

Caselton Mine Area Project Update

Pioche, Nevada

April 11, 2017



Tonight's Agenda

- Introductions
- Caselton (Pioche) Site Investigation
 - Tronox/Kerr-McGee Ownership Recap
 - What Have We Been Looking At & Why?
 - What Are We Finding?
 - What Are the Next Steps?



Introductions

- NDEP
 - Jeryl Gardner, AML Program Manager
 - Jeff Collins, BCA Bureau Chief
- Multistate Trust
 - Marc Weinreich, Managing Principal
 - Tasha Lewis, Project Manager
 - Dean Brockbank, Sr. Strategist
 - Bob Rollins, Field Manager
 - Chuck Zimmerman, Brown and Caldwell
Project Manager
- Others



Caselton Site Investigation

- Multistate Trust—Independent Environmental Response Trust
- Tronox/Kerr-McGee Acquired Site from Combined Metals
- Contamination Pre-Dates Ownership & None Caused or Created by Multistate Trust or Tronox/Kerr-McGee



Caselton Site Investigation

- Site is Large, Consisting of 3200 +/- Acres
- Stretches from Foot of Treasure Hill to BLM Land on West

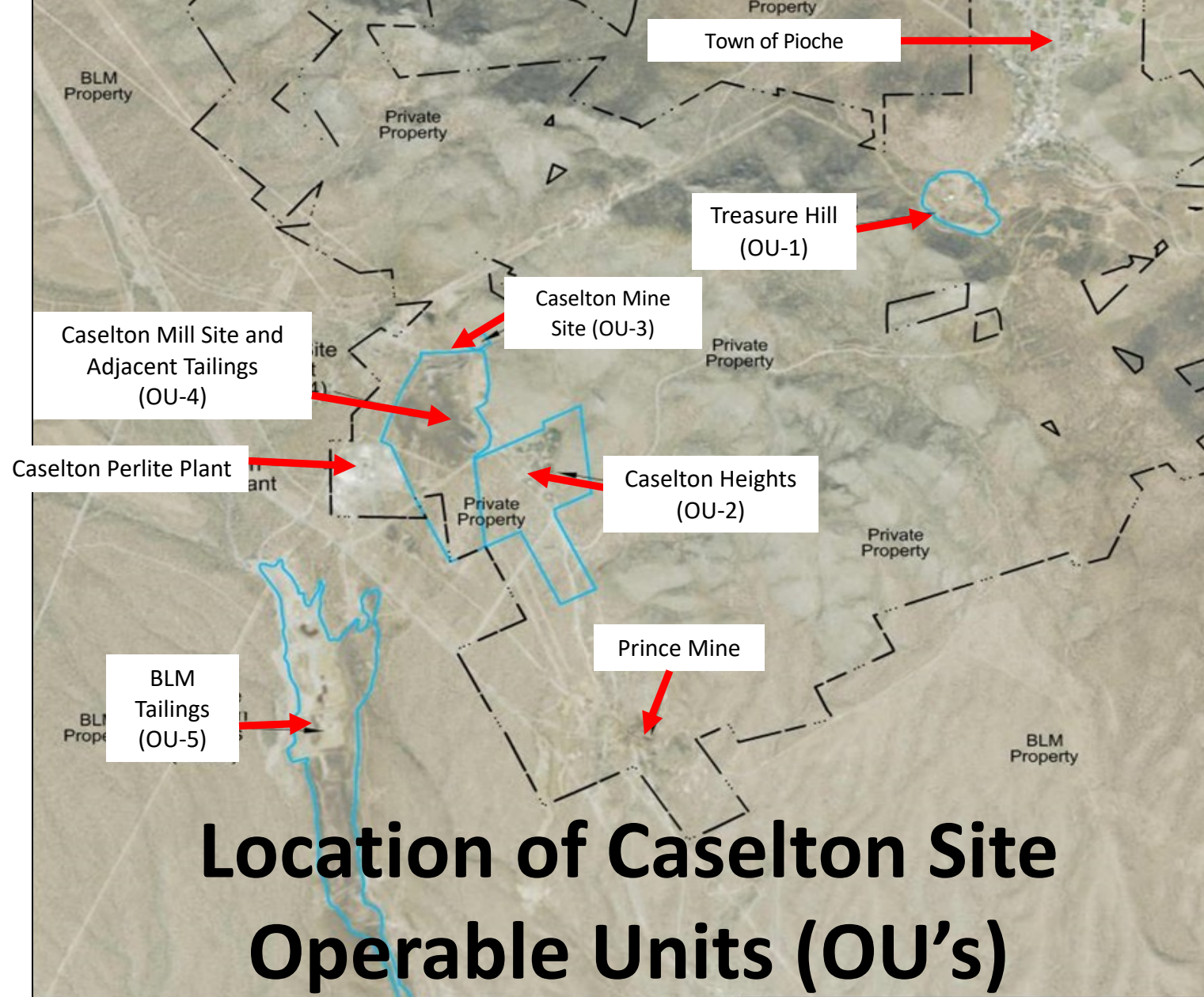


Caselton Site Investigation Overview

- To Manage Investigations Over Extensive Area, Site Divided into 5 Areas, Called Operable Units (OU):
 - OU-1 Treasure Hill
 - ✓ On-Site: (Primary Focus of Last Public Meeting)
 - ✓ Off-Site: (Primary Focus of This Public Meeting)
 - OU-2 Caselton Heights Residential Yards
 - OU-3 Caselton Mine
 - OU-4 Caselton Mill and Tailings
 - OU-5 BLM Tailings

- Because of Lack of Known Historic Mining Activity, Investigation of Other Site Locations Assumed Not Required





Location of Caselton Site Operable Units (OU's)



