

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

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Ways to submit report:

- ❖ **Under 50MB** - A single unlocked PDF can be emailed to: wetland.delineation@dsl.oregon.gov.
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- ❖ **OR** a hard copy of the unbound report and signed cover form can be mailed to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.

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Contact and Authorization Information

☐ Applicant ☐ Owner Name, Firm and Address:

Business phone #
Mobile phone # (optional)
E-mail:

☐ Authorized Legal Agent, Name and Address (if different):

Business phone #
Mobile phone # (optional)
E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: _____ **Signature:** _____

Date: _____ Special instructions regarding site access: _____

Project and Site Information

Project Name:

Latitude: _____ Longitude: _____
decimal degree - centroid of site or start & end points of linear project

Proposed Use:

Tax Map #

Tax Lot(s)

Tax Map #

Project Street Address (or other descriptive location):

Tax Lot(s)

Township _____ Range _____ Section _____ QQ _____

Use separate sheet for additional tax and location information

City: _____ County: _____

Waterway: _____ River Mile: _____

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:

Phone #
Mobile phone # (if applicable)
E-mail:

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.

Consultant Signature: _____ **Date:** _____

Primary Contact for report review and site access is ☐ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present? ☐ Yes ☐ No Study Area size: _____ Total Wetland Acreage: _____

Check Applicable Boxes Below

☐ R-F permit application submitted

☐ Fee payment submitted \$ _____

☐ Mitigation bank site

☐ Resubmittal of rejected report (\$100)

☐ EFSC/ODOE Proj. Mgr:

☐ Request for Reissuance. See eligibility criteria. (no fee)

☐ Wetland restoration/enhancement project (not mitigation)

DSL # _____ Expiration date _____

☐ Previous delineation/application on parcel
If known, previous DSL # _____

☐ LWI shows wetlands or waters on parcel
Wetland ID code _____

For Office Use Only

DSL Reviewer: _____ Fee Paid Date: ____ / ____ / ____ DSL WD # _____

Date Delineation Received: ____ / ____ / ____ DSL App.# _____

DSL Cover Form – Additional Location Information

The PSA is located in portions of 31 Public Land Survey Sections: Sections 15, 22, 23, 26, 35, and 36 in Township 19 South, Range 44 East, Willamette Meridian (T19S, R44E); Sections 1, 12, 13, 14, 23, 26, 27, 34 in T20S, R44E; Sections 6 and 7 in T20S, R45E; Sections 3, 10, 11, 14, 15, 21, 22, 23, 27, 28, 29, and 32 in T21S, R44E; and Sections 5, 7, and 8 in T22S, R44E. These lands are administered by the Bureau of Land Management, Vale District Office (BLM), and private land controlled by others.

CALICO RESOURCES USA CORPORATION

GRASSY MOUNTAIN MINE PROJECT MALHEUR COUNTY, OREGON

WETLAND DELINEATION REPORT

May 2025

Prepared for:

Calico Resources USA Corp.
665 Anderson Street
Winnemucca, Nevada 89445

Prepared by:



Mason, Bruce & Girard, Inc.
707 SW Washington, Suite 1300
Portland, OR 97205
503-224-3445
www.masonbruce.com

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A. LANDSCAPE SETTING AND LAND USE

Purpose

The purpose of this wetland delineation report is to update a 2017 delineation that was performed within the project study area (PSA) for the Calico Resources USA Corporation (Calico) Grassy Mountain Mine Project (project), located in Malheur County, Oregon. The 2017 delineation received concurrence from the Oregon DSL on May 3, 2018 (WD #2018-0115). The 2025 delineation was performed on April 22-23, 2025, and the 2025 PSA is depicted on the figures included in Appendix A.

Project Location

The PSA is approximately 1,461.74 acres and consists of an access route and the proposed mine site itself, which is located approximately 22 miles south-southwest of Vale (Appendix A, Figure 1). The access route generally follows an existing unimproved road (Twin Springs Road), and the PSA extends 150 feet in both directions from the road centerline.

The PSA is located in portions of 31 Public Land Survey Sections: Sections 15, 22, 23, 26, 35, and 36 in Township 19 South, Range 44 East, Willamette Meridian (T19S, R44E); Sections 1, 12, 13, 14, 23, 26, 27, 34 in T20S, R44E; Sections 6 and 7 in T20S, R45E; Sections 3, 10, 11, 14, 15, 21, 22, 23, 27, 28, 29, and 32 in T21S, R44E; and Sections 5, 7, and 8 in T22S, R44E. These lands are administered by the Bureau of Land Management, Vale District Office (BLM), and private land controlled by others.

Vegetation

The PSA consisted of desert-rangeland types dominated by sagebrush and grasses, most of which is open to grazing. Except for small wetland areas and intermittent stream corridors, the dominant vegetation species in the PSA consisted of the following: big sagebrush (*Artemisia tridentata*, NL), greasewood (*Sarcobatus vermiculatus*, FACU), broom snakeweed (*Gutierrezia sarothrae*, NL), bluebunch wheatgrass (*Pseudoroegneria spicata*, NL), curly bluegrass (*Poa secunda*, FACU), western wheatgrass (*Pascopyrum smithii*, FAC), crested wheatgrass (*Agropyron cristatum*, NL), bur buttercup (*Ceratocephala testiculata*, NL), and cheatgrass (*Bromus tectorum*, NL).

Small wetlands areas and seeps contained rushes (*Juncus* spp.), meadow barley (*Hordeum brachyantherum*, FACW), Great Basin lyme grass (*Leymus cinereus*, FAC), fowl bluegrass (*Poa palustris*, FAC), golden currant (*Ribes aureum* FAC), and Scotch thistle (*Onopordum acanthium*, NL). Ephemeral streambanks and channels were vegetated by upland shrub and grass species, and intermittent reaches contained rushes. The wetlands and waters vegetation communities are described in more detail in Section E.

Topography

Topography within the PSA consisted of large rolling hills and open valleys. Elevations ranged from 2,320 feet to 3,800 feet above mean sea level. Generally, slopes range from two to 15

percent.

Geology and Soils

Geology in the PSA consisted primarily of a thick sequence of arkosic sandstone, clayey siltstone, and reworked tuffs that are locally capped by olivine basalt flows (ACZ Inc. 1993). A Natural Resources Conservation Service (NRCS) soil survey was not available for much of the southern portion of the PSA, but soils data from the Oregon Rapid Wetland Assessment Protocol mapper (ORWAP 2025) categorize this area as Ruclick-Ruckles-Lookout soil, Map Unit s6491 (hydric rating = 0). Upland areas consisted of rocky sandy loams, and wetland areas contained clays and sandy clay soils.

Land Use

Most of the PSA consists of undeveloped rangelands, with some farming in the northern extent of the access route. Past and current activities within the vicinity of the PSA include hunting, mineral exploration, livestock grazing, livestock ponds, and recreation.

B. SITE ALTERATIONS

Site alterations within the PSA include livestock grazing (including off channel watering), push-up earthen dams, unimproved roadway (including culverts) installation and maintenance, and mineral exploration.

C. PRECIPITATION DATA AND ANALYSIS

The Ontario weather station is the closest National Weather Service cooperative station (~18 miles from PSA) with enough historical climate data (from 1995 to 2024) to produce a Climate Analysis for Wetlands Table (also known as a WETS Table). The Owyhee Dam station is also close to the PSA, but it did not have sufficient precipitation data for 2025 (i.e., there were too many days with missing data). According to the WETS Table for the Ontario weather station, average annual precipitation is approximately 9.22 inches (Appendix D; NOAA 2025a).

Table 1 below summarizes recorded precipitation in the PSA over multiple time intervals relative to normal ranges from the WETS data. Precipitation totals were below the normal ranges for the days in April prior to the delineation (April 1-22) but were within or above normal ranges for all other periods, including the 2025 water year to-date (Table 1). There was no precipitation during the April 2025 delineation.

Table 1. Summary of Precipitation from October 2024 to April 22, 2025, near Ontario Oregon.

Category	Jan 2025	Feb 2025	Mar 2025	Apr 1-22 2025	7 Days Prior	14 days Prior	2025 Water Year Totals ¹
Recorded Precipitation (inches) ²	1.42	3.20	1.01	0.02	0.00	0.01	10.82
30-70% Normal Range (inches) ²	0.66-1.38	0.37-1.07	0.50-1.19	0.29-0.63	0.09-0.20	0.19-0.40	3.63-7.86
Comparison to Normal Range	Above	Above	Within	Below	Below	Below	Above

¹2025 Water Year (from October 2024 to April 22, 2025).

²From Ontario weather station WETS Table 1995-2024 (NOAA 2025a).

D. METHODS

This wetland delineation was performed according to the standards set forth in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and *Final Arid West Supplement* (USACE 2008). Stream channels were evaluated for flow duration and presence of an ordinary high-water mark (OHWM) using the methods outlined in the *Streamflow Duration Assessment Method for Oregon* (SDAM) (Nadeau 2011).

MB&G reviewed United States Geological Survey (USGS) topographic maps, aerial imagery, NRCS soils data (ORWAP 2025), National Wetland Inventory (NWI) maps (USFWS 2024), and National Hydrography Dataset (NHD) hydrology data (USGS 2018) to evaluate the physical features of the PSA. MB&G also reviewed WD #2018-0115 prepared by EM Strategies, Inc. (EMS) which documented the 2017 delineation of the PSA. The data review facilitated the identification of potential wetland areas and prioritization of survey efforts.

MB&G conducted the delineation on April 22-23, 2025. Sample plots (SPs) and Arid West Wetland Determination Data Sheets were used to evaluate the soils, vegetation, and hydrology of potential wetlands. Vegetation species within each SP were identified and their wetland indicator statuses recorded using the USACE National Wetland Plant List (v. 3.6) for the Arid West Region (USACE 2023).

MB&G examined soils at each representative plot to a minimum depth of 16 inches, or immediately below observations of positive hydric soil indicators. Soil colors were determined using the Munsell Soil Color Book (Munsell 2009).

All wetlands were classified according to the USFWS's Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979), and the Hydrogeomorphic (HGM) Classification system (Adamus 2001). The anticipated jurisdictional statuses for delineated wetlands were determined using the Oregon Department of State Lands' (DSL's) Oregon Administrative Rule (OAR) 141-085 Sections 0510 & 0515 (DSL 2025) and the USACE's jurisdictional statuses as informed by the Sackett decision (40 CFR 120.2 and 33 CFR 328.3).

Wetland and stream boundaries were mapped using a handheld global positioning system (GPS) unit with a GNSS (Global Navigation Satellite System) antenna to achieve sub-meter accuracy. Wetland determination data forms and SDAM forms are provided in Appendix B; ground level photographs of representative site conditions are provided in Appendix C; and the locations of SPs and delineated wetlands and waters are presented in the Figure 6 series, Appendix A.

E. DESCRIPTION OF ALL WETLANDS AND OTHER NON-WETLAND WATERS

A total of four wetlands, four seeps, two seasonal ponds, one in-line livestock water impoundment (Schweizer Reservoir), one artificial waterway (J-H Canal), and 15 watercourses occur within the PSA (Figure 6, pages 2, 3, 5-9, 22, 24, 26, 31, 35-45, and 48-59; Appendix A). Each of these features is discussed in detail in the appropriate sections below, and channels are summarized in a table on page 7.

Wetland 1

Wetland 1, shown on page 41 of Figure 6 (Appendix A), is 0.16-acre PEM (palustrine, emergent), DCNP (Depressional Closed, Non-permanently Flooded) wetland within the PSA, and it extends south beyond the study area. It coincides with an NWI feature mapped as PUSJ (palustrine, unconsolidated shore, intermittently flooded; USFWS 2024). This PEM wetland was not noted on the 2017 delineation.

At the time of the April 2025 delineation, Wetland 1 was a largely unvegetated flat with cracked mud along most of its surface. It contained a high number of dead/senesced tops of Scotch thistle from the previous year. The clay loam soils met the Depleted Matrix hydric soil indicator (10YR 5/1 with 40% redox), and saturation was present at 8 inches. The ground surface was also very soft due to moisture content. Hydrology is likely supplied by a seasonally elevated water table made possible by underlying clay lenses.

The only vegetation present were new seed leaves and rosettes of Scotch thistle with some fowl bluegrass (*Poa palustris*, FAC) and some bulbous bluegrass (*Poa bulbosa*, FACU) along the margins of the wetland. Despite the lack of hydrophytic vegetation, this area qualifies as wetland due to the strong indicators of hydric soils and wetland hydrology. It is our best professional opinion that this high clay content flat is inundated early in the growing season, then becomes vegetated with mostly NL and FACU plants later in the growing season. MB&G observed that most of the germinating plants were taking advantage of large cracks in the mud which avoids anaerobic conditions.

Wetland 1 is depicted in photo 28 in Appendix C.

Wetland 2

Wetland 2, shown on page 40 of Figure 6 (Appendix A), is a 0.14-acre PEM, DCNP wetland within the PSA, and it extends southeast beyond the PSA. It does not coincide with any NWI-mapped features (USFWS 2024). Vegetation in Wetland 2 consisted primarily of Great Basin lyme grass (*Leymus cinereus*, FAC) and western wheatgrass (*Pascopyrum smithii*, FAC); other species observed included Baltic rush (*Juncus balticus*, FACW) and cheatgrass and bulbous bluegrass along the margins. Wetland soil colors were dark and met both the Sandy Mucky Mineral and the Redox Dark Surface hydric soil indicators. Hydrology within Wetland 2 appeared to be associated with a small, unmapped spring/seep complex and consisted of one inch of surface water, and a high water table within two inches of the surface within the soil pit.

Wetland 2 is depicted in photo 24 in Appendix C.

Wetland 3

Wetland 3, shown on page 40 of Figure 6 (Appendix A), is a 0.04-acre, PEM, DCNP wetland occurring entirely within the PSA, and is not mapped by the NWI (USFWS 2024). Vegetation in Wetland 3 consisted primarily of Great Basin lyme grass and bulbous bluegrass; other species observed included fowl bluegrass, meadow barley (*Hordeum brachyantherum*, FACW), and toad rush (*Juncus bufonius*, FACW). Wetland soil colors were dark and consisted of sandy loam and displayed the Redox Dark Surface hydric soil indicator. Hydrology within Wetland 3 appeared to

be associated with a small, unmapped spring/seep complex and consisted of 1 inch of surface water, and a high water table within three inches of the surface within the soil pit.

Wetland 3 is depicted in photo 26 in Appendix C.

Wetland 4

Wetland 4, shown on page 40 of Figure 6 (Appendix A), is a 0.04-acre, PEM, DCNP wetland wholly within the PSA. It appears to result from a spring/seep that is new as of the previous 2017 delineation. It has similar vegetation, soils, and hydrology characteristics as Wetlands 2 and 3 and appears to be a part of the same complex of springs/seeps. MB&G observed water bubbling out of the ground, saturated clay at the surface, and even a small, pooled area that contained tadpoles.

Wetland 4 is depicted in photo 25 in Appendix C.

Non-wetland Waters

Ephemeral and Intermittent Watercourses

The PSA contains four road-runoff ditches and 15 ephemeral watercourses, two of which contain intermittent reaches fed by groundwater expressions. Specifically, ephemeral Waters 3 contained an intermittent reach, and ephemeral Waters 9 contained an intermittent reach that drains Seep 1. The watercourses are named 1-16; however, after analyzing spatial data from the field, Waters 6 was wholly outside of the PSA, so it was excluded from this report, but our numbering sequence was retained. Therefore, the PSA contains Waters 1-5 and 7-16, for a total of 15 watercourses.

Each watercourse was assessed with an SDAM form (Appendix B), which included an average width, assessment of vegetation, and evidence of flow. MB&G also photographed each channel, and photographs are included in Appendix C. The Figure 6 series in Appendix A shows the location and classification of each watercourse. Table 2 on the following page provides a summary of non-wetland waters, including these 15 watercourses.

Seep 1

Seep 1 supplies hydrology to a draw (Waters 10) on page 24 of Figure 6 (Appendix A). This feature is not mapped by NWI, but it is mapped in the NHD as an unnamed intermittent stream. Groundwater was seeping out of the upper banks and hillslope adjacent to Waters 10, which enabled intermittent flow for approximately 100 feet in the otherwise ephemeral channel. MB&G observed surface water which supported a community dominated by golden currant (*Ribes aureum*, FAC).

Seep 1 is depicted in photo 11 in Appendix C.

Seeps 2, 3 and 4

Seeps 2, 3, and 4 are near Wetlands 2, 3, and 4. Seep 2 serves as a point source for Wetland 4's hydrology, and Seeps 3 and 4 are part of the groundwater complex that contributes to Wetlands 2 and 3's hydrology. The 2025 delineation varied from the 2017 delineation in terms

of springs and seeps and their locations. It is likely that groundwater expressions move from year to year. For instance, MB&G noted groundwater bubbling up in the middle of the unimproved roadway in this area, which was not observed in 2017.

Please refer to photos 25 and 27 in Appendix C for depictions of seeps/springs in the PSA.

Ponds 1 and 2

Ponds 1 and 2 are small roadside depressions that are underlain by clay. Pond 1 is 0.07-acre, PUS3J (palustrine, unconsolidated shore, mud, intermittently flooded), DCNP feature, and Pond 2 is 0.01-acre PUS3J, DCNP feature. Both ponds are entirely within the PSA, and they are not associated with any NWI or NHD features. Their locations are shown on page 39 of Figure 6 (Appendix A). At the time of the April 2025 delineation, they contained several inches of standing water, and the margins consisted of cracked mud with no vegetation. MB&G observed a herd of sheep using them as watering holes. Hydrology is likely supplied by direct precipitation, overland flow, and both ponds exhibited direct connections to stormwater rivulets that originated from the road that runs between the two ponds. These ponds are likely seasonal and dry up in May or early June.

Ponds 1 and 2 are depicted in photos 22 and 21, respectively, in Appendix C.

Livestock Water (Schweizer Reservoir)

The Schweizer Reservoir is a seasonal water source formed by an artificial impoundment across an ephemeral channel and is mapped in the NWI as a PUBFh feature (palustrine, unconsolidated bottom, semi-permanently flooded, diked/impounded; USFWS 2024). It occupies 0.22 acre of the PSA, and it is shown on page 55 of Figure 6 (Appendix A). At the time of the April 2025 delineation, the reservoir contained standing water. It was delineated using high water lines and topography.

Schweizer Reservoir is depicted in photo 38 in Appendix C.

Artificial Waterway (J-H Canal)

The J-H Canal crosses the proposed access road approximately 0.5 mile from the northern boundary of the PSA and is shown on page 2 of Figure 6 (Appendix A). This artificial waterway is used for irrigation and is flanked by earthen dikes. It is classified as a R3UBFx (riverine, upper perennial, unconsolidated bottom, semi-permanently flooded, excavated) feature in the NWI (USFWS 2024) and as a canal/ditch in the NHD (USGS 2018). The average channel width is 20 feet. Historically, the canal appears on both the 1952 General Land Office Survey Plat map where it is labeled as "Ditch," and on the 1967 Vale West, Oregon USGS 7.5"-Series Topographic Quadrangle, where it is labeled as "J-H Canal."

Table 2. Summary of Non-Wetland Waters.

Name	SDAM Determination	Length in PSA (ft)	Avg Channel Width (ft)	Figure 6 Page Number(s)	Photo Number(s)
J-H Canal	Perennial	303.4	20.0	2	2
Waters 1	Ephemeral	7,394.5	5.0	49, 50, 52, 53, 56, and 57	36
Waters 2	Ephemeral	5,651.7	5.0	50, 53, and 57	37
Waters 3	Ephemeral	7,327.5	5.0	50, 51, 54, 55, 58, and 59	40
Waters 3 (int.)	Intermittent	308.1	11.0	52	34
Waters 4	Ephemeral	743.9	4.5	51	35
Waters 5	Ephemeral	313.7	3.0	49	-
Waters 7	Ephemeral	919.4	10.0	45 and 48	32, 33
Waters 8	Ephemeral	3,179.7	3.0	42-45	30, 31
Waters 9	Ephemeral	4,875.4	6.0	2-3 and 5-9	3, 4, 6
Waters 10	Ephemeral	653.7	4.0	22 and 24	10
Waters 10 (int.)	Intermittent	72.3	4.0	24	11
Waters 11	Ephemeral	380.9	3.0	26	12
Waters 12	Ephemeral	1,284.3	3.0	35	16
Waters 13	Ephemeral	2,275.4	3.5	36	17
Waters 14	Ephemeral	1,447.6	4.5	37	18
Waters 15	Ephemeral	1,215.4	4.0	38	19
Waters 16	Ephemeral	338.0	6.0	38	20
Road runoff 1	Ephemeral	170.8	3.0	31	-
Road runoff 2	Ephemeral	197.5	3.0	36	-
Road runoff 3	Ephemeral	144.8	3.0	40	23
Road runoff 4	Ephemeral	421.8	3.0	43	-
Total Ephemeral		38,996.6			
Total Intermittent		380.4			
Total Perennial		303.4			
Grand Total		39,680.4			

F. DEVIATION FROM LWI OR NWI

Local Wetlands Inventory mapping was not available for the PSA. NWI maps are included in the Figure 3 series (Appendix A). NWI mapping indicated the presence of two freshwater ponds within or partially within the PSA. One of these wetlands was confirmed as being Wetland 1, delineated as part of 2025 delineation (Appendix A, page 41 of Figures 3 and 6). The other pond was confirmed to be Schweizer Reservoir.

NWI maps indicate numerous R4SBA (riverine, intermittent, streambed, temporarily flooded) features within the PSA that, in general, flow from south to north. Based on the results of this study, these areas are ephemeral drainage channels.

G. MAPPING METHOD

Sample Plots and boundaries of wetlands and waters were collected using ArcGIS Field Maps connected to a GNSS receiver that uses SBAS (Satellite-Based Augmentation System) to record points with sub-meter accuracy. The boundary of the PSA was provided as GIS data from SLR International Corporation and was referenced in the field using ArcGIS Field Maps on a GNSS-enabled tablet. As such, the loss in precision transferring the boundary of the PSA from the ground to the map was minimal.

H. ADDITIONAL INFORMATION

The StreamNet mapper (StreamNet 2025) does not show any records of fish occurrence in the PSA. The NRCS web soil survey map did not have any soils data for much of the PSA; however, the ORWAP mapper (ORWAP 2025) categorize the missing area as Ruclick-Ruckles-Lookout soil, Map Unit s6491 (hydric rating = 0). Precipitation data are included in Appendix D.

I. RESULTS AND CONCLUSIONS

A total of four wetlands, four seeps/springs, two seasonal ponds, one livestock water (Schweizer Reservoir), one artificial waterway (J-H Canal), and 15 seasonal drainages occur within the PSA.

Wetlands in the PSA are likely jurisdictional to the DSL, as they are “waters of the state.” Due to the width and perennial flow, the J-H Canal is also likely jurisdictional to the DSL. Removal and/or fill activities in these features would require a DSL Removal-Fill permit. All other waters features are likely non-jurisdictional to the DSL.

All features in the PSA are likely non-jurisdictional to the USACE. The wetlands in the PSA do not have a continuous or near-continuous surface water connection to WOTUS (per Sackett), and the ephemeral (and intermittent reaches) are non-jurisdictional. The Sackett decision, combined with subsequent rules, has effectively removed ephemeral streams from the scope of CWA jurisdiction. As such, impacts to the wetland and waters features in the PSA would not require a federal CWA 404 permit.

J. DISCLAIMER

This wetland delineation and report documents the investigation, best professional judgment, and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the DSL in accordance with OAR 141-090-0005 through 141-090-0055.

K. REFERENCES

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APPENDIX A

Figures

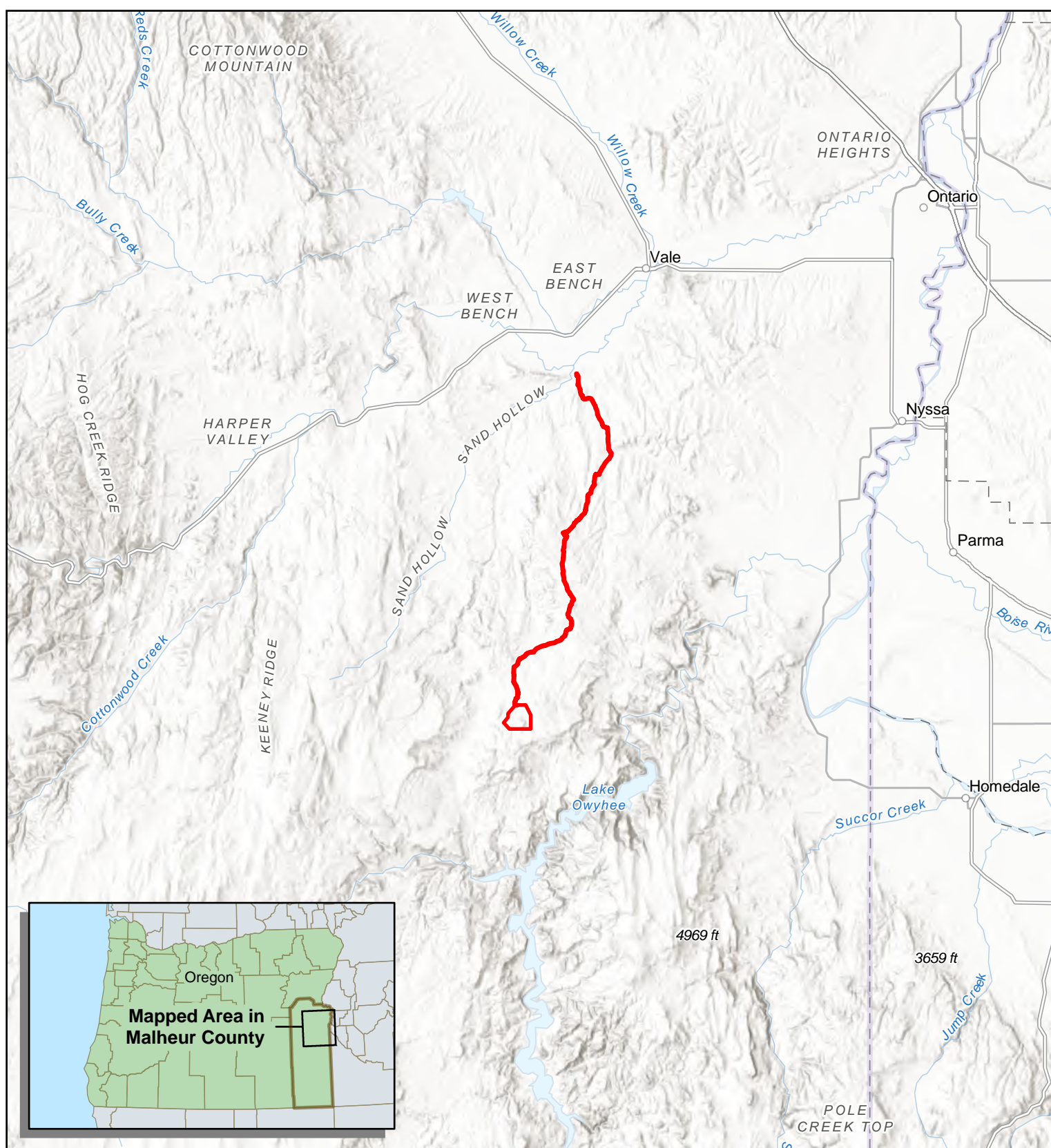


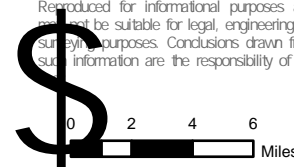
Figure 1.
Vicinity Map

 Project Study Area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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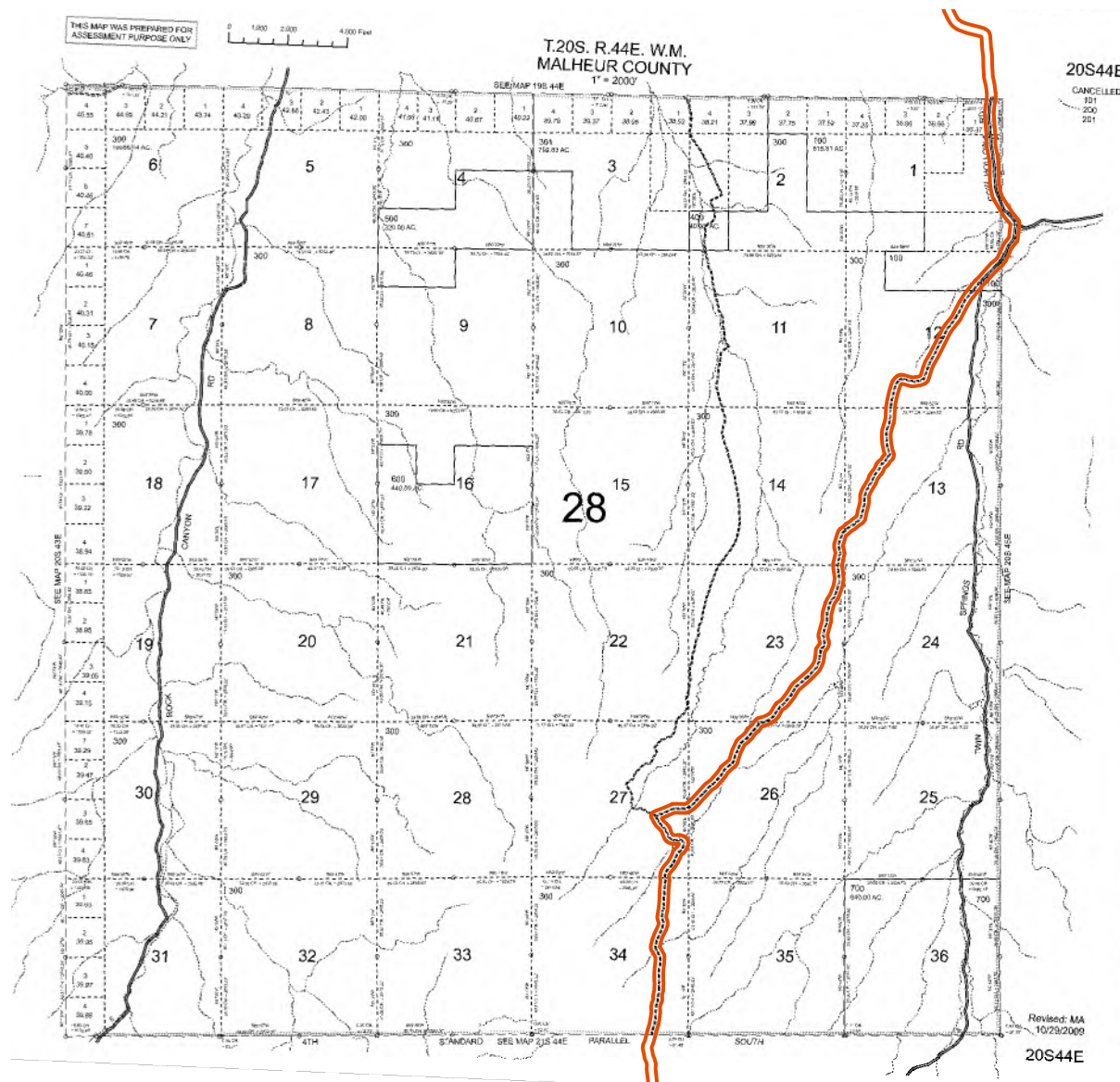


Figure 2b.
Tax Lot Map
20S44E

Project Study Area

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Grassy Mountain Mine Project
Malheur County, Oregon

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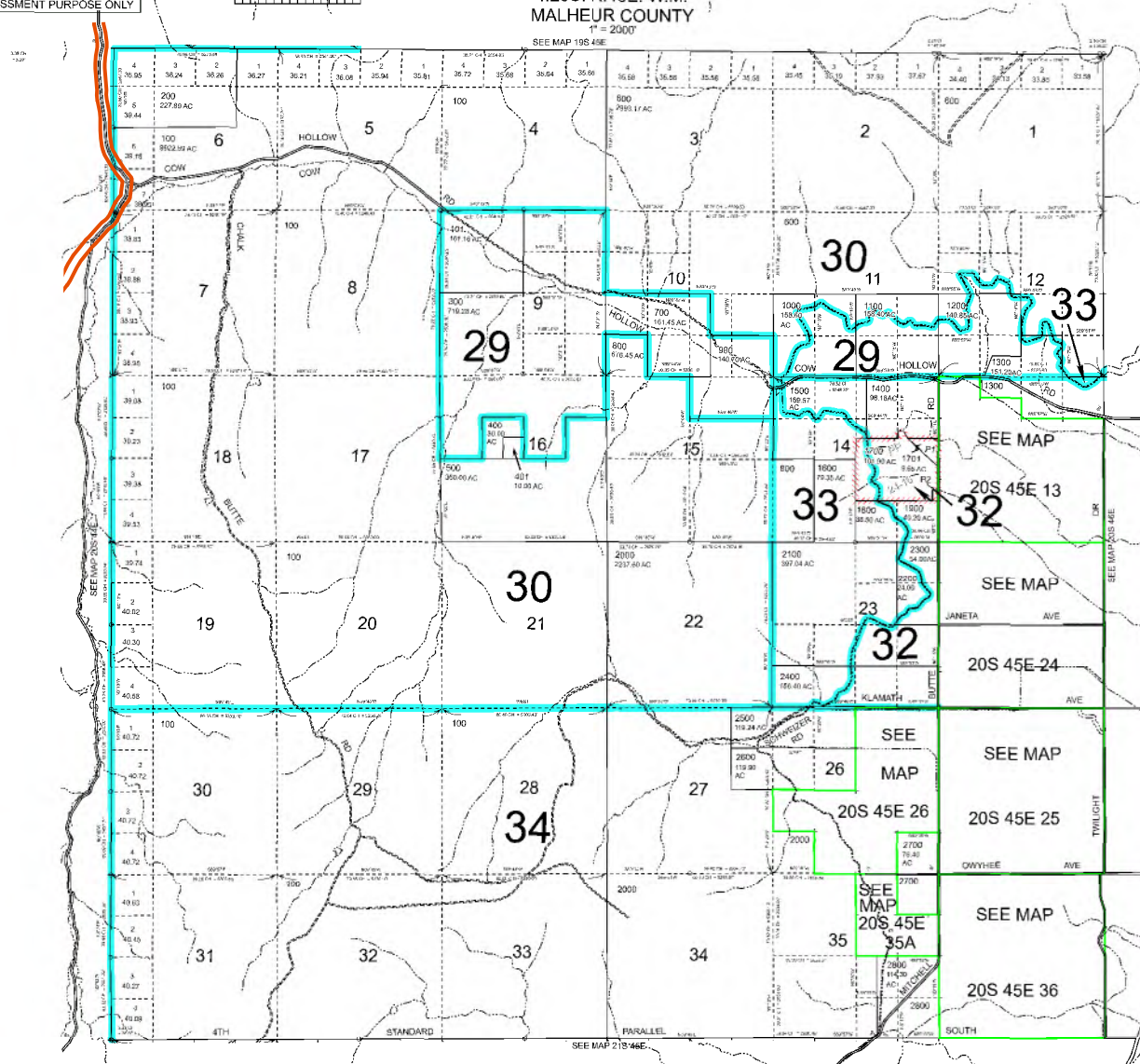
THIS MAP WAS PREPARED FOR
ASSESSMENT PURPOSE ONLY

0 1,000 2,000 3,000 4,000 Feet

T.20S. R.45E. W.M.
MALHEUR COUNTY
N = 2000'

SEE MAP 19S 45E

20S45E
& INDEX



Revised: MA
01/09/2025

& INDEX
20S45E


Figure 2c.
Tax Lot Map
20S 45E

 Project Study Area

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THIS MAP WAS PREPARED FOR
ASSESSMENT PURPOSE ONLY

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T.21S. R.44E. W.M.
MALHEUR COUNTY
1" = 2000'

21S 44E

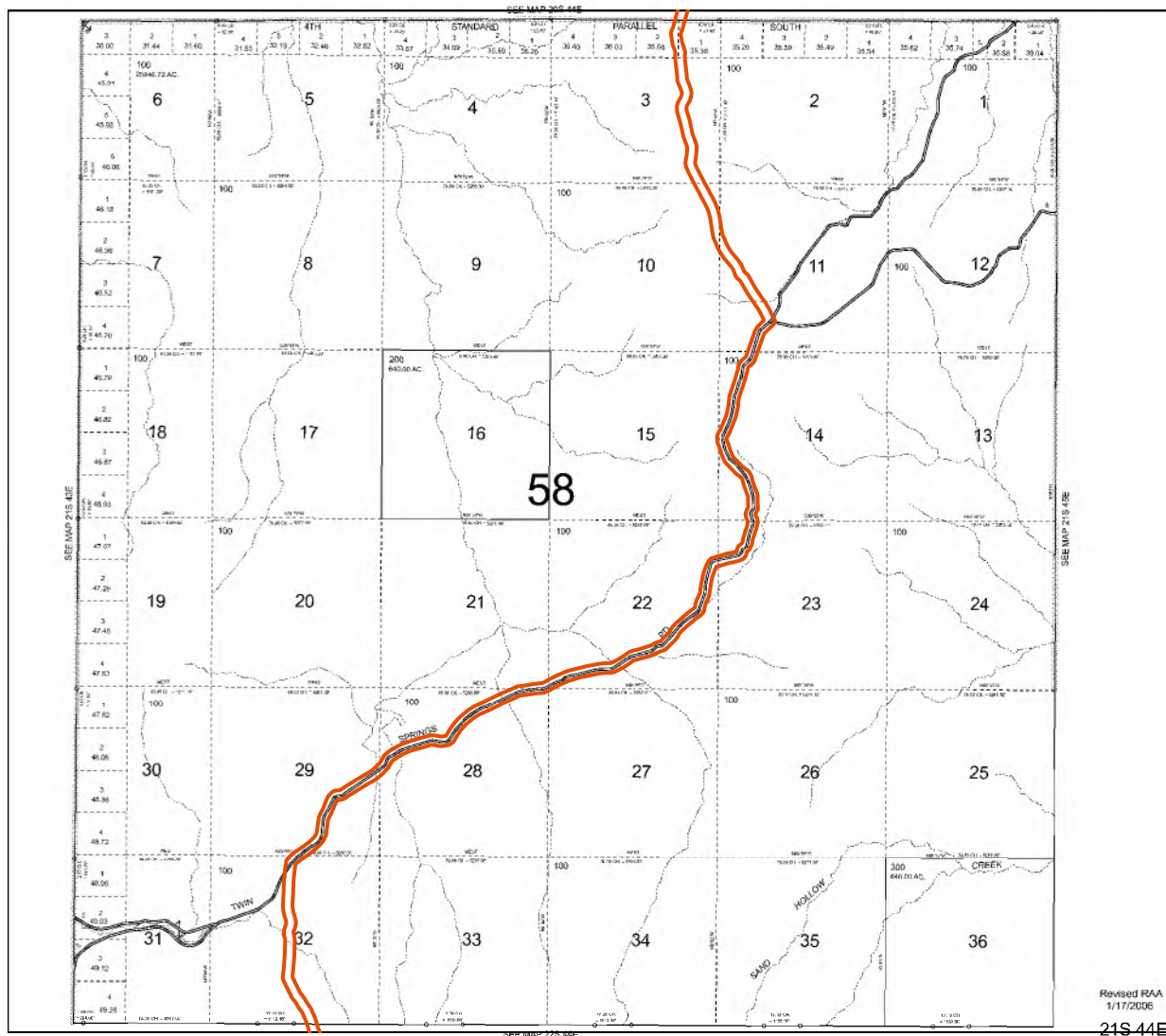


Figure 2d.
Tax Lot Map
21S 44E

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Malheur County, Oregon

 Project Study Area

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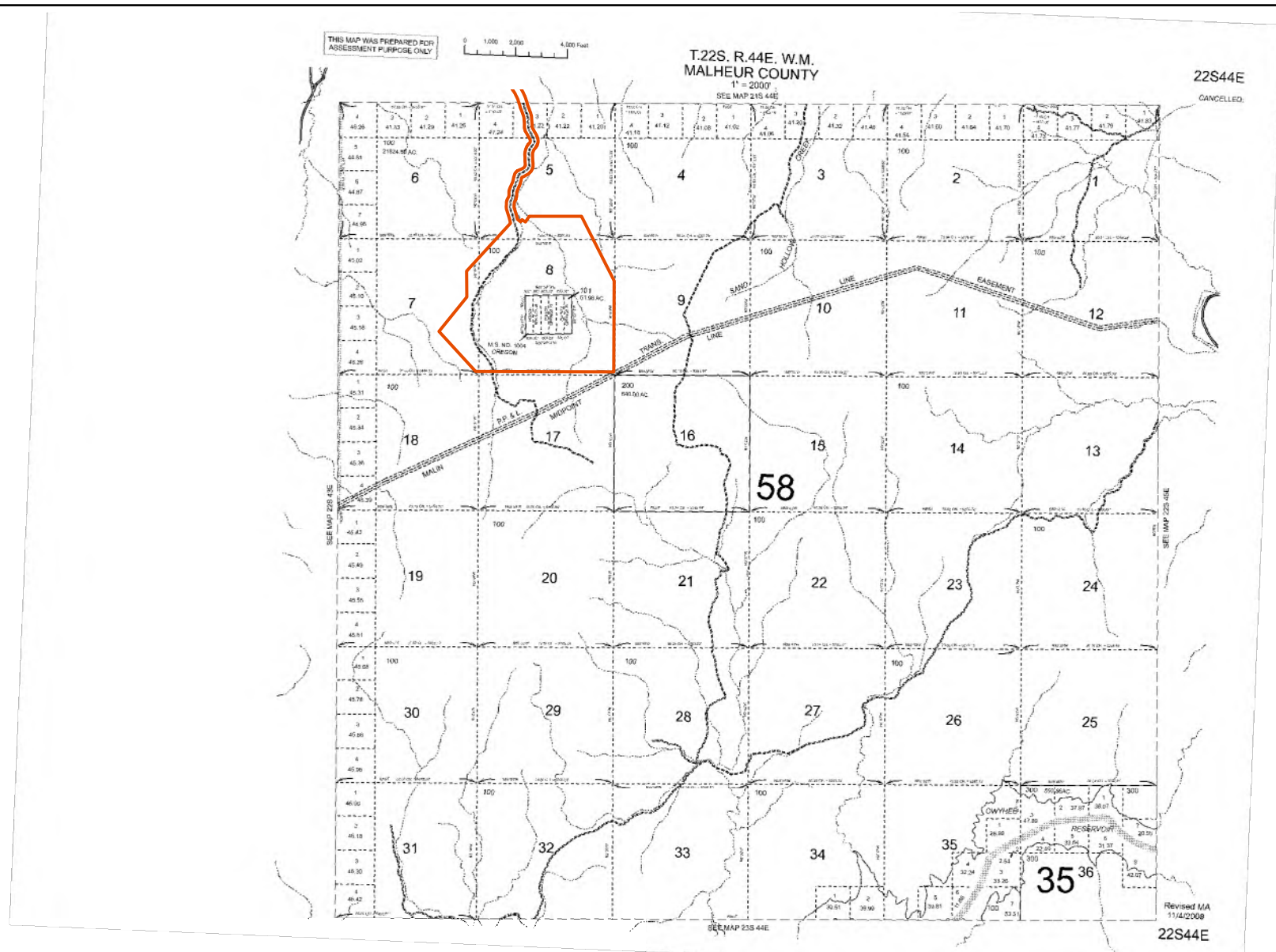


