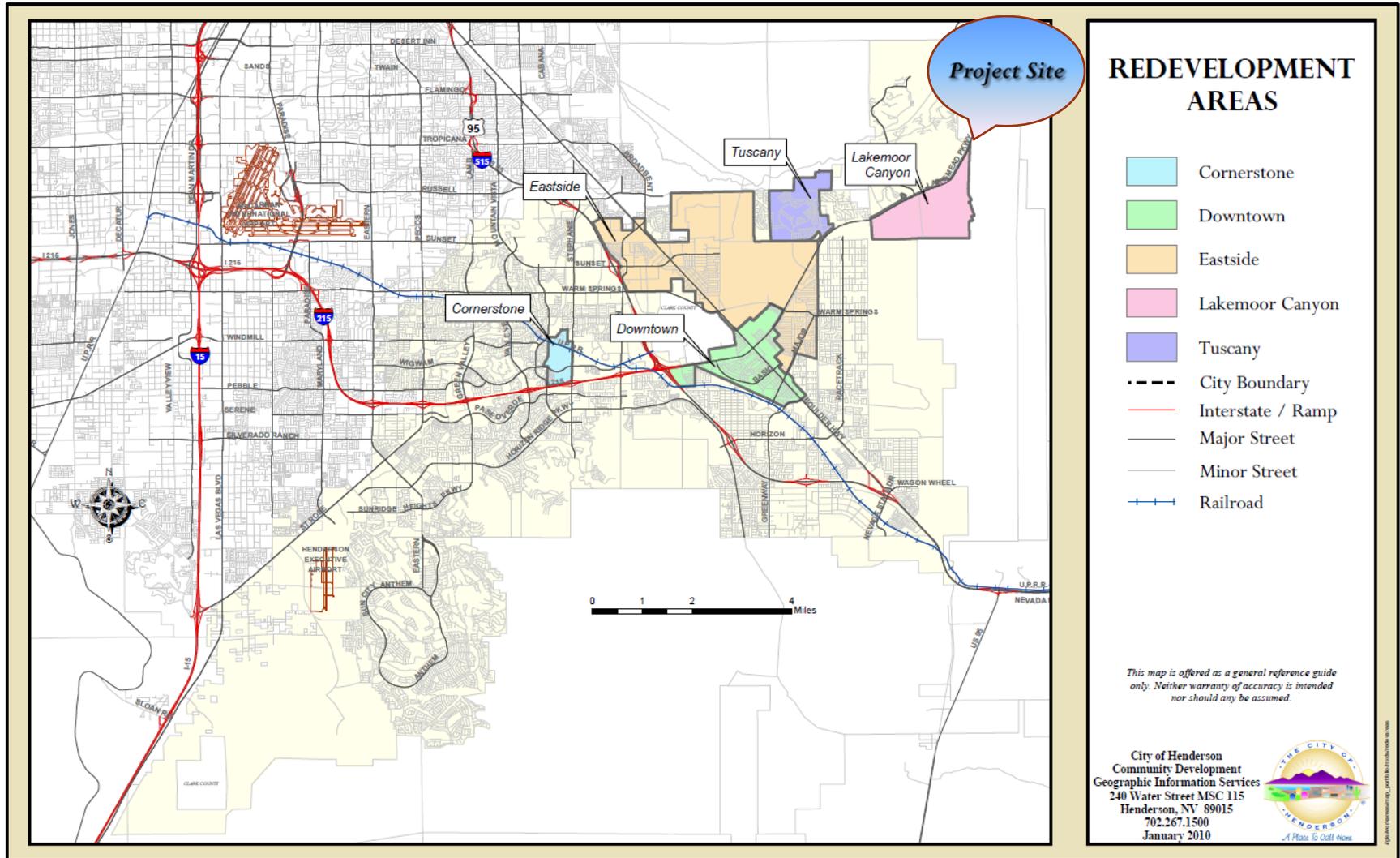


# Three Kids Mine and Mill Site Remediation and Redevelopment Project

City of Henderson, Nevada  
City of Henderson Redevelopment Agency

*October 2011*

# Location of 1,262-Ac.\* Project Site



HENDERSON, NEVADA

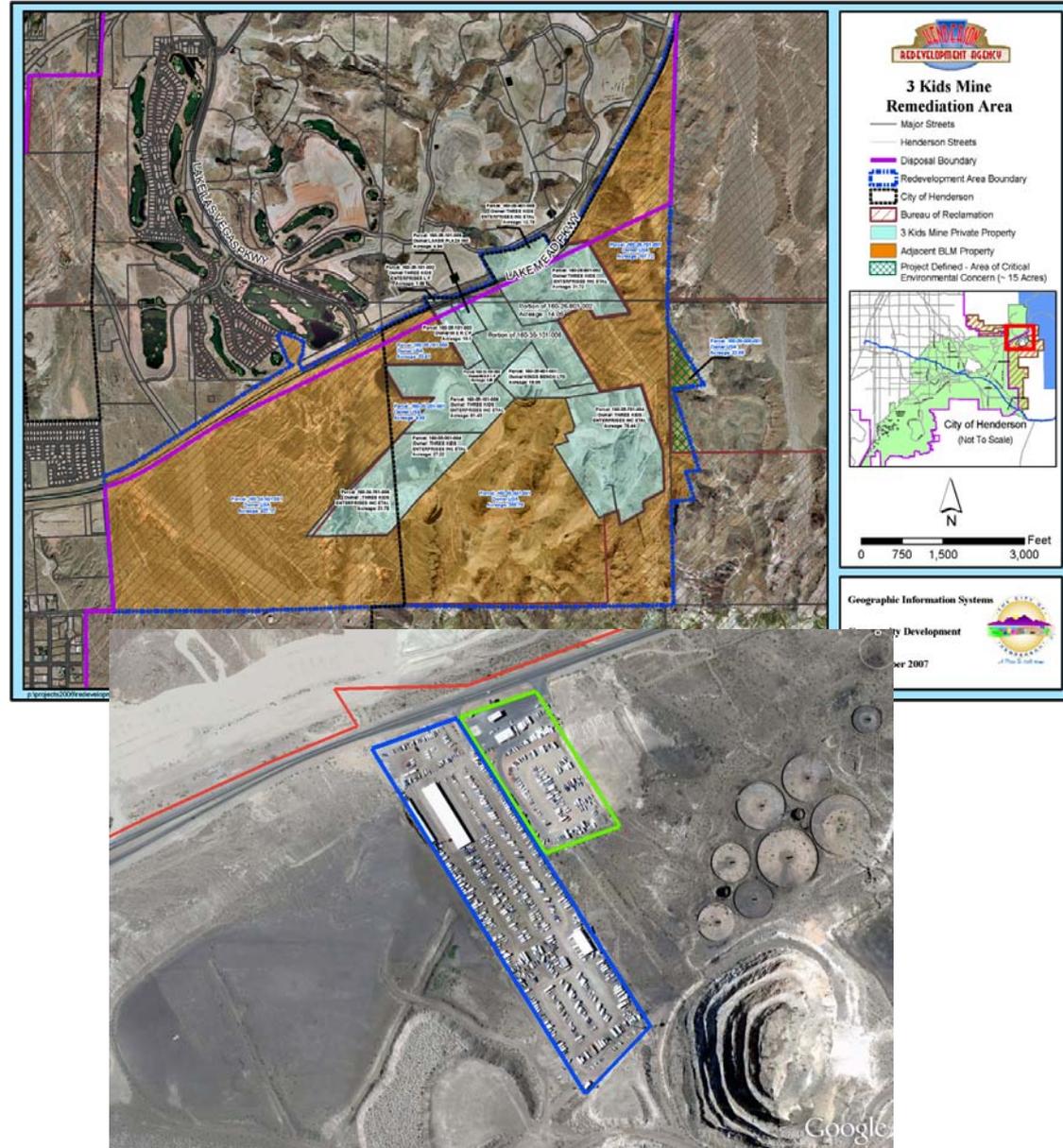
\*All acreages approximated on best current information.

# Location of 1,262-Ac. Project Site



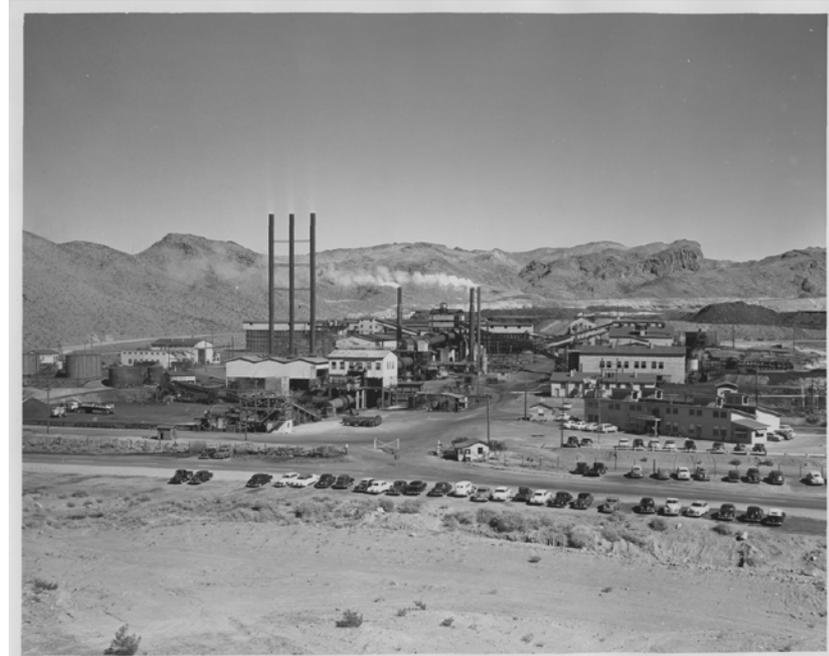
# Current Land Ownership

- ❑ Project Site = 1,262 ac.
- ❑ Located mostly outside SNPLMA Disposal Boundary.
- ❑ Federal Lands = 948 ac.
  - 6 Parcels
  - BLM: 253 ac.
  - BuRec: 695 ac.
- ❑ Private Lands = 314 ac.
  - 12 Parcels
- ❑ Project Site inactive except for two small commercial facilities on Private Lands.
  - Gas Station (5 ac.)
  - Boat Storage Yard (14 ac.)