Explanation

- Operable Unit Boundary
- BLM/Private Boundary

BLM Tailings OU Boundary Approximated from URS (2014; Figure 3)
 Basemap Source: ESRI World Imagery

Caselton Site Investigation Summary

2016-2017 Multistate Trust Environmental Actions

- OU-1 (Treasure Hill: On-Site)
 - ✓ Sampled Treasure Hill Tailings
 - ✓ Lead & Arsenic Detected Above Risk-Based Screening Levels (RSLs)
 - ✓ Determined No Imminent Risk to Recreational Users
 - ✓ Conducted 2016 Public Meeting to Review Results
 - ✓ New: Identified Potential Measures to Manage Treasure Hill Stormwater Transport of Sediment (BMPs)



Caselton Site Investigation Summary

2016-2017 Multistate Trust Environmental Actions

- OU-1 (Treasure Hill: Off-Site)
 - ✓ New: Sampled Residential Yards at Base of Treasure Hill to Assess Exposure Concentrations
 - ✓ New: Evaluated Measures to Control Stormwater from Depositing Sediment into Yards (BMPs)
 - ✓ New: Evaluated Need for Additional Actions



Caselton Site Investigation Summary

2016-17 Multistate Trust Environmental Actions

- OU-2 (Caselton Heights)
 - ✓ Sampled Caselton Heights to Assess Potential Risks
 - ✓ Determined No Imminent Risk to Residents
 - ✓ New: Working with Community Residents & Lincoln County to Resolve Complex Title Issues

- OU-3 (Caselton Mine)
 - ✓ No Environmental Actions Performed

- OU-4 (Caselton Mill Area) & OU-5 (BLM Tailings)
 - ✓ Completed Physical Hazards/Safety Assessment for Caselton Mill
 - ✓ Evaluated Tailings to Support Human Health Risk Assessment
 - ✓ Completed Aerial Survey of OU-4 & OU-5