Figure 2e.
Tax Lot Map
22S44E

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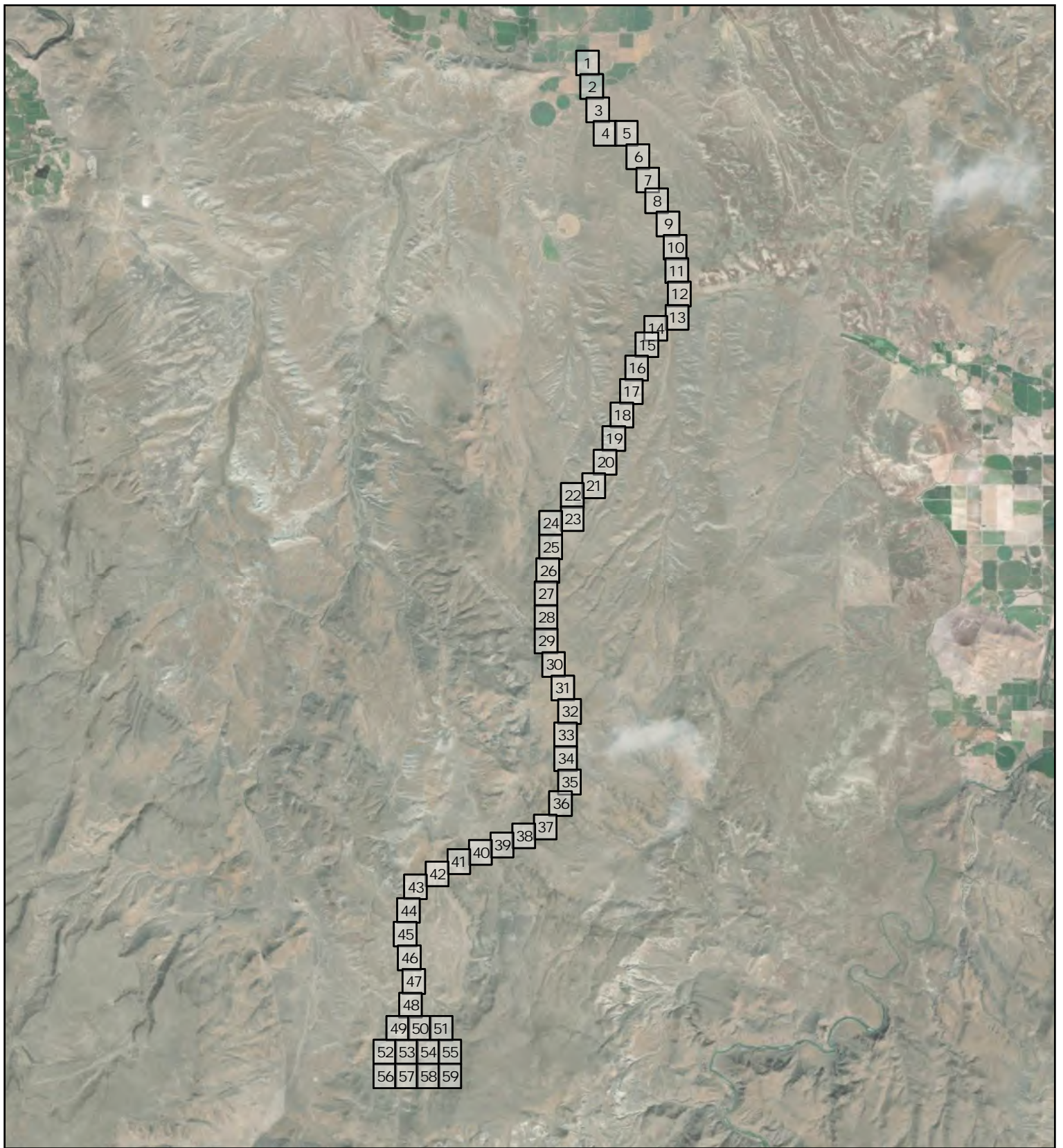


Figure 3 - Map Page Index
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

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Grassy Mountain Mine Project
Malheur County, Oregon

 Map Book Page



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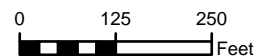




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 - Other (pipe, canal, ditch, or artificial path)
- National Wetlands Inventory:
 - Riverine

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Page 2





R4SBA

Page 4

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National Wetlands Inventory, and
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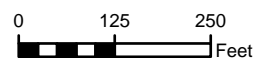
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- National Wetlands Inventory:
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Figure 3 - Page 4 of 59
National Wetlands Inventory, and
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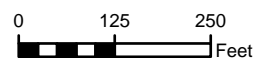
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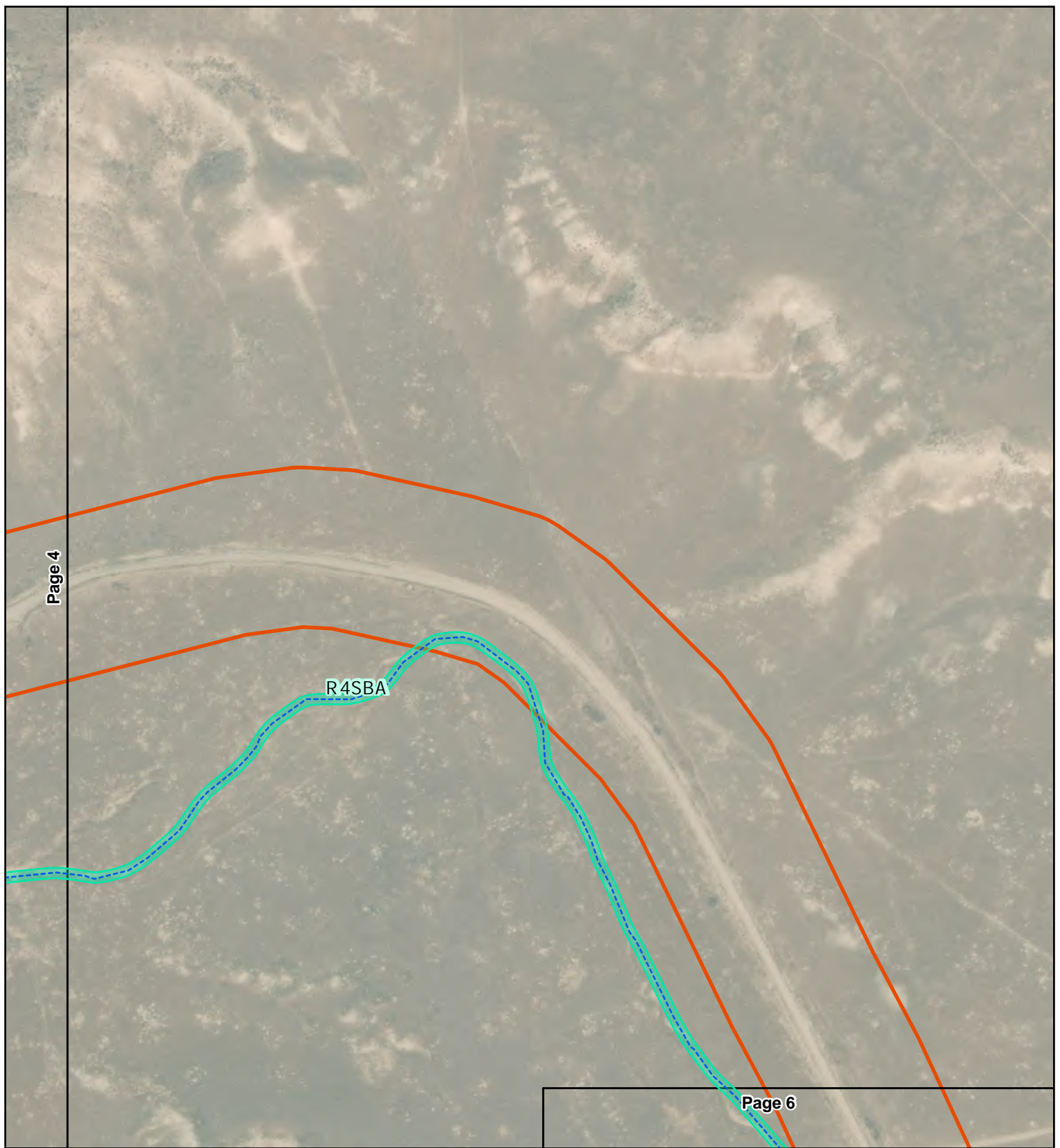


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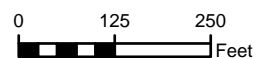
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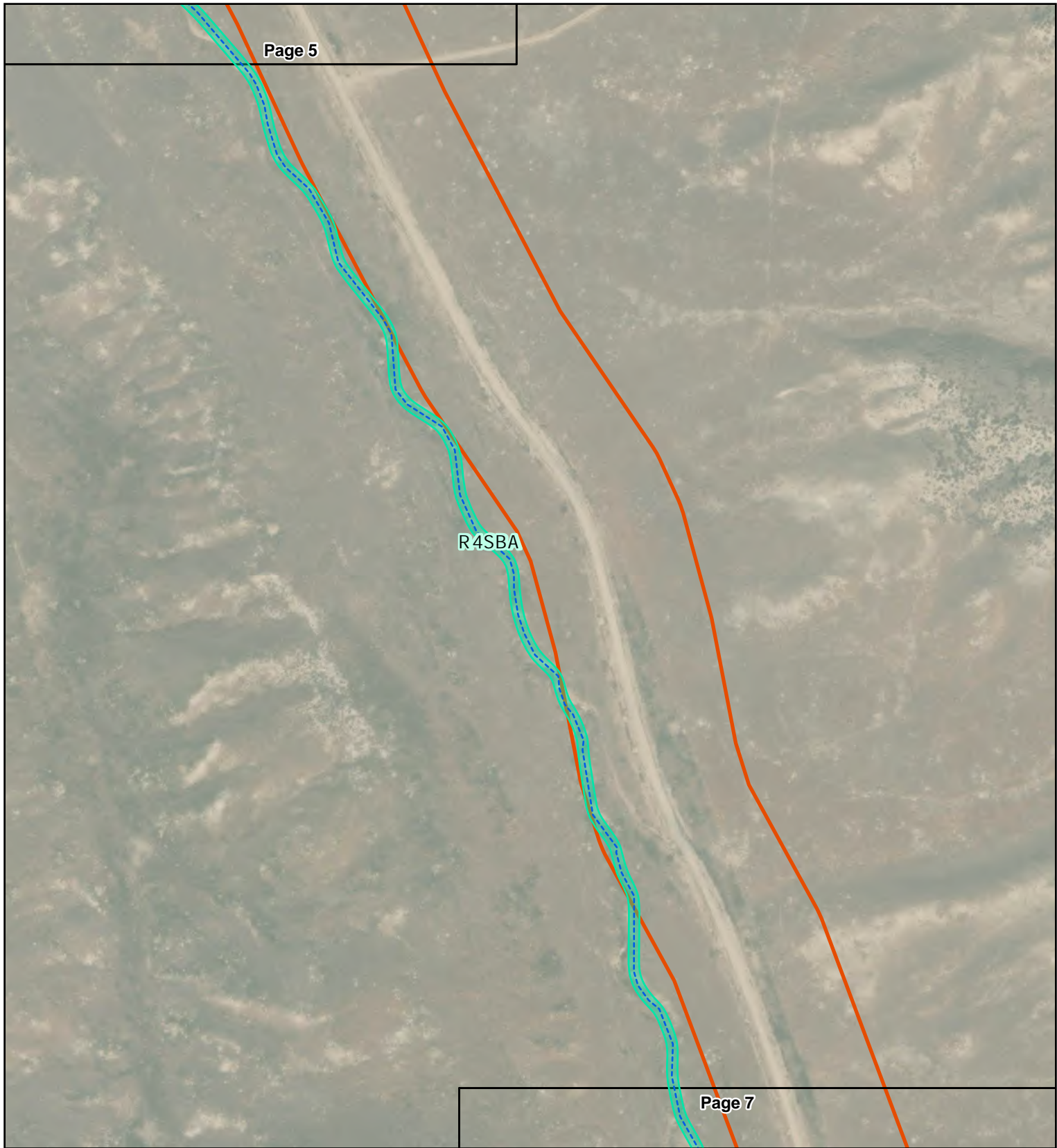


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- Riverine

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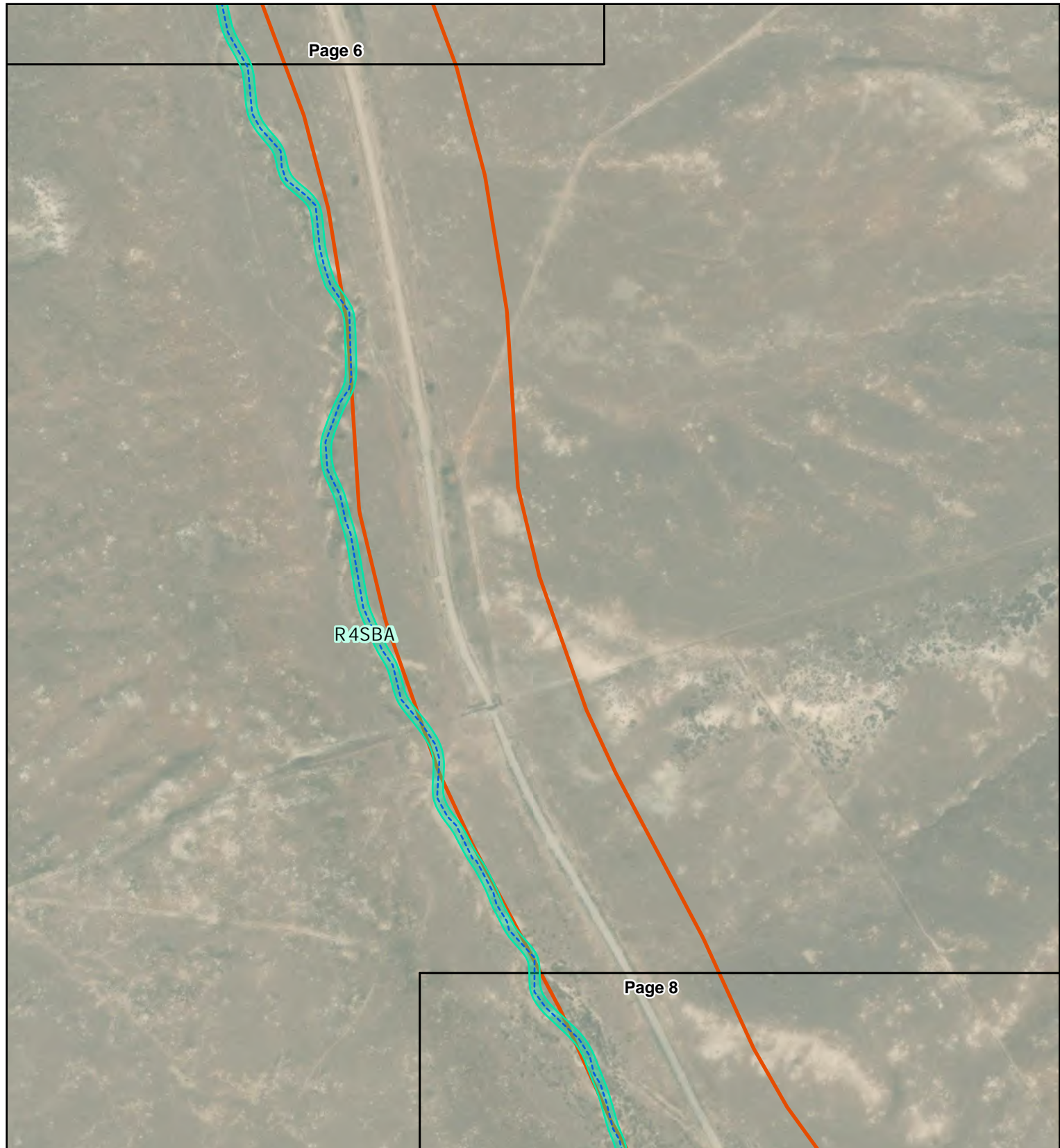






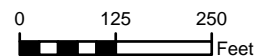
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
R4SBA

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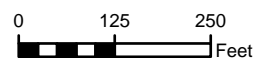
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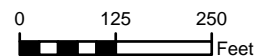




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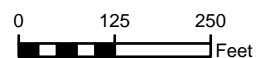




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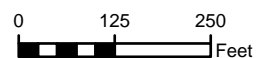
Calico Resources USA Corp.
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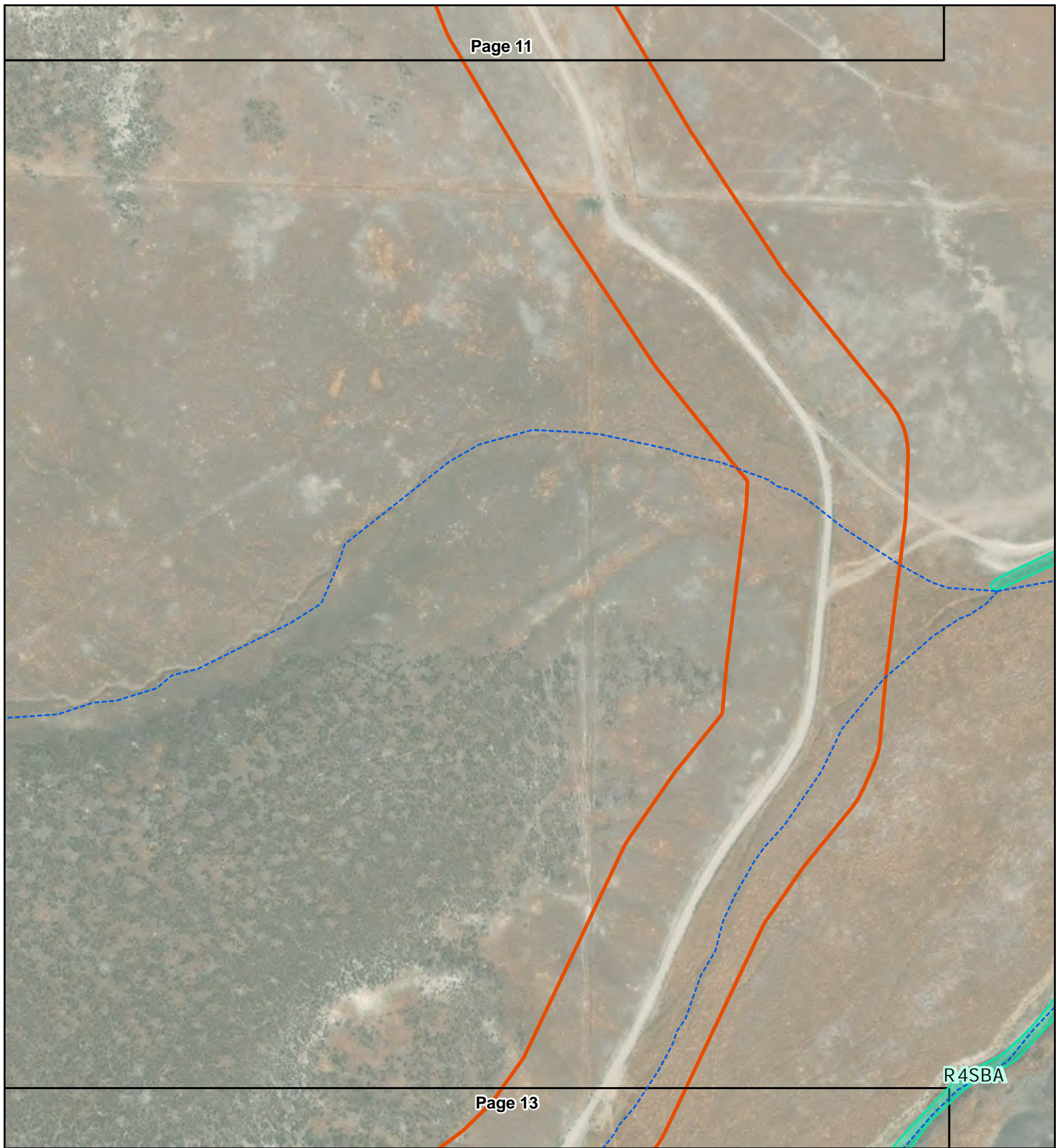






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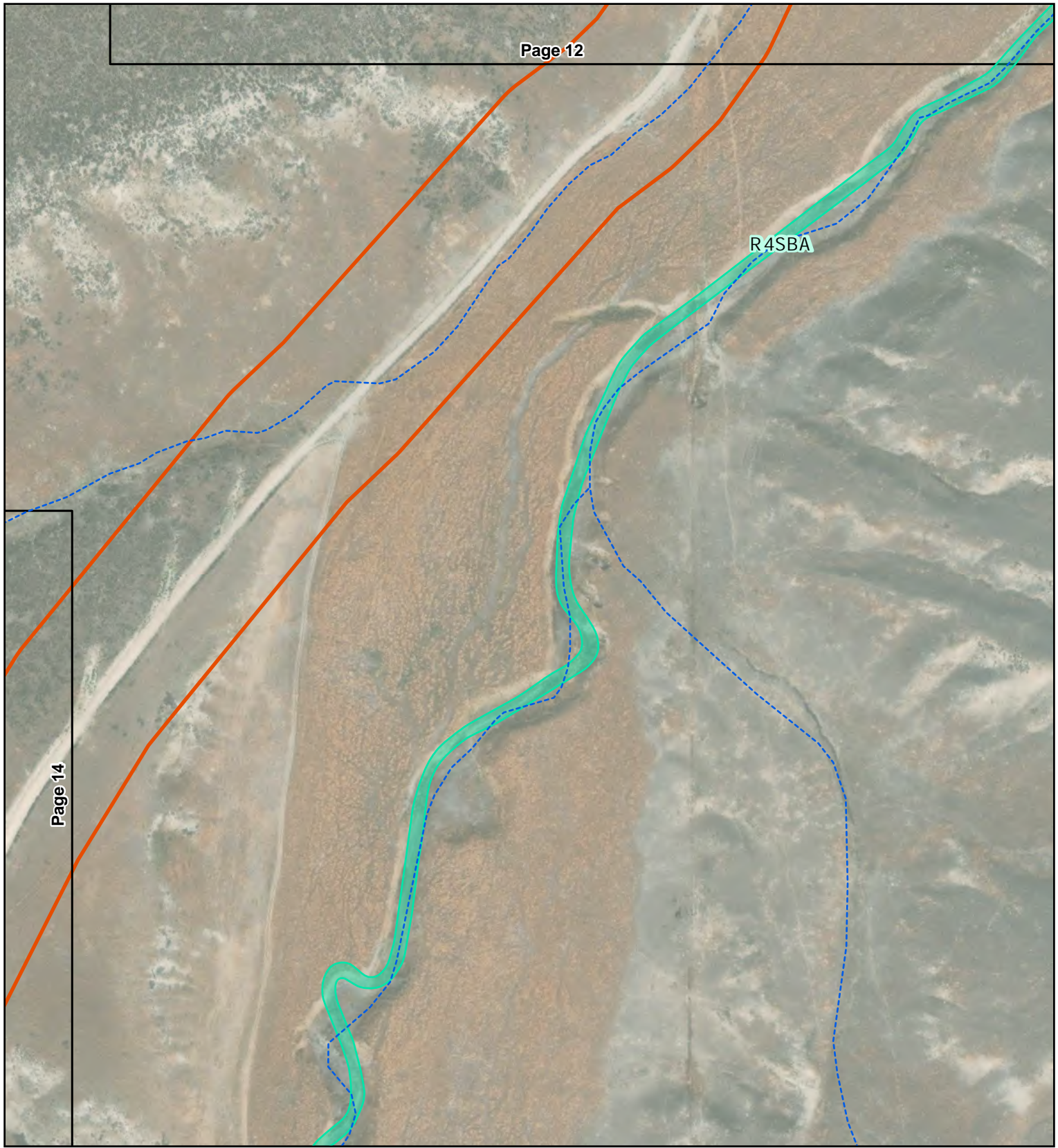
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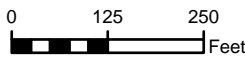
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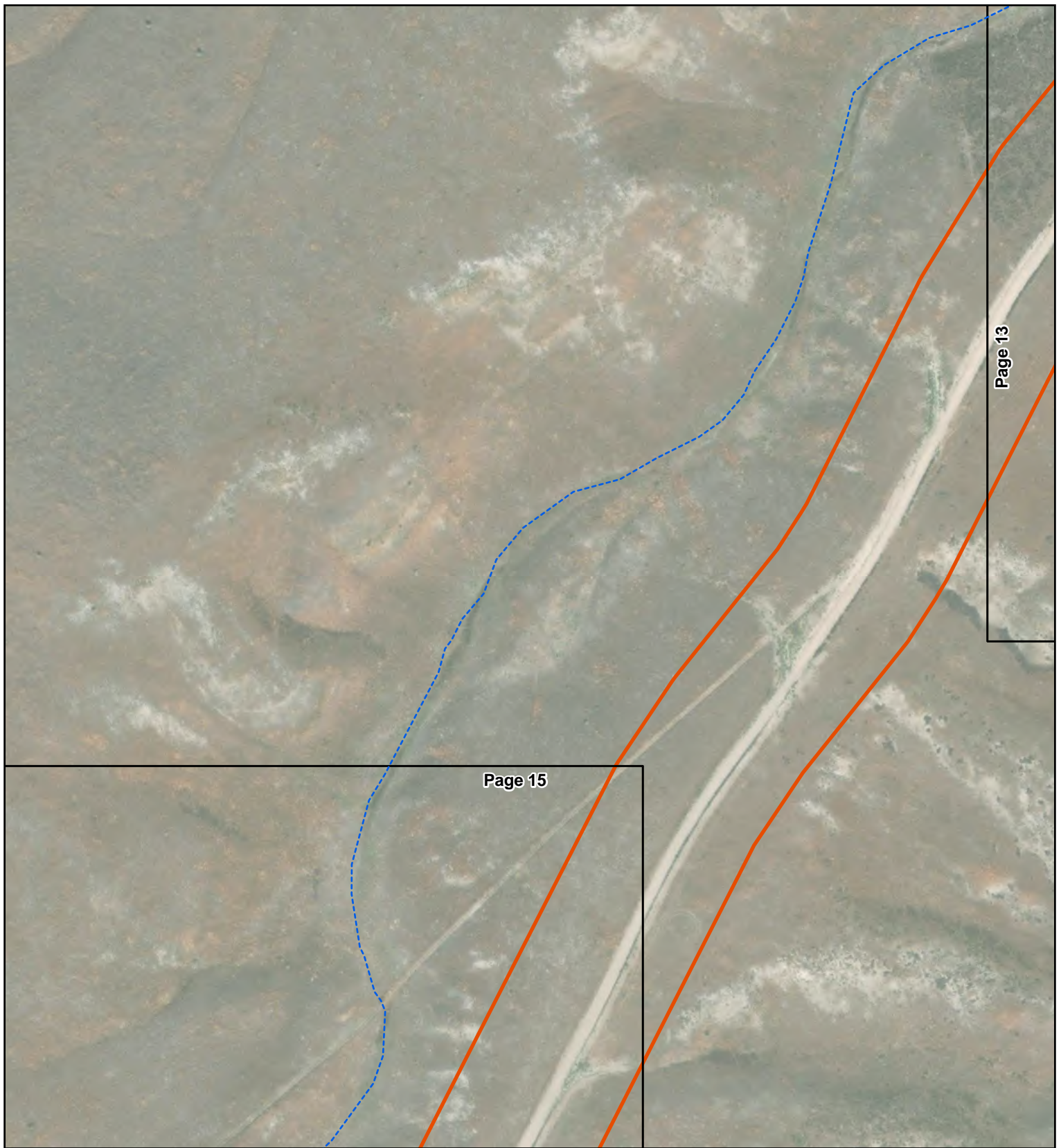






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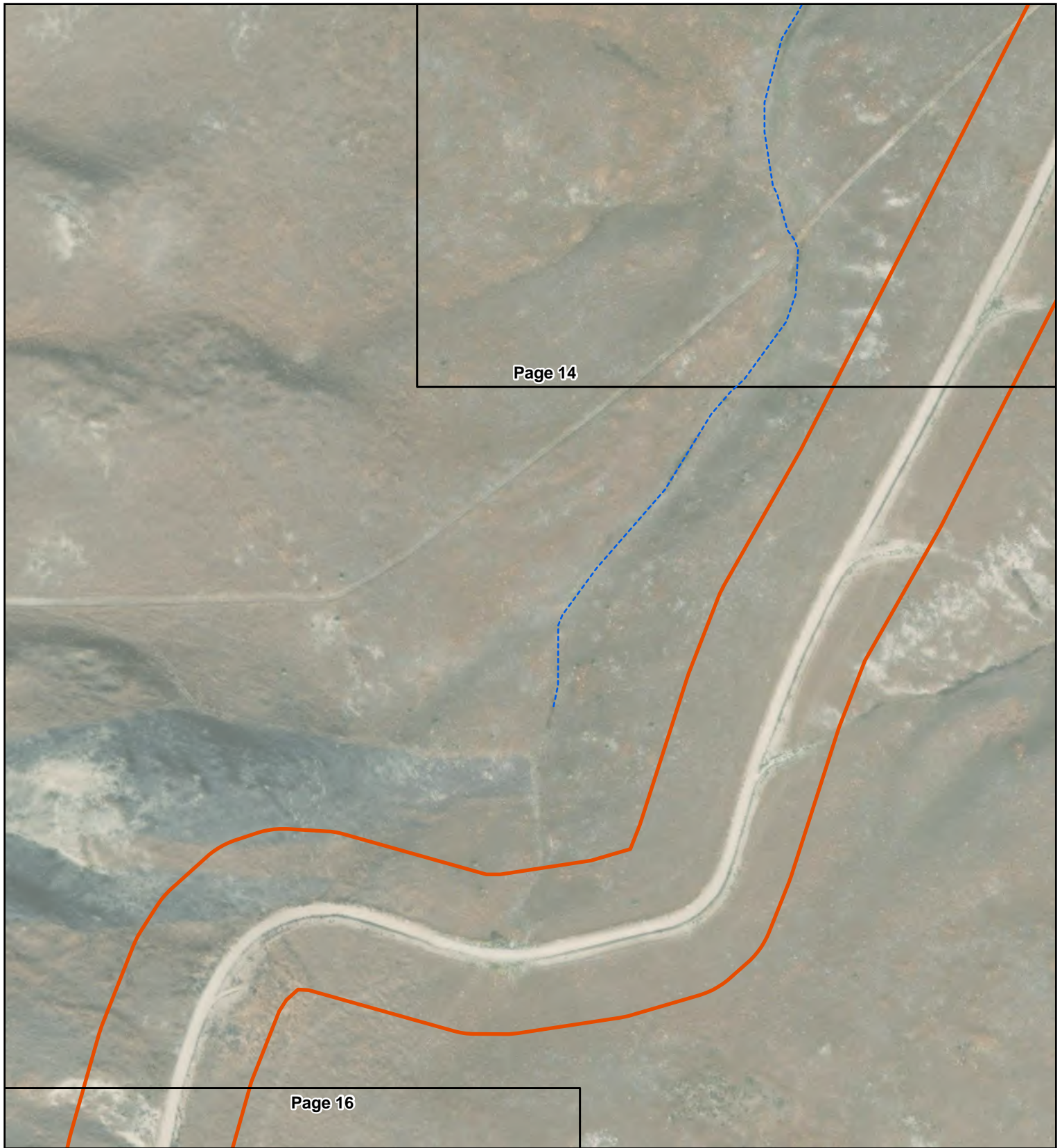


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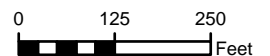
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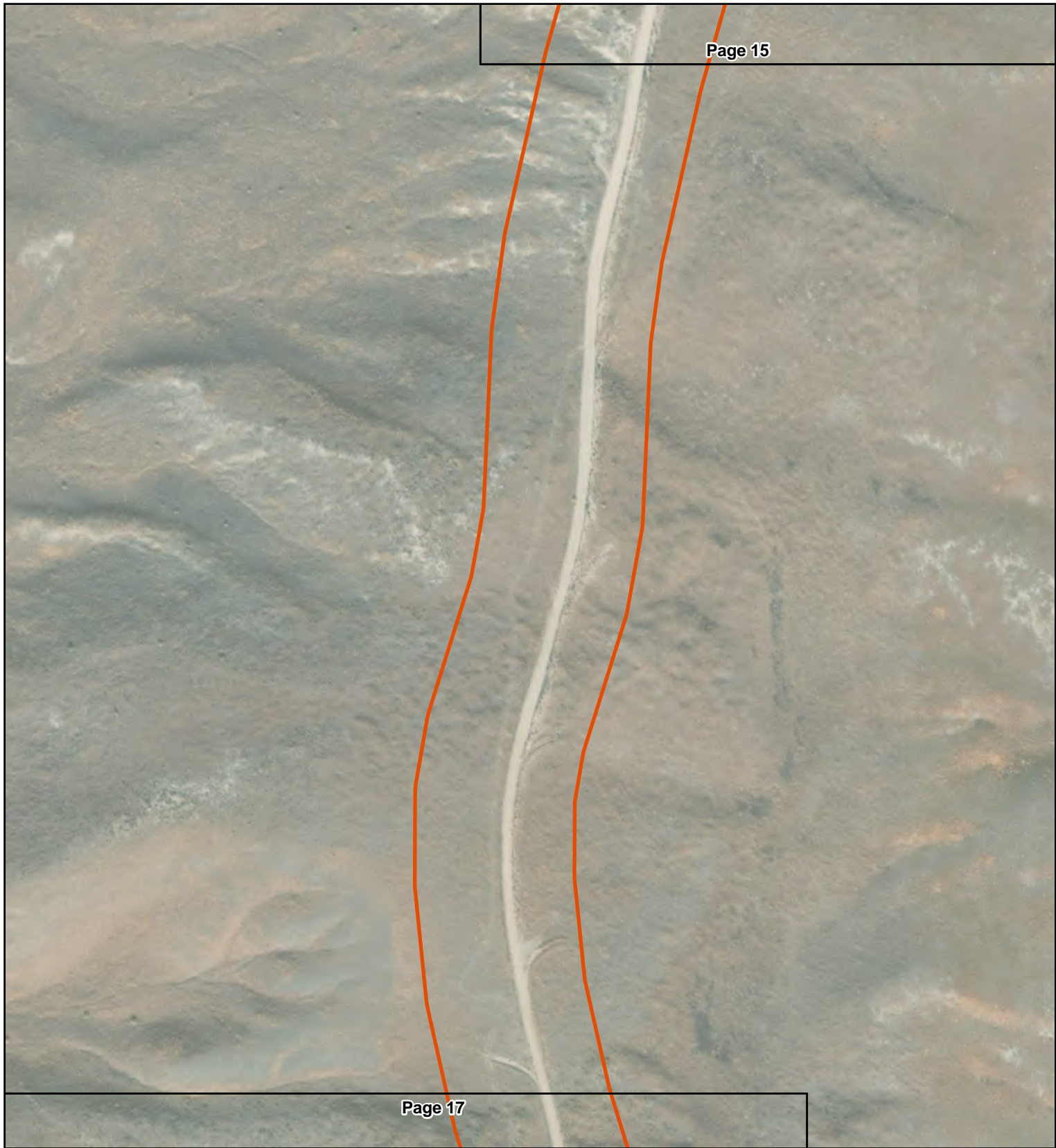




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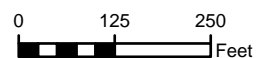






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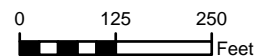








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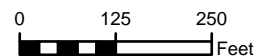
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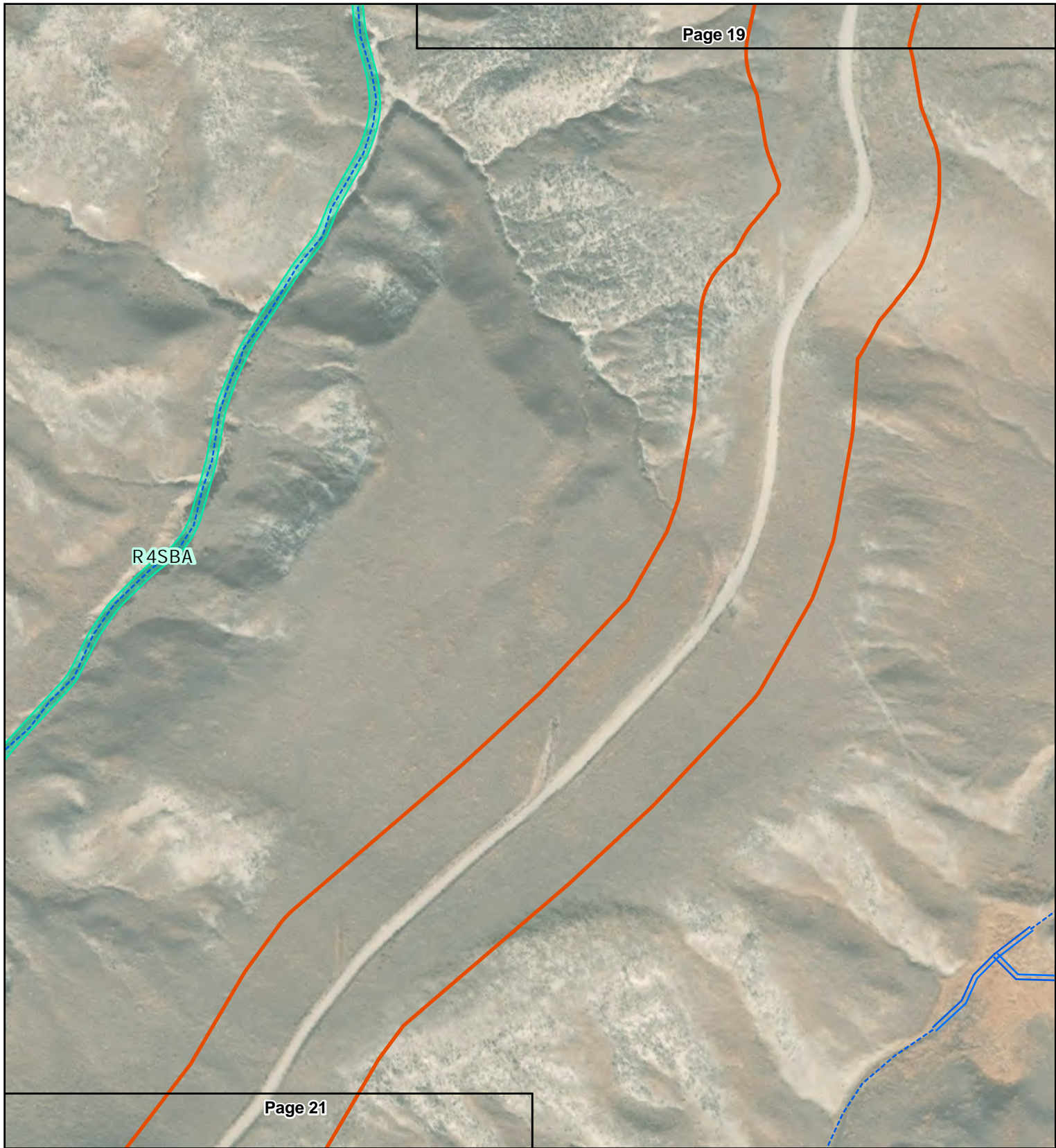







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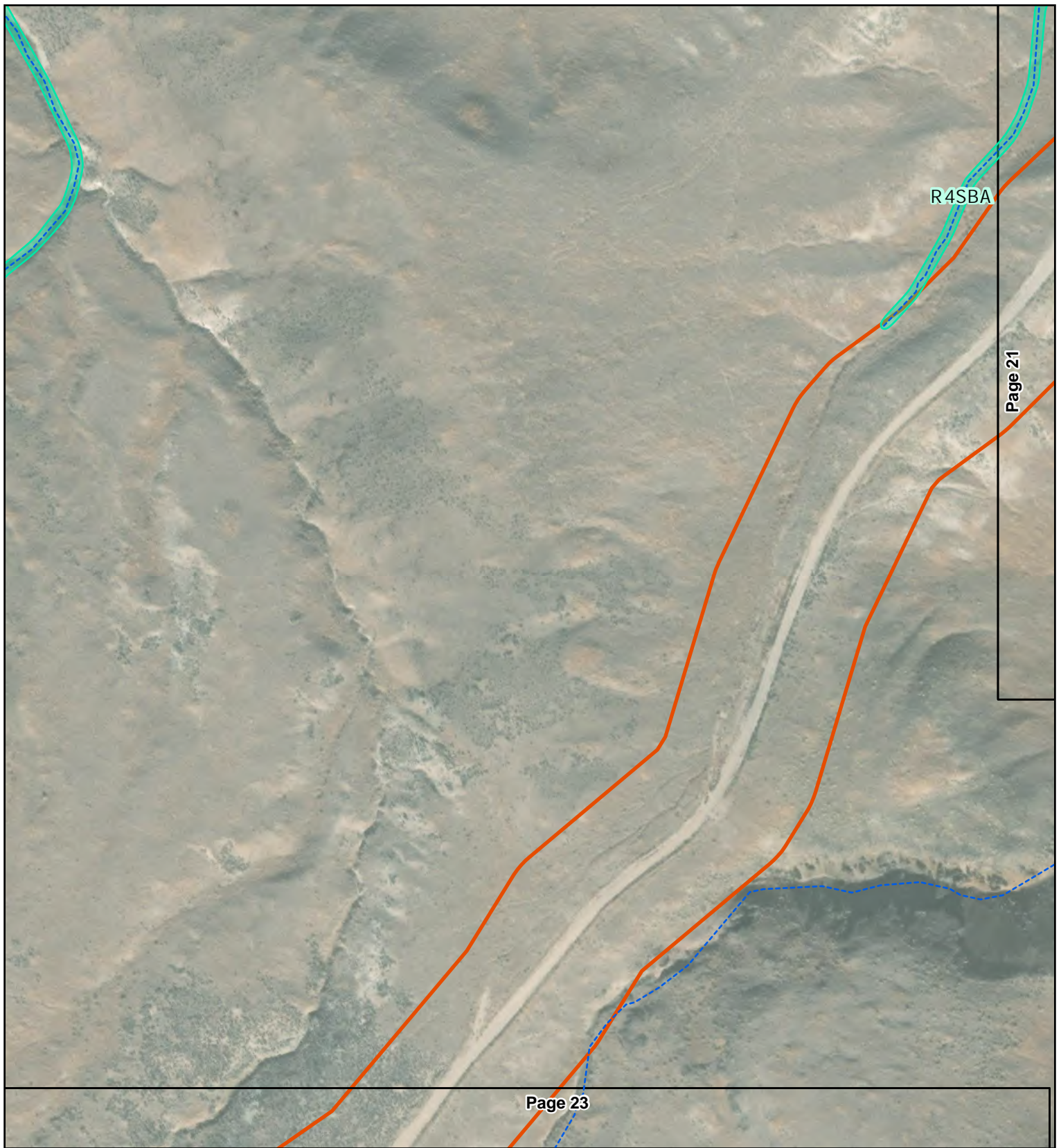