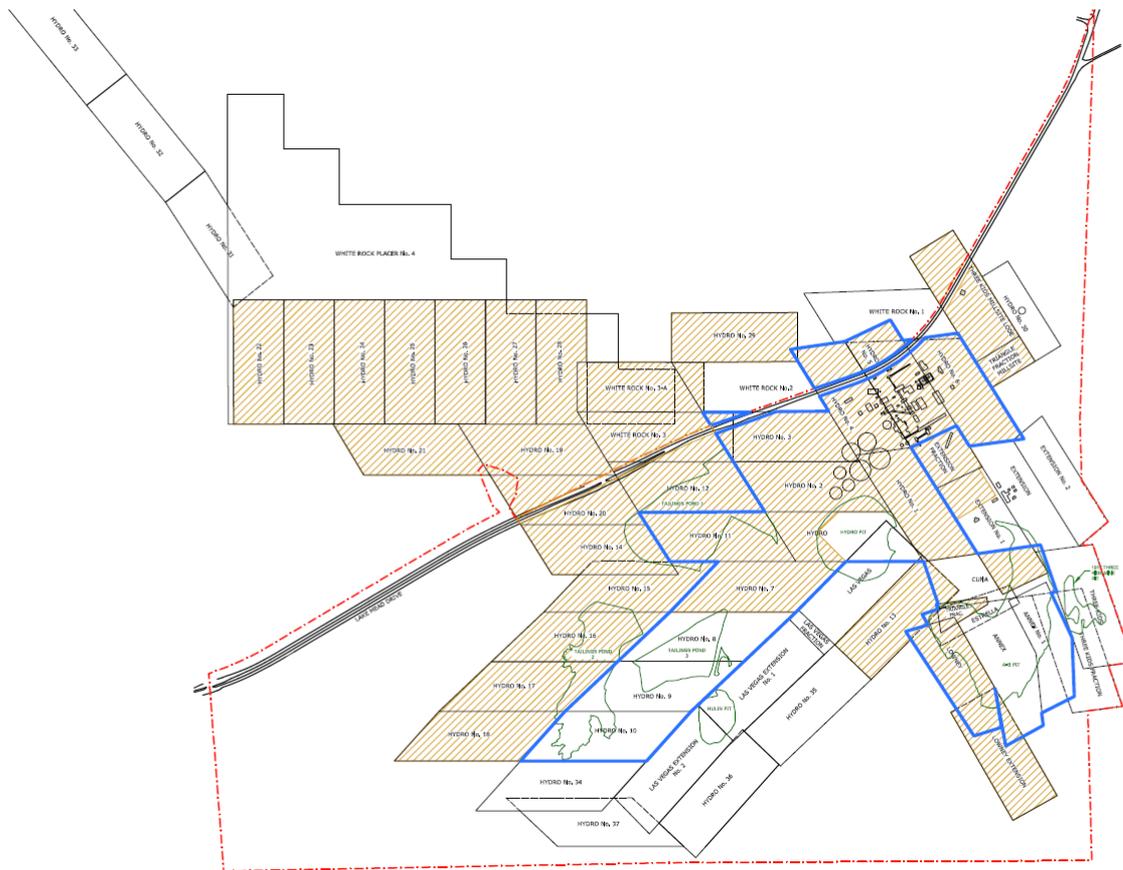


# Site History

- ❑ Over 400 acres of Site operated as open pit manganese mine and processing facility from 1917 to 1961.
- ❑ The United States, through the Defense Plant Corporation (DPC), owned 446 acres of the Project Site from 1942 to 1955.
- ❑ DPC leased site to U.S. instrumentality Metals Reserve Company (MRC).
- ❑ Under contract with MRC, Manganese Ore Company constructed mill and operated 1942-1944 to produce manganese for national defense.
- ❑ WWII-era was period of highest intensity of operations at Project Site.
- ❑ United States contracted with Manganese, Inc. to beneficiate federally-owned ore 1950 to 1959.
- ❑ Federal stockpiling of manganese nodules on leased Private Lands until 2003.
- ❑ Operations ceased in 1961 and Project Site has been essentially abandoned ever since.



# WWII-Era Federal Mining Claims



## KEY

-  Claims decided to United States (through Metals Reserve Company or Defense Plant Corporation) between 1942 and 1944
-  Current Private Property Boundary
-  Project Site Boundary; lands inside Project Site Boundary which are not Private, are Public Lands
-  Tailings Pond and Pit Locations

## NOTES

Drawing does not constitute a survey.