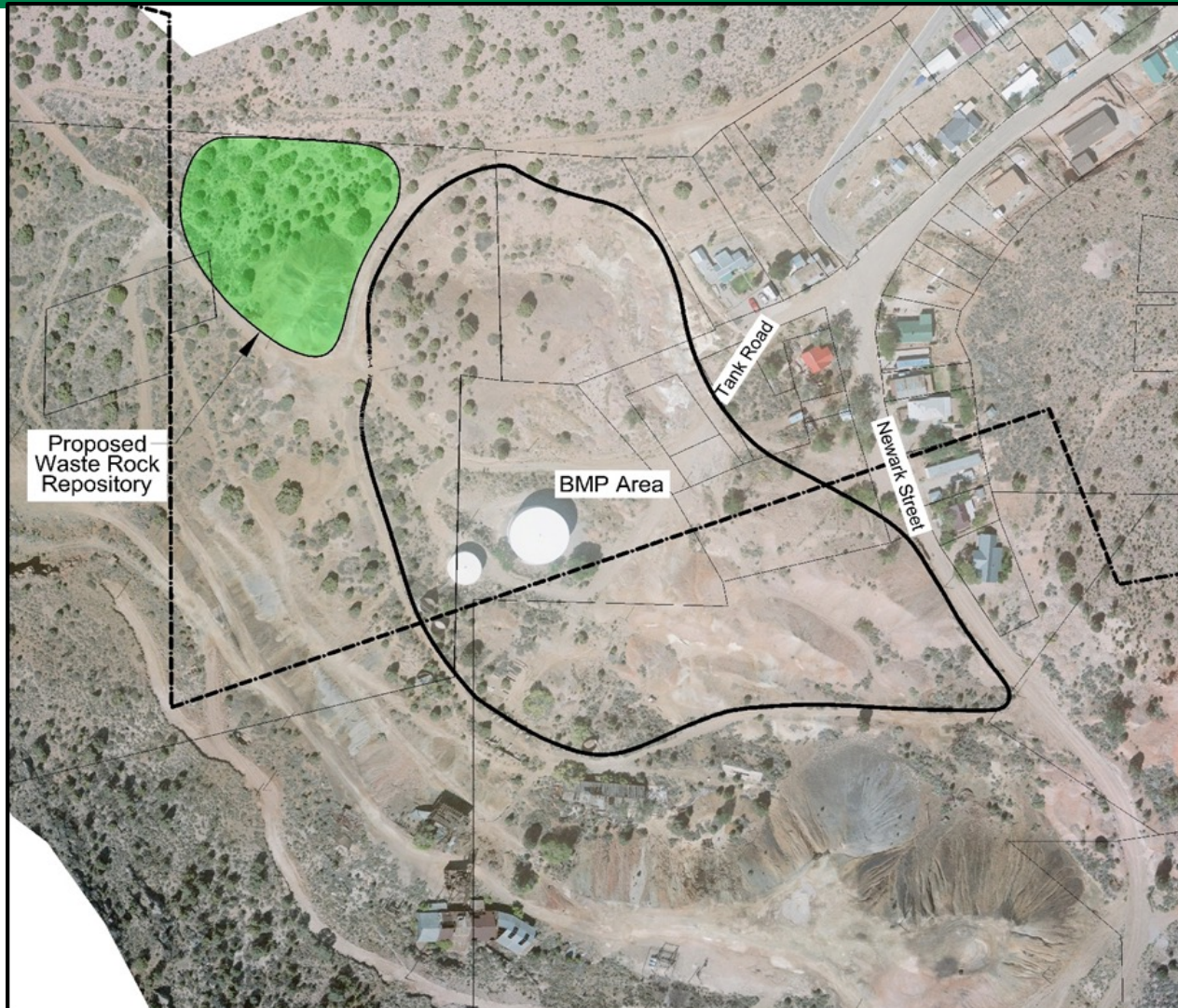
Caselton Site Investigation

OU-1 (Treasure Hill: Proposed On-Site Remedy)

- Sediments Run Down Treasure Hill with Storm Events
- To Manage OU-1 Transport of Sediment, Will Design & Construct:
 - ✓ Covered Off-Site Soil Repository
 - ✓ Improvements on Treasure Hill (known as “BMPs”)
- BMPs May Include: Grading, Vegetation, Flow Control Features & Sediment Basins
- Town of Pioche and Lincoln County Will Have Input into BMPs
- BMPs not planned to contain 100-year event, but will balance the reduction of sediment transport to streets with O&M efficiencies
- Construction Planned to Start in 2018