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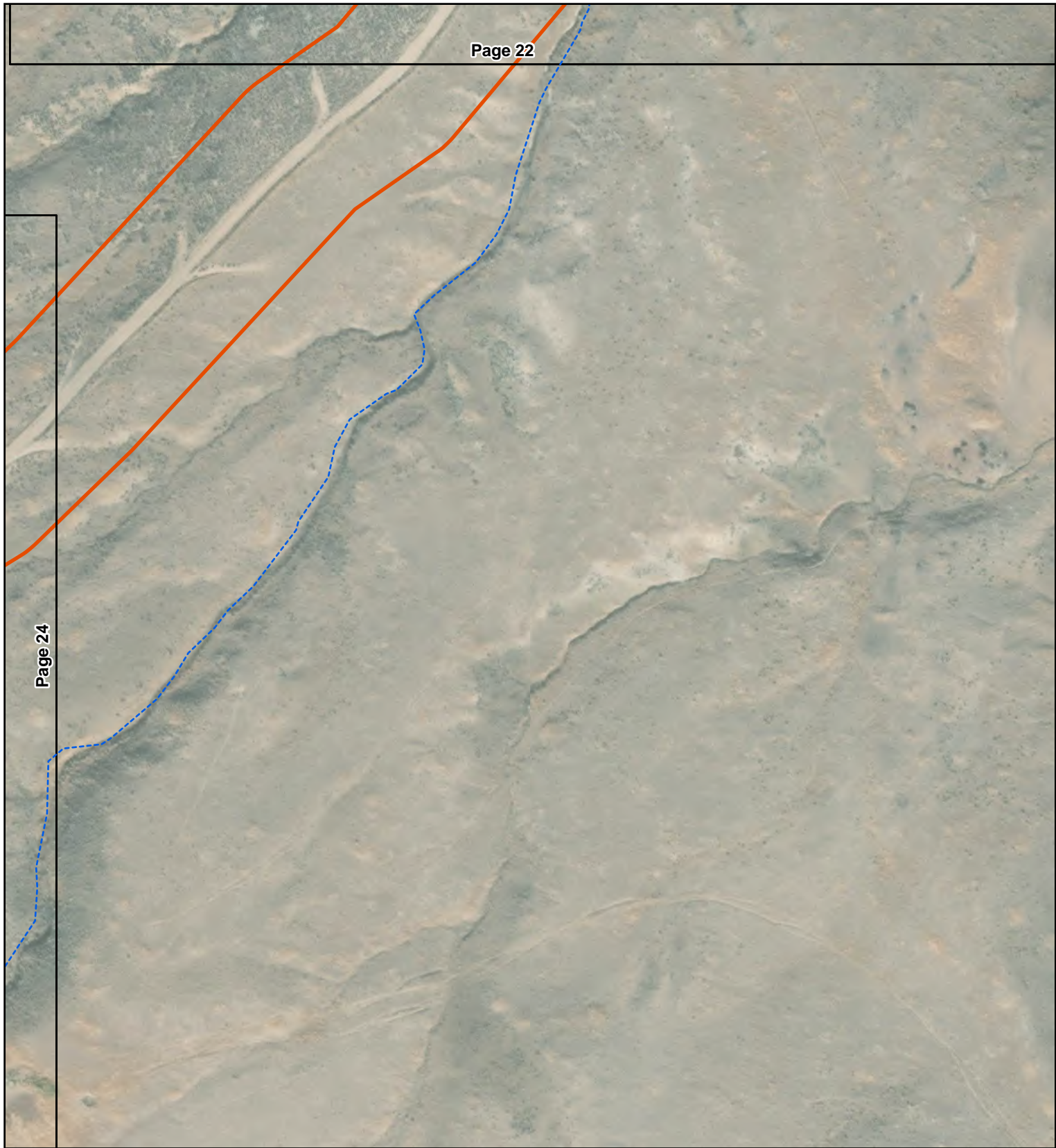






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-  Map Book Page
-  National Hydrography Dataset
-  Intermittent waters

 **MB&G**
Natural Resource Consultants
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0 125 250
Feet

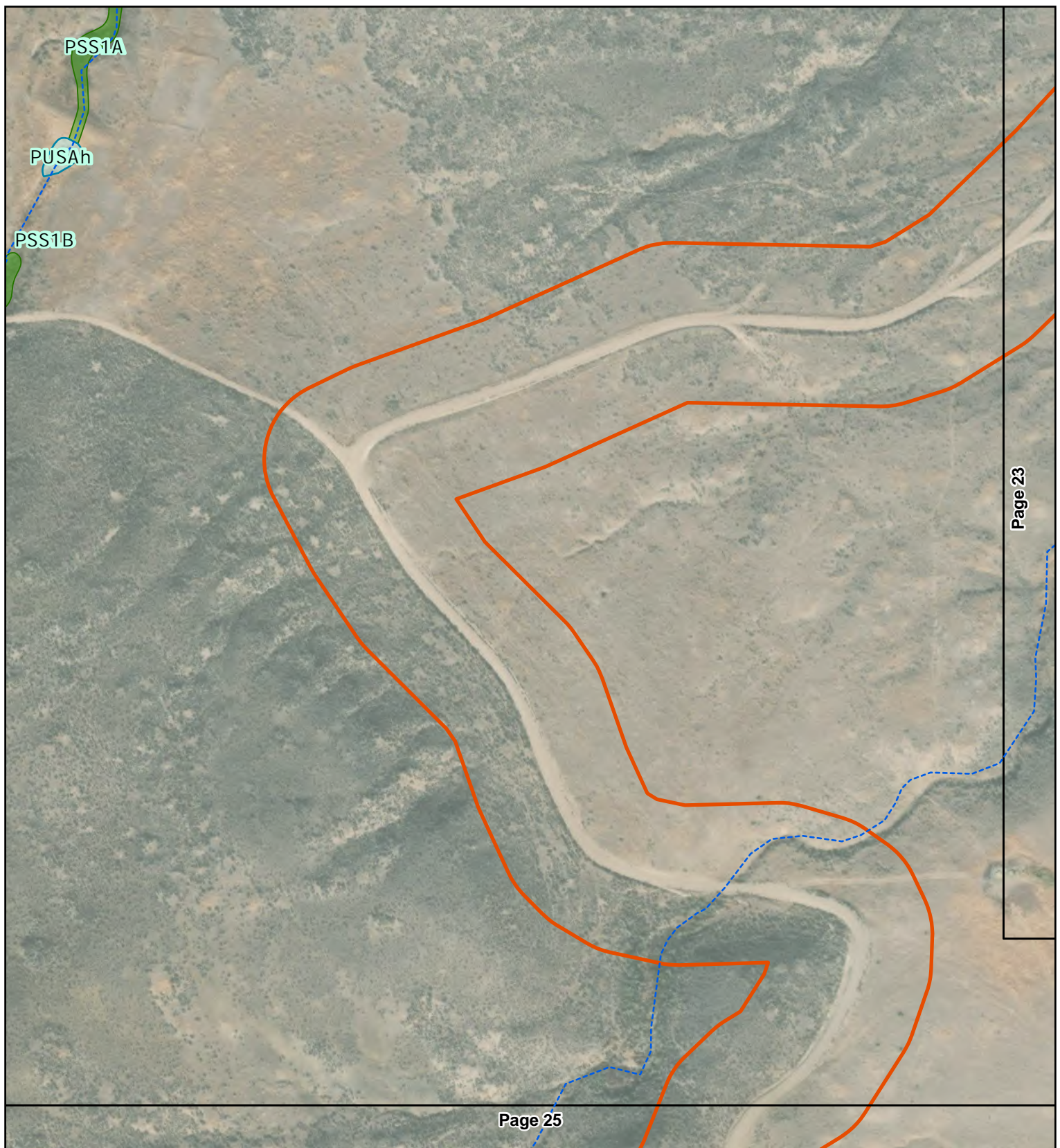


Figure 3 - Page 24 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

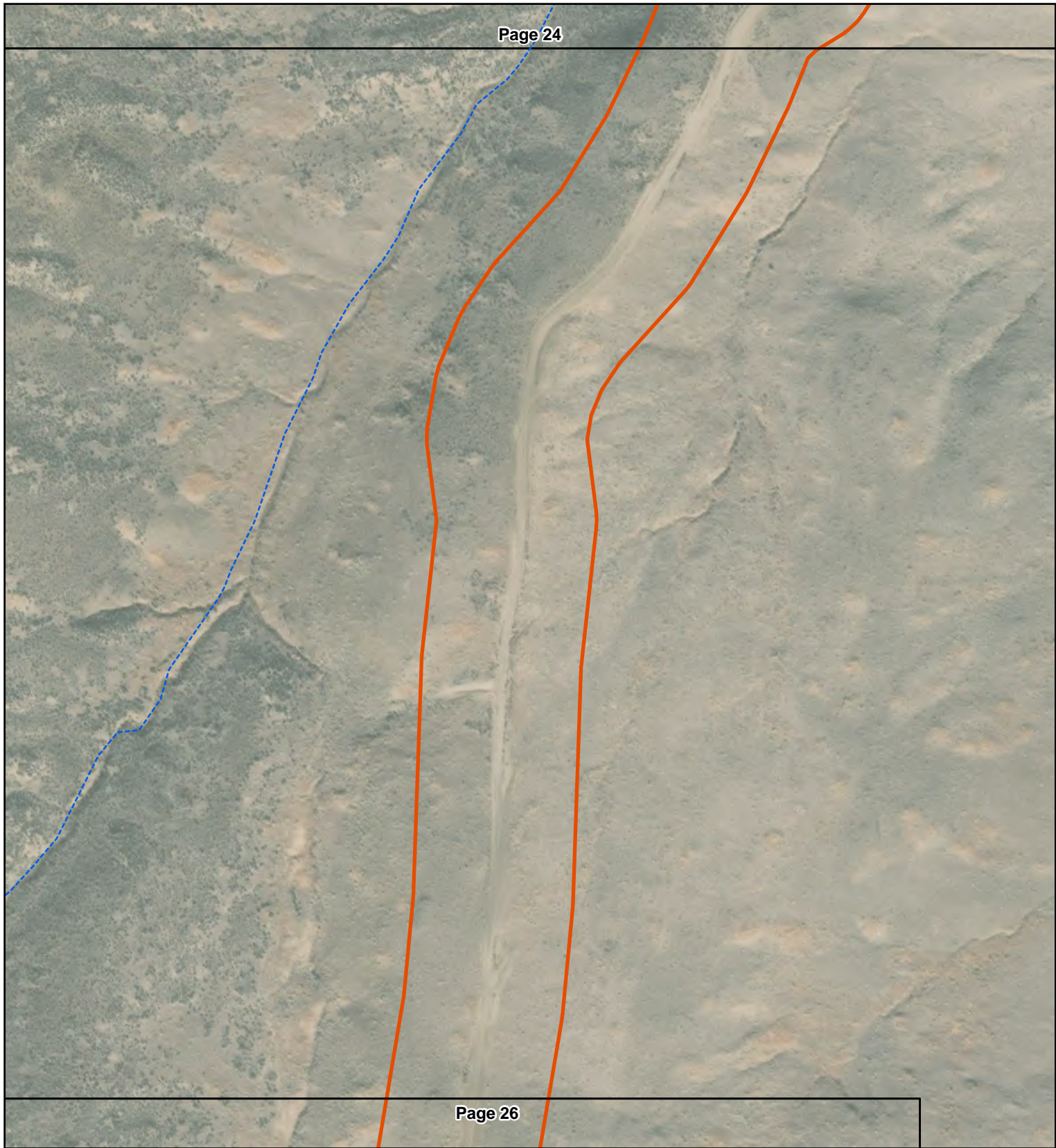
This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
 - ~ Intermittent waters
 - = Other (pipe, canal, ditch, or artificial path)
- National Wetlands Inventory:
 - Forested/Shrub Wetland
 - Pond

MB&G
Natural Resource Consultants
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0 125 250
Feet






Page 24

Page 26

Figure 3 - Page 25 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters

 **MB&G**
Natural Resource Consultants
Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

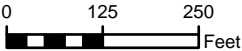






Figure 3 - Page 26 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters

 **MB&G**
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purposes and may not be suitable for legal, engineering, or
surveying purposes. Conclusions drawn from such infor-
mation are the responsibility of the user.

0 125 250
Feet

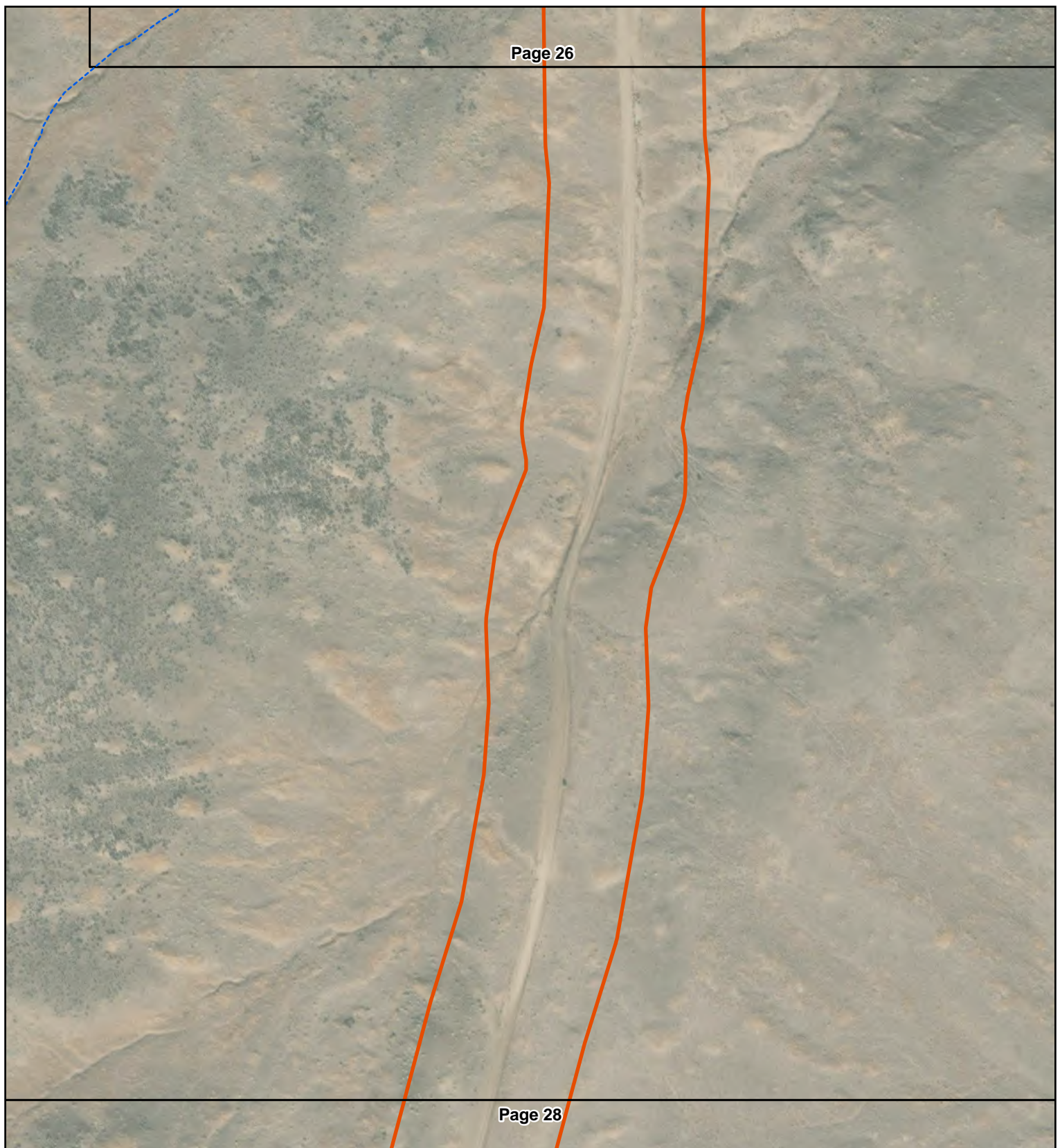





Figure 3 - Page 27 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters

 **MB&G**
Natural Resource Consultants
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surveying purposes. Conclusions drawn from such infor-
mation are the responsibility of the user.





0 125 250
Feet



Figure 3 - Page 28 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine

 **MB&G**
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0 125 250
Feet



Page 28

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Page 30

Figure 3 - Page 29 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
-  Intermittent waters
- National Wetlands Inventory:
-  Riverine
-  Pond



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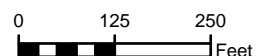






Figure 3 - Page 30 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters



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surveying purposes. Conclusions drawn from such infor-
mation are the responsibility of the user.

0 125 250
Feet

Figure 3 - Page 31 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page



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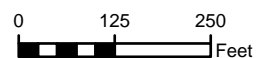





Figure 3 - Page 32 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters



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0 125 250
Feet

Figure 3 - Page 33 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page



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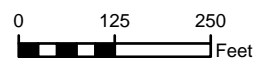




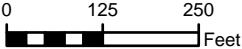
Figure 3 - Page 34 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
Intermittent waters

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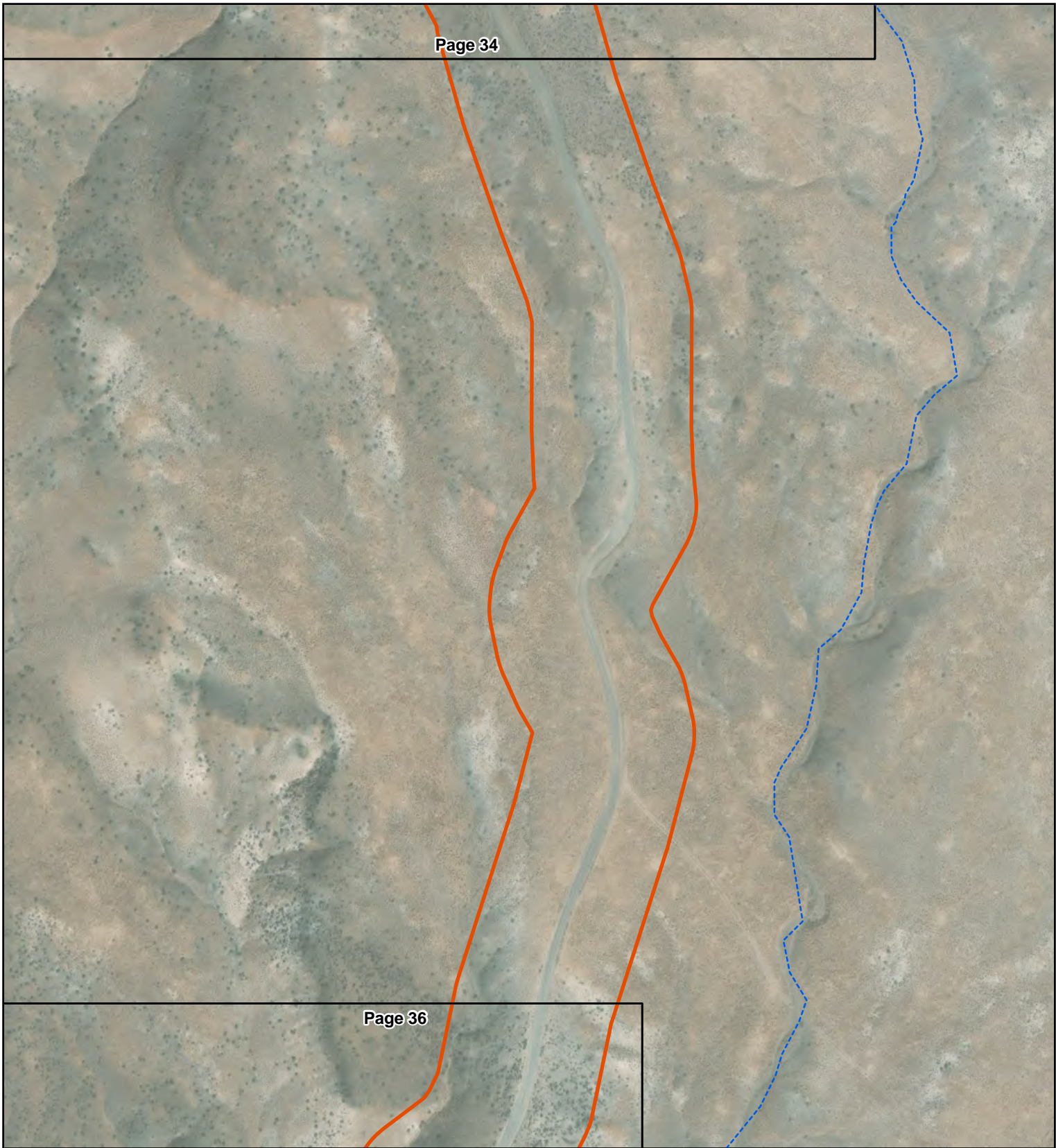





Figure 3 - Page 35 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

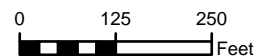
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
Intermittent waters



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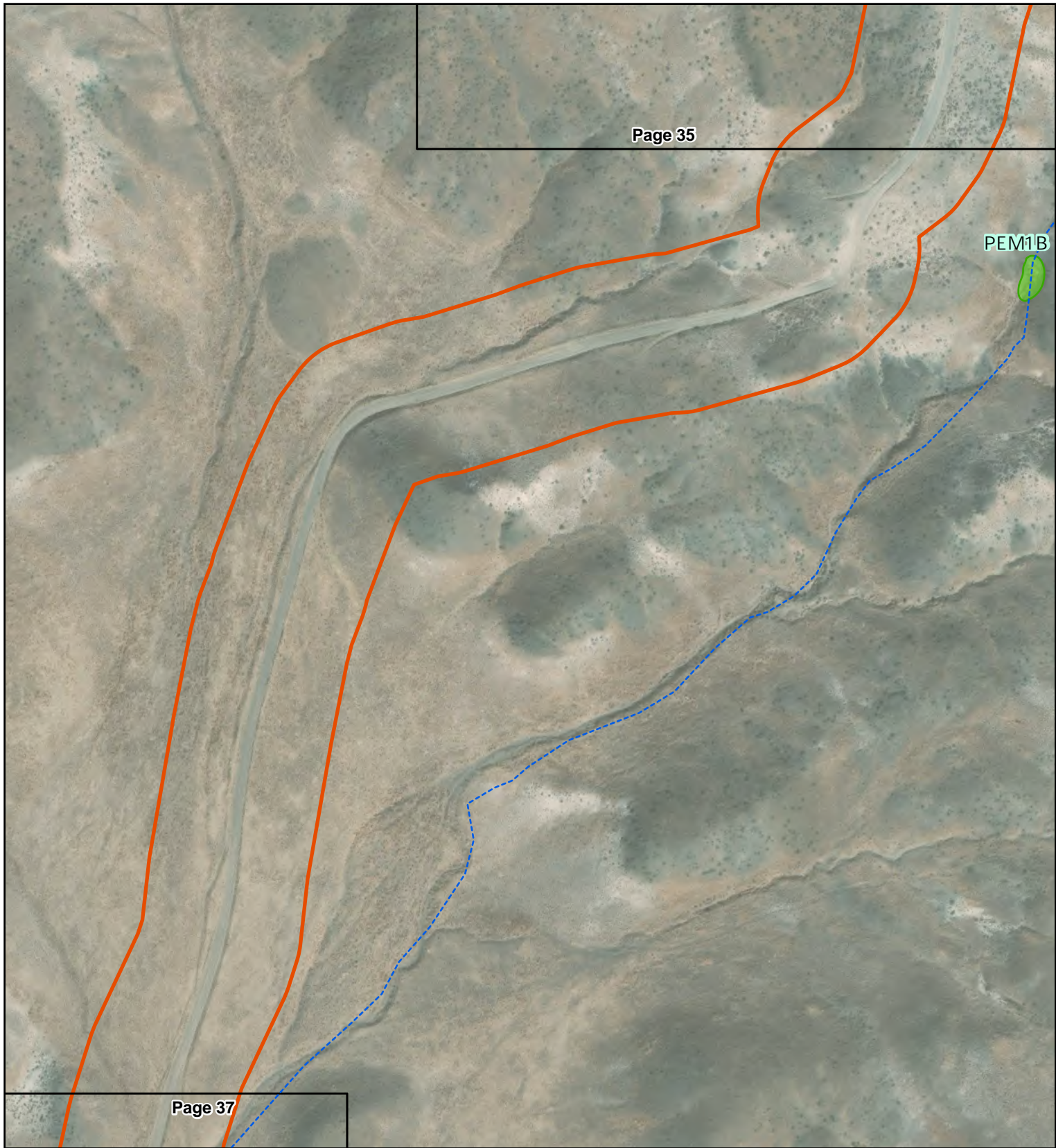


Figure 3 - Page 36 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
 - Intermittent waters
- National Wetlands Inventory:
 - Emergent Wetland



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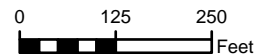






Figure 3 - Page 37 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

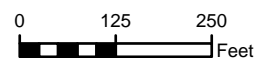
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  National Hydrography Dataset
-  Intermittent waters



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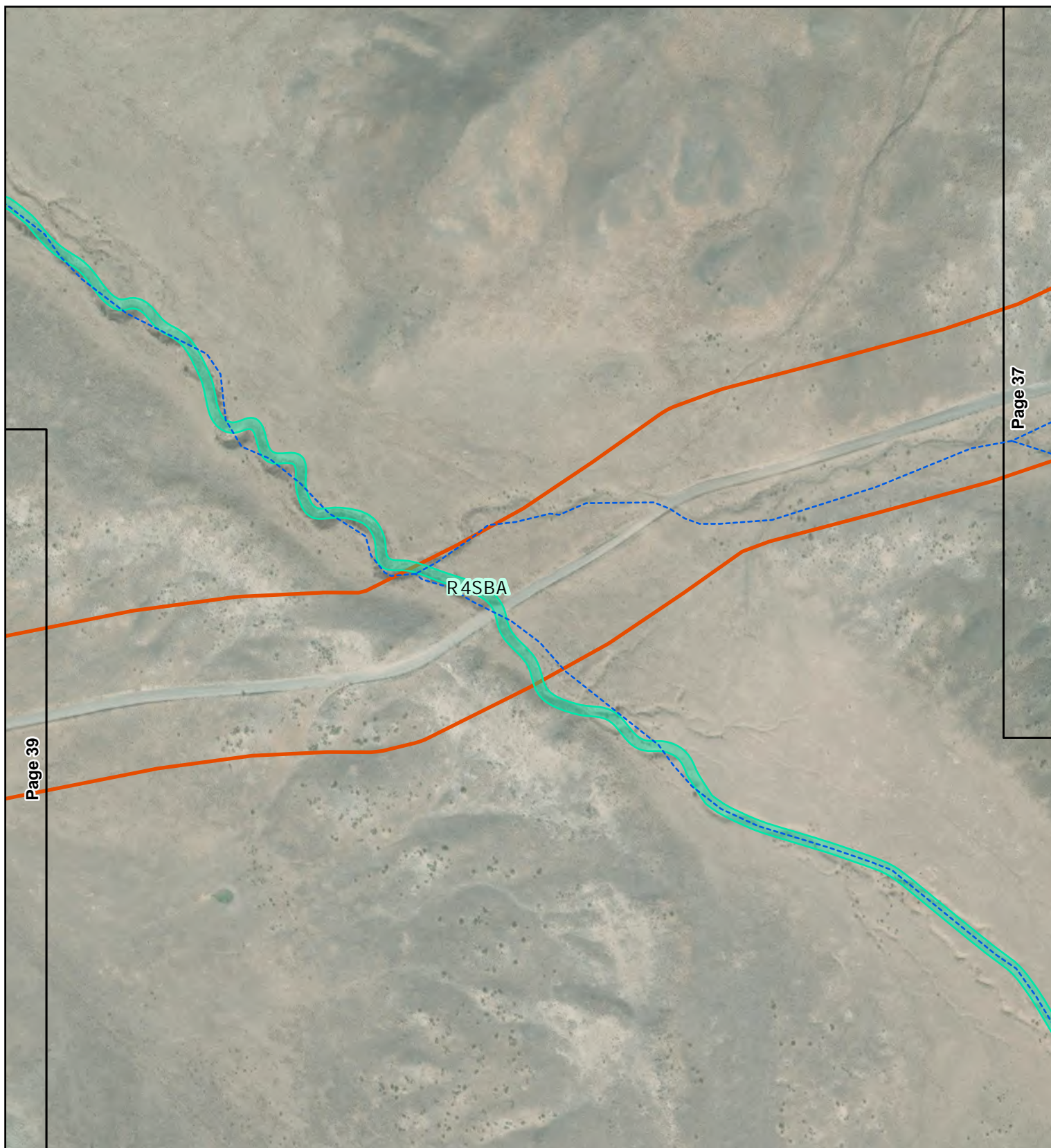






Figure 3 - Page 38 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
-  Intermittent waters
- National Wetlands Inventory:
-  Riverine



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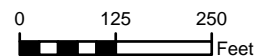






Figure 3 - Page 39 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

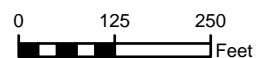
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page



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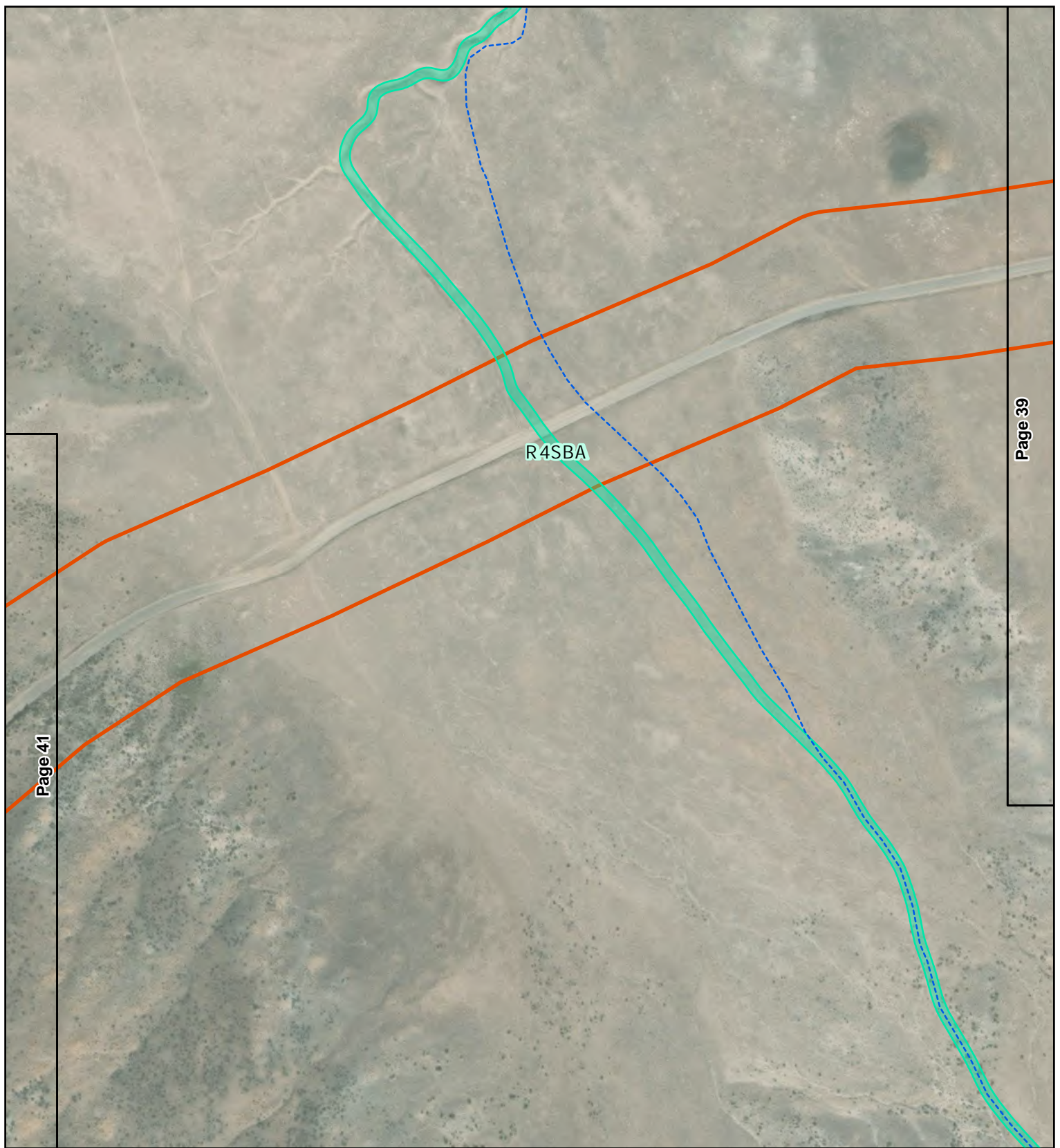


Figure 3 - Page 40 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
- Intermittent waters
- National Wetlands Inventory:
- Riverine

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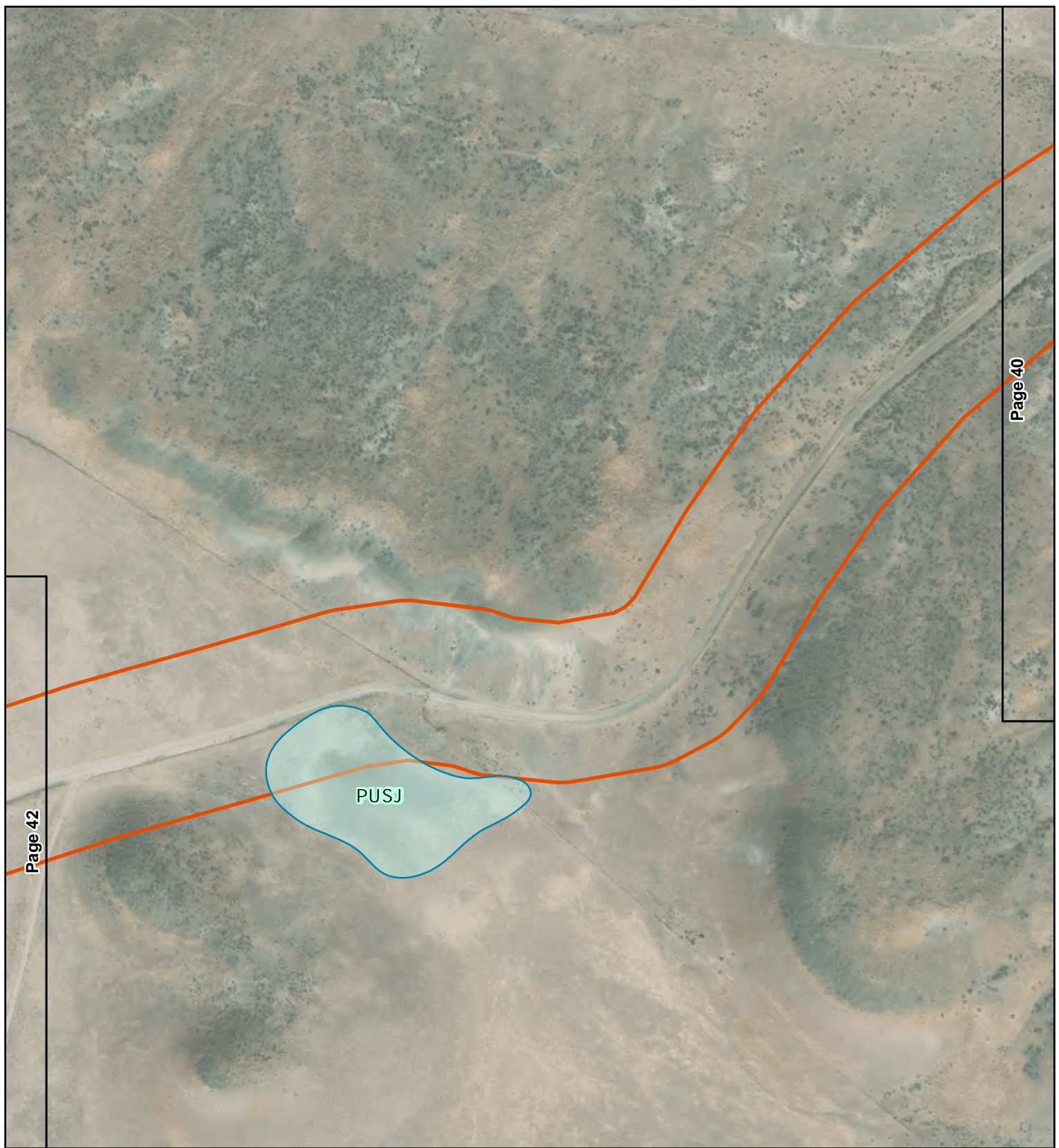



Figure 3 - Page 41 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Wetlands Inventory:
- Pond

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0 125 250
Feet

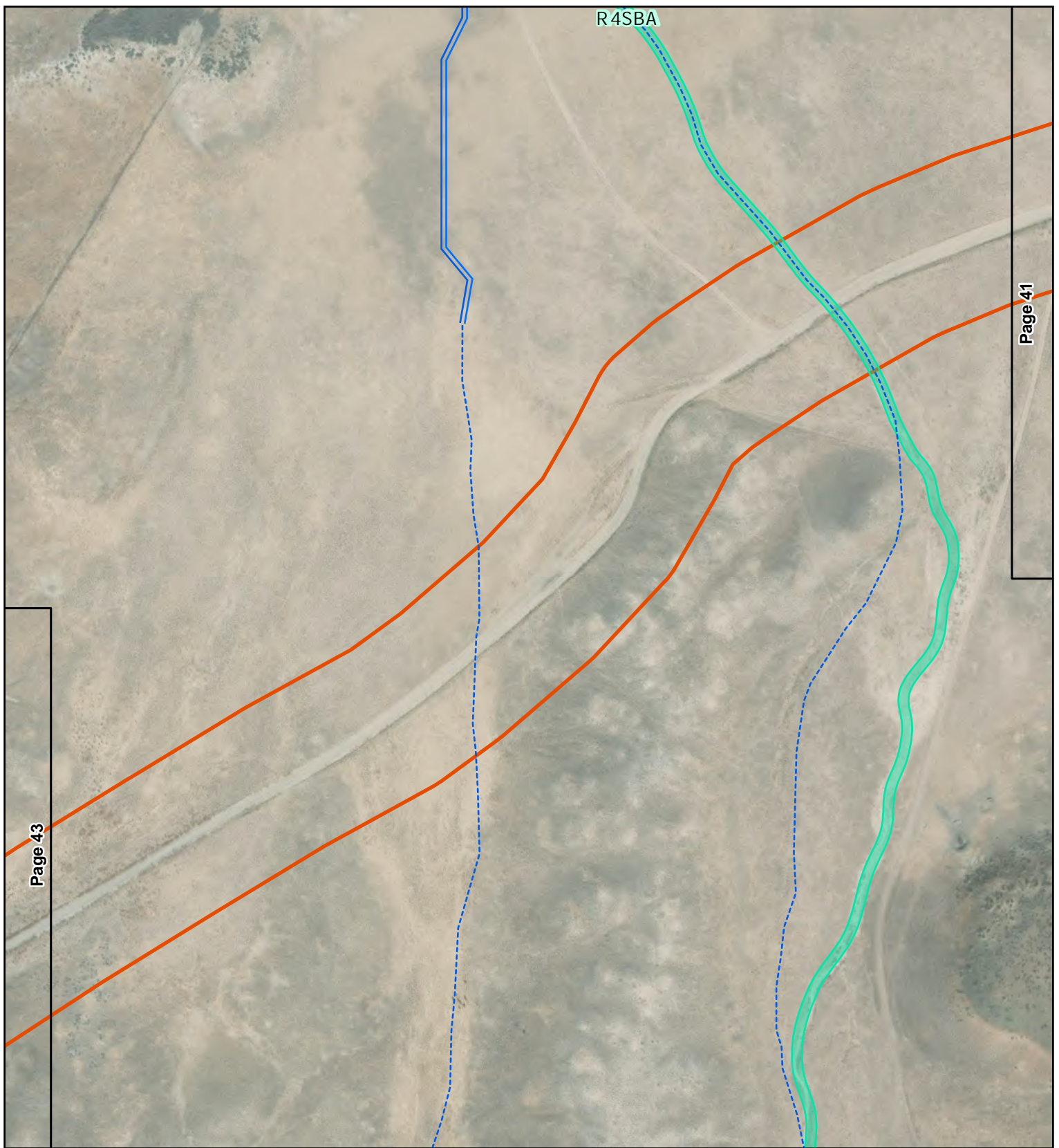


Figure 3 - Page 42 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
 - Intermittent waters
 - == Other (pipe, canal, ditch, or artificial path)
- National Wetlands Inventory:
 - Riverine