SOURCES: Load claim map of the Three Kids Mine Group, Map #216437, record book 257, Clark County Records Office, 1972. Map: Three Kids Mine Location of Ore and Additional Stockpile Areas, cartographer unknown, 1944. Plat sheets A, B, and C of Mineral Survey 4743, Public Land Office, Reno, Nevada, 1938. Additional multiple historical sources including grant, bargain, and sale documents from 1942 to present.

0 700 1400 FEET



# Historical Operations

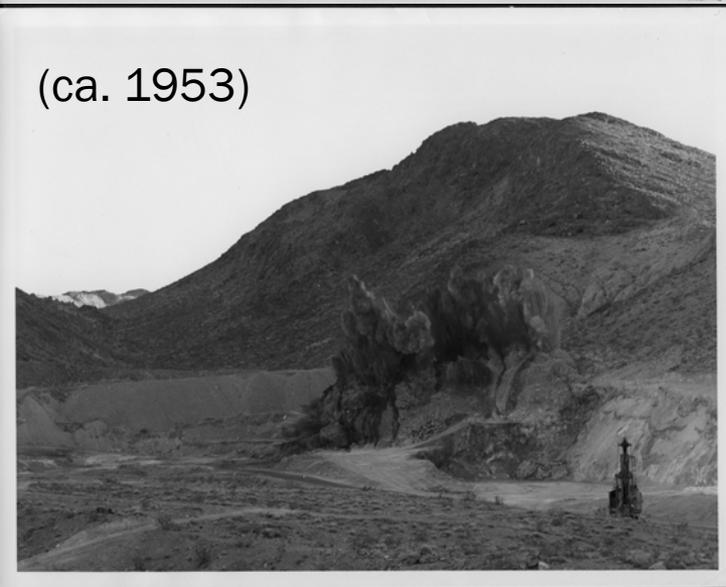
(ca. 1943)



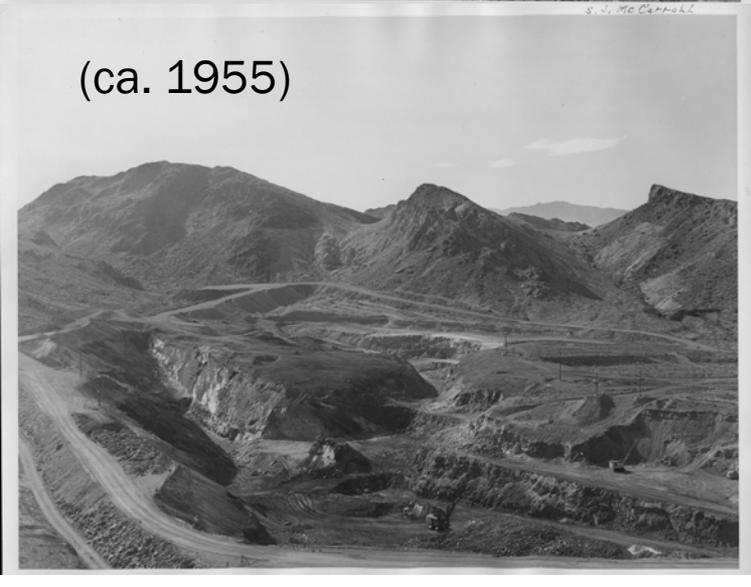
(ca. 1943)



(ca. 1953)



(ca. 1955)

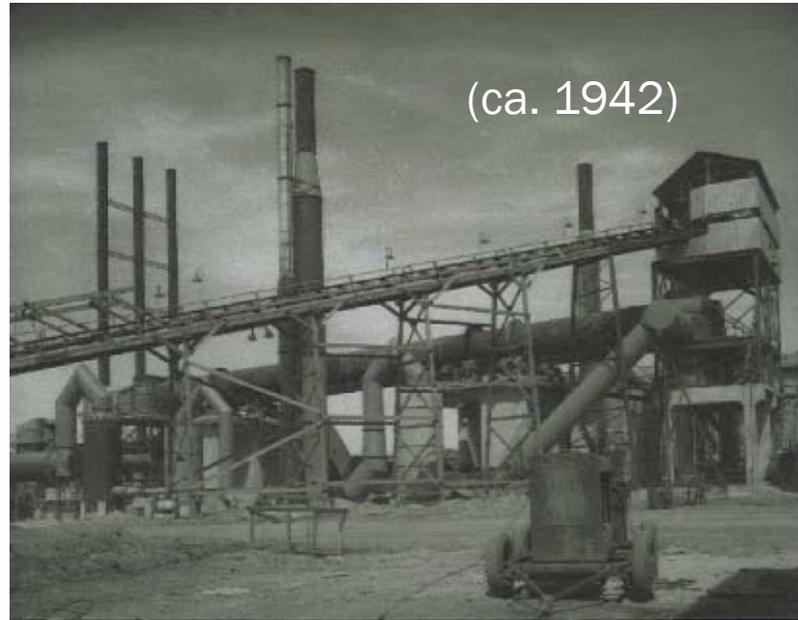


# Historical Operations

(ca. 1944)