Proposed Location of Treasure Hill OU-1 Waste Rock Repository and BMP Area



Caselton Site Investigation

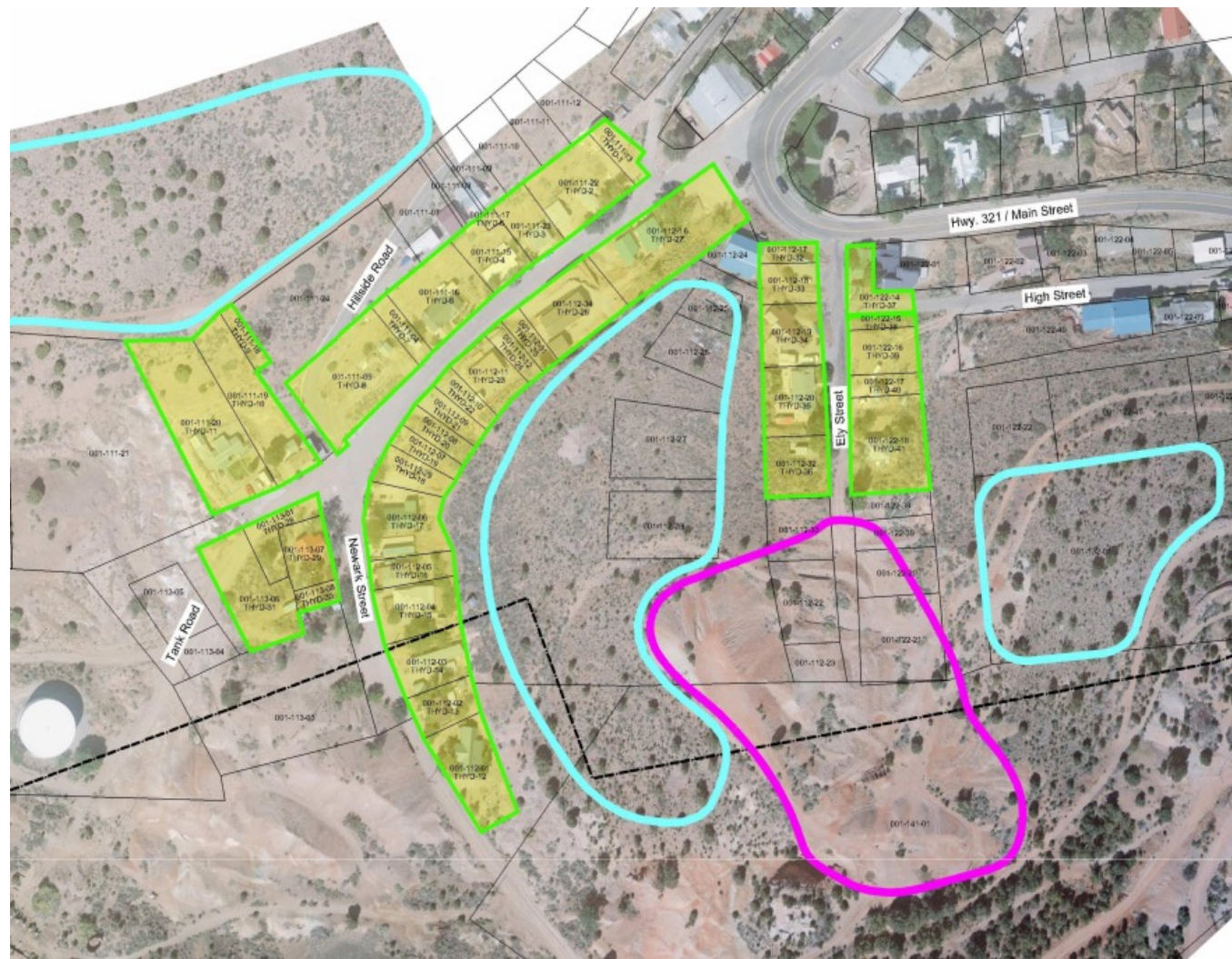
OU-1 (Treasure Hill: Off-Site)