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0 125 250
Feet




Figure 3 - Page 43 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page

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Feet

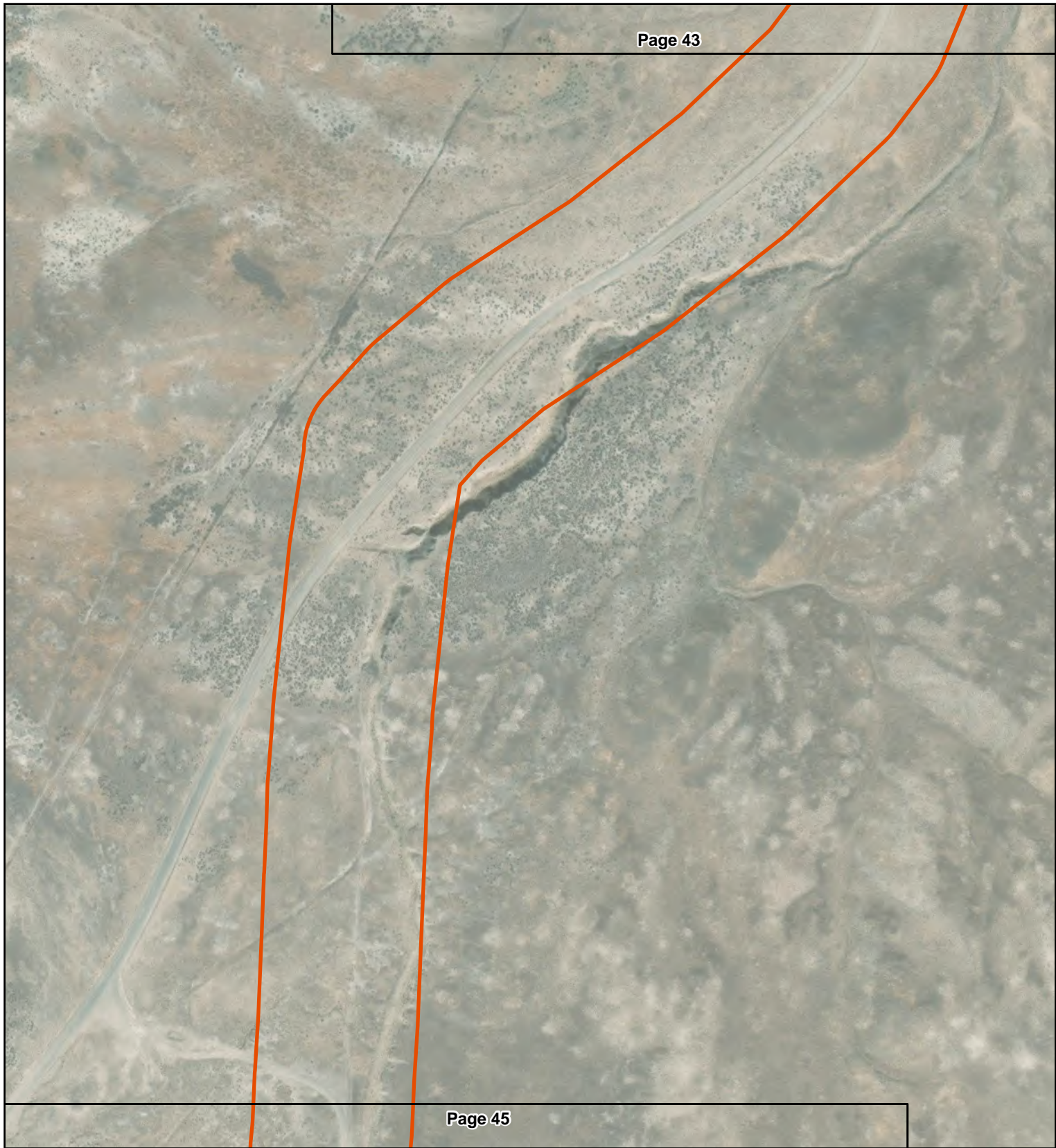




Figure 3 - Page 44 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

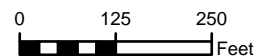
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page



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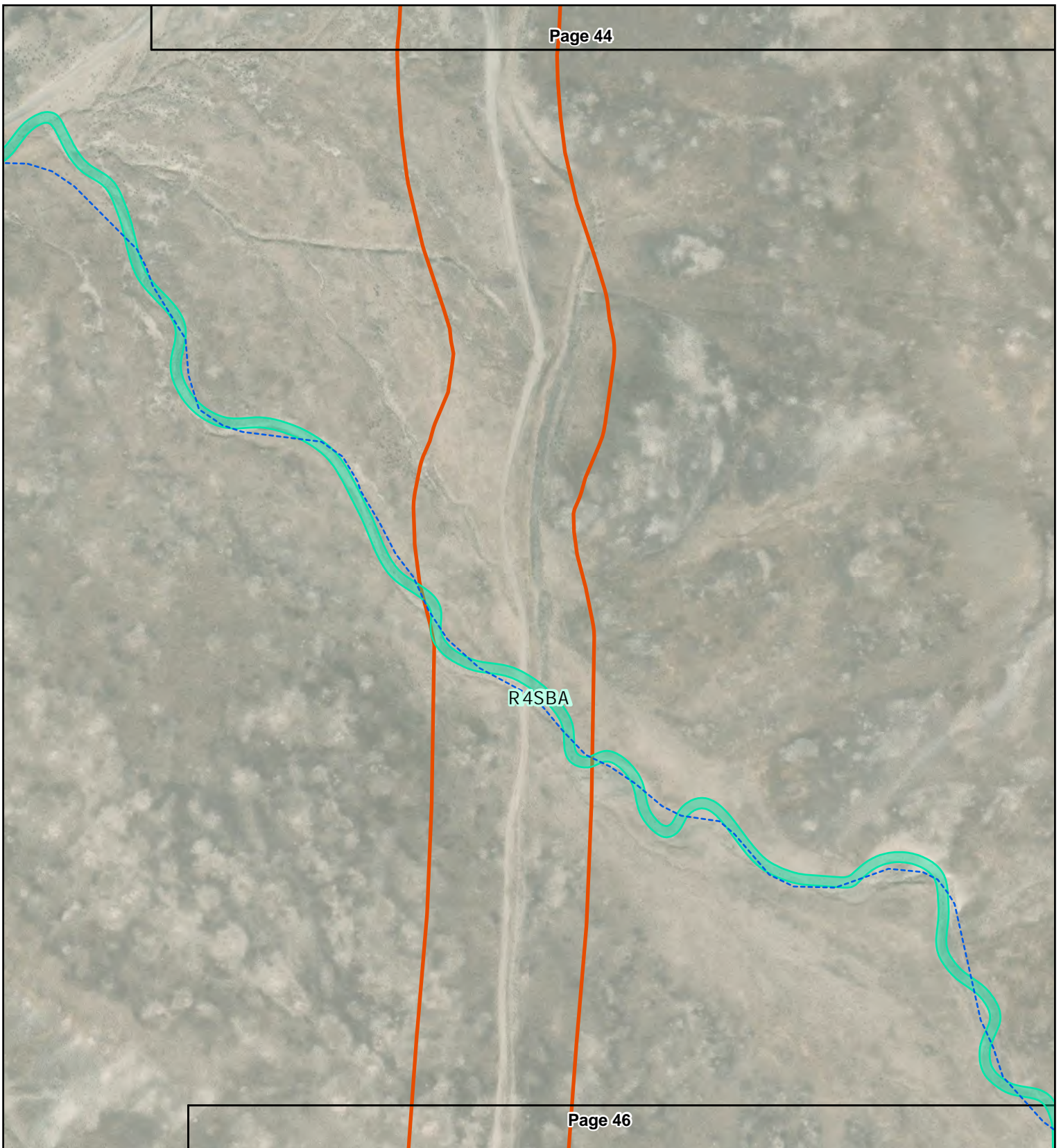






Figure 3 - Page 45 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine



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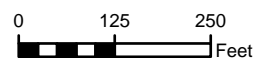




Figure 3 - Page 46 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

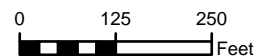
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
- ~ Intermittent waters
- National Wetlands Inventory:
- Riverine



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R4SBA

Figure 3 - Page 47 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines


This area is not included in any
Local Wetlands Inventory


Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

 Project Study Area

 Map Book Page

National Hydrography Dataset

 Intermittent waters

 Other (pipe, canal, ditch, or artificial path)

National Wetlands Inventory:

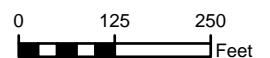
 Riverine

 Pond



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


R4SBA

Figure 3 - Page 48 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine

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0 125 250
Feet

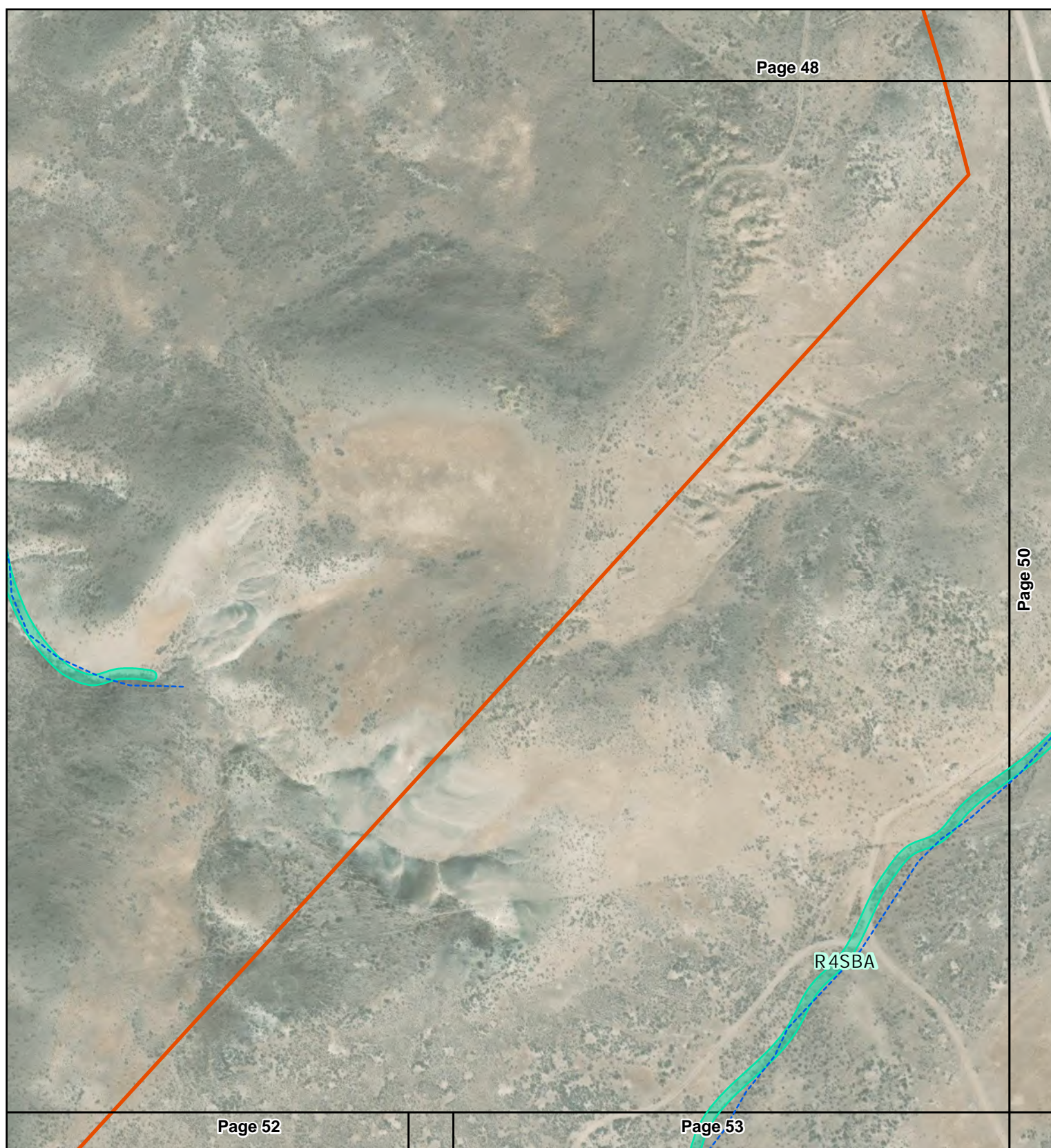






Figure 3 - Page 49 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

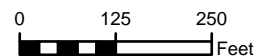
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
-  Intermittent waters
- National Wetlands Inventory:
-  Riverine



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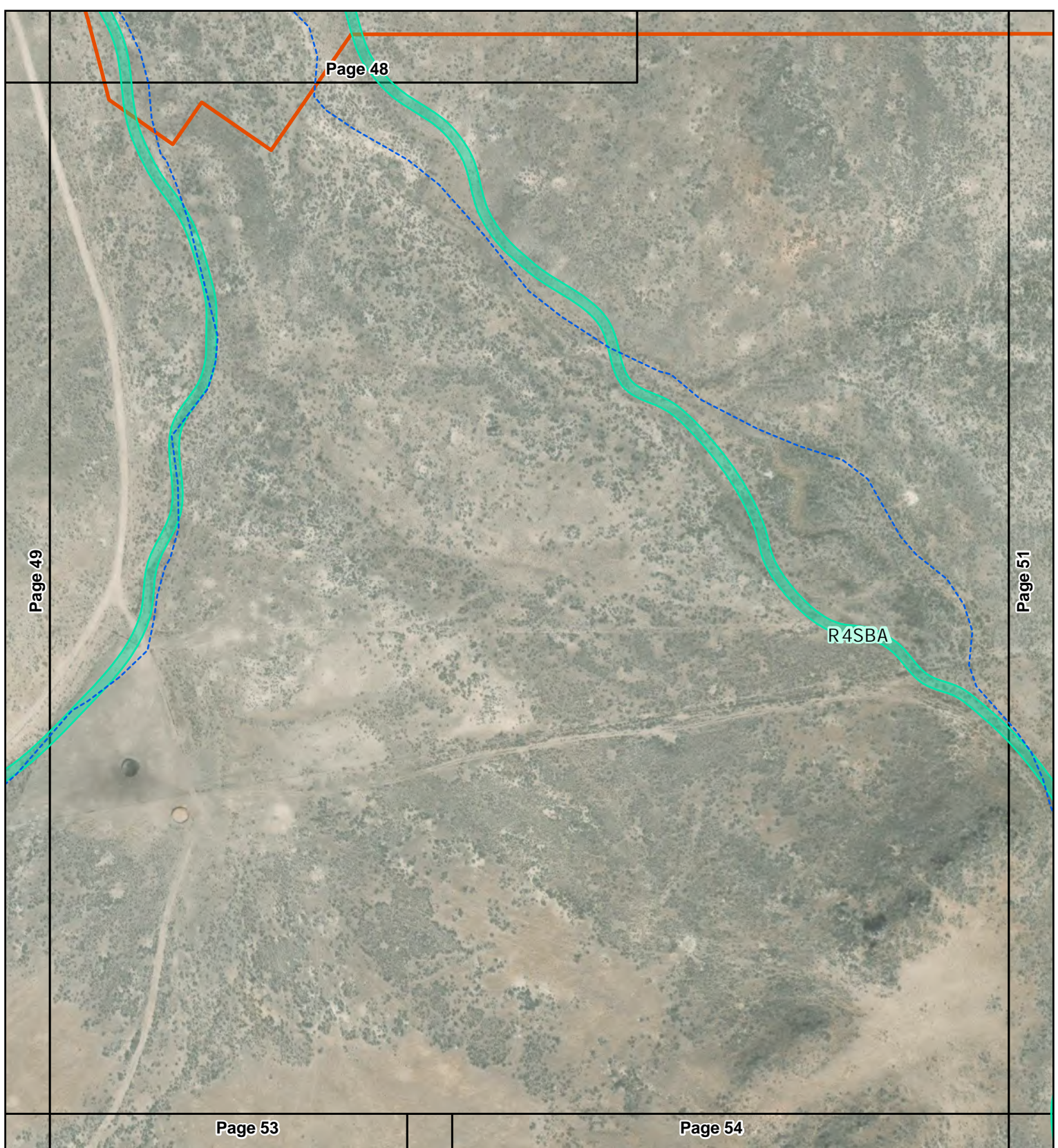


Figure 3 - Page 50 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- ▬ Project Study Area
- Map Book Page
- National Hydrography Dataset
- - - Intermittent waters
- National Wetlands Inventory:
- Riverine

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0 125 250
Feet



Figure 3 - Page 51 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
- Intermittent waters
- National Wetlands Inventory:
- Riverine

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Natural Resource Consultants
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0 125 250
Feet

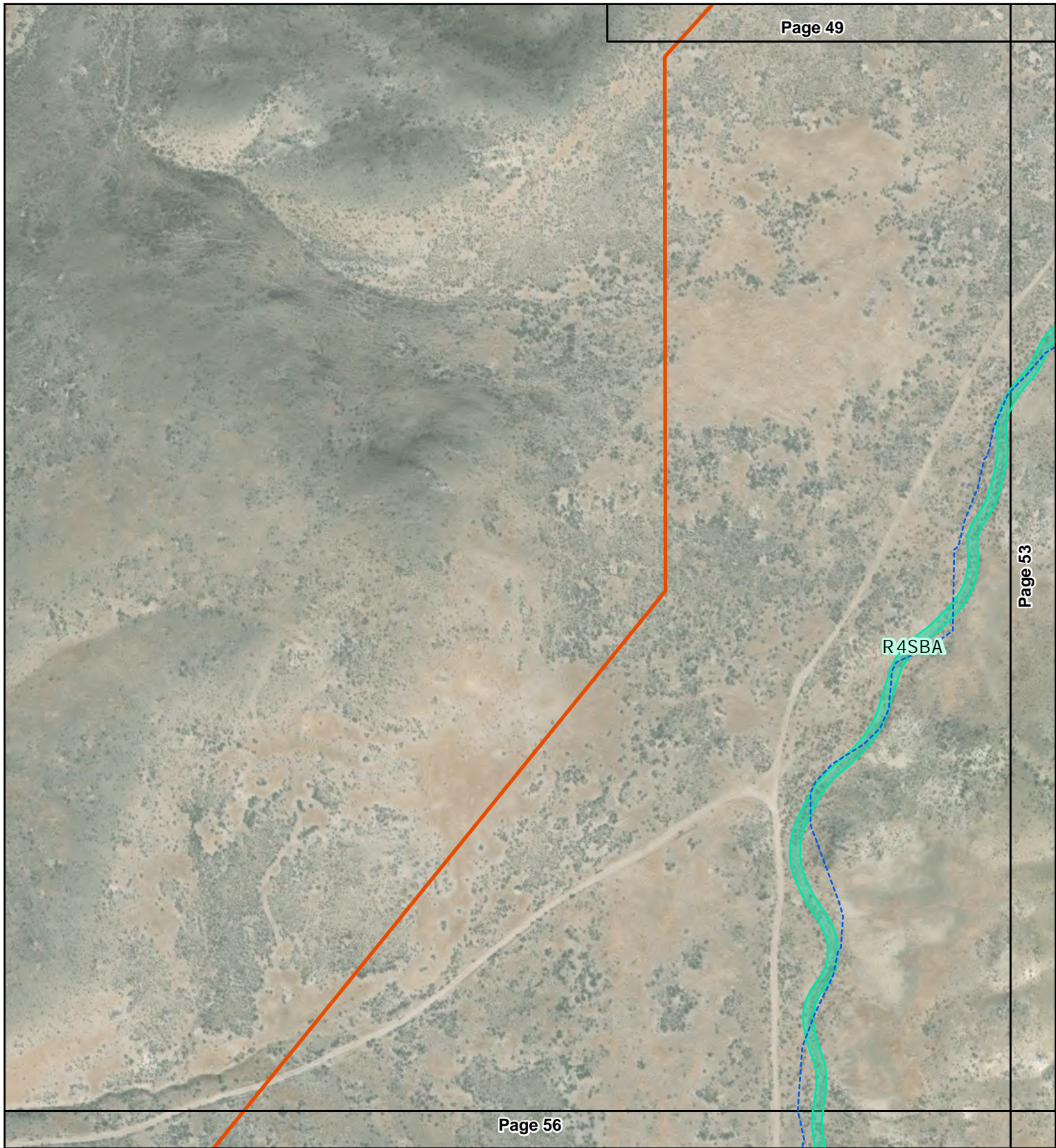






Figure 3 - Page 52 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
-  Intermittent waters
- National Wetlands Inventory:
-  Riverine

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Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

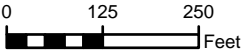








Figure 3 - Page 53 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
-  Intermittent waters
- National Wetlands Inventory:
-  Riverine


Natural Resource Consultants
Source: base map from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.





0 125 250
Feet



Figure 3 - Page 54 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine
 -  Pond

 **MB&G**
Natural Resource Consultants
Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

0 125 250
Feet

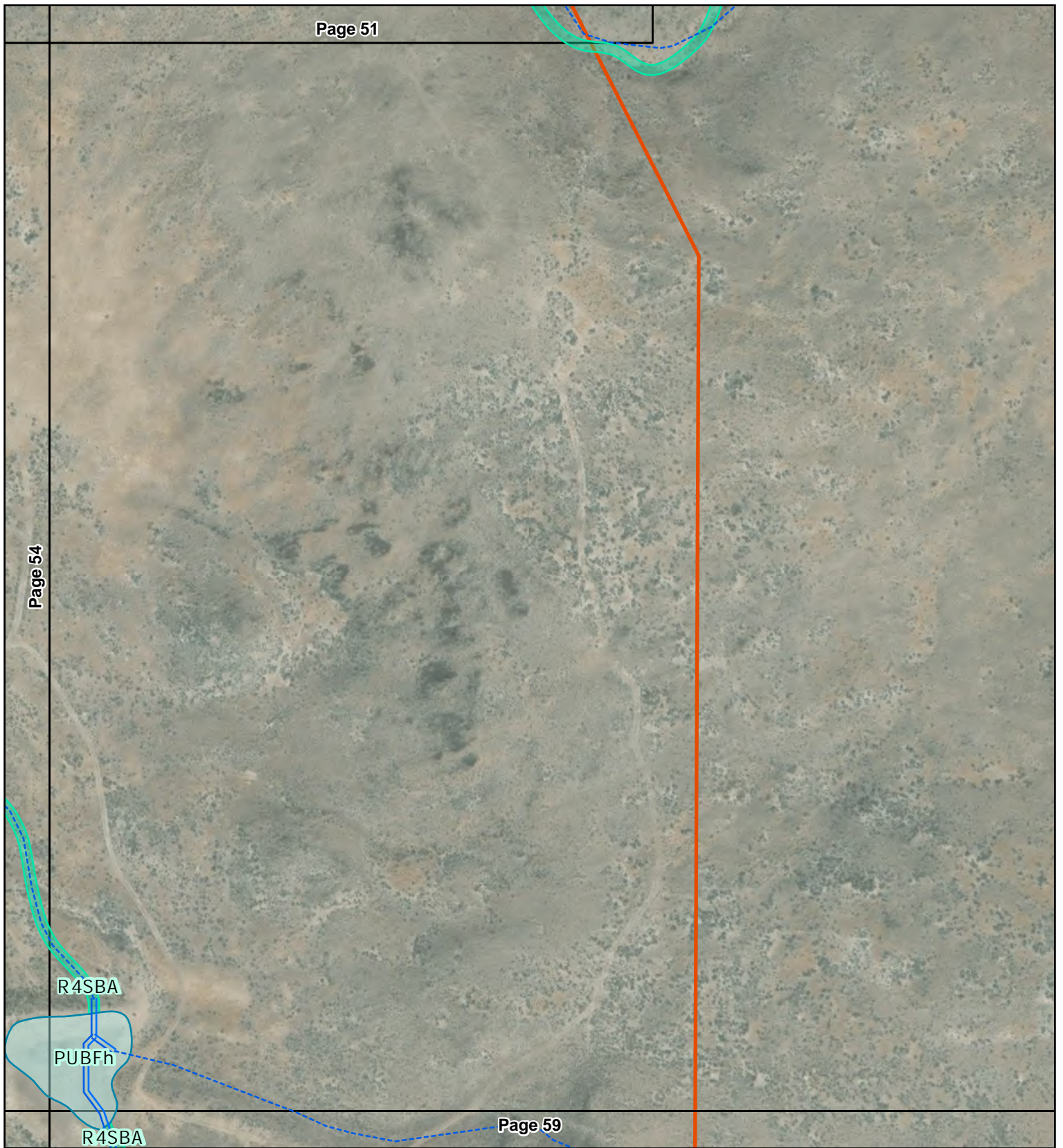


Figure 3 - Page 55 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

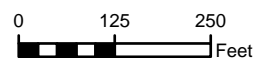
This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
- Intermittent waters
- Other (pipe, canal, ditch, or artificial path)
- National Wetlands Inventory:
- Riverine
- Pond



Natural Resource Consultants
Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.







R4SBA

Figure 3 - Page 56 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

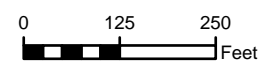
-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine



MB&G

Natural Resource Consultants

Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.



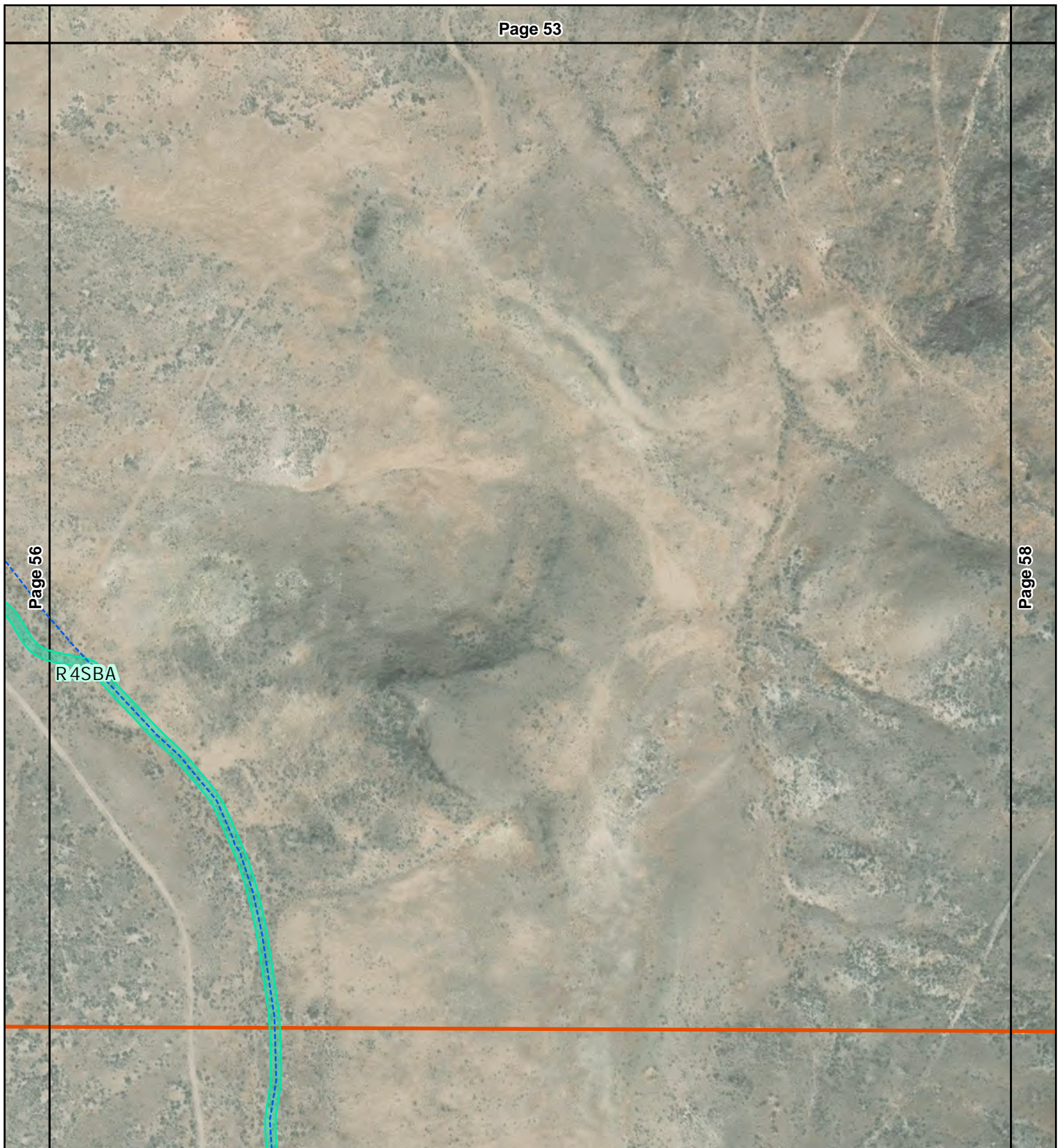


Figure 3 - Page 57 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

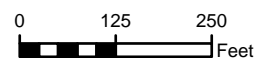
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- National Hydrography Dataset
- Intermittent waters
- National Wetlands Inventory:
- Riverine



Natural Resource Consultants

Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.







R4SBA

Figure 3 - Page 58 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
- National Wetlands Inventory:
 -  Riverine

 **MB&G**
Natural Resource Consultants
Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

0 125 250
Feet

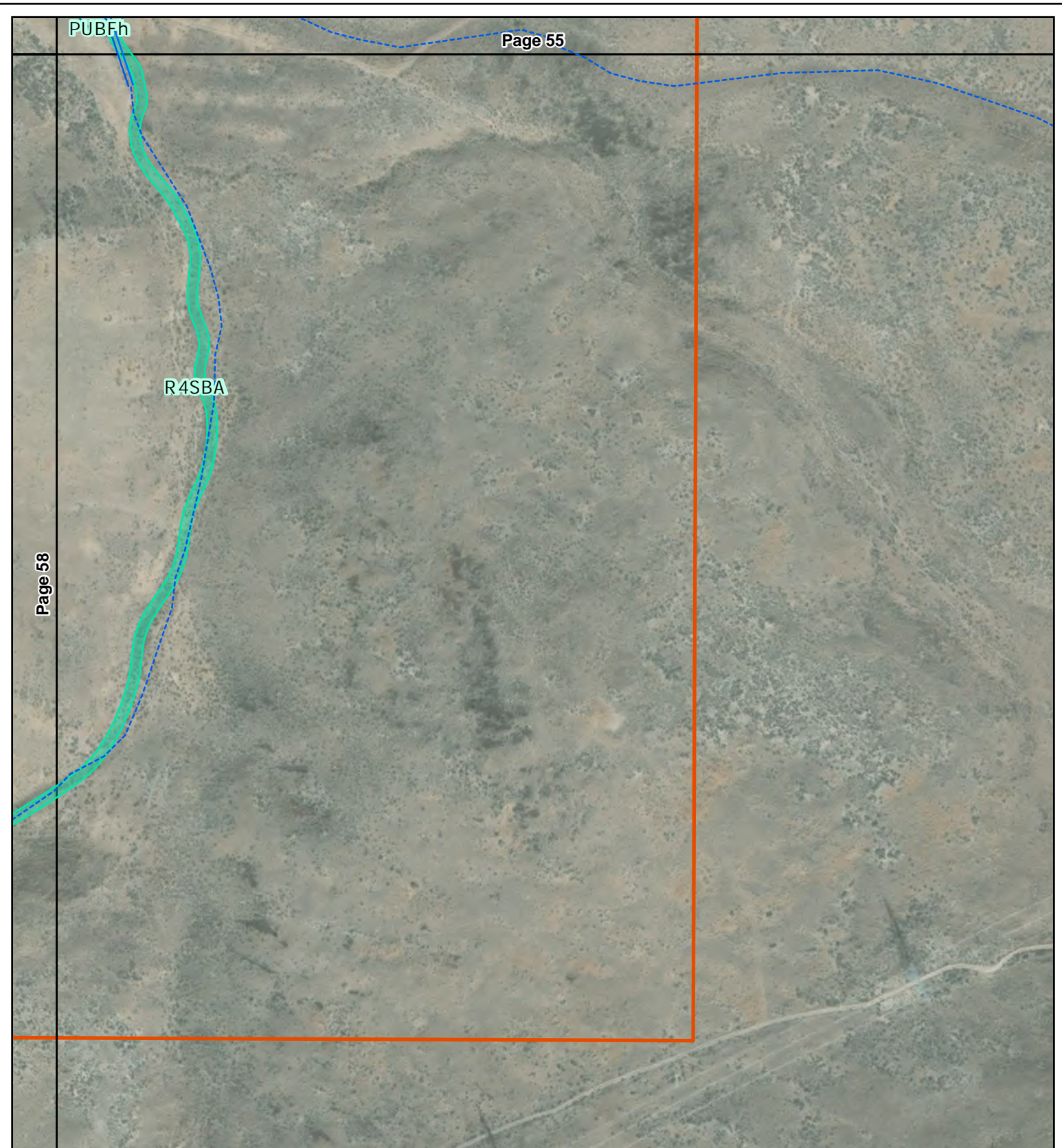









Figure 3 - Page 59 of 59
National Wetlands Inventory, and
National Hydrography Dataset Flowlines

This area is not included in any
Local Wetlands Inventory

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
- National Hydrography Dataset
 -  Intermittent waters
 -  Other (pipe, canal, ditch, or artificial path)
- National Wetlands Inventory:
 -  Riverine
 -  Pond

 **MB&G**
Natural Resource Consultants
Source: basemap from ESRI; NMI from USFWS; NHD from USGS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

0 125 250
 Feet

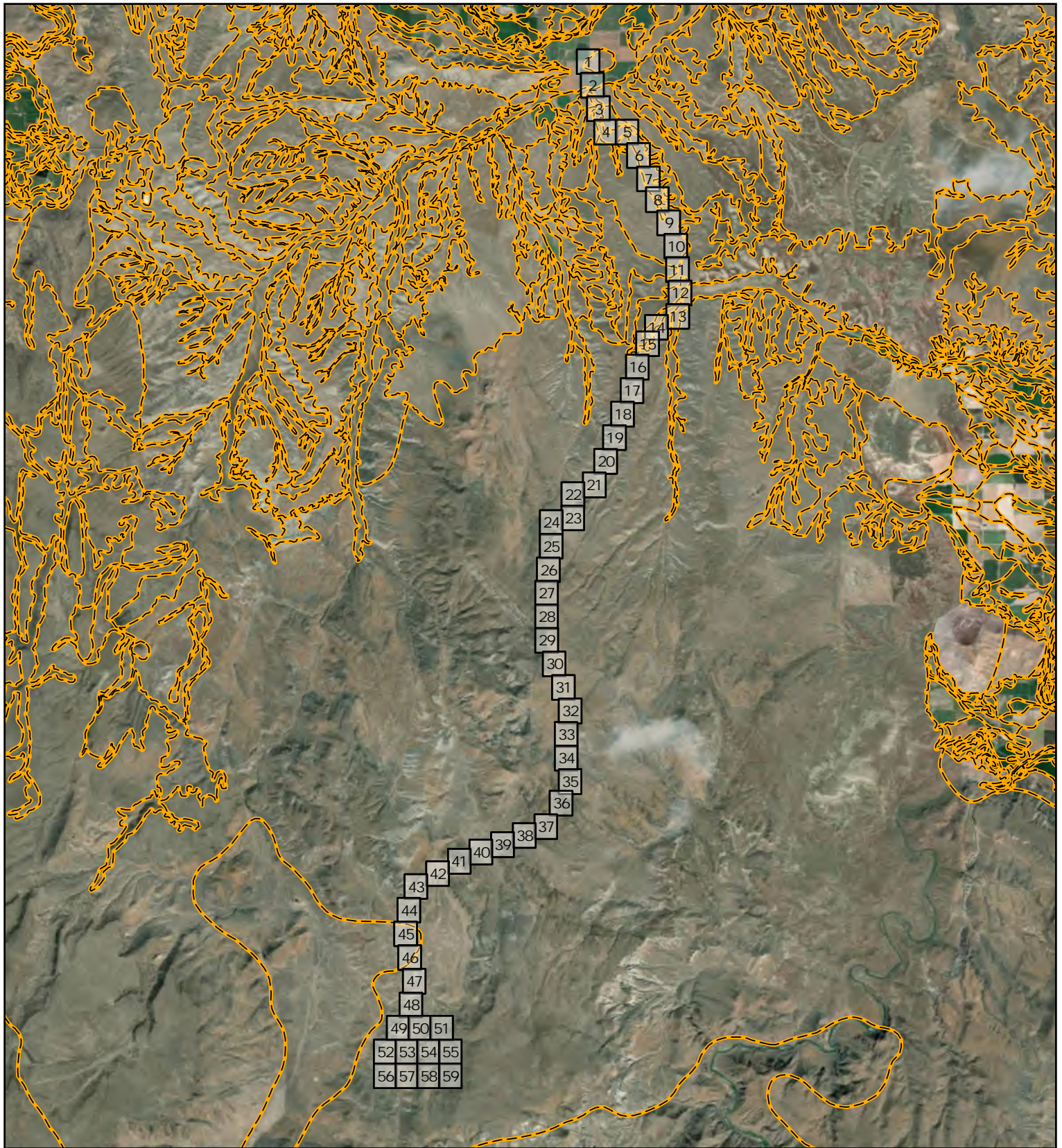


Figure 4 - Map Page Index
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

0 5,000 10,000
Feet



Figure 4 - Page 1 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet

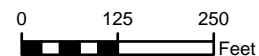




Figure 4 - Page 2 of 59
Soil Mapping Units

There are no hydric soils within the project study area

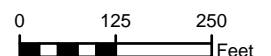
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



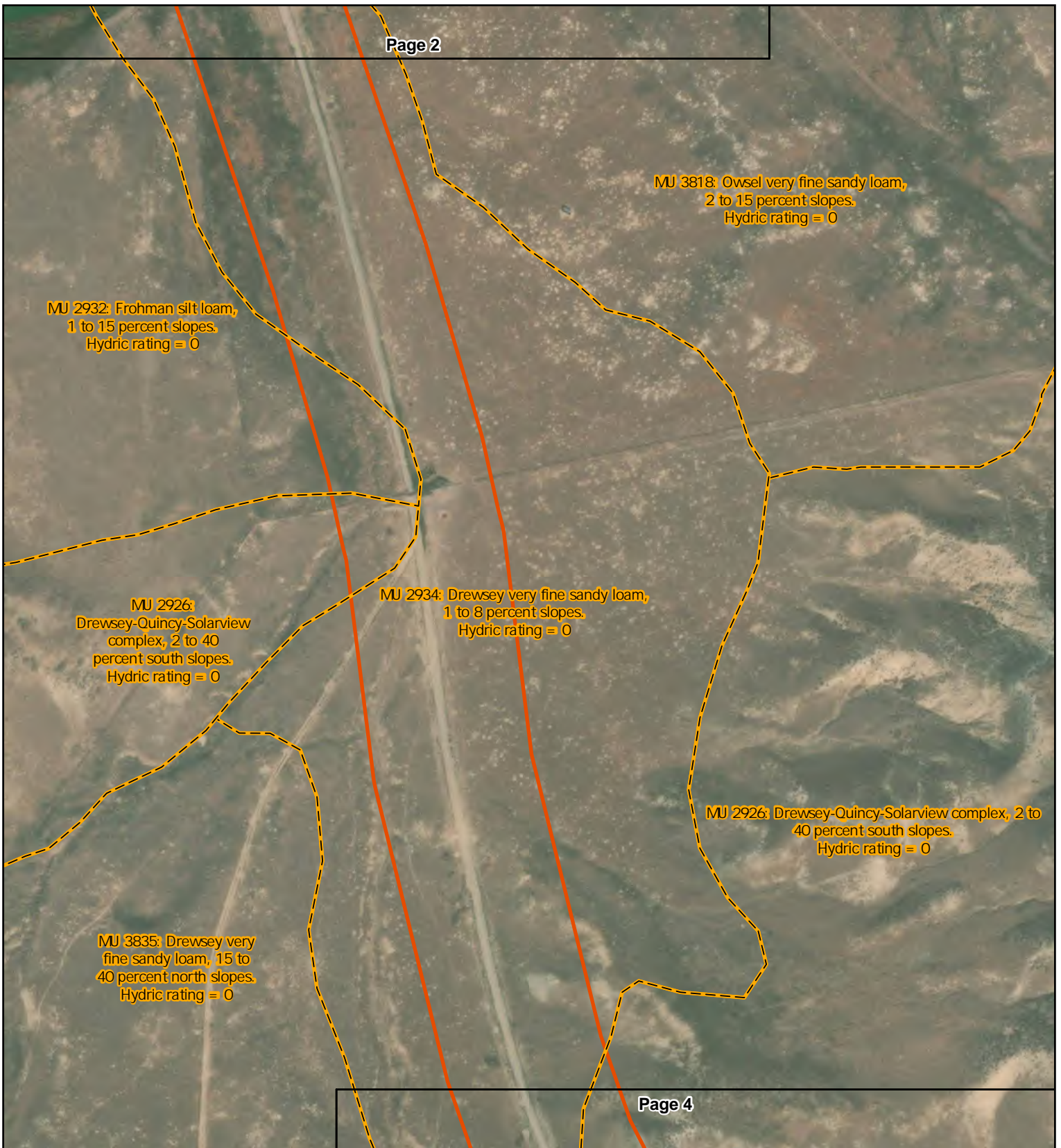


Figure 4 - Page 3 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

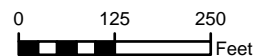
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from
SLR. Reproduced for informational purposes and may not
be suitable for legal, engineering, or surveying purposes.
Conclusions drawn from such information are the respon-
sibility of the user.