(ca. 1942)



(ca. 1942)

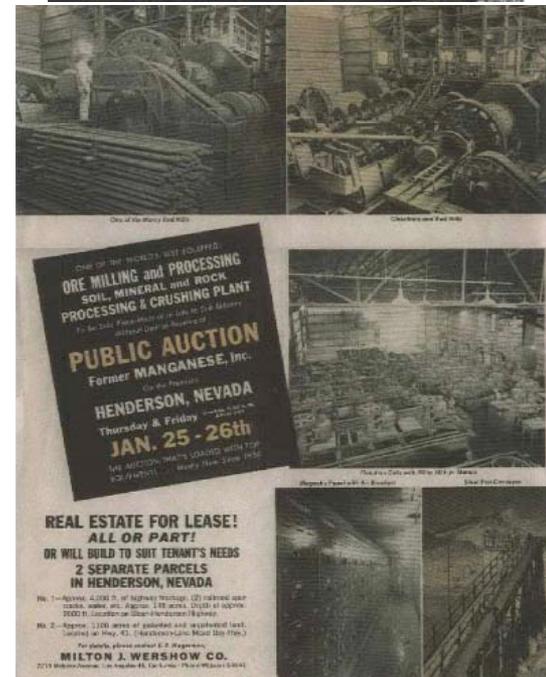
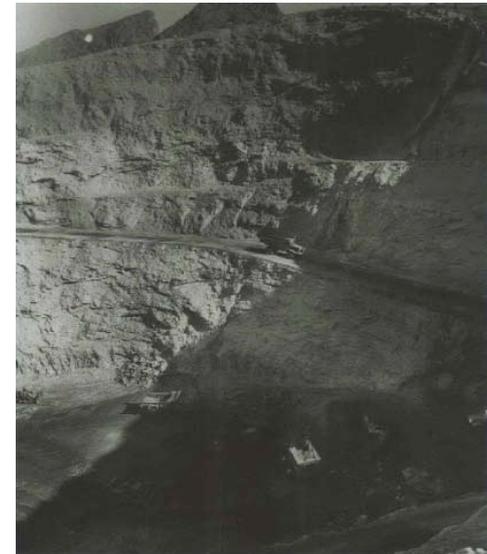


(ca. early 1950s)



# Mining and Milling Process 1942-1961

- ❑ 20% manganese (Mn) was mined from open pits.
- ❑ Mn was crushed, mixed with water, sulfur dioxide, diesel fuel, tall oil soap, Oronite S (alkyl sulfonate), quebracho (powdered wood tannin).
- ❑ Emulsion sent to flotation tanks; Mn oxide and Mn sulfate adhered to petroleum foam (Mn “liquor”).
- ❑ Mn liquor dried, combined with coke, sent through three kilns (calciner, nodulizer, cooling kiln). 65% purity manganese nodules produced.
- ❑ Waste gangue (silica, alumina, lead, arsenic, Mn, iron, petroleum hydrocarbons) generated in flotation process disposed in tailings ponds.
- ❑ Mining and Milling operations ended in Summer 1961.



ONE OF THE PROSPECTS NOT EQUIPPED  
**ORE MILLING and PROCESSING  
SOIL, MINERAL and ROCK  
PROCESSING & CRUSHING PLANT**  
To be sold through the sale of the former  
Manganese, Inc. site

**PUBLIC AUCTION**  
Former **MANGANESE, Inc.**  
To be held at  
**HENDERSON, NEVADA**  
Thursday & Friday  
**JAN. 25 - 26th**  
1000 WEST MAIN STREET, HENDERSON, NEVADA 89002

**REAL ESTATE FOR LEASE!  
ALL OR PART!  
OR WILL BUILD TO SUIT TENANT'S NEEDS  
2 SEPARATE PARCELS  
IN HENDERSON, NEVADA**

Parcel 1 - Approx. 4,000 sq. ft. Highway frontage. (2) industrial uses  
possible. Water, gas, electric. 1.50 acres. 100' x 100' of 100' x 100'  
2000 ft. Location on (State) - Henderson, Nevada

Parcel 2 - Approx. 1,000 sq. ft. of industrial use. (2) industrial uses  
possible. Gas, electric. 1.50 acres. 100' x 100' of 100' x 100'  
2000 ft. Location on (State) - Henderson, Nevada

For details, please contact E. J. Wershov  
**MILTON J. WERSHOW CO.**  
2714 Westchester, Las Vegas, NV 89102, Phone: 752-1100