- Sediment from Treasure Hill Impacting Newark & Ely Streets & Yards at Base of Treasure Hill
- Since Treasure Hill Contained Lead & Arsenic Above RSLs, Sampled Yards at Base of Treasure Hill Along Newark/Ely Streets
- Distributed Questionnaire to Residents to Gain Local Information & Perspectives



Caselton Site Investigation

- Parcels Selected for Yard Sampling in 2016



Caselton Site Investigation

➤ What We Learned from OU-1 Treasure Hill Off-Site Questionnaire:

1. Stormwater Transports Waste Down Streets & onto Yards/Driveways
2. Dust Can Get Tracked Into Houses by People/Pets & Blown in by Wind
3. Yards Tend to Be Dirt Without Sod; Minimal Garden Produce Grown
4. 5-7 Homes Occupied Full-Time (No Young Children); Most Occupied Part-Time
5. Children Periodically Play in Yards, Streets & On Treasure Hill
6. Treasure Hill Used for Recreational Hiking, Off-Road Vehicles, Mineral Collection, Etc.



Caselton Site Investigation

OU-1 (Treasure Hill: Off-Site Residential Yard Sampling):

- Collected 94 Soil Samples from 37 Parcels
- Analyzed Samples for Lead & Arsenic
- Compared Results to Residential RSLs
- Performed Human Health Risk Assessment



Caselton Site Investigation

- What We Learned from OU-1 Off-Site Yard Sampling:
 - ✓ Lead Screening Levels & Results
 - 1,200 mg/kg: EPA Residential RSL for Yards (Adults)
 - 400 mg/kg: EPA Residential RSL for Yards (Children up to 7 years old)
 - Out of 94 Yard Samples, 42 Yard Samples Exceeded 400 mg/kg
 - ✓ Arsenic Screening Levels & Results
 - 0.68 mg/kg: EPA Residential RSL
 - 60 mg/kg: Site Action Level based on Background Arsenic Levels
 - Background Levels are the Normal Levels Found in Soil in the Area
 - Out of 94 Yard Samples, 29 Exceeded 60 mg/kg
- Conclusion: Lead & Arsenic in Certain Sampled Yard Soil Areas Exceeded Screening Levels



Caselton Site Investigation

➤ Next Steps:

1. Procure Agreements from Owners for Follow-Up Sampling & Potential Soils Actions
2. Sample Yards (With Handheld Sampling Device - XRF) to Delineate Exact Areas with Concentrations greater than Site Action Levels
3. With Owner's Permission and At No Cost to Owners, Remove and Replace Impacted Yard Soils
4. Restore Yards to Condition Prior to Yard Soil Removal Action



Caselton Site Investigation

➤ Next Steps (cont.):

5. Implement Stormwater Controls above Tank Road & Newark/Ely Streets to Manage Downhill Sediment
6. Install Curb-and-Gutter System or Retaining Walls Newark & Ely Streets to Limit Future Sediment Deposits on to Yards
7. Consolidate Waste Rock Piles Below View Shed Into Single Repository



Curb and Gutter

Retrofit Curb and Gutter as Needed

Retaining wall or curb and gutter if road is paved

Possible Curb and Gutter at Ely Street or Retaining Wall (TBD)