1 inch = 250 feet



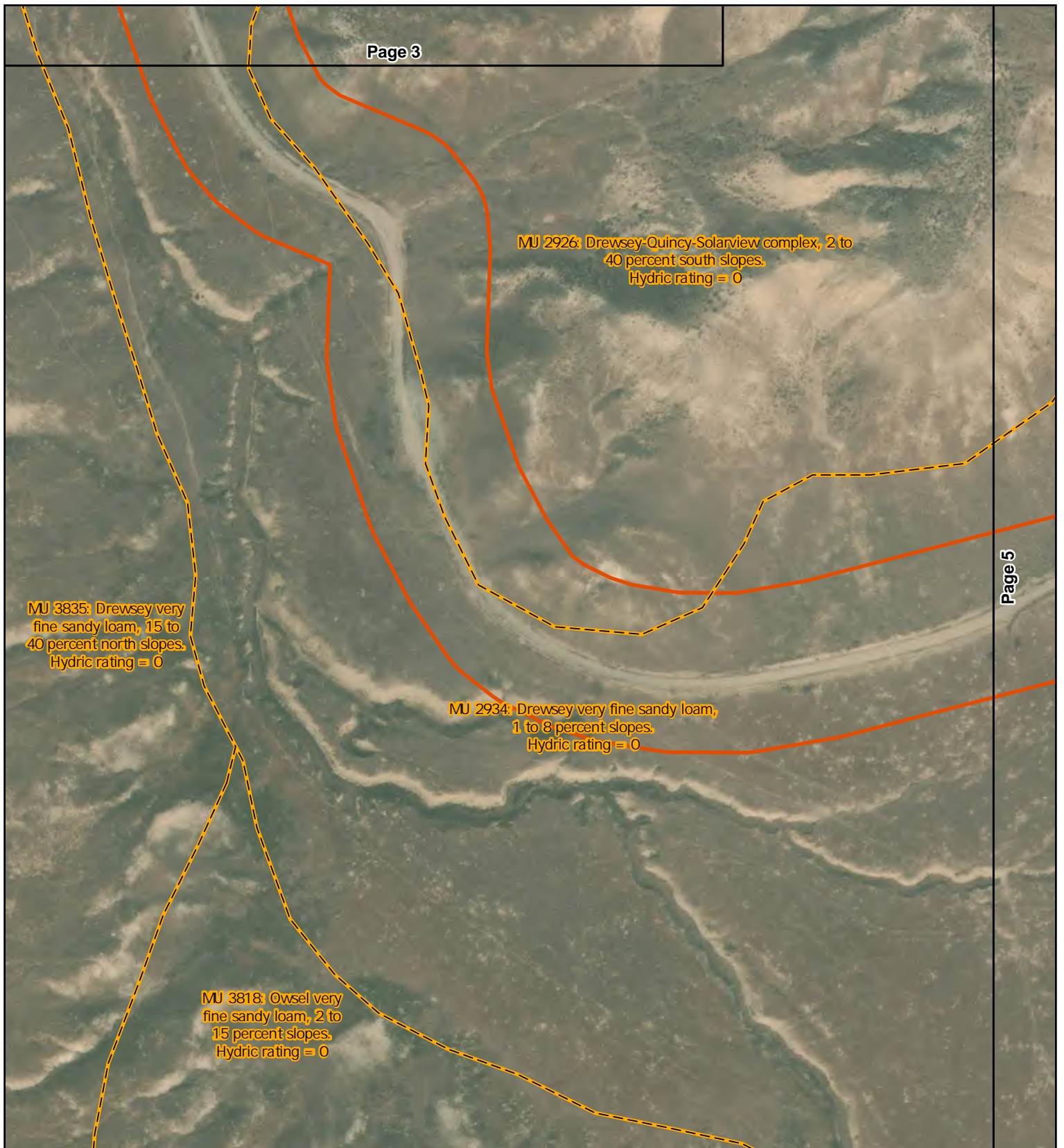


Figure 4 - Page 4 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

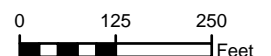
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



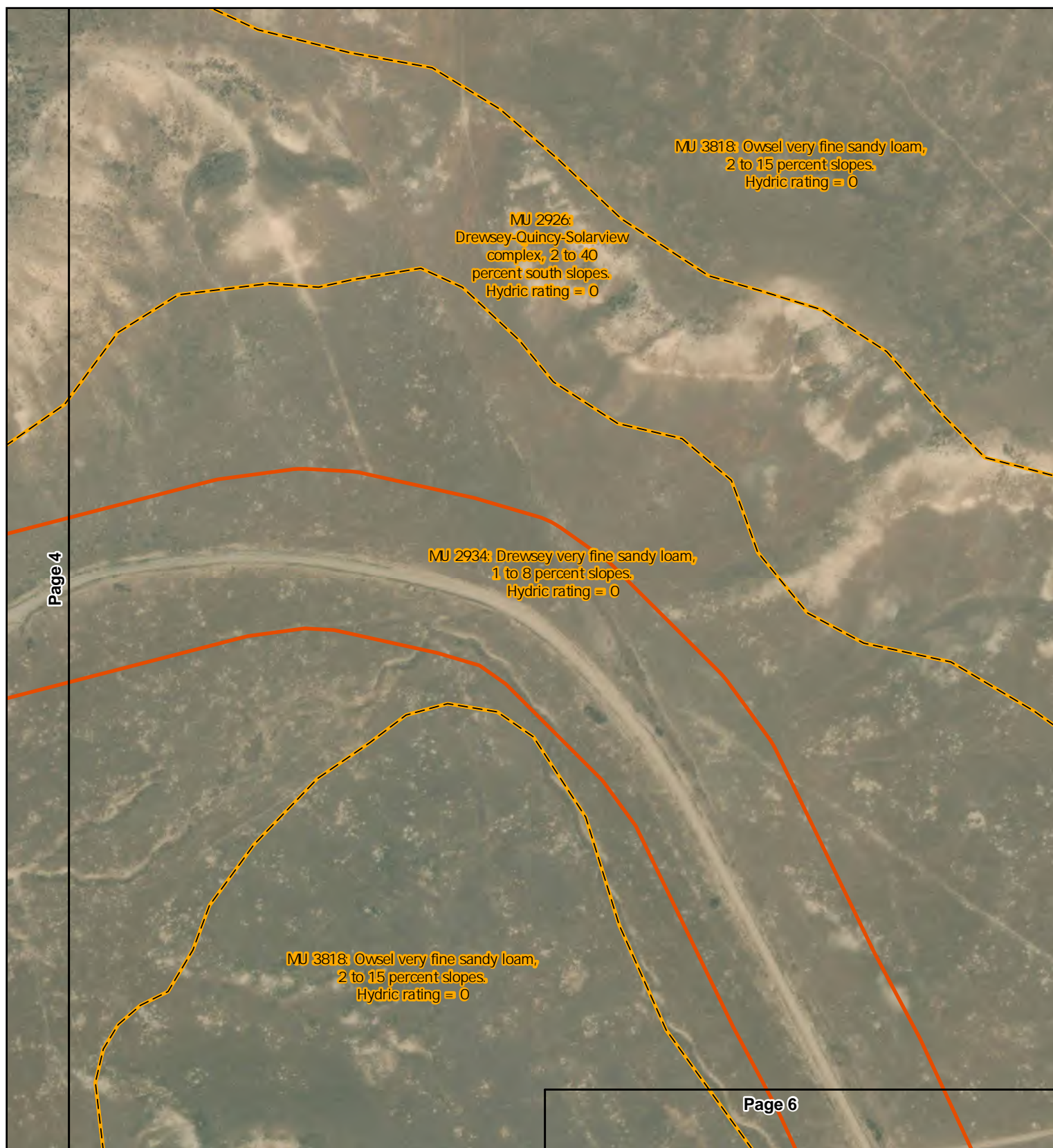





Figure 4 - Page 5 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

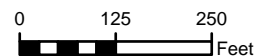
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



MJ 2926:
Drewsey-Quincy-Solarview
complex, 2 to 40
percent south slopes.
Hydric rating = 0




MJ 2934: Drewsey very fine sandy loam,
1 to 8 percent slopes.
Hydric rating = 0

MJ 3818: Owsel very fine sandy loam,
2 to 15 percent slopes.
Hydric rating = 0

Figure 4 - Page 6 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

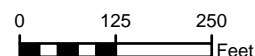
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



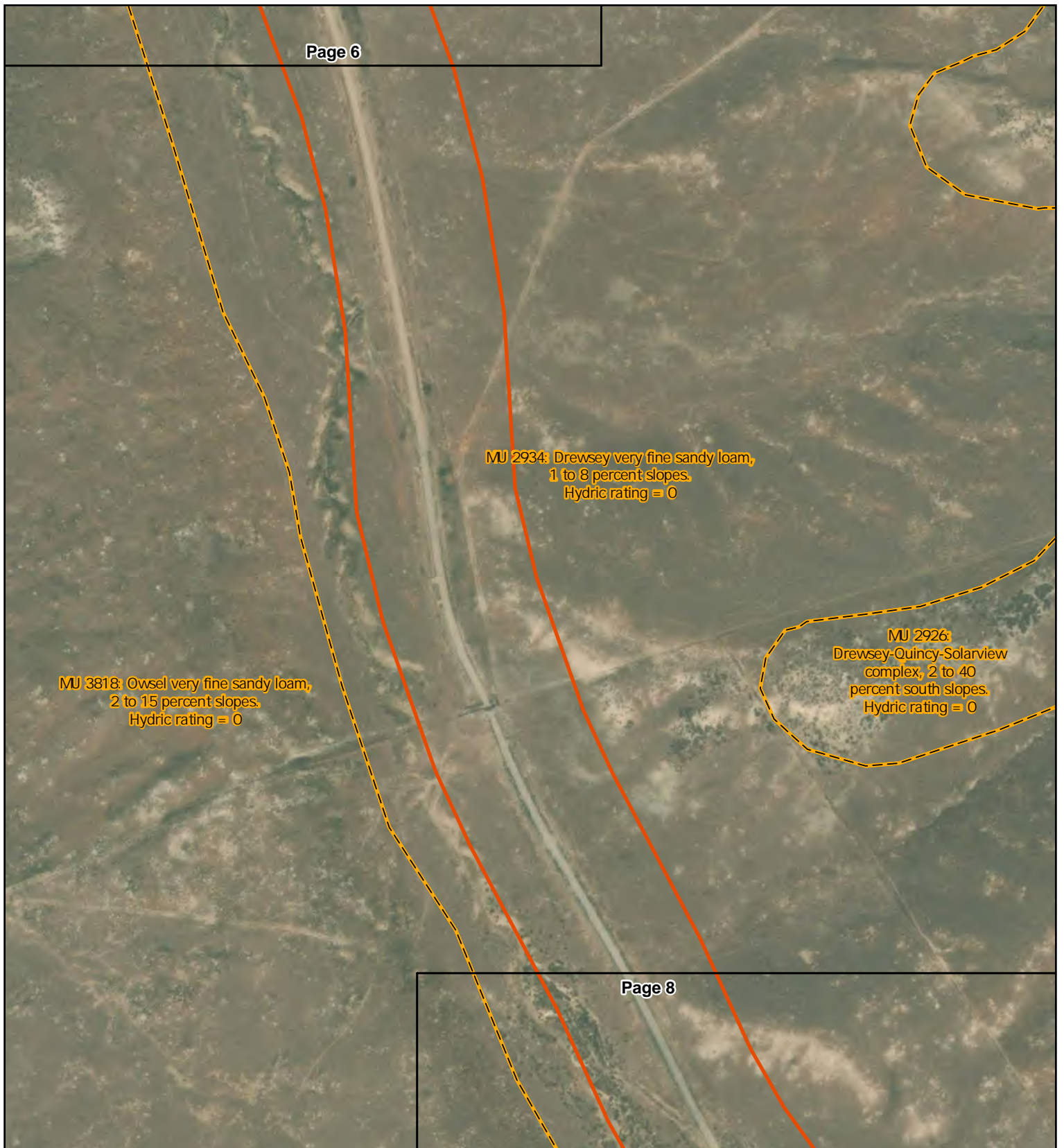





Figure 4 - Page 7 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

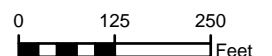
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



Page 7

MJ 2934: Drewsey very fine sandy loam,
1 to 8 percent slopes.
Hydric rating = 0

MJ 3818: Owsel very fine sandy loam,
2 to 15 percent slopes.
Hydric rating = 0




MJ 2926: Drewsey-Quincy-Solarview complex,
2 to 40 percent
south slopes.
Hydric rating = 0

Page 9

Figure 4 - Page 8 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

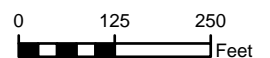
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



MU 2934: Drewsey very fine sandy loam, 1 to 8 percent slopes. Hydric rating = 0




MU 3818: Owsel very fine sandy loam, 2 to 15 percent slopes. Hydric rating = 0

MU 2926: Drewsey-Quincy-Solarview complex, 2 to 40 percent south slopes. Hydric rating = 0

Figure 4 - Page 9 of 59
Soil Mapping Units

There are no hydric soils within the project study area

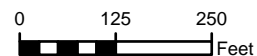
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet






MJ 3818: Owsel very fine sandy loam,
2 to 15 percent slopes.
Hydric rating = 0

MJ 2926:
Drewsey-Quincy-Solarview
complex, 2 to 40 percent
south slopes.
Hydric rating = 0

Figure 4 - Page 10 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

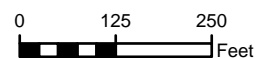
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



MU 3818: Owsel very fine sandy loam,
2 to 15 percent slopes.
Hydric rating = 0

MU 3835: Drewsey very fine sandy loam, 15
to 40 percent north slopes.
Hydric rating = 0




MU 2926: Drewsey-Quincy-Solarview complex,
2 to 40 percent
south slopes.
Hydric rating = 0

MU 2933: Elijah silt loam, 1
to 15 percent slopes.
Hydric rating = 0

Figure 4 - Page 11 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet

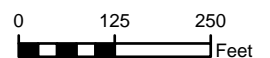




Figure 4 - Page 12 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

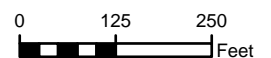
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



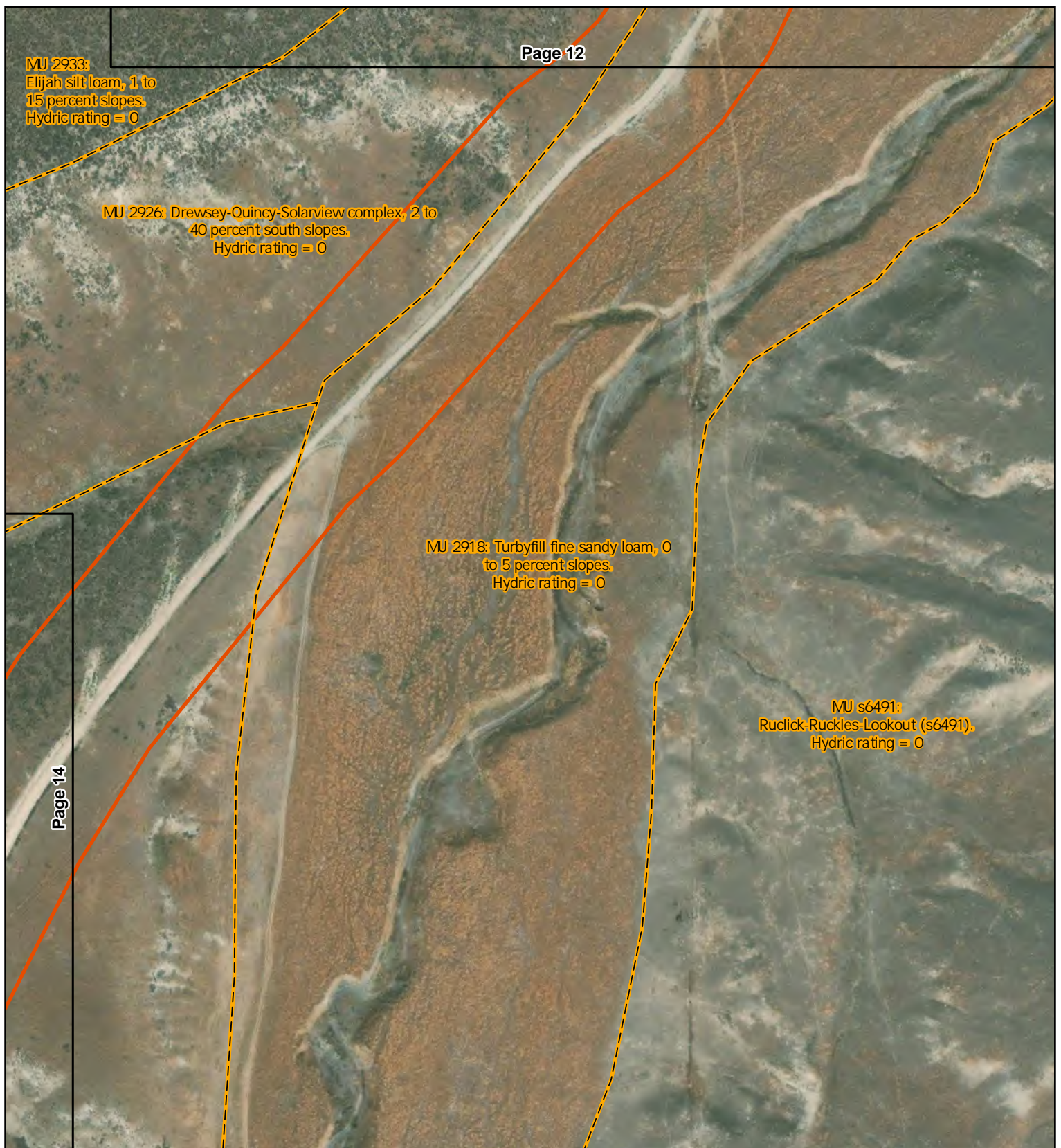


Figure 4 - Page 13 of 59
Soil Mapping Units

There are no hydric soils within the project study area

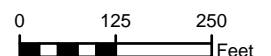
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



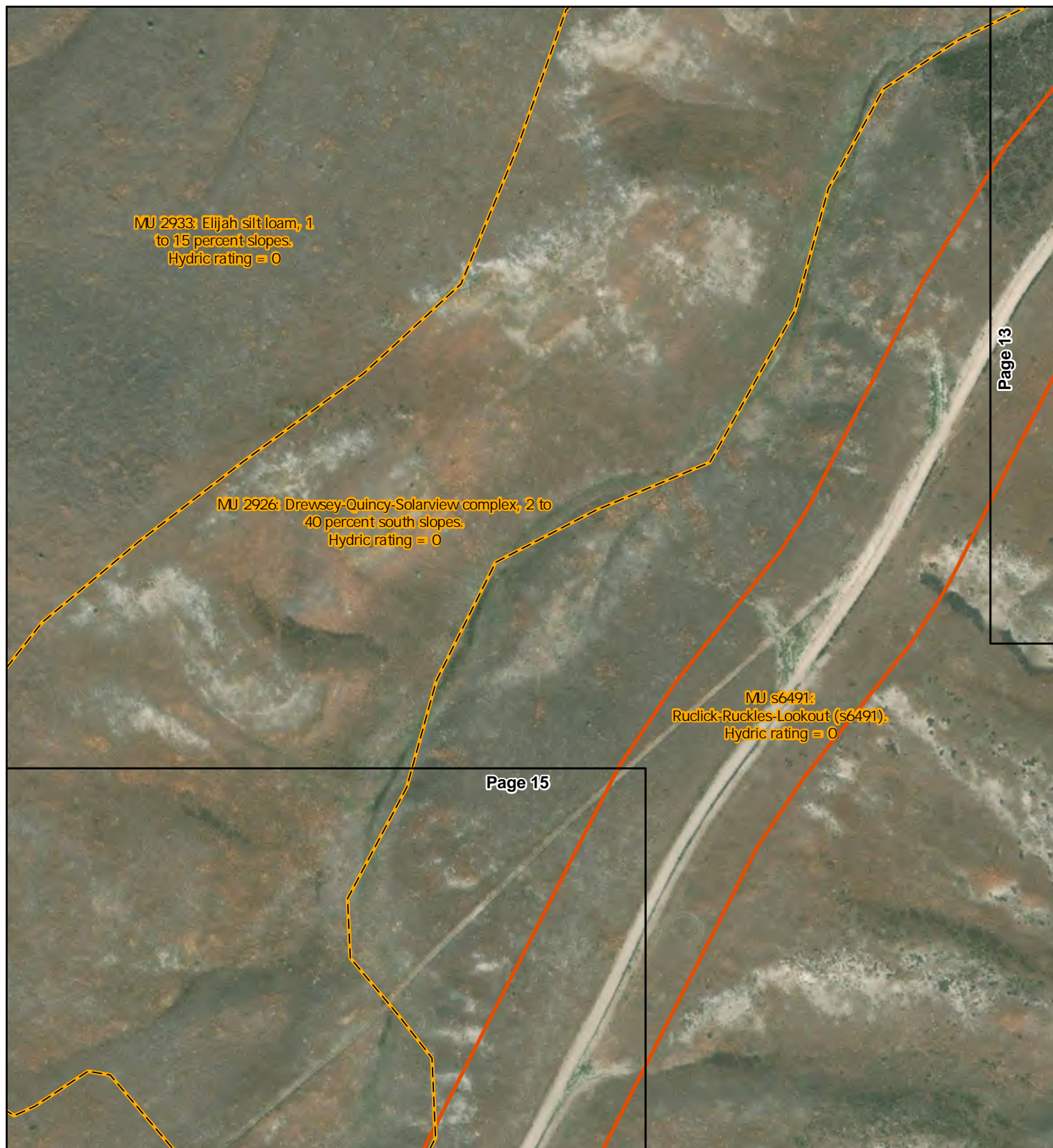





Figure 4 - Page 14 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

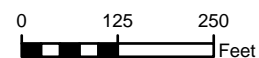
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



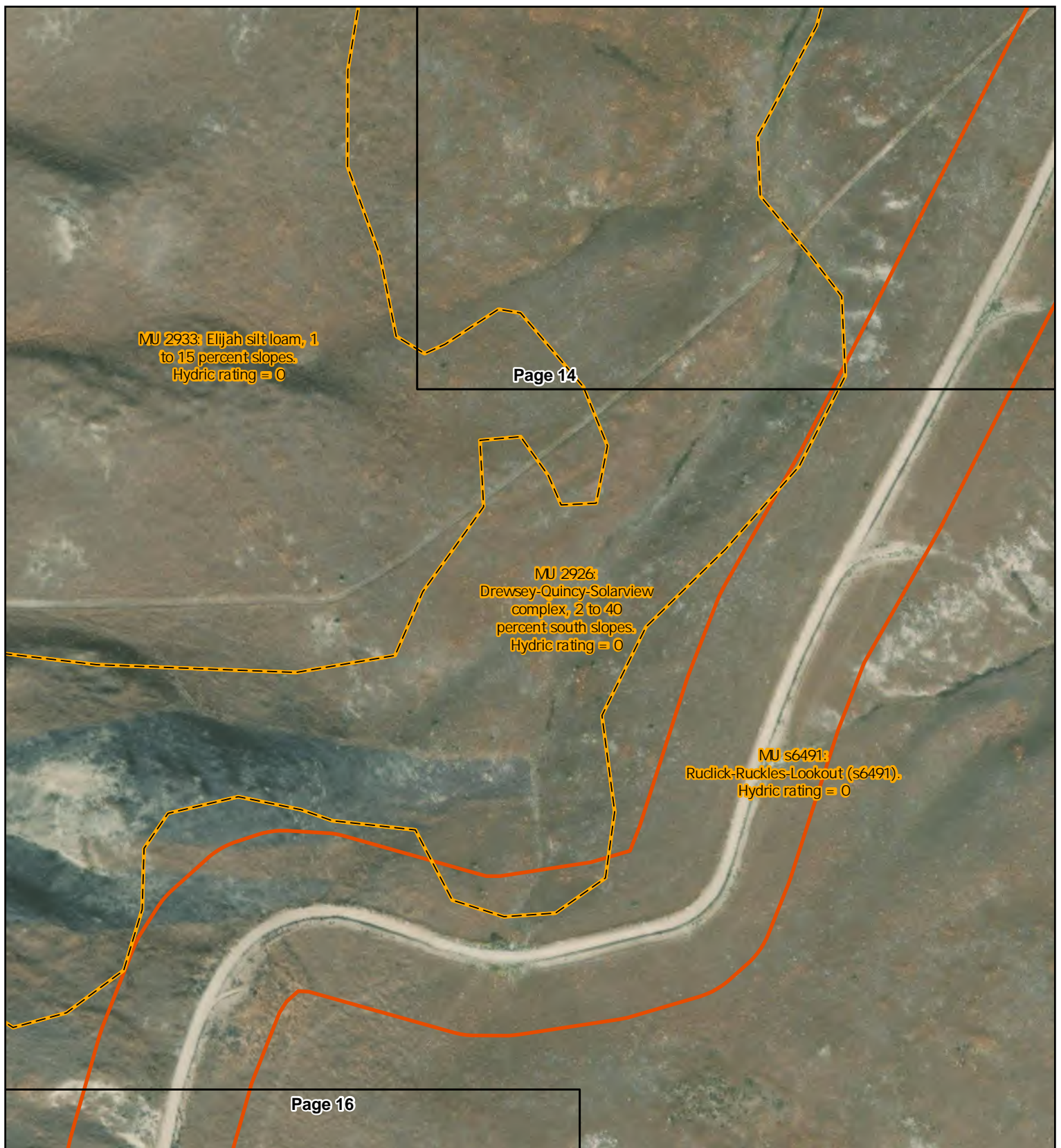


Figure 4 - Page 15 of 59
Soil Mapping Units

There are no hydric soils within the project study area

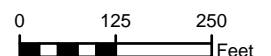
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



MJ 2926: Drewsey-Quincy-Solarview complex, 2 to 40 percent south slopes.
Hydric rating = 0

Page 15




MJ s6491:
Rudlick-Ruckles-Lookout (s6491).
Hydric rating = 0

Page 17

Figure 4 - Page 16 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

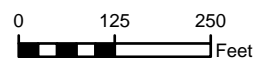
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 17 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet

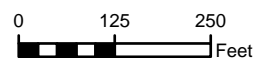







Figure 4 - Page 18 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet

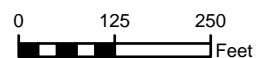







Figure 4 - Page 19 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet

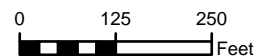







Figure 4 - Page 20 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

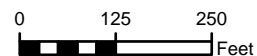
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

Source: basemap from ESRI; Soils from NRCS; PSA from SLR. Reproduced for informational purposes and may not be suitable for legal, engineering, or surveying purposes. Conclusions drawn from such information are the responsibility of the user.

1 inch = 250 feet



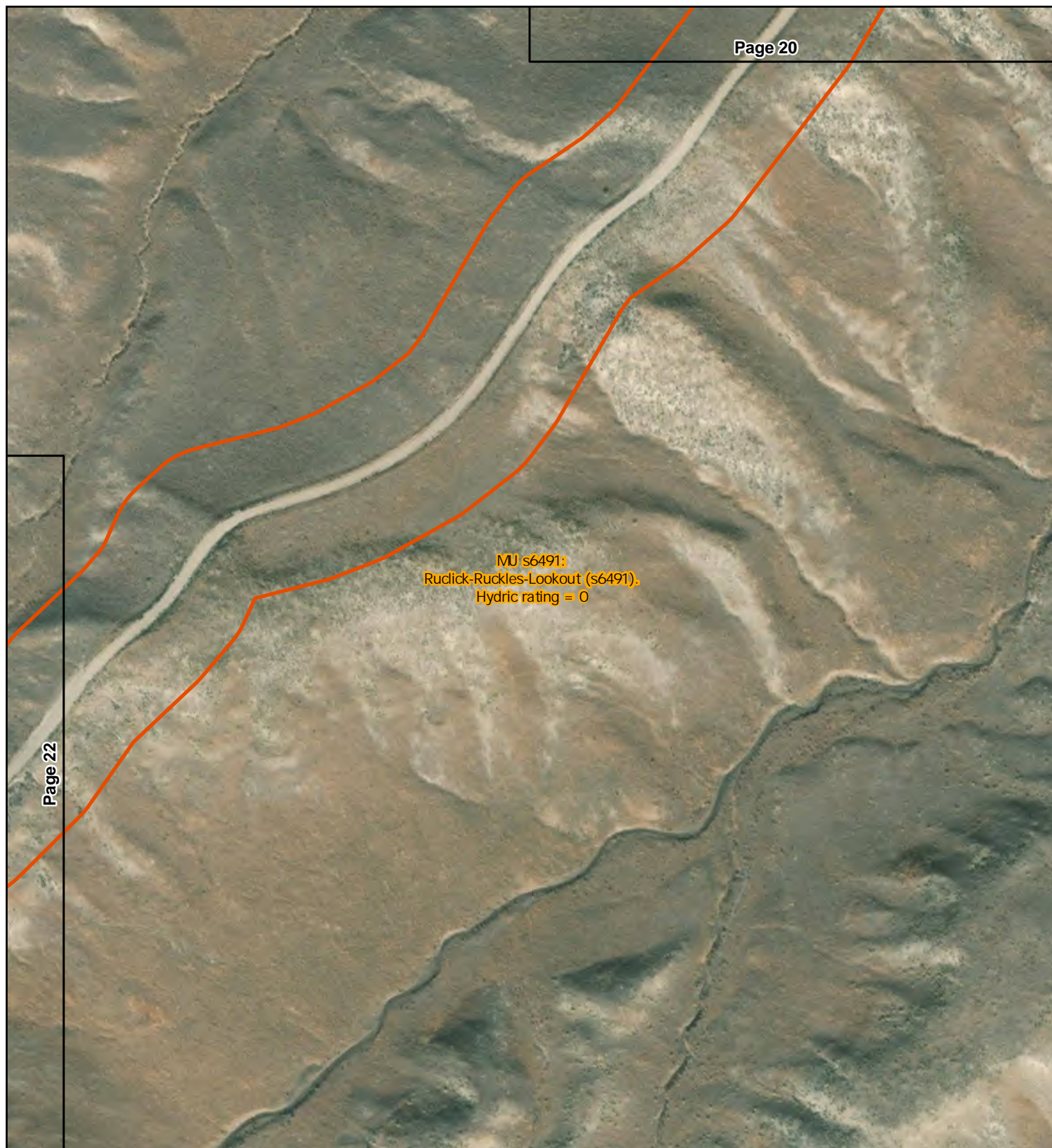





Figure 4 - Page 21 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



Natural Resource Consultants

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1 inch = 250 feet

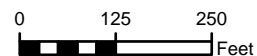







Figure 4 - Page 22 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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1 inch = 250 feet

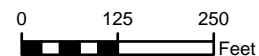







Figure 4 - Page 23 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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1 inch = 250 feet

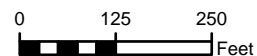







Figure 4 - Page 24 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

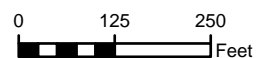
-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 25 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

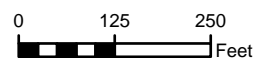
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1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 26 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
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Malheur County, Oregon

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1 inch = 250 feet

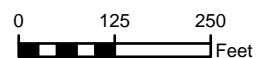







Figure 4 - Page 27 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

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1 inch = 250 feet

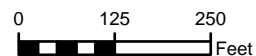







Figure 4 - Page 28 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

-  Project Study Area
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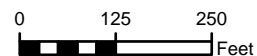







Figure 4 - Page 29 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

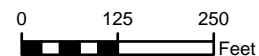
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MU s6491:
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Hydric rating = 0

Figure 4 - Page 30 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

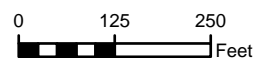
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MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 31 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

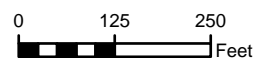
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1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
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Figure 4 - Page 32 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

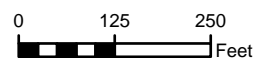
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1 inch = 250 feet






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Hydric rating = 0

Figure 4 - Page 33 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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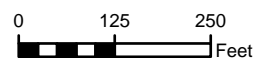







Figure 4 - Page 34 of 59
Soil Mapping Units

There are no hydric soils within the project study area

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-  Map Book Page
-  Non-Hydric Soil Map Unit

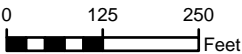


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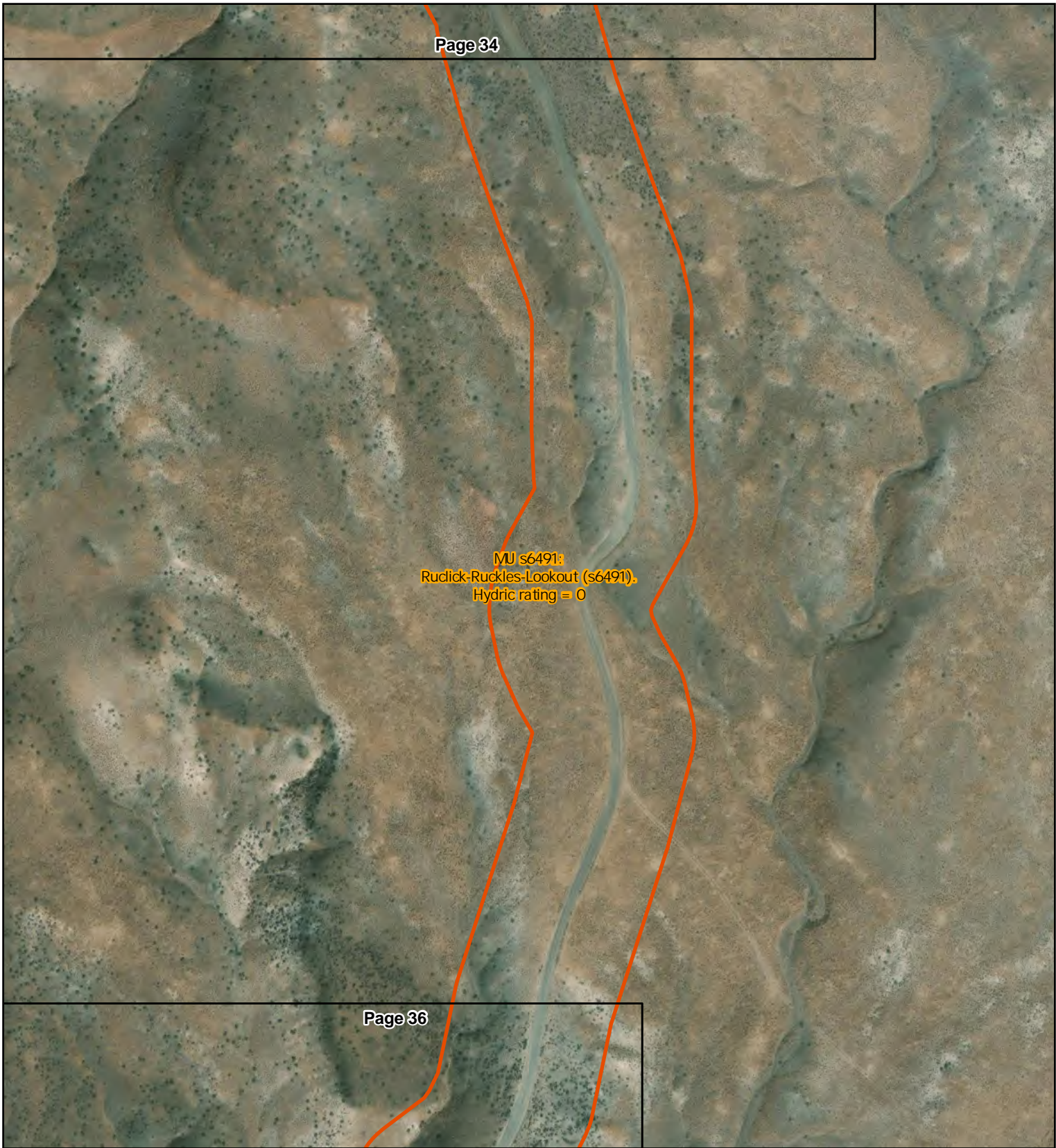





Figure 4 - Page 35 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

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1 inch = 250 feet

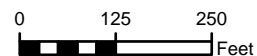







Figure 4 - Page 36 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

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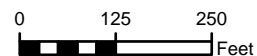







Figure 4 - Page 37 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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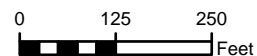







Figure 4 - Page 38 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Malheur County, Oregon

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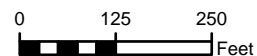







Figure 4 - Page 39 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
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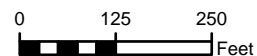







Figure 4 - Page 40 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
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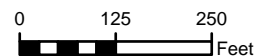







Figure 4 - Page 41 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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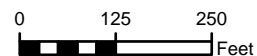







Figure 4 - Page 42 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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-  Non-Hydric Soil Map Unit



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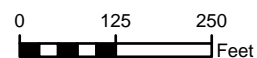







Figure 4 - Page 43 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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1 inch = 250 feet

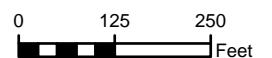







Figure 4 - Page 44 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
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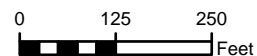







Figure 4 - Page 45 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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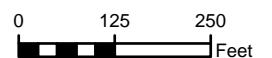







Figure 4 - Page 46 of 59
Soil Mapping Units

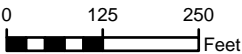
There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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-  Map Book Page
-  Non-Hydric Soil Map Unit

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1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 47 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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-  Map Book Page
-  Non-Hydric Soil Map Unit



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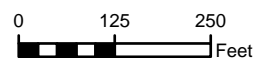







Figure 4 - Page 48 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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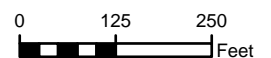







Figure 4 - Page 49 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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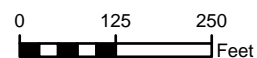







Figure 4 - Page 50 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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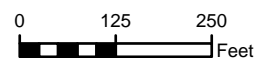







Figure 4 - Page 51 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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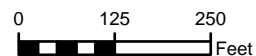







Figure 4 - Page 52 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Non-Hydric Soil Map Unit



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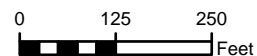







Figure 4 - Page 53 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
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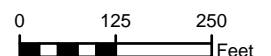







Figure 4 - Page 54 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

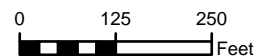
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1 inch = 250 feet






MU s6491:
Rudick-Ruckles-Lookout (s6491).
Hydric rating = 0

Figure 4 - Page 55 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

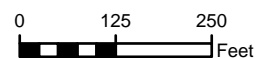
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MU s6491:
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Hydric rating = 0

Figure 4 - Page 56 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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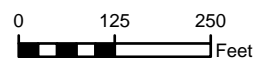
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MU s6491:
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Hydric rating = 0

Figure 4 - Page 57 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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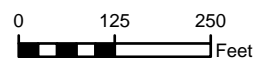
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MU s6491:
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Hydric rating = 0

Figure 4 - Page 58 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

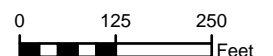
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MU s6491:
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Hydric rating = 0

Figure 4 - Page 59 of 59
Soil Mapping Units

There are no hydric soils within
the project study area

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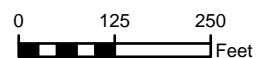
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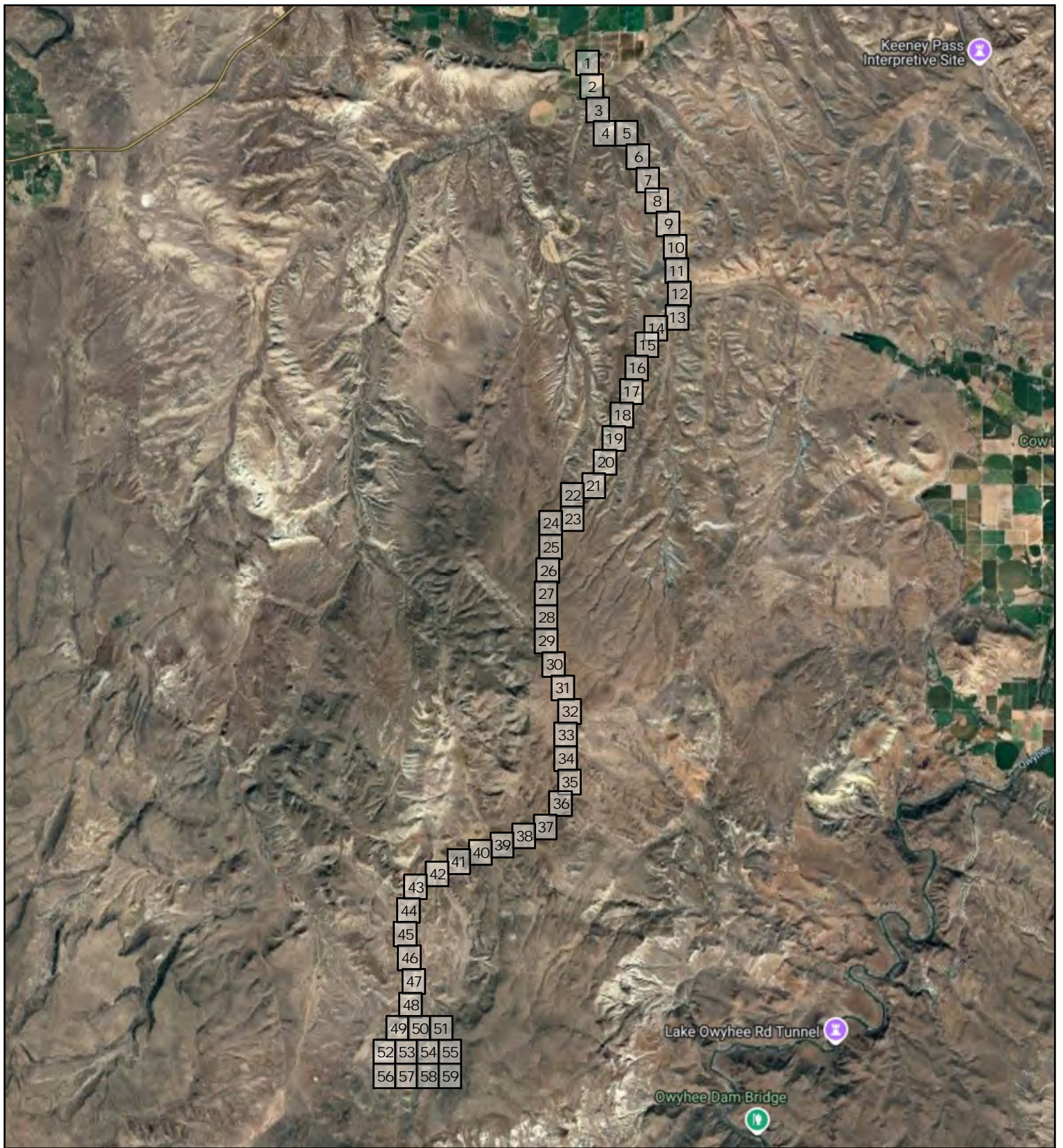


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0 5,000 10,000
 Feet



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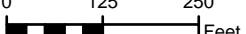
0 125 250
 Feet



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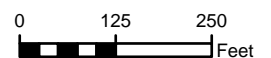
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Cow Hollow Rd