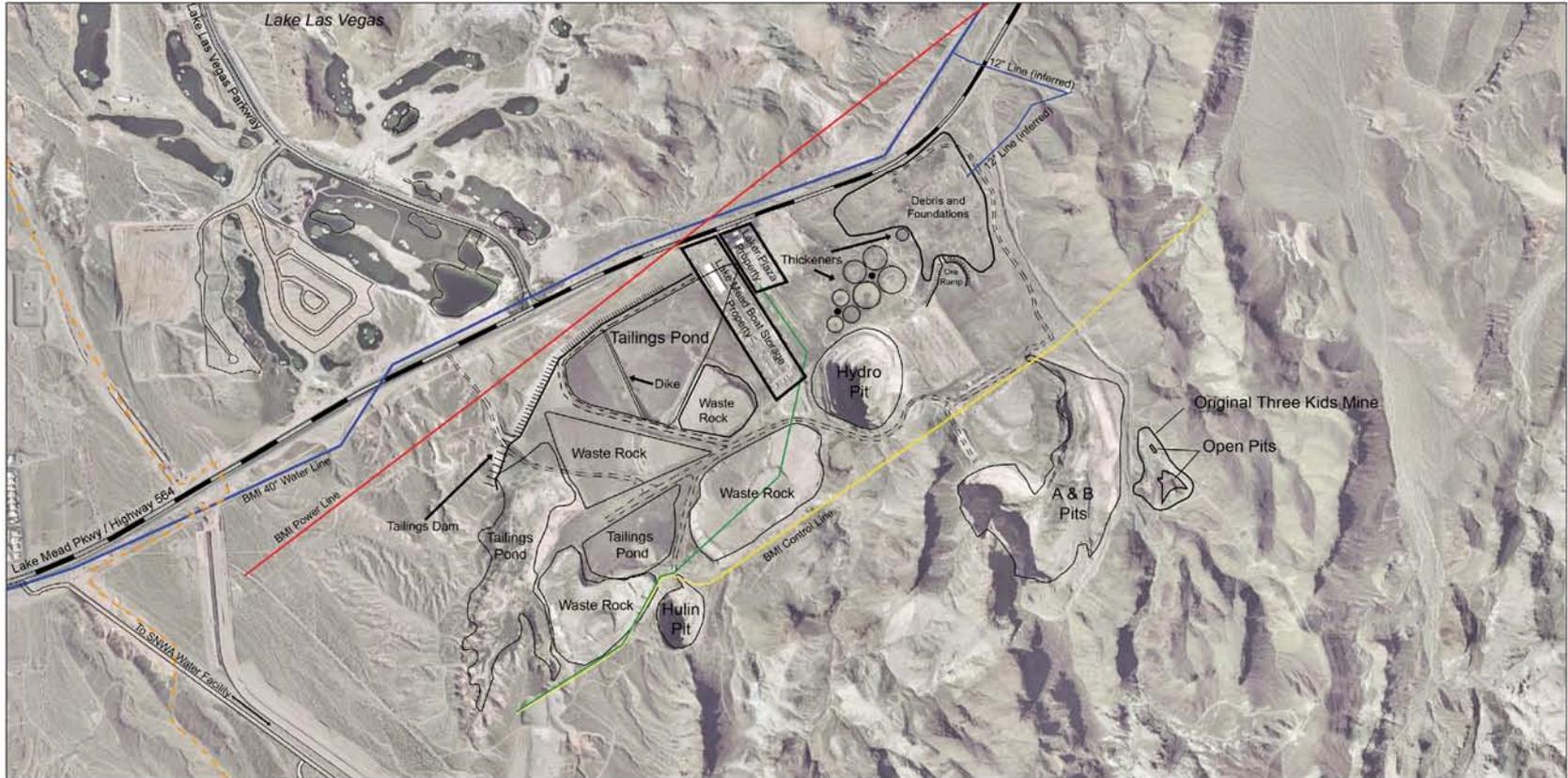
One of the Mine's Fuel Pits  
Crushers and Fuel Pits  
The Area Covered with the Mine in Nevada  
Along the Highway to the Mine  
The Production

# Site Conditions Today

- Sheer cliff open pits up to 370 feet deep.
- Large volumes of overburden, 10 stories high.
- Tailings Ponds over 60 feet deep; 1.4 million CY.
- Mill facility foundations and remnants present hazards.
- Contaminants include arsenic, lead and other “heavy metals,” petroleum hydrocarbons, occurring over +410 ac. (~146 ac. Federal Lands; ~266 ac. Private Lands).
- Air and surface water contaminant migration pathways of primary concern.
- 12 million CY of mine residue (enough to fill modern sports stadium six times).
- No reclamation for past 50 years. Numerous proposals, but none realistic in terms of cost/scope.
- Encroaching residential development makes remediation imperative.
- Site cleanup a high priority for Nevada Division of Environmental Protection (NDEP).