Start of Curb and Gutter at Newark Street

Tank Road

Newark Street
280
281

Newark Street
602
467

Hwy. 321 / Main Street

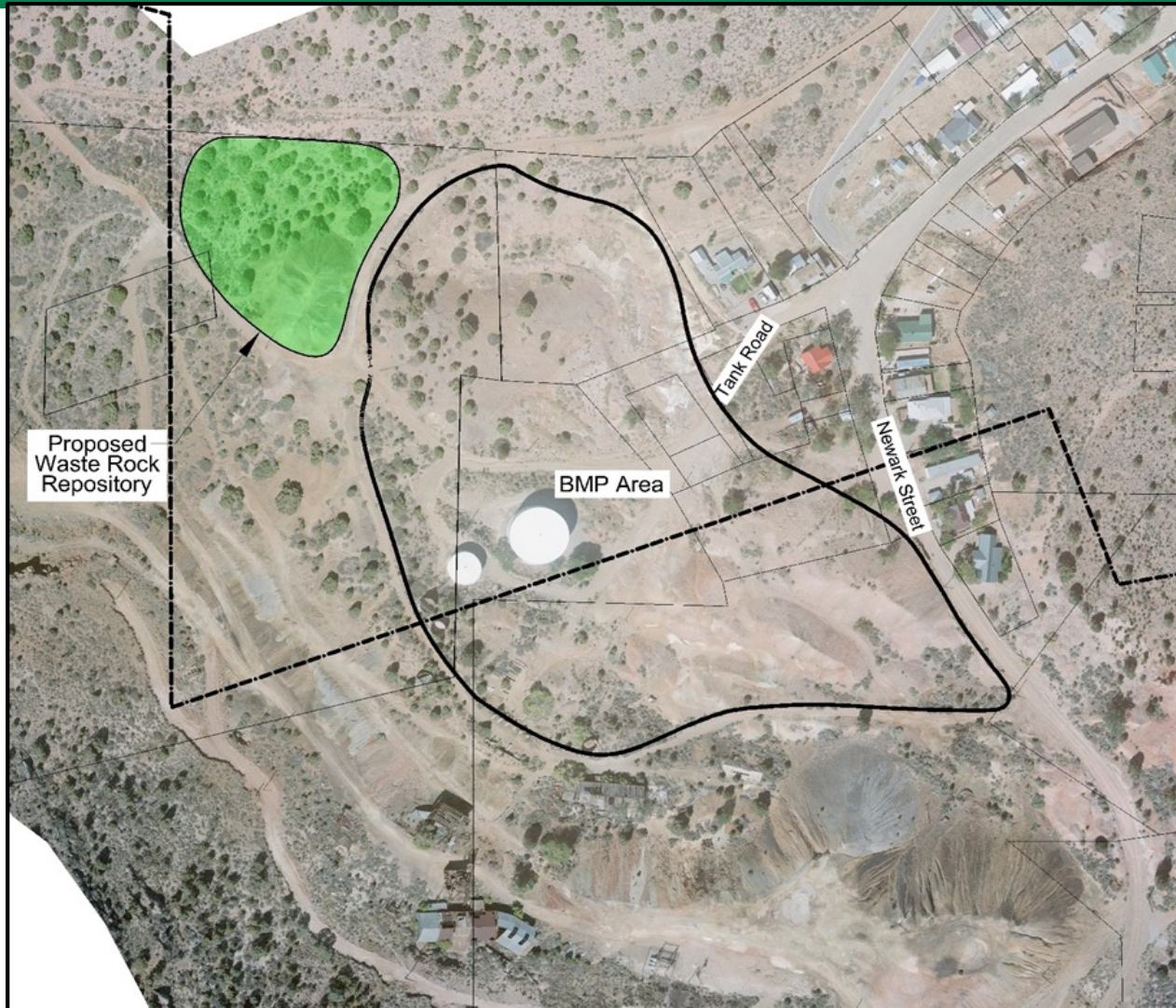
High Street

Ely Street
271
271

Notes:

1. Projection: Nevada State Plane, Eastern Zone, 1983 North American Datum (Feet).
2. Base Photo Taken: September 1, 2015.

Proposed Location of Treasure Hill OU-1 Waste Rock Repository and BMP Area



Caselton Site Investigation

OU-4 (Caselton Mill) RI/FS Status

- Stormwater Run-off Analysis in Progress
- Elevated Metals Concentrations in Tailings
- Remedial Action Goal = Prevent Human Contact
- Preliminary Remedial Alternative
 - ✓ Fencing



OU-4 Caselton Mill Area & Tailings

- Aerial Imagery (1996 and 2016) Indicates Stable Conditions
- Based on Predominant Wind Direction, Limited Impacts to Human Health
- Preliminary Remedy: Install Perimeter Fence Around Tailings & Improve Gates to Limit Access
- Post “No Trespassing” Signs

Explanation

-  Existing Fence
-  New Fence
-  Chain-link Gate
-  Pond Area
-  Waste Rock Dump Area

Notes:

1. Projection: Nevada State Plane, Eastern Zone, 1983 North American Datum (Feet).
2. Basemap Source: ESRI World Imagery.