Cow Hollow Rd

Cow Hollow Rd



Cow Hollow Rd

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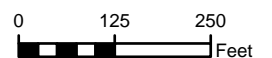
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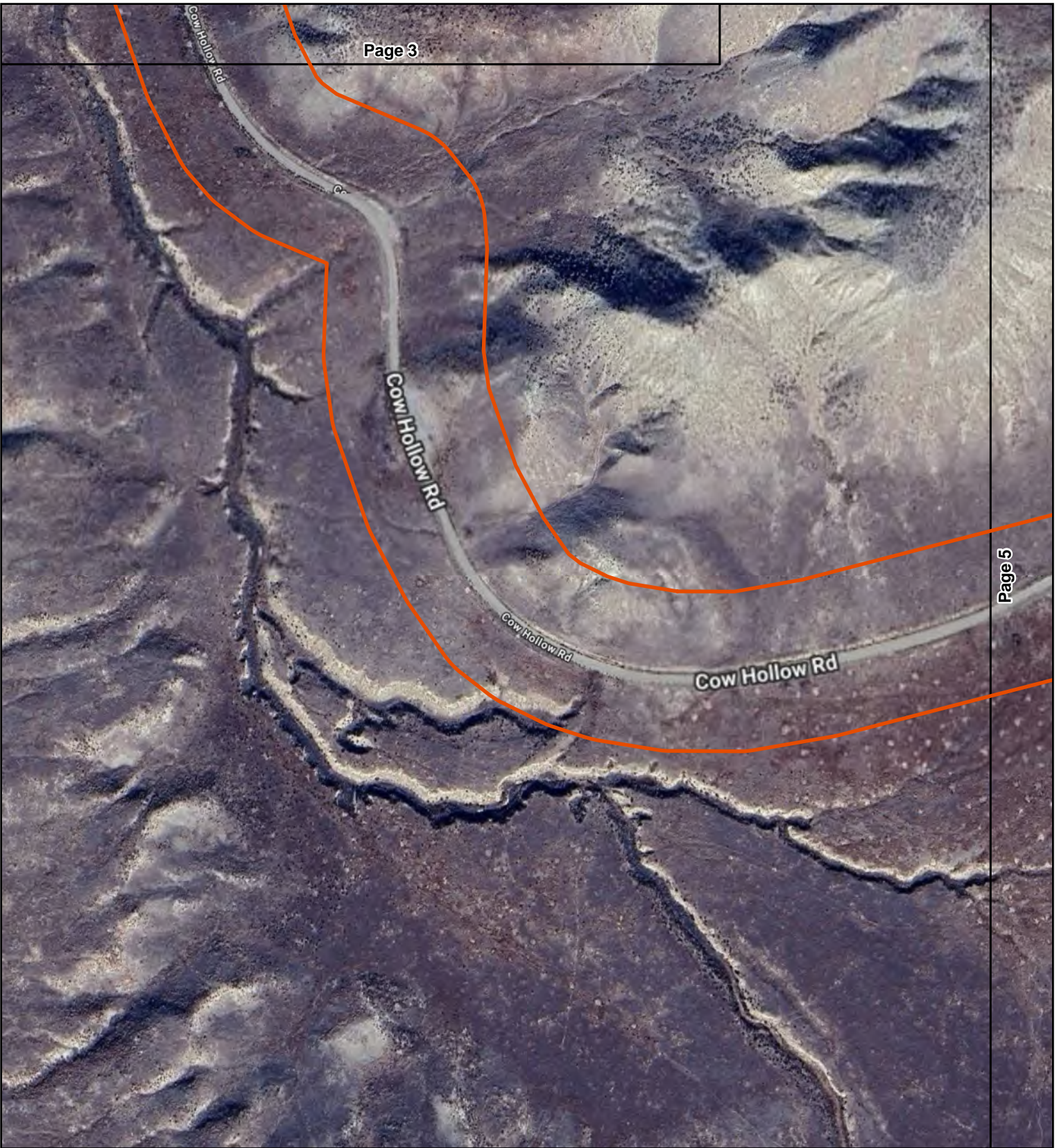




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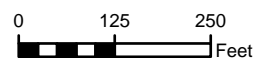






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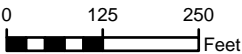


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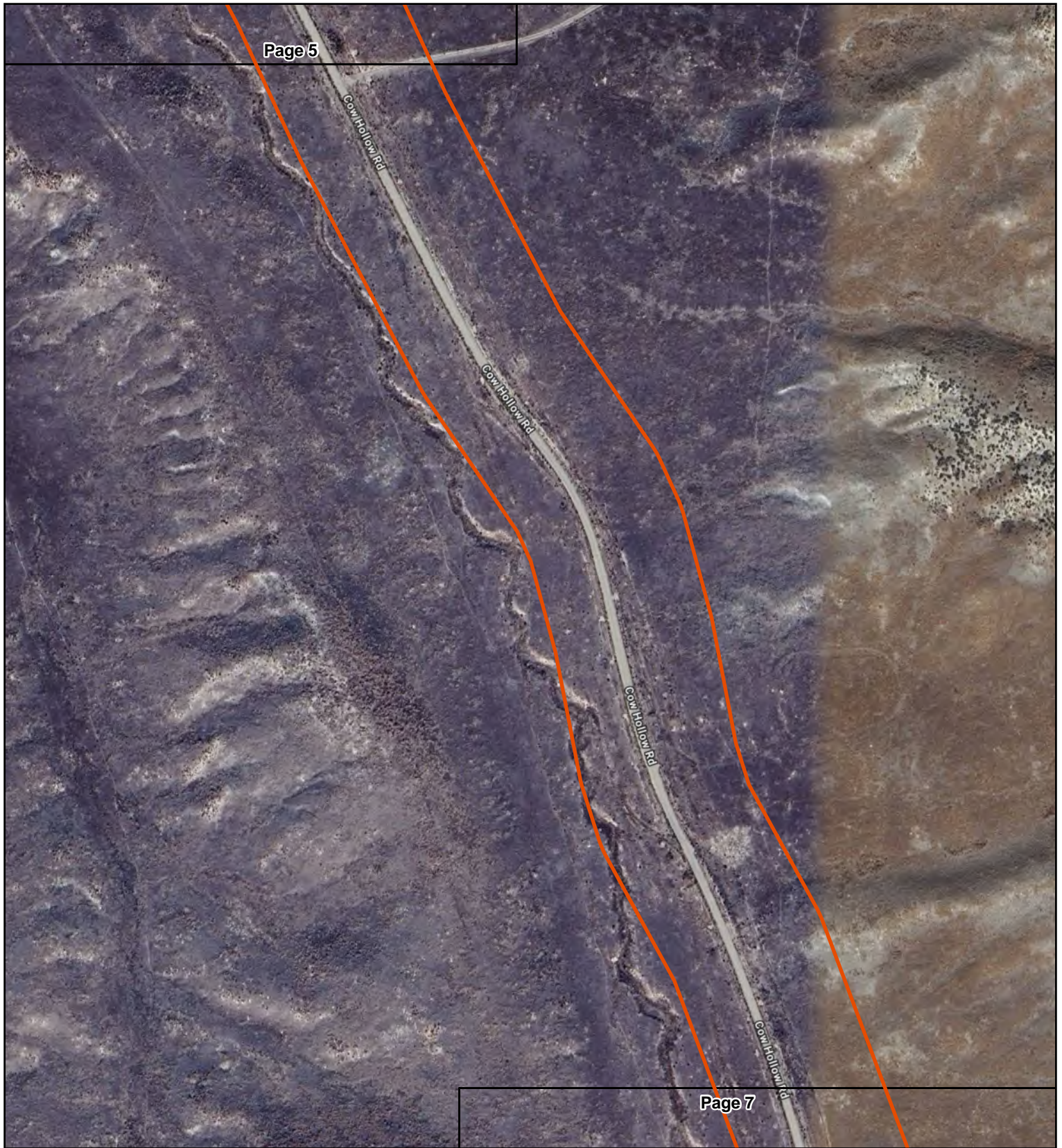




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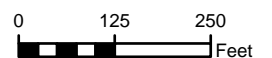
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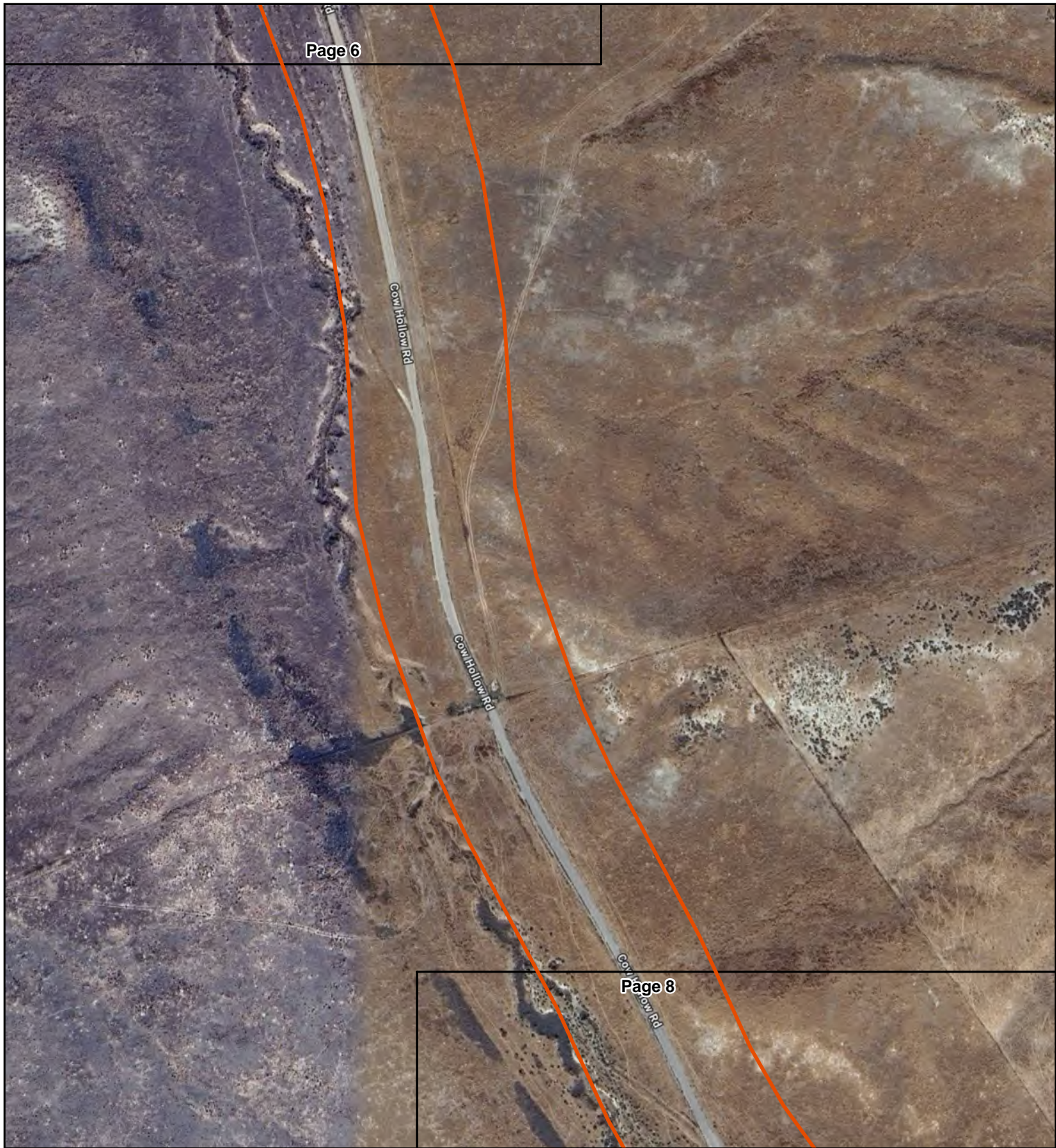


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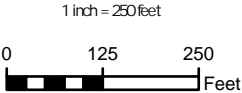
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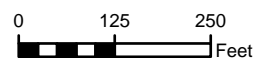




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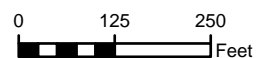
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Cow Hollow Rd

Cow Hollow Rd



Cow Hollow Rd

Cow Hollow Rd

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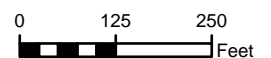




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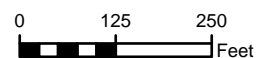
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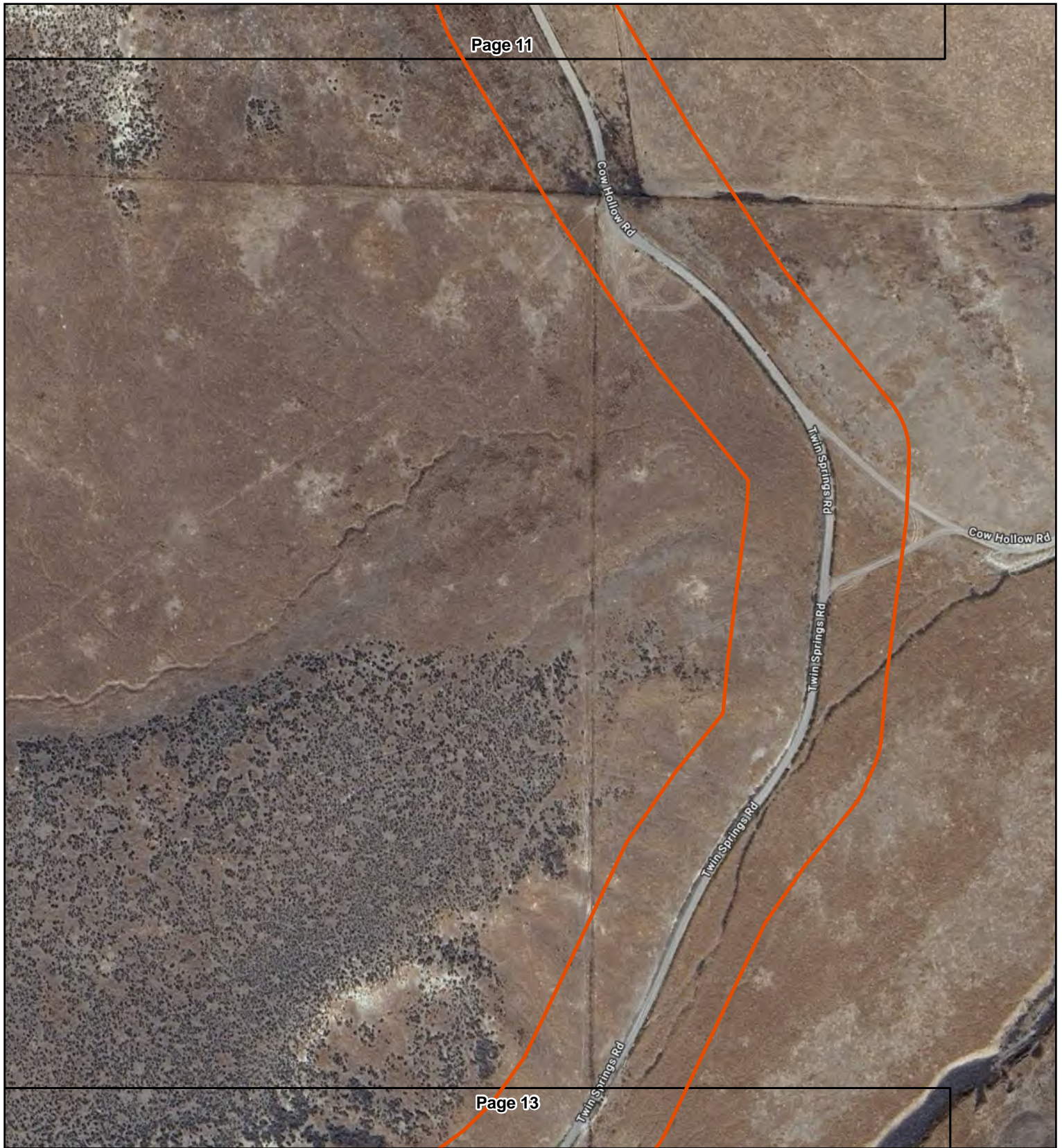


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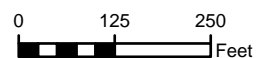




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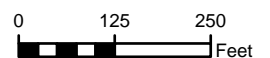
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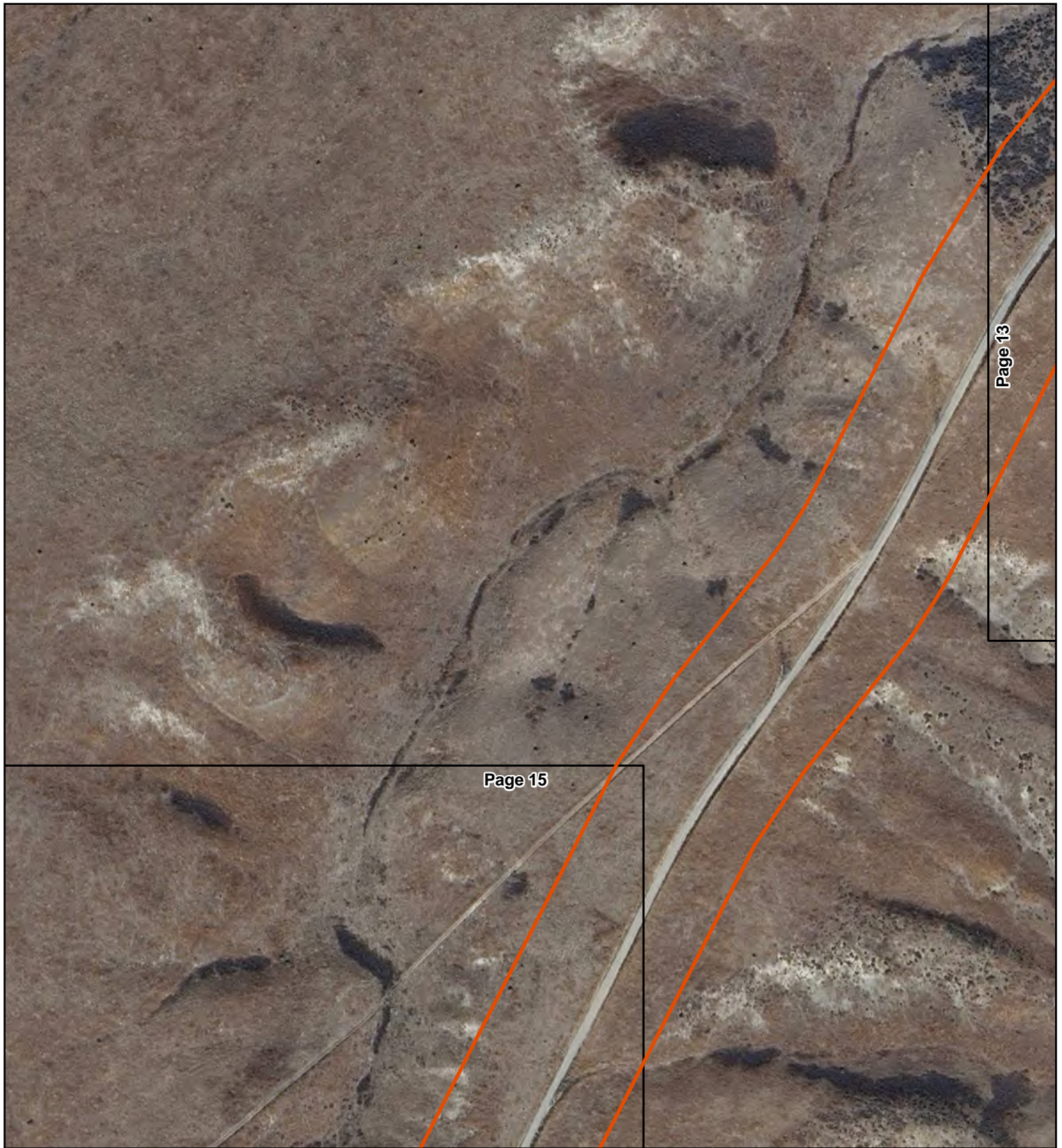


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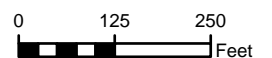




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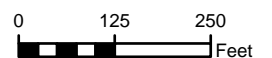






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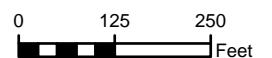




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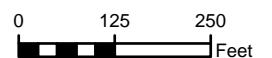




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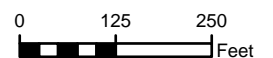




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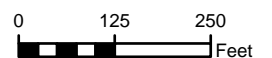






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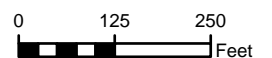






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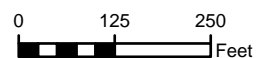





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0 125 250
Feet

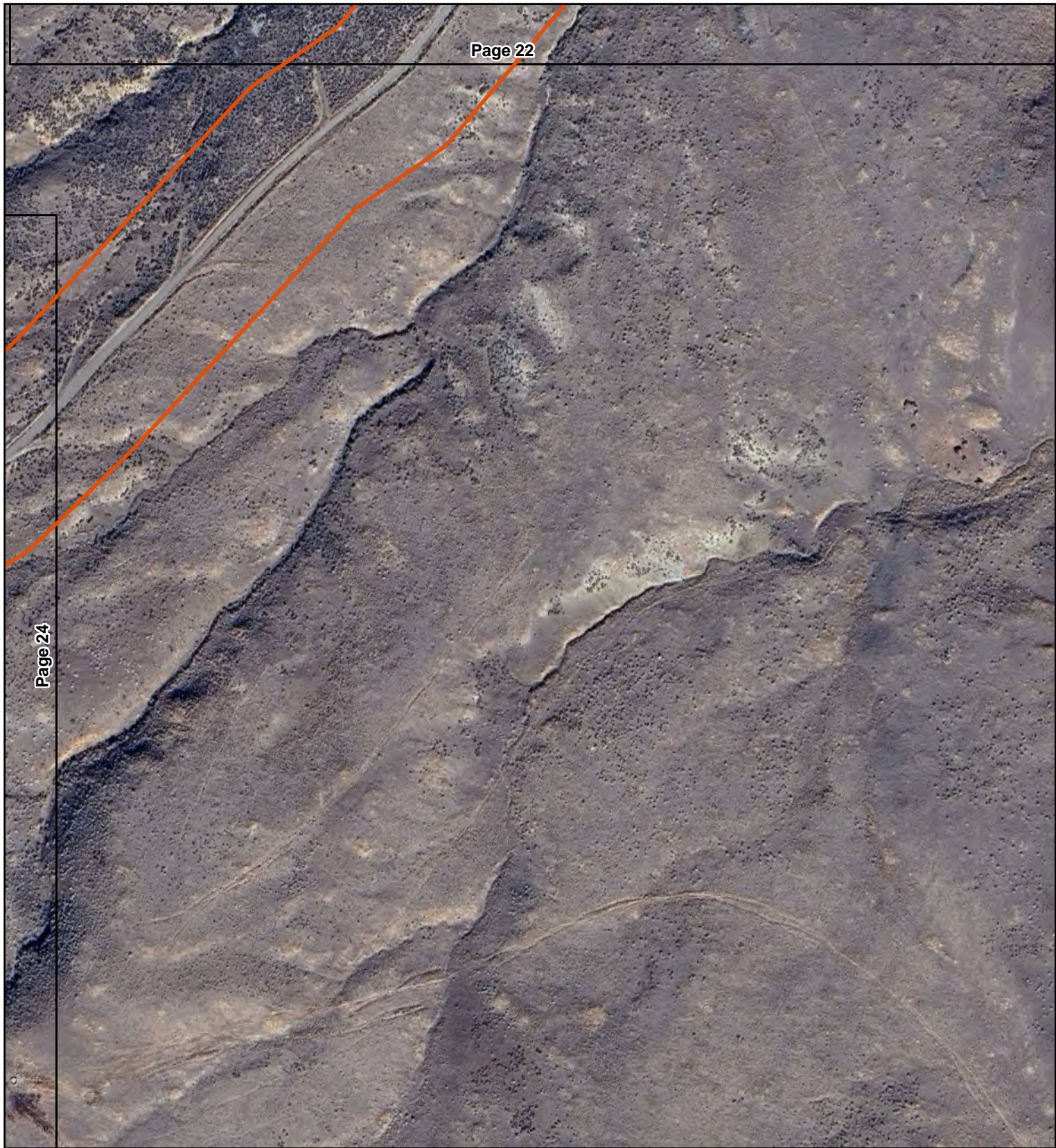




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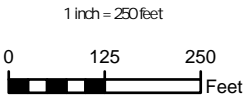




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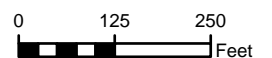






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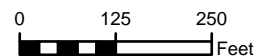






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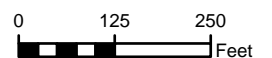
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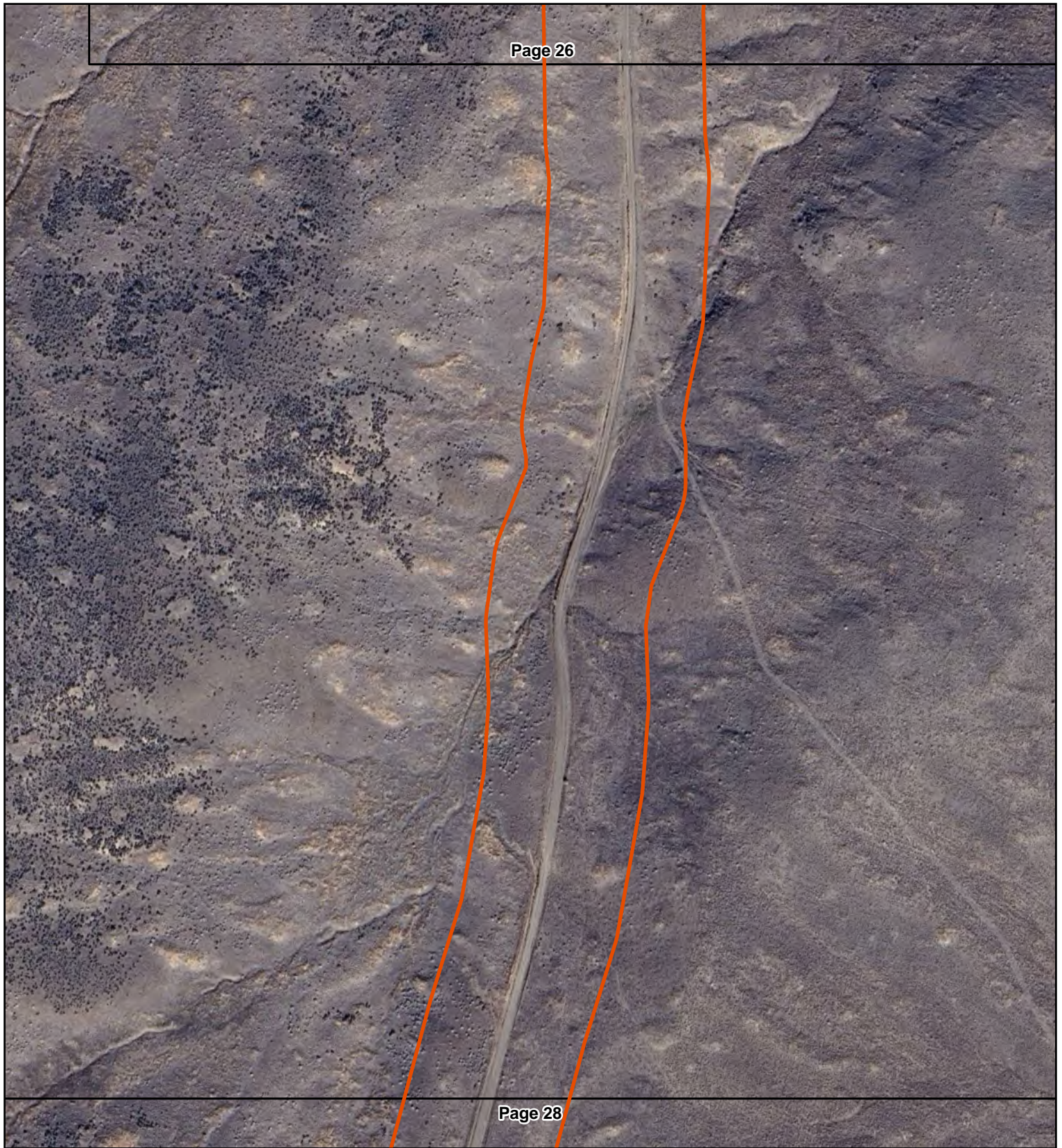




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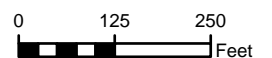
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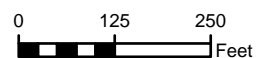




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Aerial Imagery Date: 10/28/2023

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Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page



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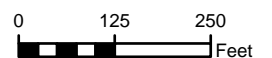




Figure 5 - Page 30 of 59
Aerial Imagery from Google

Aerial Imagery Date: 10/28/2023

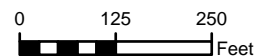
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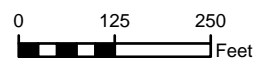






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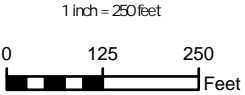




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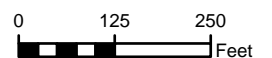




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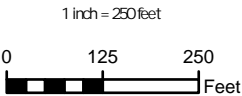
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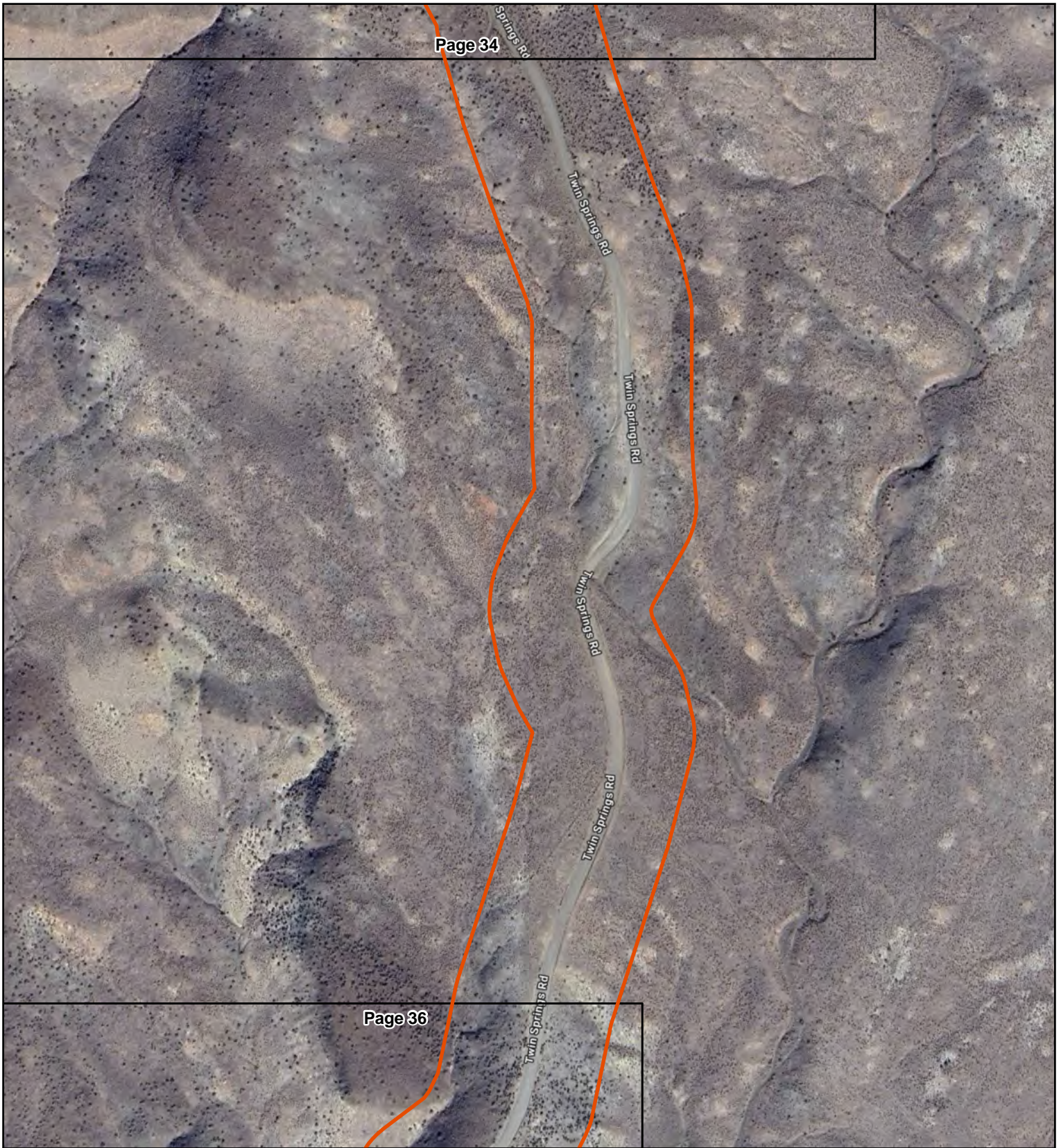


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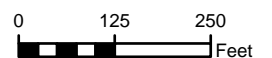




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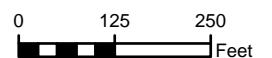




Figure 5 - Page 37 of 59
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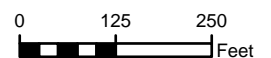
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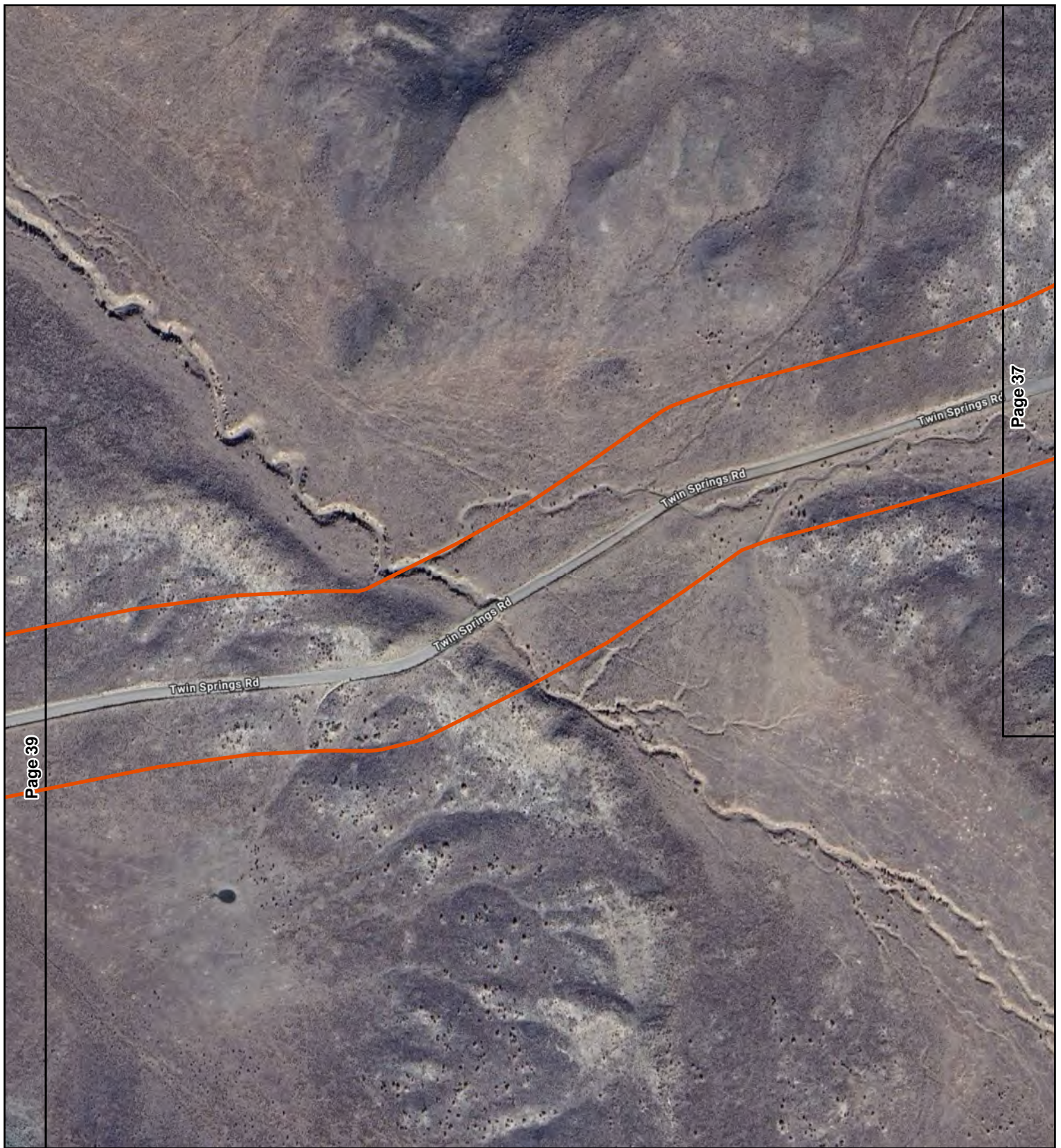


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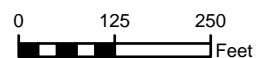






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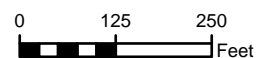




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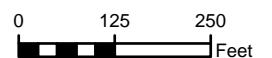




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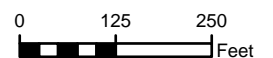






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1 inch = 250 feet

0 125 250
Feet



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Aerial Imagery from Google

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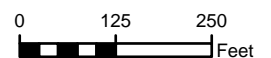




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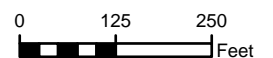






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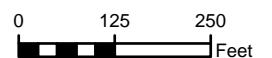





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0 125 250
Feet

Grassy Mountain Reservoir

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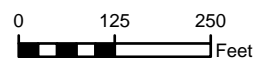





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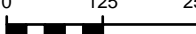
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0 125 250
 Feet

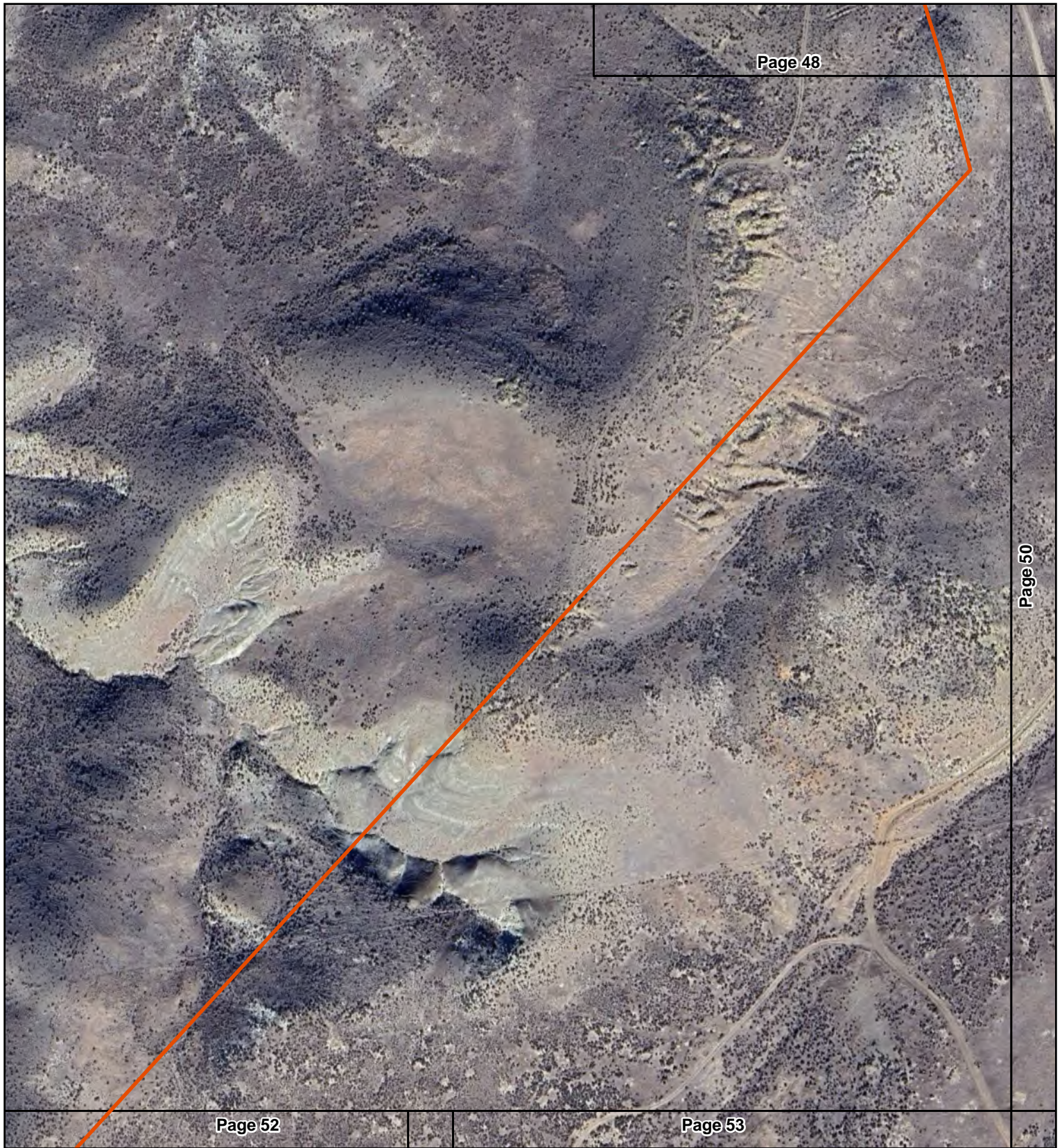


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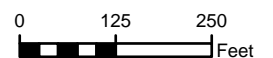






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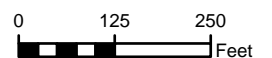