# Footprint of Environmental Concerns



KEY	
	PHONE/CONTROL LINE
	POWER LINE
	WATER LINE
	STATE HIGHWAY
	UNIMPROVED ROAD
	PHONE/POWER LINE TO LAKER PLAZA
	RIVER MOUNTAINS TRAIL

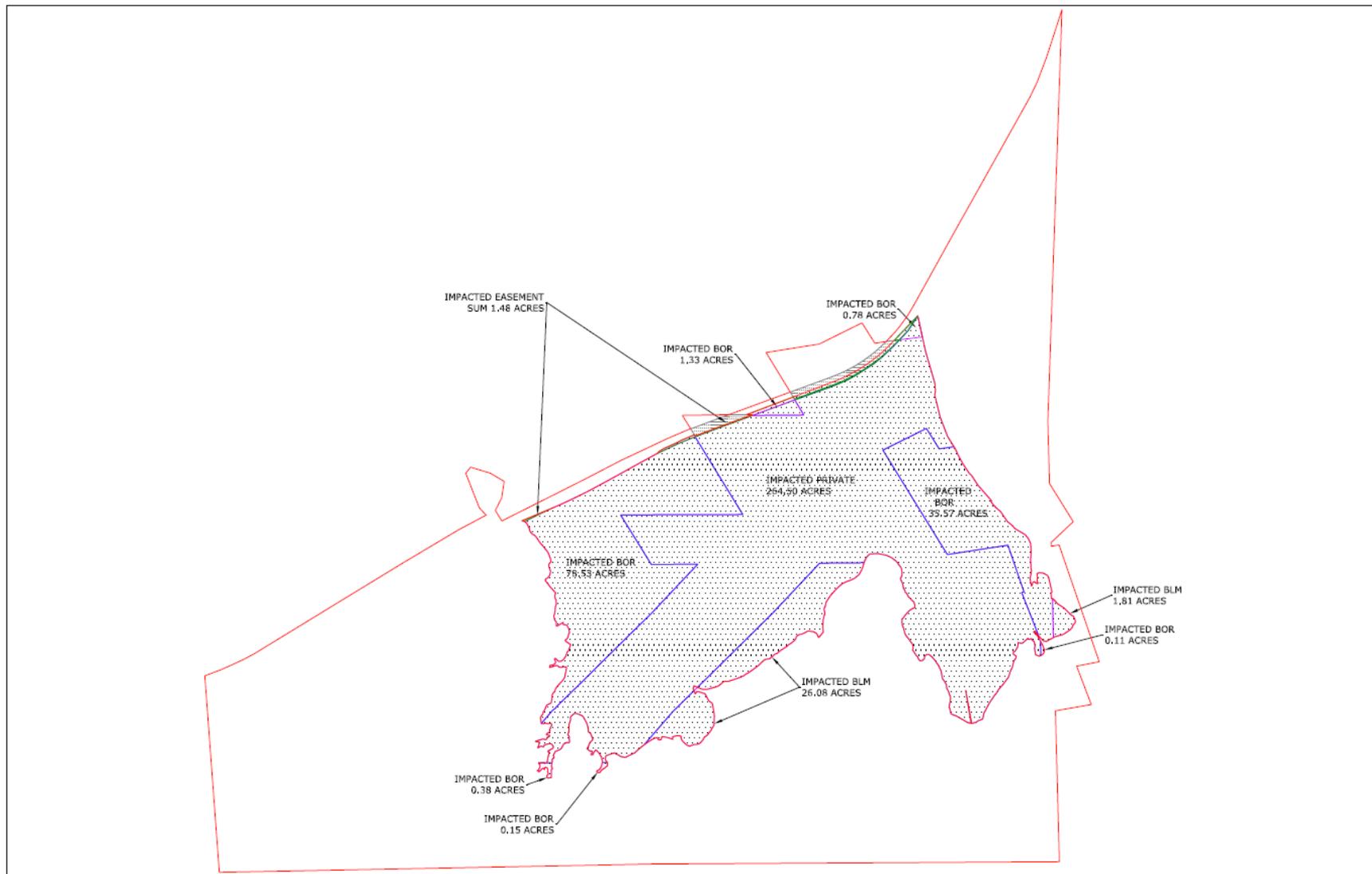
**NOTES**

SOURCE: 2005-2007 FIELD DATA, AERIAL IMAGE FROM 2007 CLARK COUNTY ASSESSOR DATA.



FIGURE 3	
TKM LAYOUT 2007 ON AERIAL	
THREE KIDS MINE AND MILL SITE	
DESIGNED: CTA	01/03/06
DRAWN: CTA	01/03/06
APPROVED: MS	01/03/06