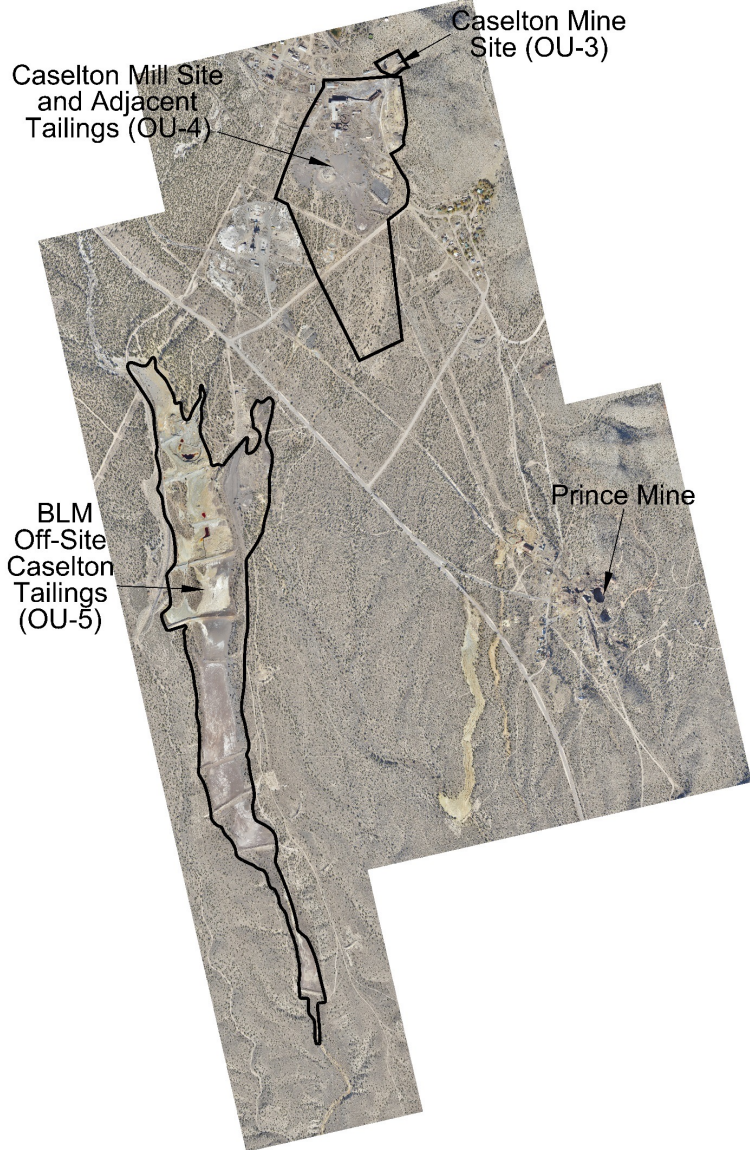
Ponds	Perimeter (Ft)	Area (Sq Ft)	Area (Acres)
Pond A	989.4	65872.7	1.5
Pond B	871.2	43758.4	1.0
Pond C	700.4	20826.9	0.5
Pond D	968.4	66023.9	1.5
Pond E	580.9	25094.2	0.6
Pond F	606.4	28520.1	0.7



Waste Rock Dump	Perimeter (Ft)	Area (Sq Ft)	Area (Acres)
	2253.1	217424.1	5.0

Fencing	Perimeter (Ft)
Fence A (New)	612.6
Fence B (Existing)	1257.1
Fence C (New)	293.0
Fence D (Existing)	333.1
Fence E (New)	2581.9
Fence F (Existing)	766.6
Fence G (New)	2290.4
Fence H (New)	1380.8
Total (New)	7158.7
Total (Existing)	2356.9

OU-4/OU-5 Aerial and Topographic Survey



Please Contact us with Questions

Multistate Trust – Tasha Lewis at (602)-312-6993 or tl@g-etg.com

Multistate Trust (for access agreements) – Dean Brockbank at db@g-etg.com

NDEP – Jeryl Gardner at (775) 687-9484 or jgardner@ndep.nv.gov