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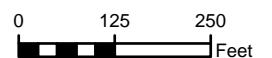
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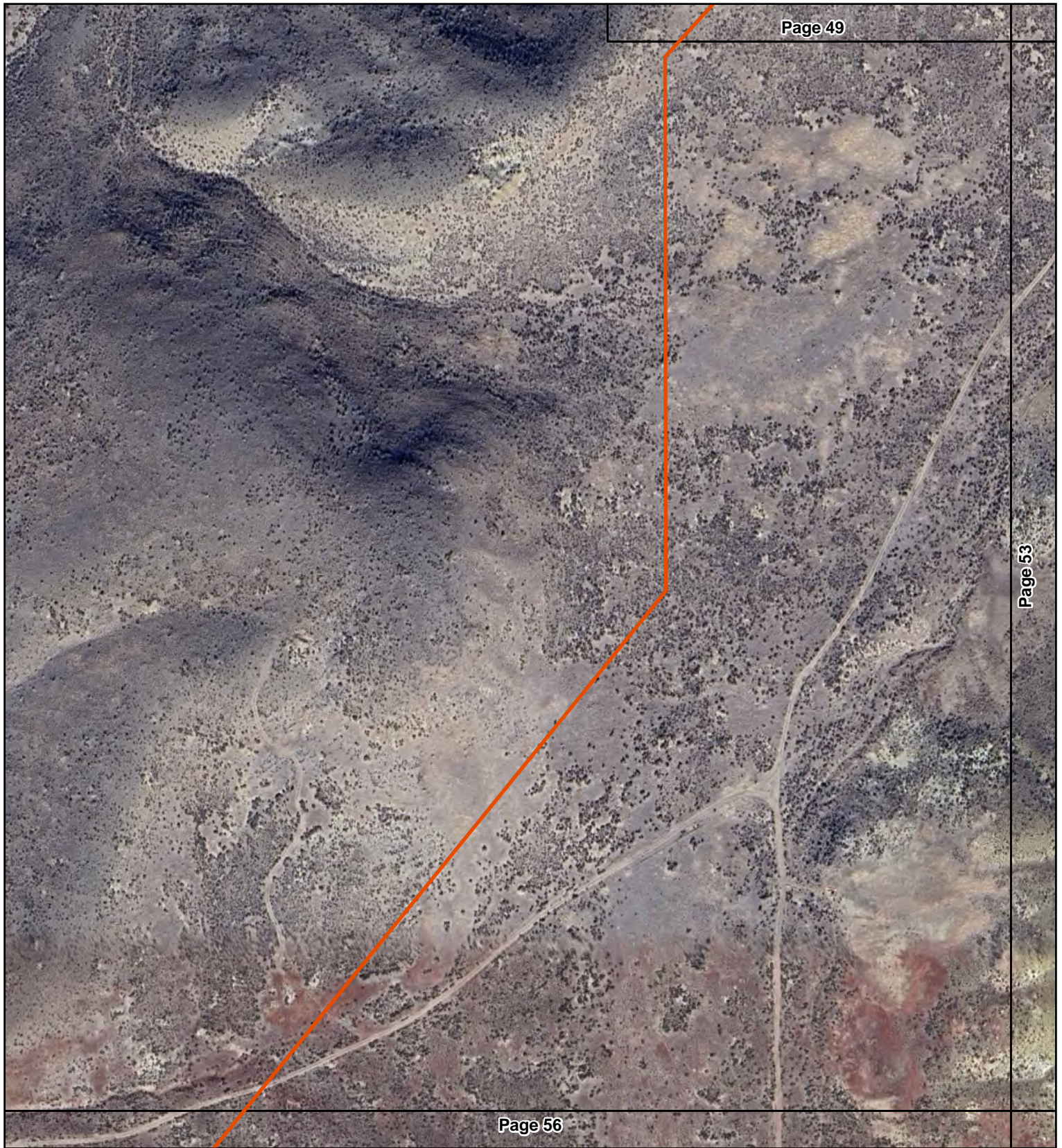


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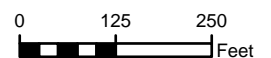






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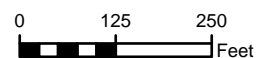






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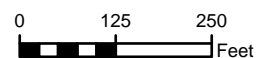




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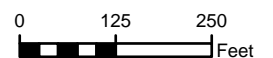



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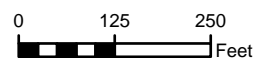
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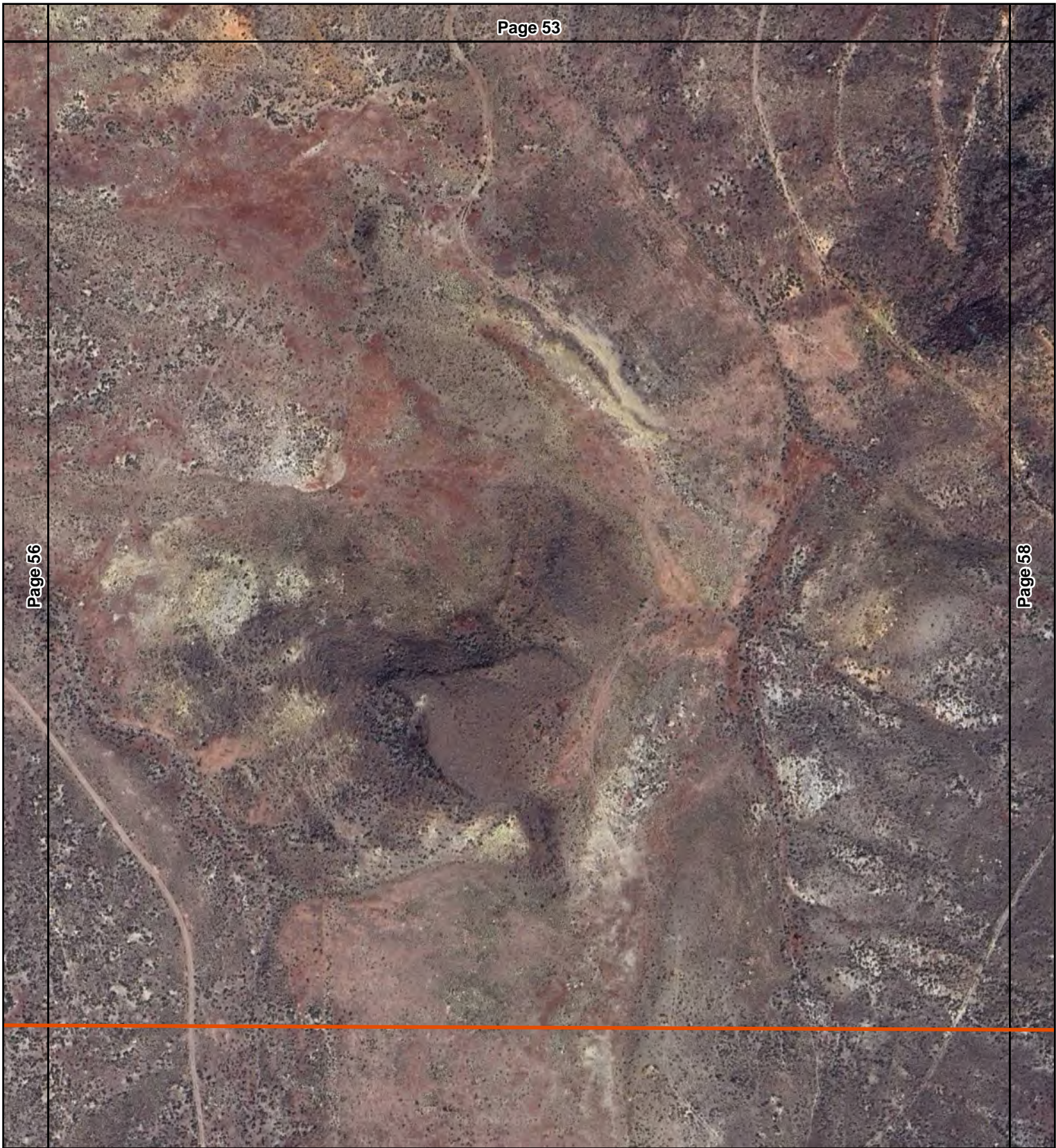




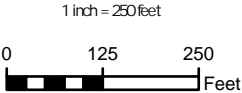
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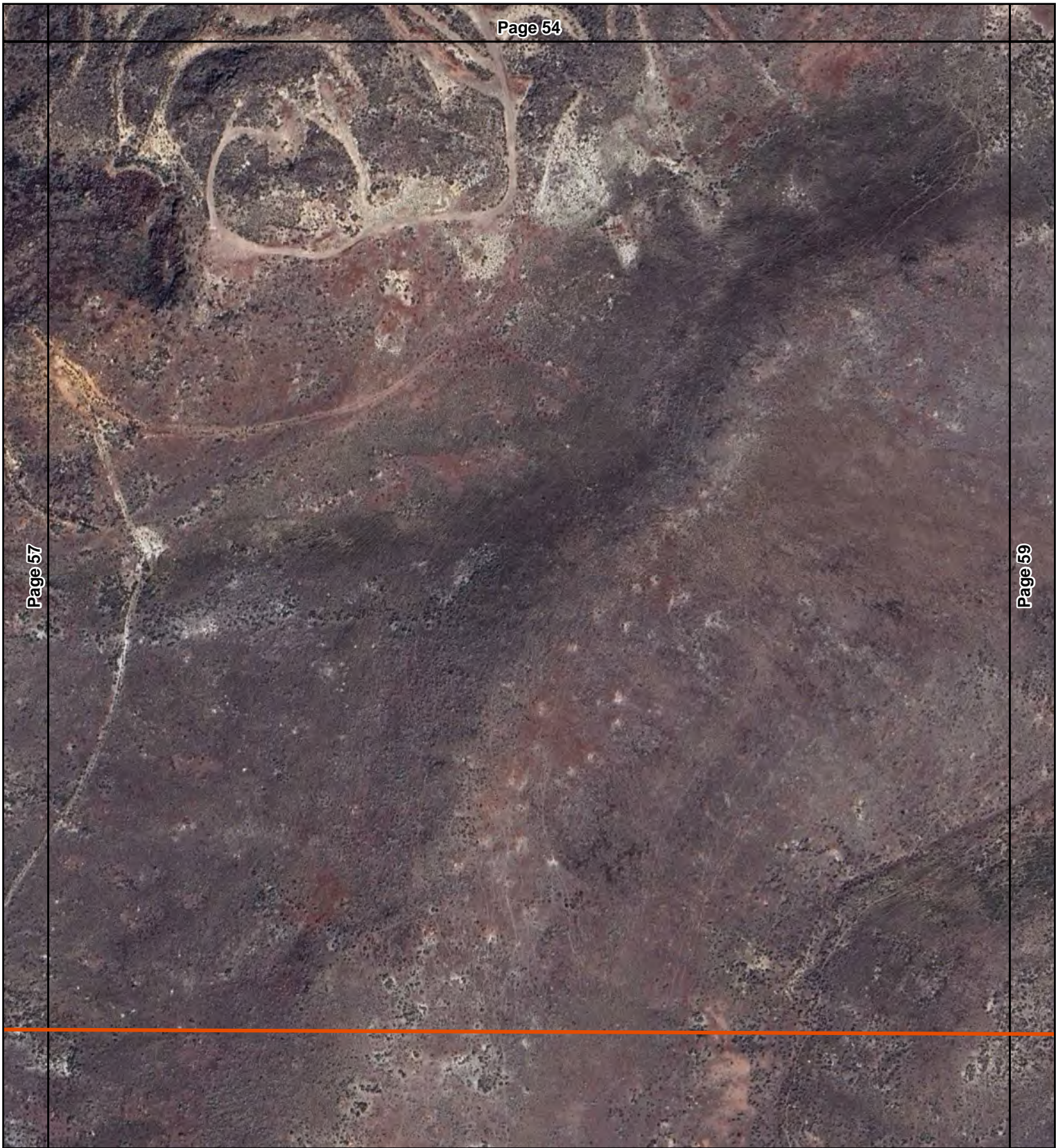
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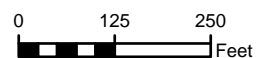
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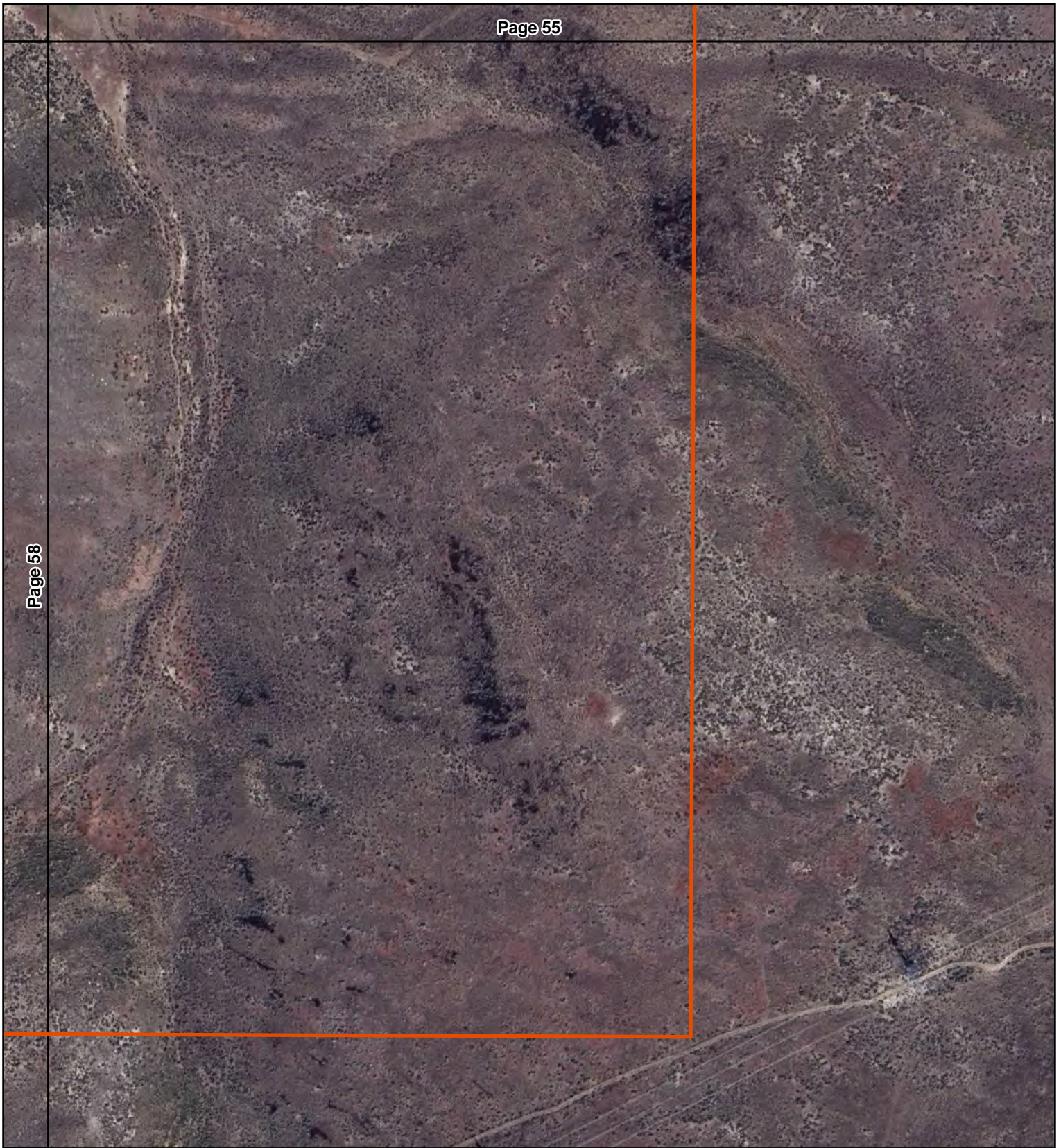




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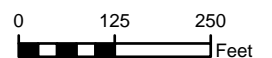
 Project Study Area
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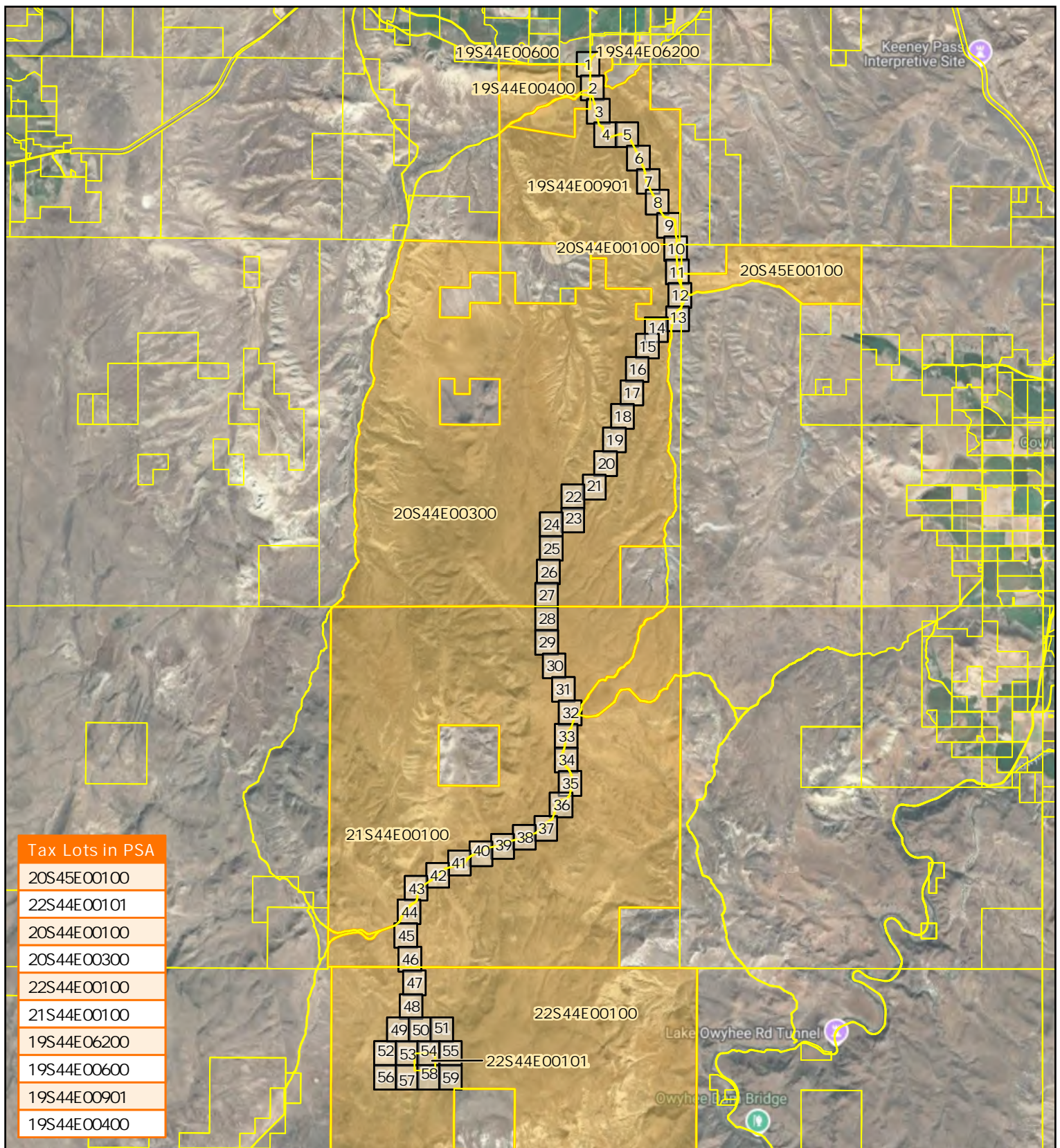


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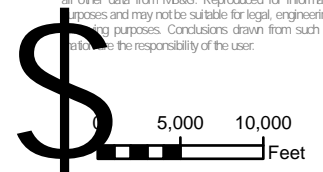
**Figure 6 - Map Page Index
Wetlands and Waters**

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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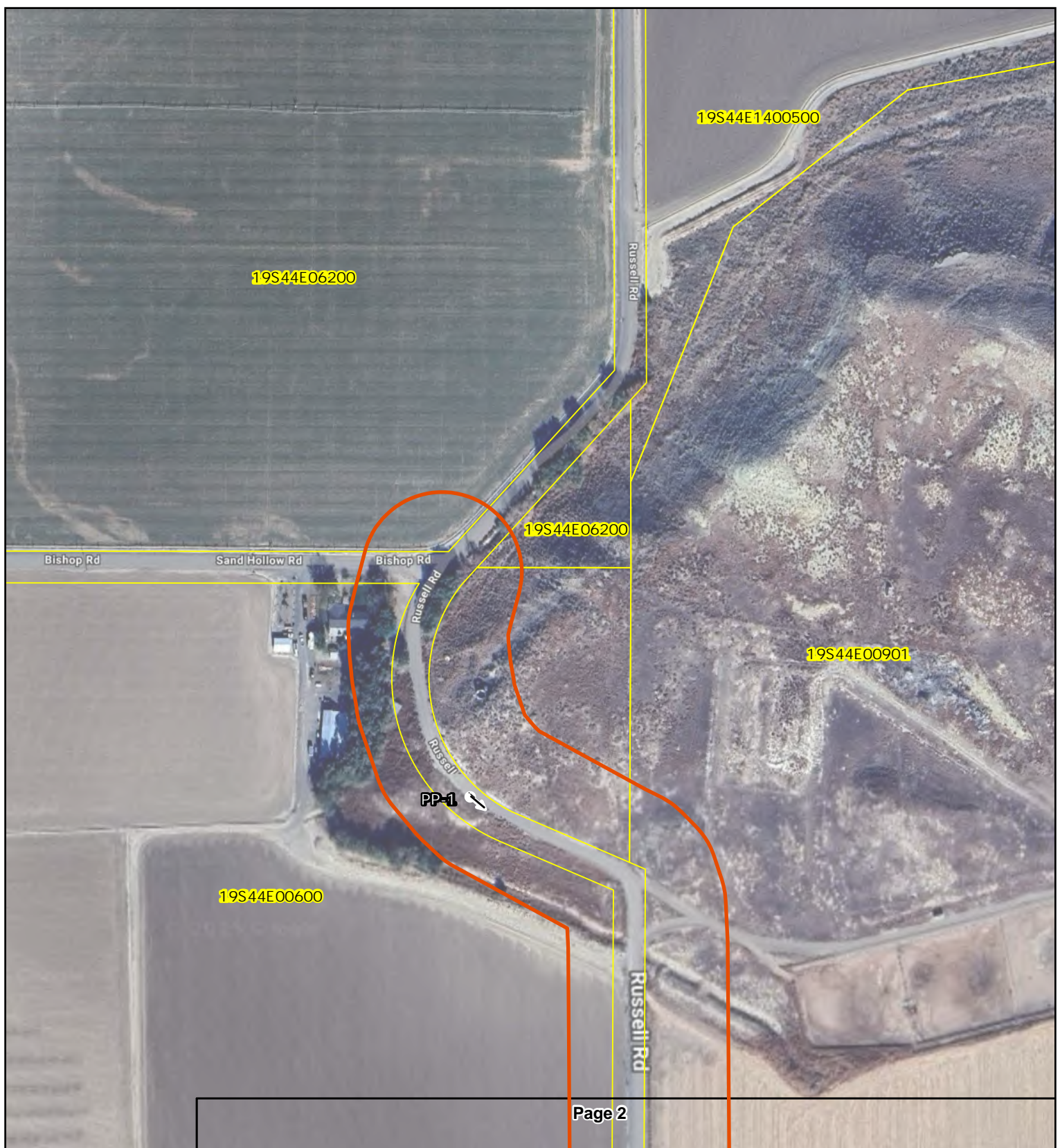


Figure 6 - Page 1 of 59 Wetlands and Waters

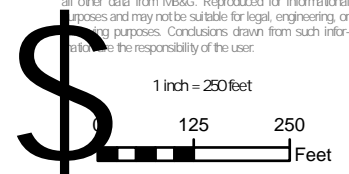
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- Project Study Area
- Map Book Page
- Tax Lot
- Photo Point (PP)

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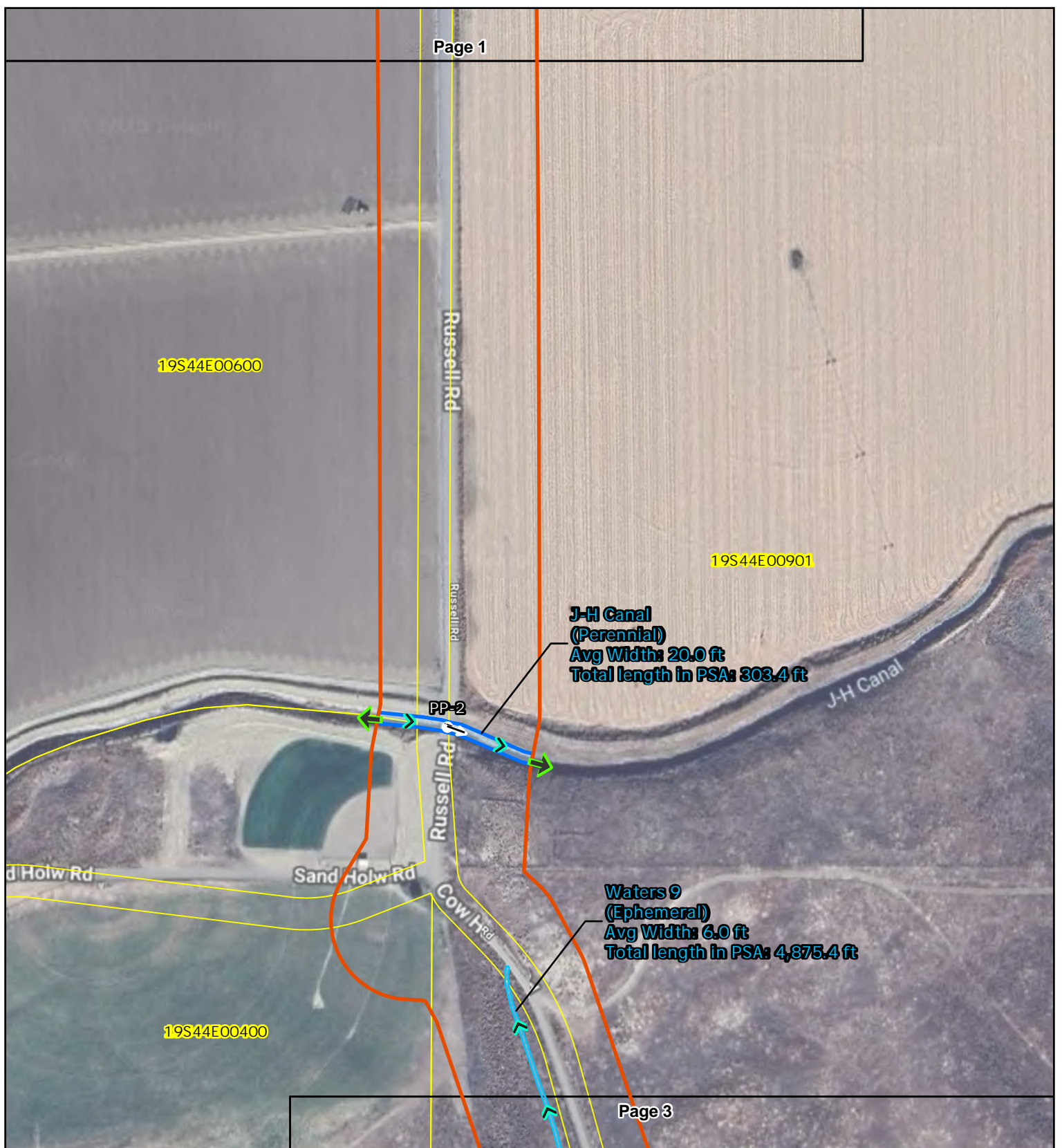


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Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

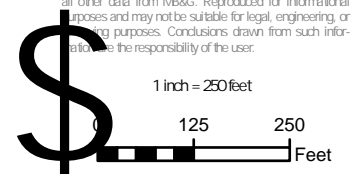
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Perennial Waters
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

MB&G
Natural Resource Consultants

Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



19S44E00400

**Waters 9
(Ephemeral)**
Avg Width: 6.0 ft
Total length in PSA: 4,875.4 ft

PP-3

19S44E00901

Figure 6 - Page 3 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

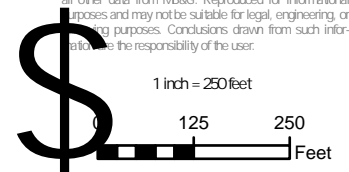
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.






19S44E00901

Figure 6 - Page 4 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

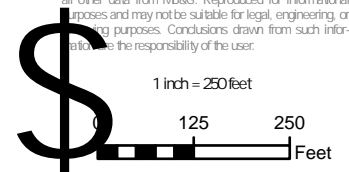
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot



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Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



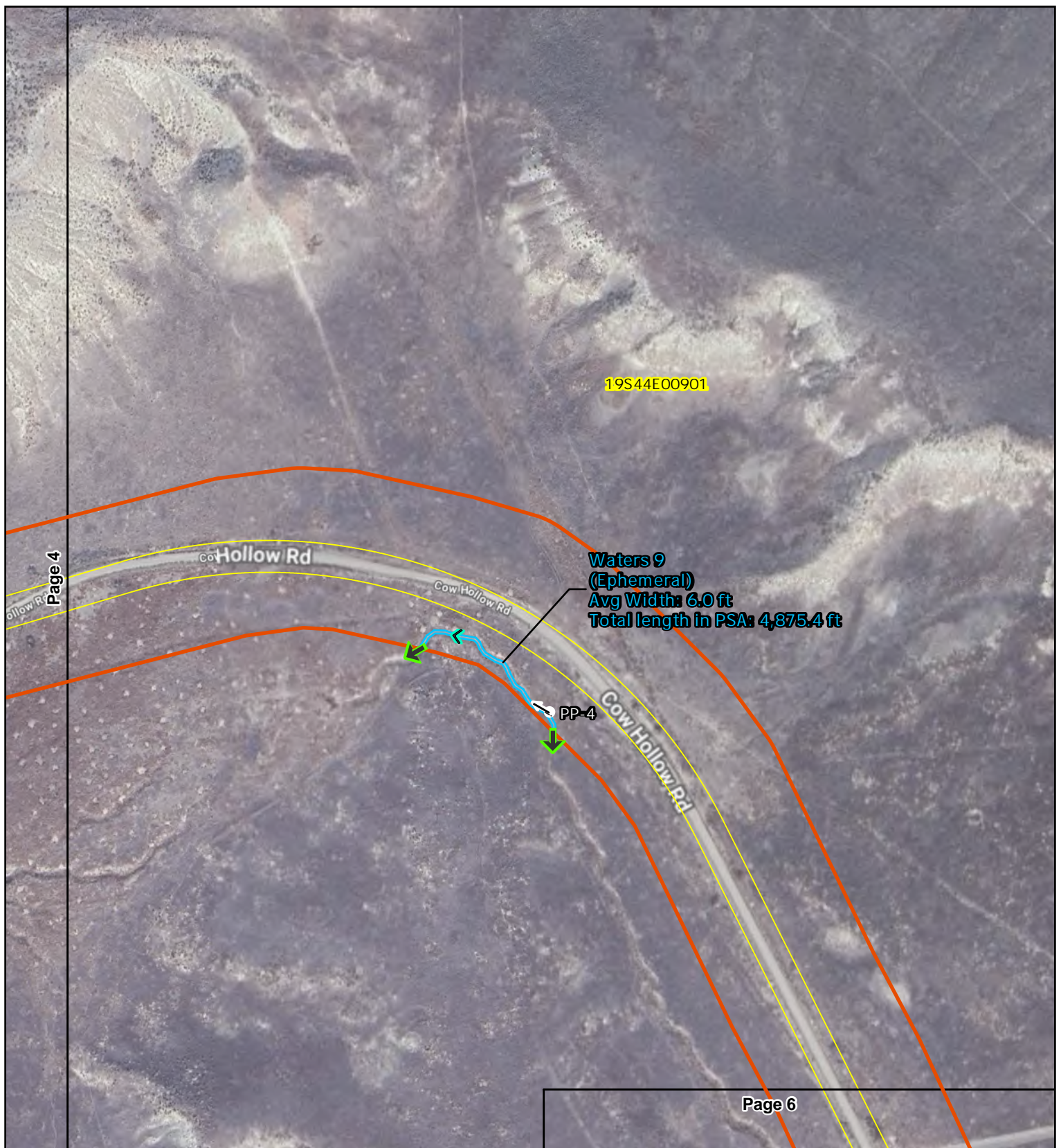


Figure 6 - Page 5 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

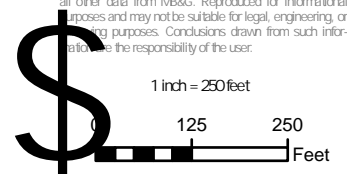
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➔ Extends Beyond PSA

 **MB&G**
Natural Resource Consultants

Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



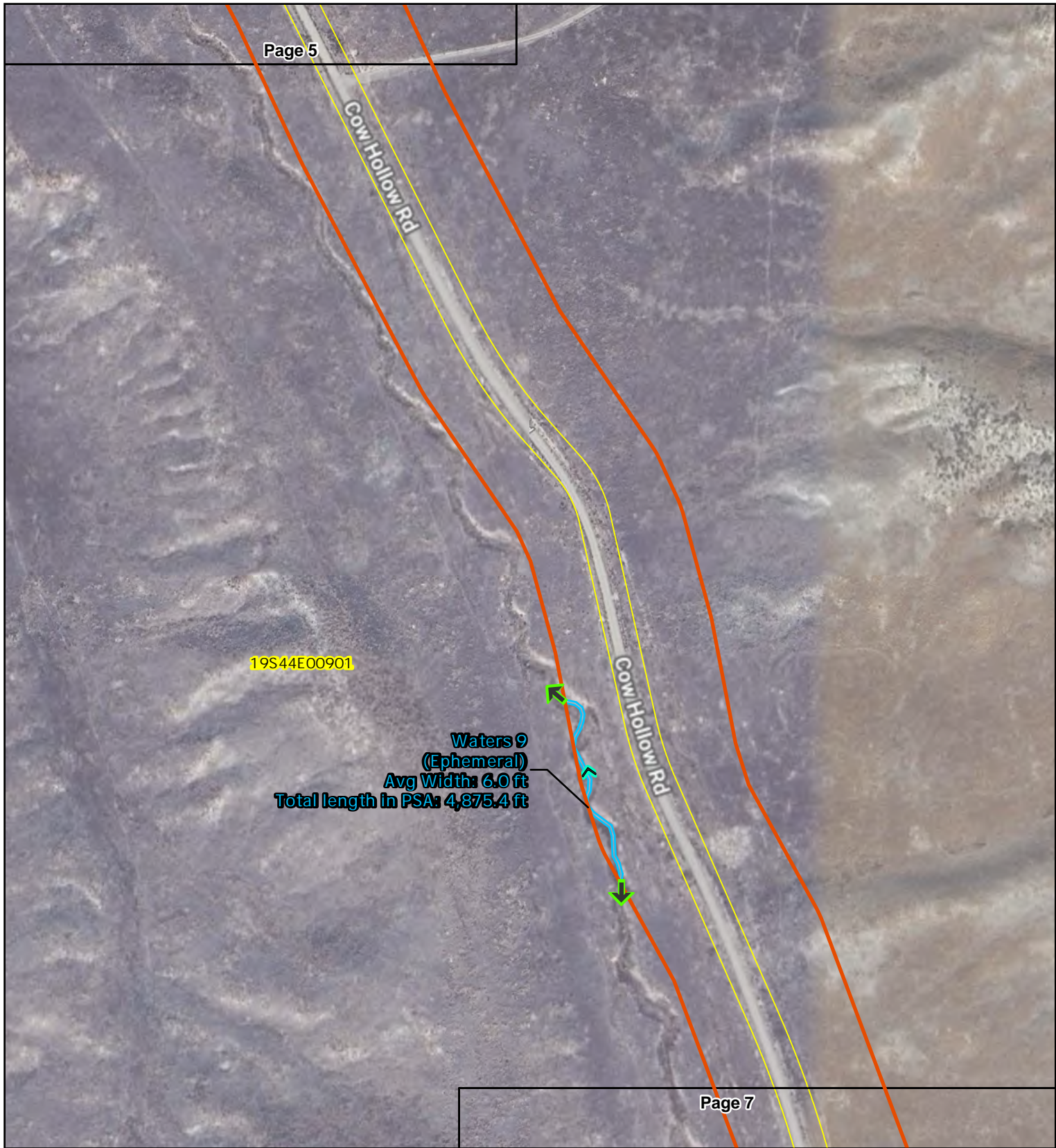


Figure 6 - Page 6 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

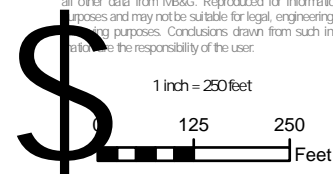
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Flow Direction
- ➡ Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



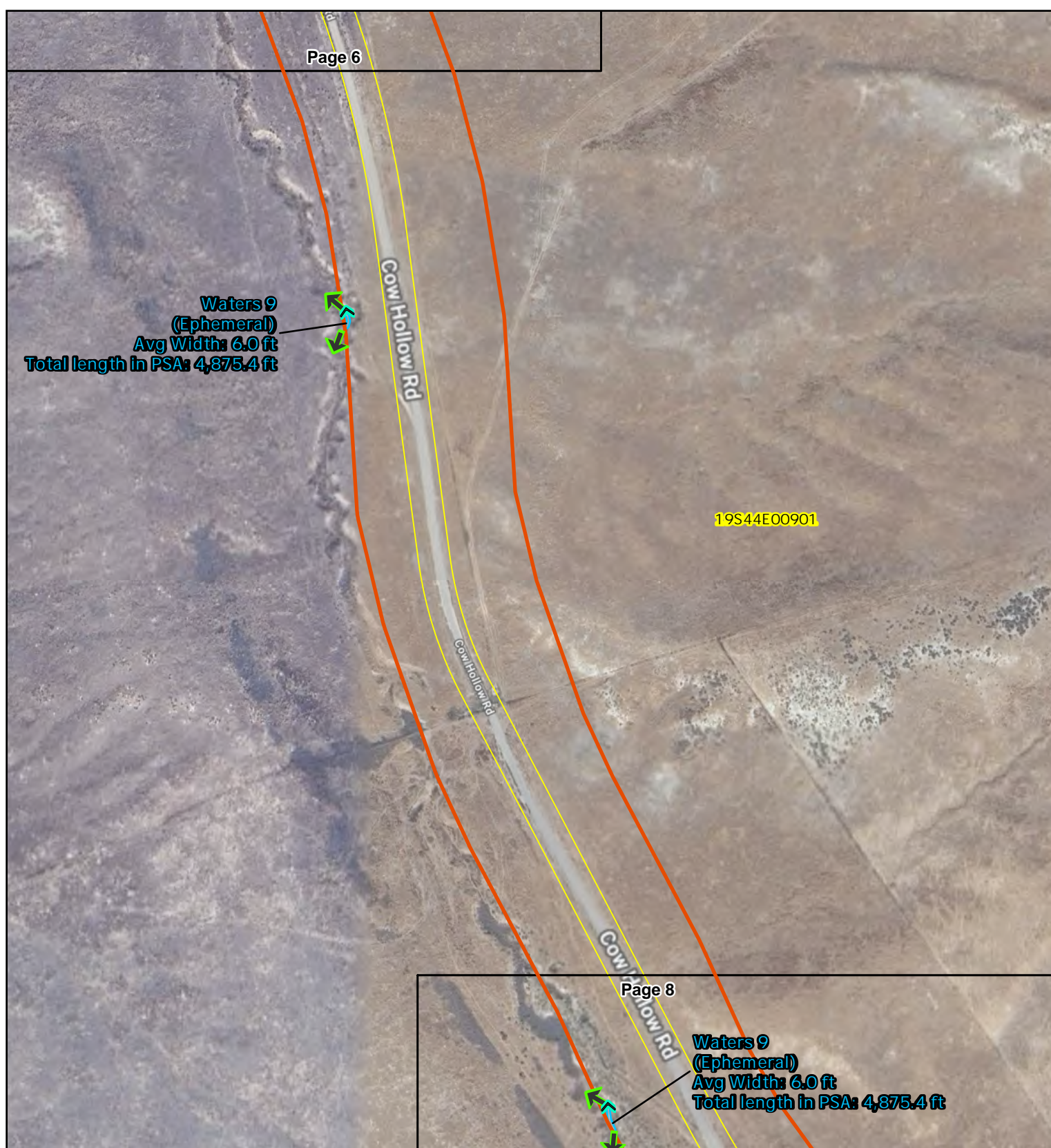


Figure 6 - Page 7 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

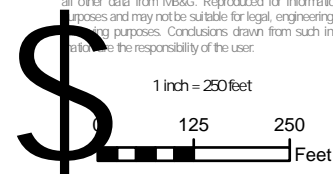
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Flow Direction
- ➔ Extends Beyond PSA

MB&G
Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



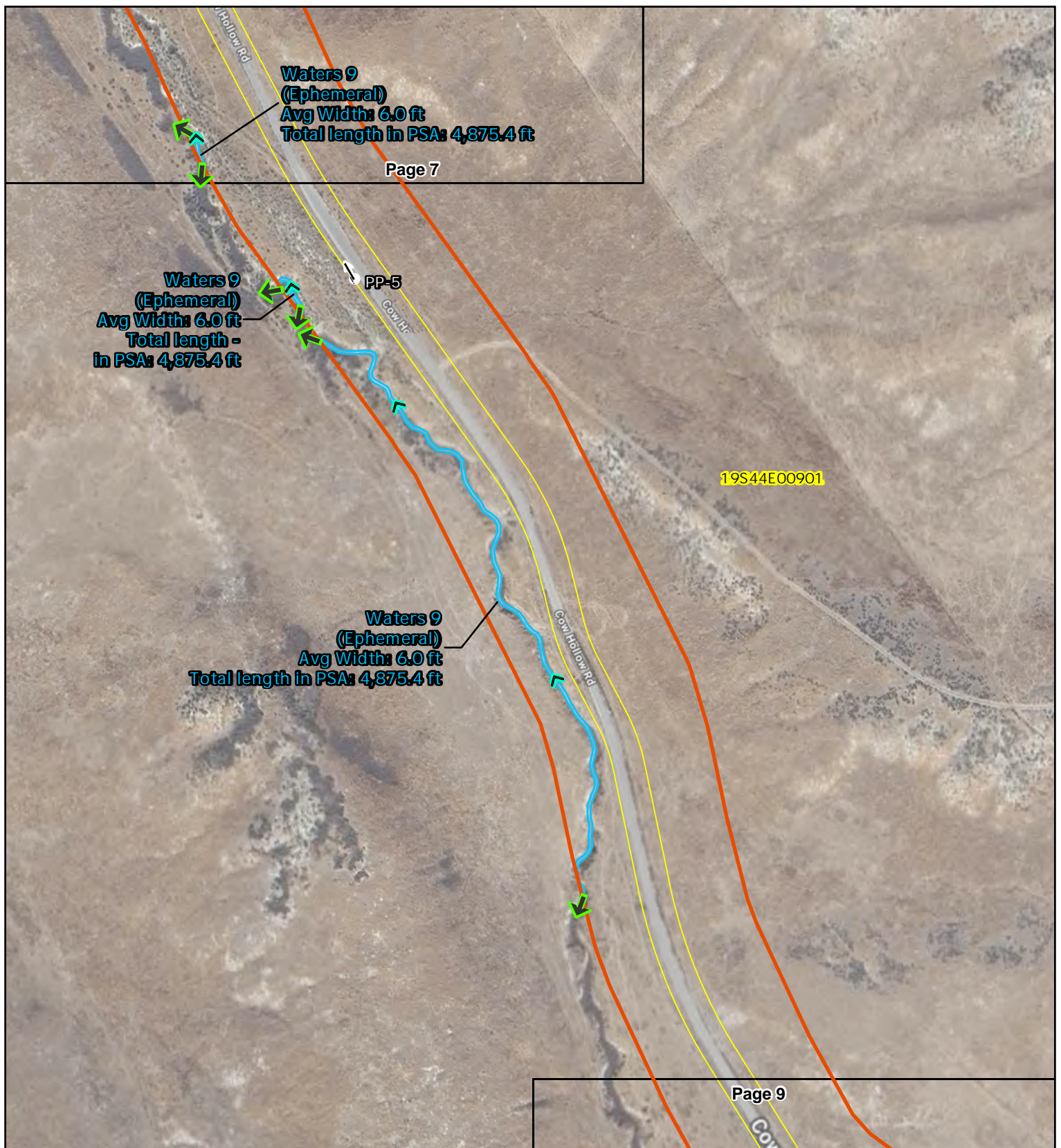


Figure 6 - Page 8 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

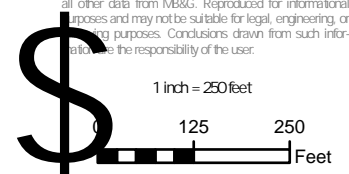
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA



Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



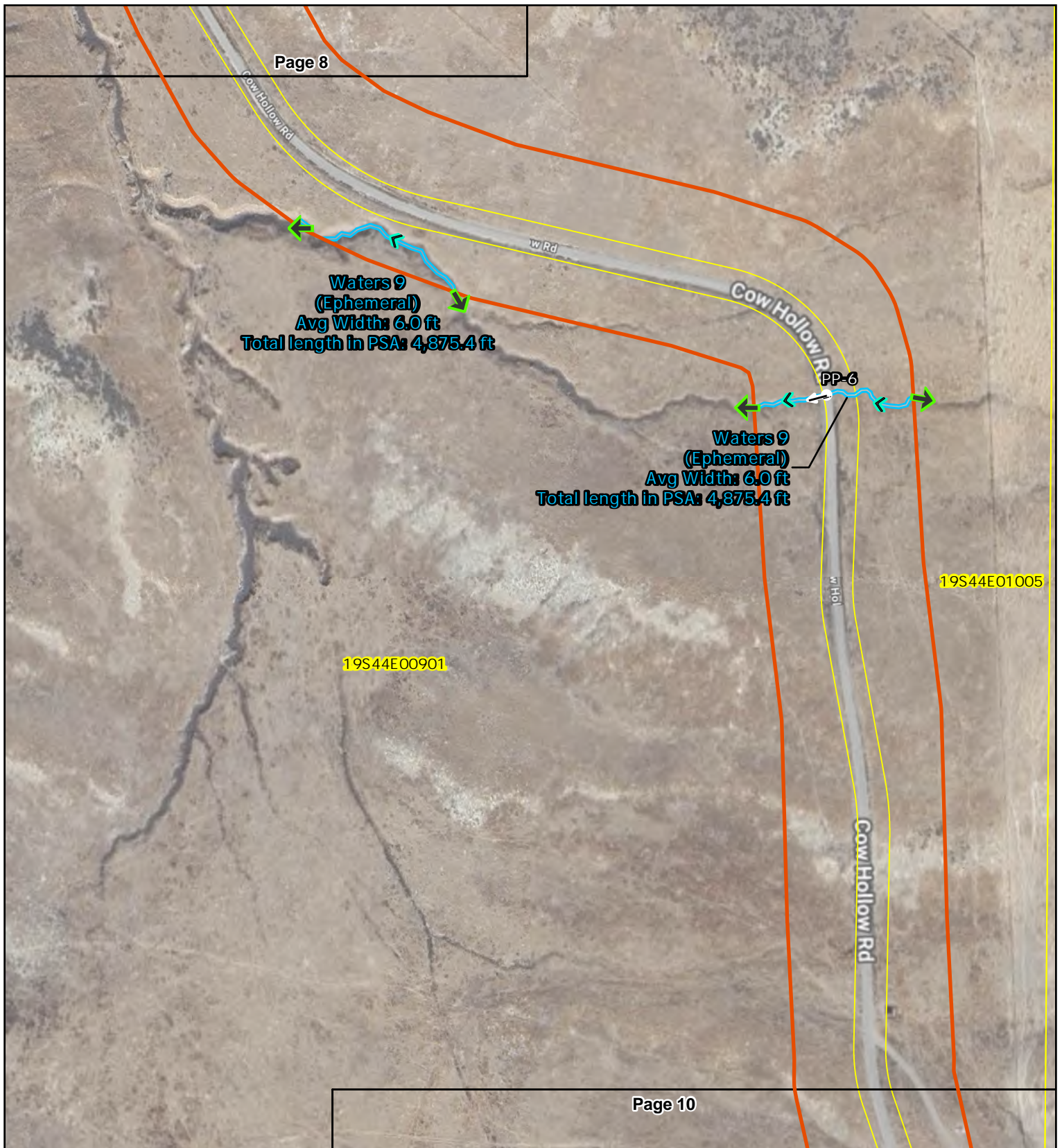


Figure 6 - Page 9 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

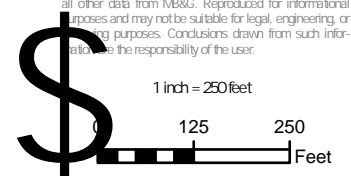
- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA



Natural Resource Consultants

Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or other purposes. Conclusions drawn from such information are the responsibility of the user.