# Footprint of Environmental Concerns



# Milestones in Cleanup and Redevelopment Program

- 2006:** Lakemoor Development, LLC (Developer) secures Option Agreement for undeveloped Private Lands.
- 2007:** Developer and Henderson Redevelopment Agency enter into MOU re: annexation and establishment of redevelopment area.
- 2007:** City of Henderson, NDEP, Henderson Redevelopment Agency, DOI Solicitor's Office, BLM and BuRec commence negotiations on program for cleanup and redevelopment of Project Site.
- 2007:** Parties agree on "Presumptive Remedy" – use on-Site mine pits as repositories for mine residue in appropriately engineered manner.
- 2007:** Developer completes comprehensive Phase I Environmental Site Assessment.
- 2008:** GaiaTech, Inc. prepares Cost Evaluation Report which estimates "reasonable case lower-end" cost of Project Site remediation/reclamation at \$320m.
- 2008:** Developer prepares Phase II Sampling and Analysis Workplan for NDEP review.
- 2009:** City of Henderson annexes Project Site and establishes Lakemoor Canyon Redevelopment Area pursuant to Nevada Community Redevelopment Law.
- 2009:** DOI Appraisal Services Directorate prepares Preliminary Estimate of Value for Federal Lands, "as clean" for "highest and best use" as residential/commercial, at \$100,000-\$200,000/ac. (\$95m-\$180m).
- 2010:** Parties agree on framework for legislative conveyance of Federal Lands to Henderson Redevelopment Agency for purposes of implementing comprehensive cleanup and redevelopment program; BLM Director Abbey issues letter of support for collaborative public/private project.
- 2011:** Three Kids Mine Remediation and Reclamation Act introduced in Congress.
- 2011:** Developer and Henderson Redevelopment Agency enter into Master Redevelopment Planning Agreement.

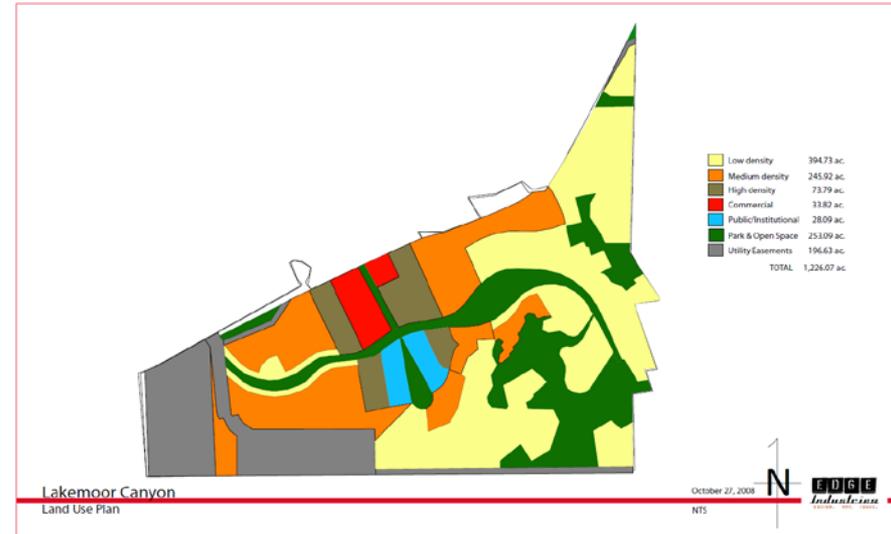
# Three Kids Mine Remediation and Reclamation Act

## H.R. 2512 and S. 1492

- Federal Lands to be conveyed to Henderson Redevelopment Agency at adjusted FMV.
- DOI Secretary to perform FMV appraisal of Federal Lands.
- Secretary to adjust FMV to reflect costs of remediating entire Project Site.
  - Requires use of Phase II environmental site assessment approved by NDEP and conducted in accordance with American Society for Testing and Materials (ASTM) standards.
  - Also requires use of ASTM standard for estimating cleanup costs.
- Mine Remediation and Reclamation Agreement a condition precedent to Patent issuance.
  - Consent Agreement between NDEP and Developer.
  - Requires cleanup of entire Project Site, Federal Lands and Private Lands
  - Requires financial assurance provisions to ensure completion of cleanup.
  - Cleanup must be permanent and appropriately protective of human health and the environment.
- United States vested with release of environmental liability for entire Project Site upon Patent issuance.

# Tax Increment Financing

- ❑ Environmental conditions constitute “blight” under Nevada Community Redevelopment Law (CRL).
- ❑ “Increment” of increased real property taxes flows back to Redevelopment Area over 30-year “capture period.”
- ❑ Developer rights to reimbursement of cleanup and infrastructure costs with Tax Increment funds governed by Disposition and Development Agreement with Redevelopment Agency and City of Henderson.
- ❑ Lakemoor Canyon Redevelopment Area (LCRA) established in 2009.
- ❑ In 2009, LCRA estimated to generate between \$600m-\$700m in Tax Increment over 30 years based on certain density/build-out assumptions.
- ❑ 1,262-acre size of LCRA critical to generate sufficient Tax Increment for Project and provide 4 million CY of “clean” soil needed for Presumptive Remedy.
- ❑ Tax Increment used to fund remediation as well as redevelopment infrastructure (water lines, sewers, roads, etc.).
- ❑ Tax Increment “back loaded” – most Tax Increment generated later in capture period when redevelopment completed.



# Project Site Development Constraints

- ❑ ~900 ac. Developable.
- ❑ Existing Easements.
- ❑ Site Topography Constraints.
- ❑ Residential Density Limits.
- ❑ Recreation/Open Space Requirements.
- ❑ School/Fire/Police Facilities.
- ❑ Presumptive Remedy Soil Demands.
- ❑ Mass Balance Grading.