19S44E00901

19S44E01005

Cow Hollow Rd

Cow Hollow Rd

Cow Hollow Rd

Cow Hollow Rd




20S44E00100

20S45E00200

Figure 6 - Page 10 of 59 Wetlands and Waters

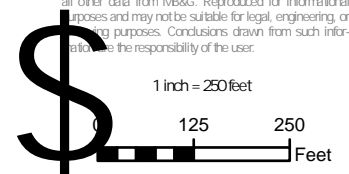
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot



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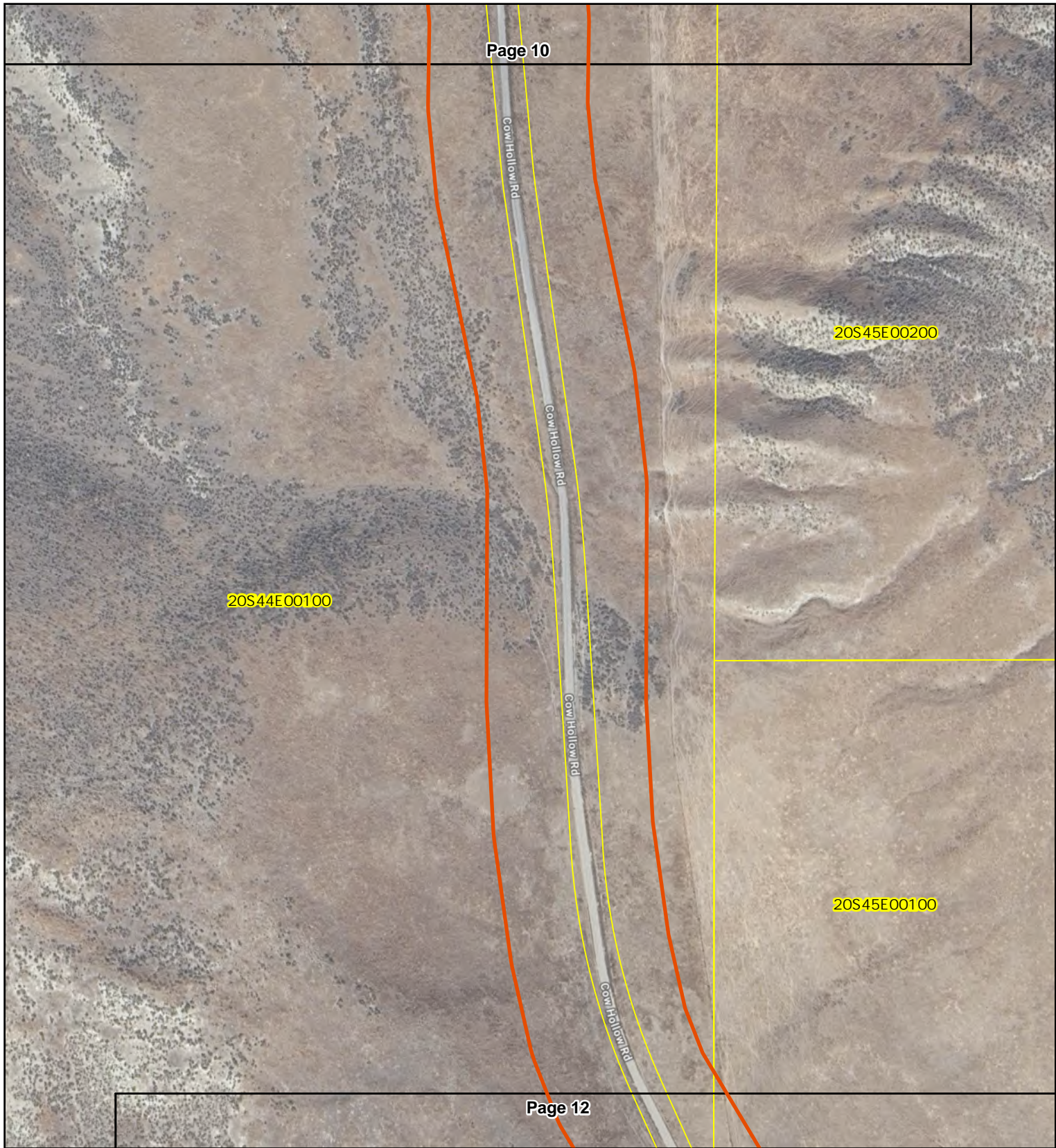


Figure 6- Page 11 of 59
Wetlands and Waters

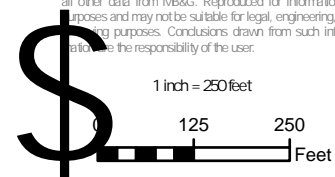
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Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

 **MB&G**
Natural Resource Consultants

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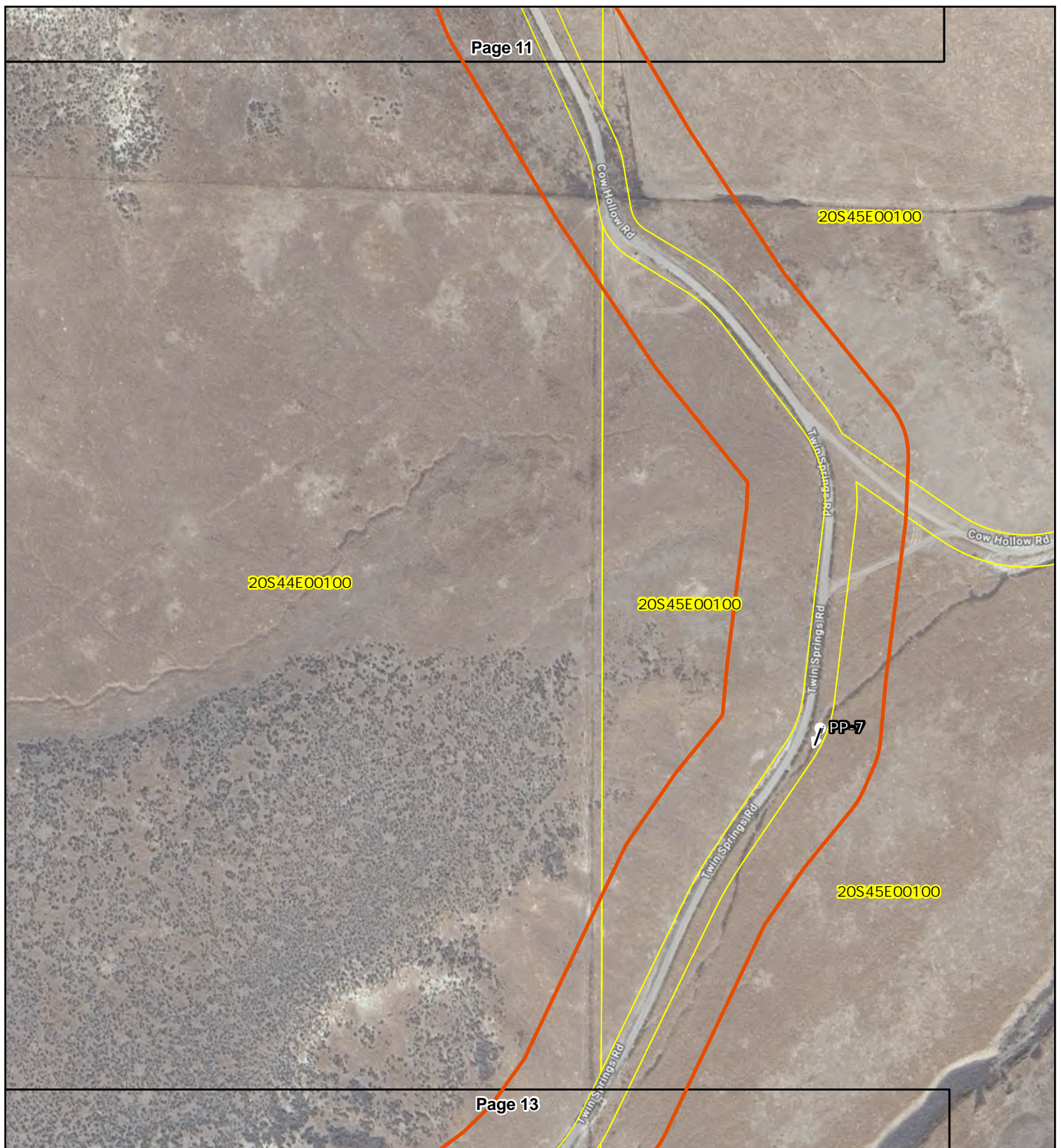






Figure 6- Page 12 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

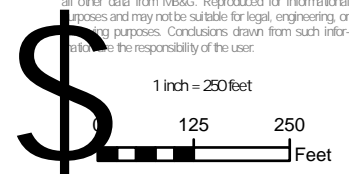
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot
-  Photo Point (PP)



Natural Resource Consultants

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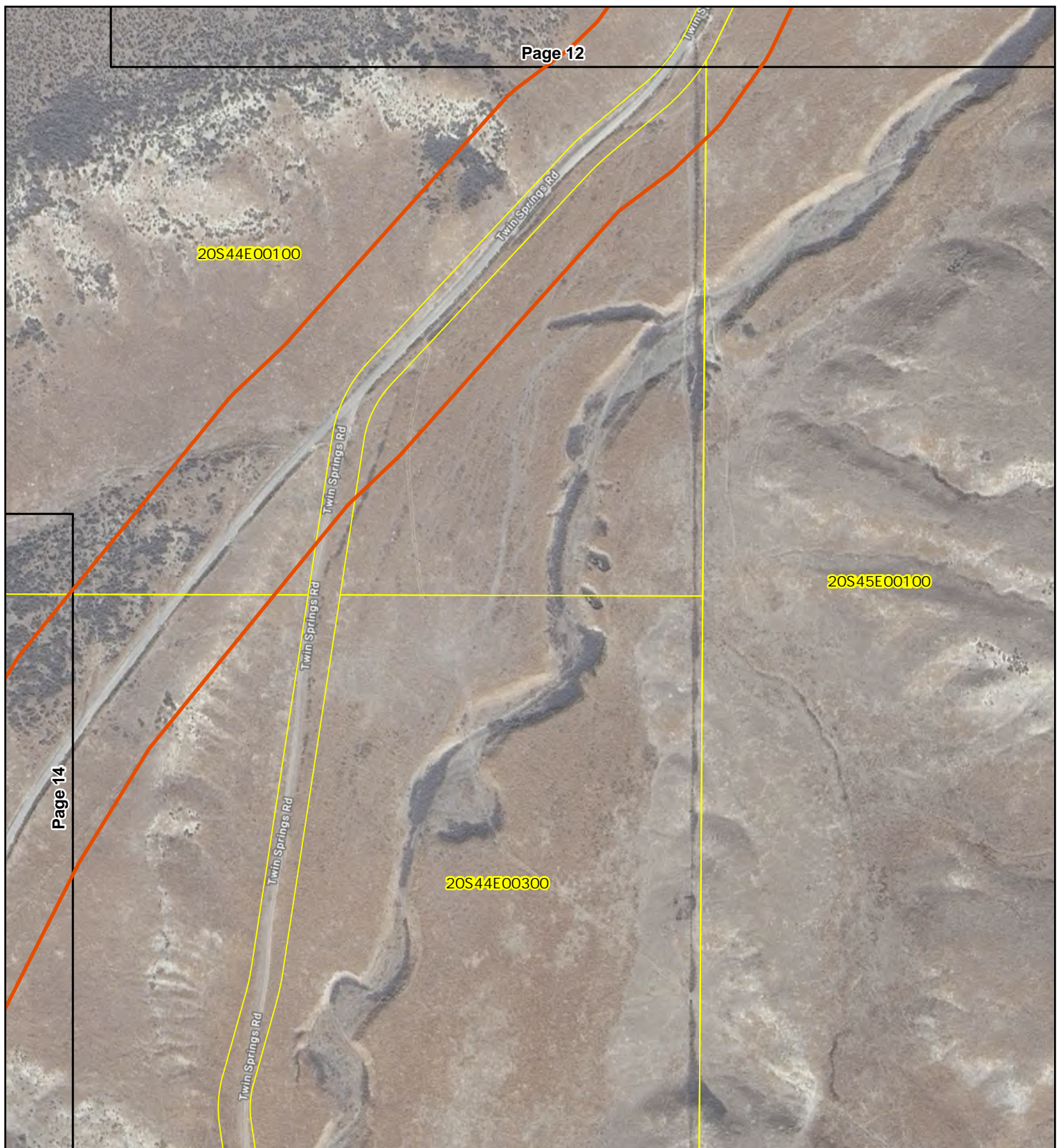


Figure 6- Page 13 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot



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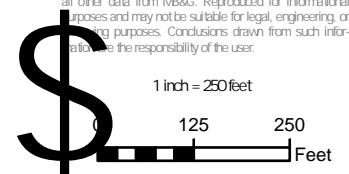




Figure 6- Page 14 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

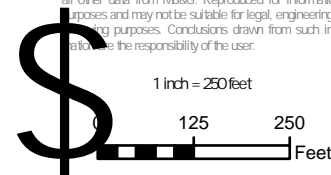
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot



Natural Resource Consultants

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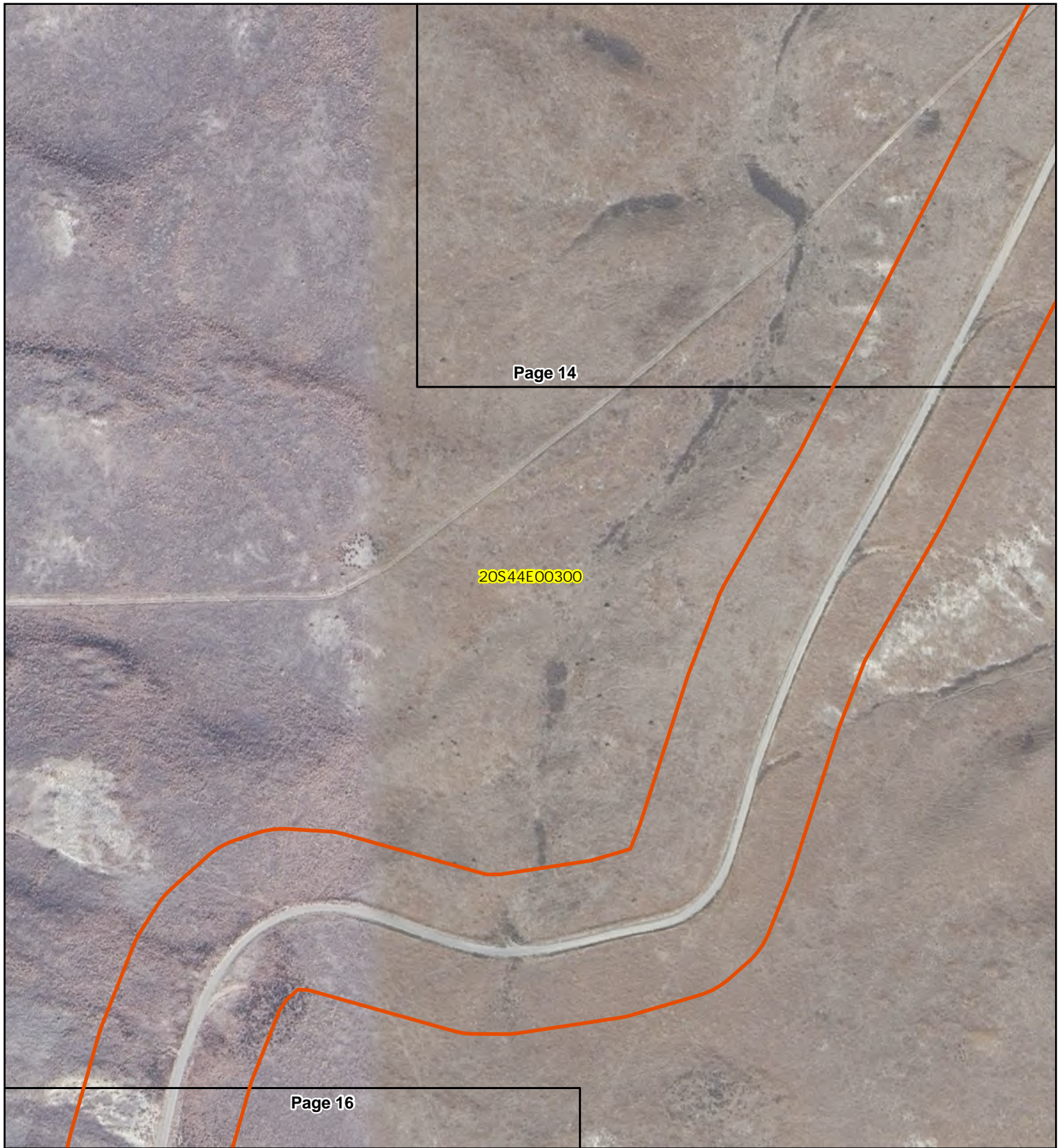


Figure 6- Page 15 of 59 Wetlands and Waters

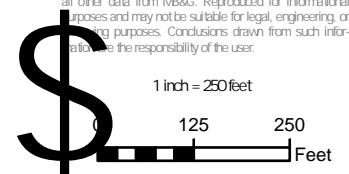
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Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot



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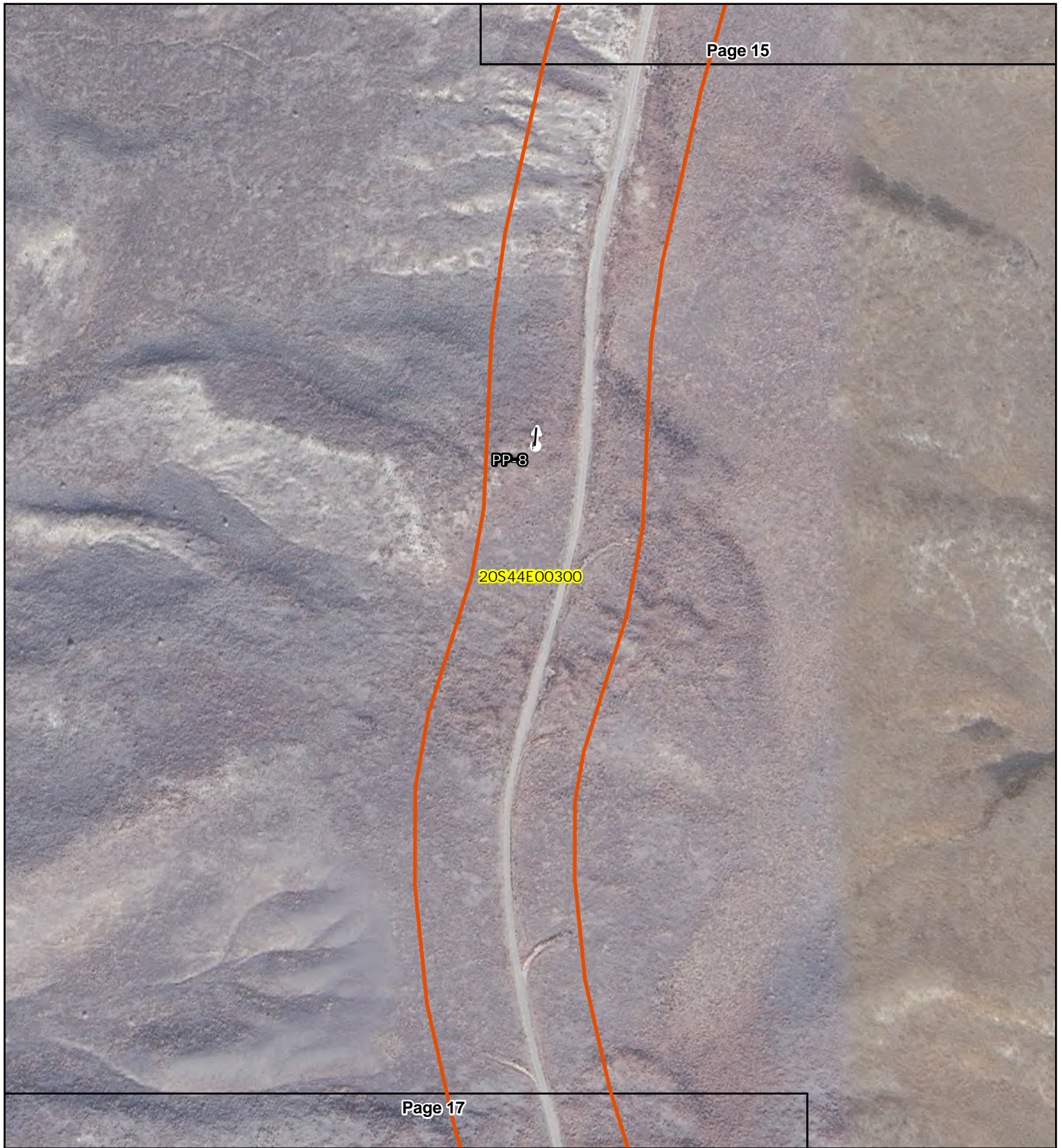


Figure 6 - Page 16 of 59
Wetlands and Waters

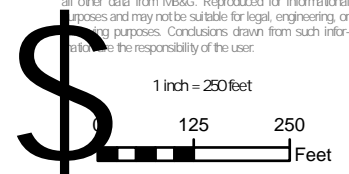
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Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Photo Point (PP)

 **MB&G**
Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



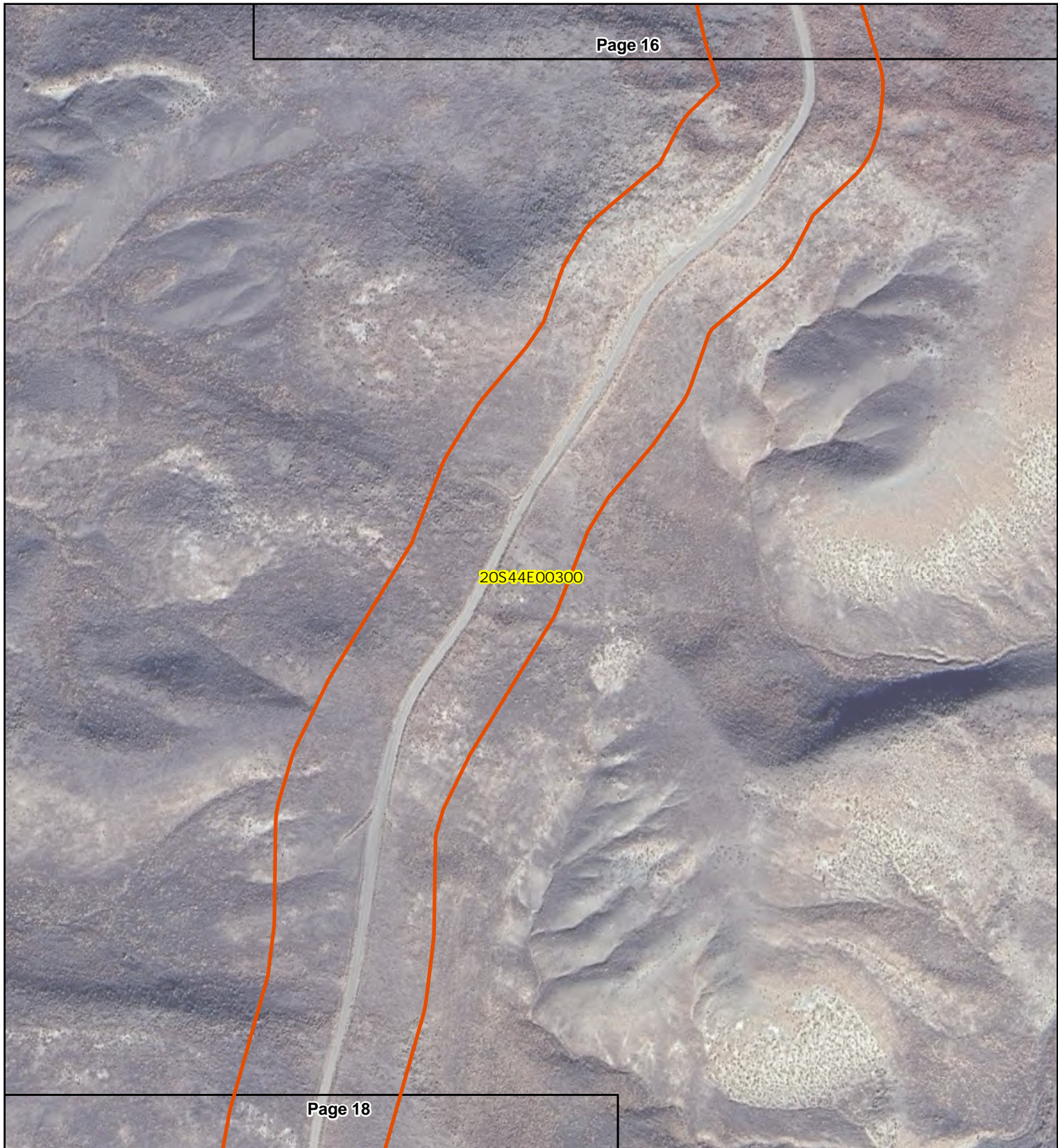





Figure 6 - Page 17 of 59
Wetlands and Waters

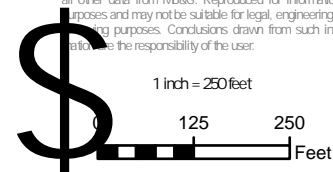
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Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot



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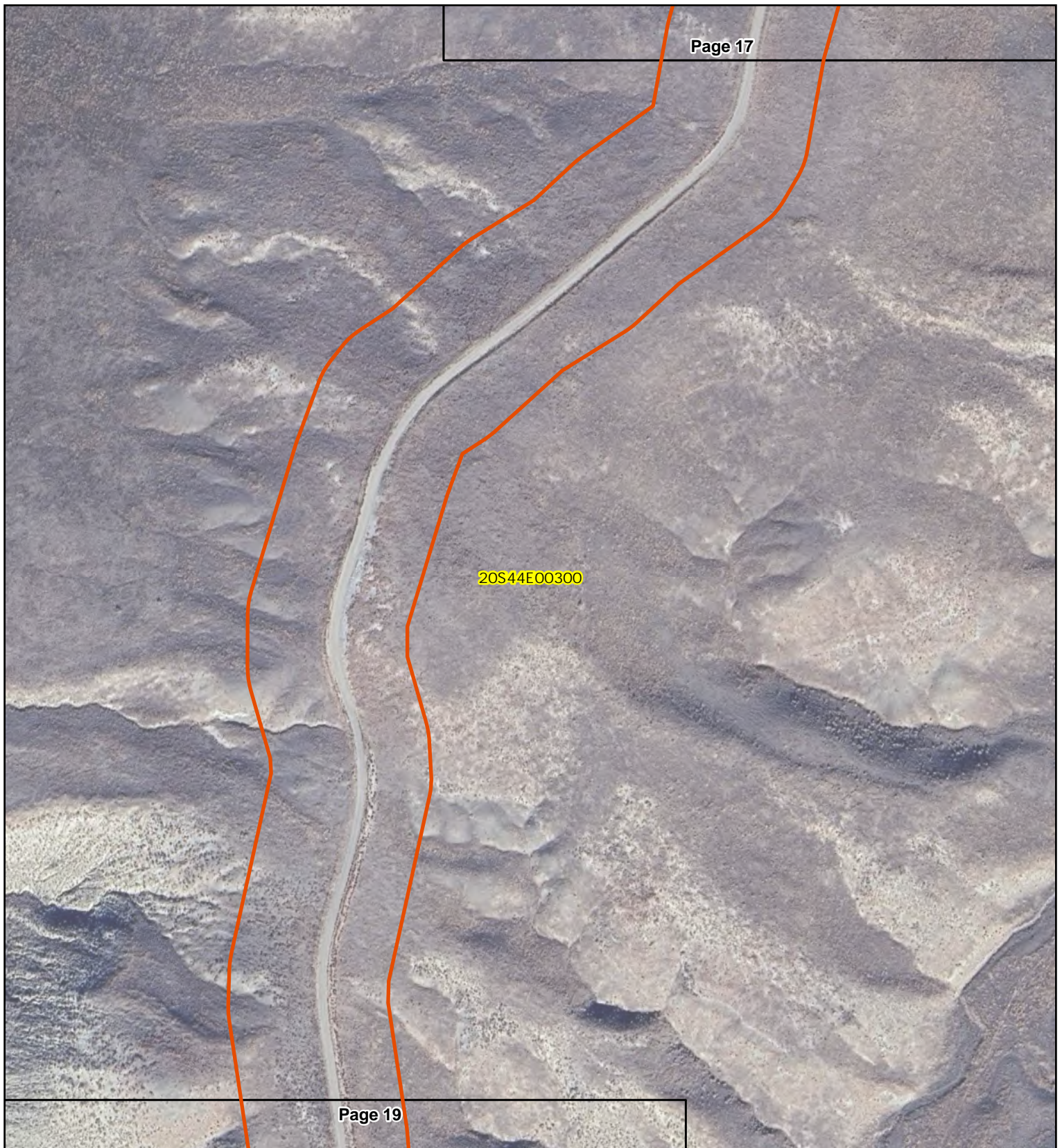


Figure 6- Page 18 of 59
Wetlands and Waters

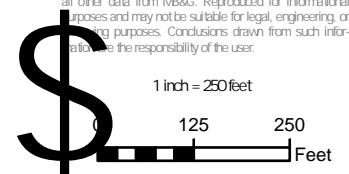
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Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot



Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



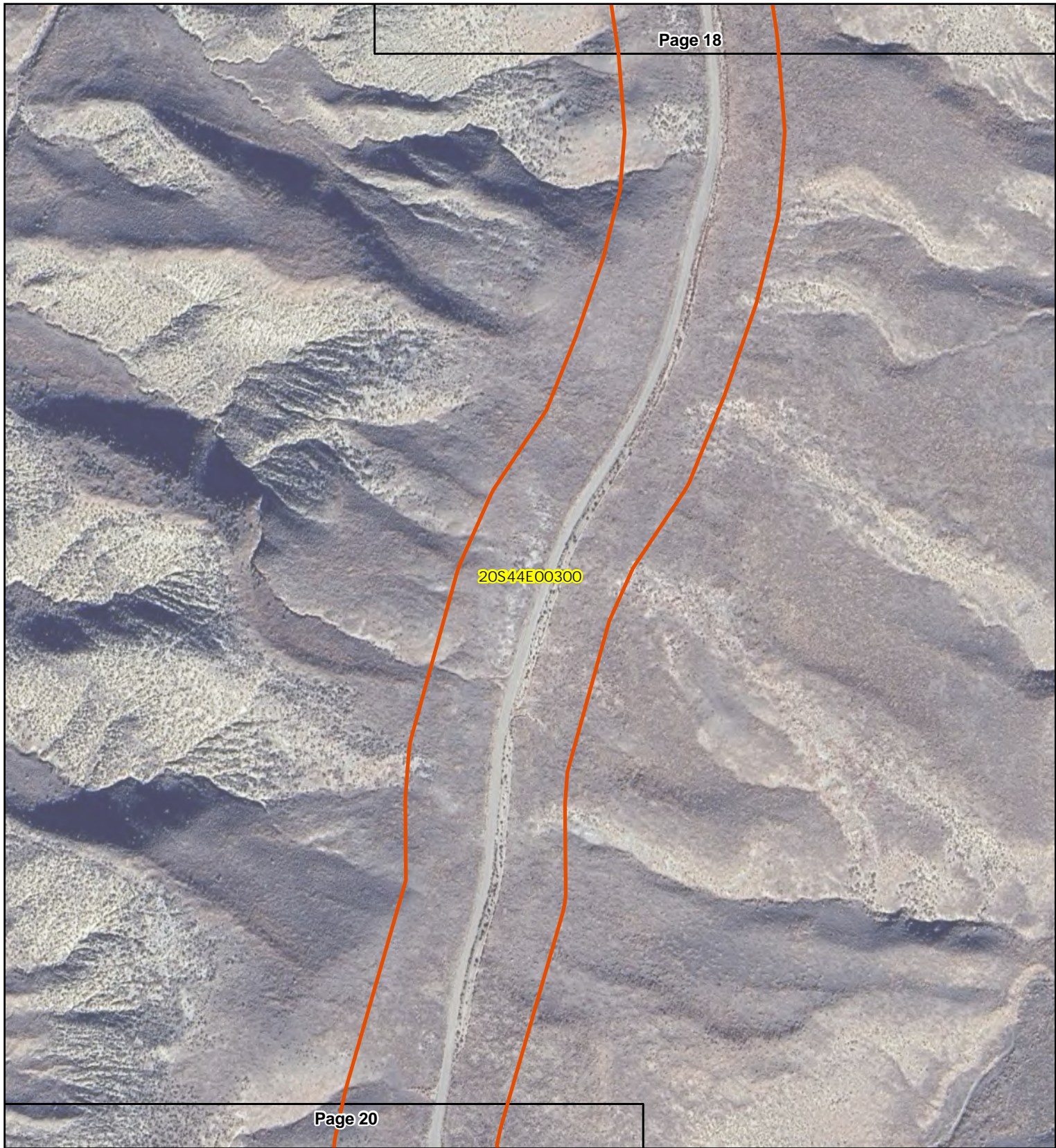


Figure 6 - Page 19 of 59 Wetlands and Waters

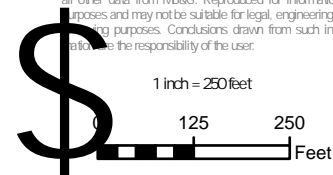
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Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot



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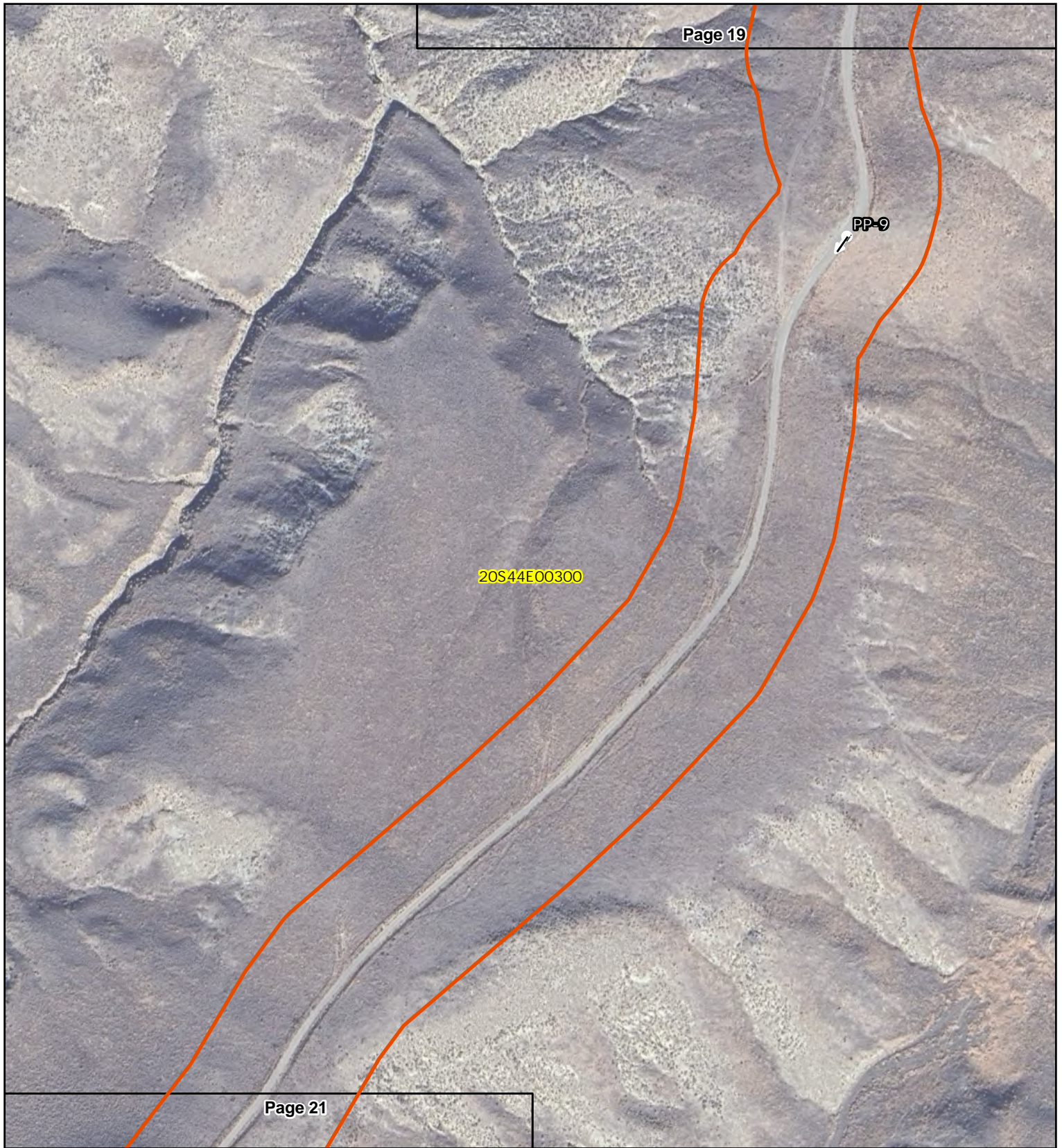






Figure 6 - Page 20 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot
-  Photo Point (PP)



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or other purposes. Conclusions drawn from such information are the responsibility of the user.

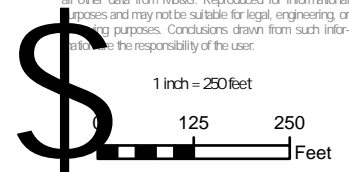





Figure 6- Page 21 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

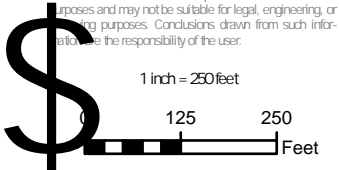
- Project Study Area
- Map Book Page
- Tax Lot



MB&G

Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



1 inch = 250 feet

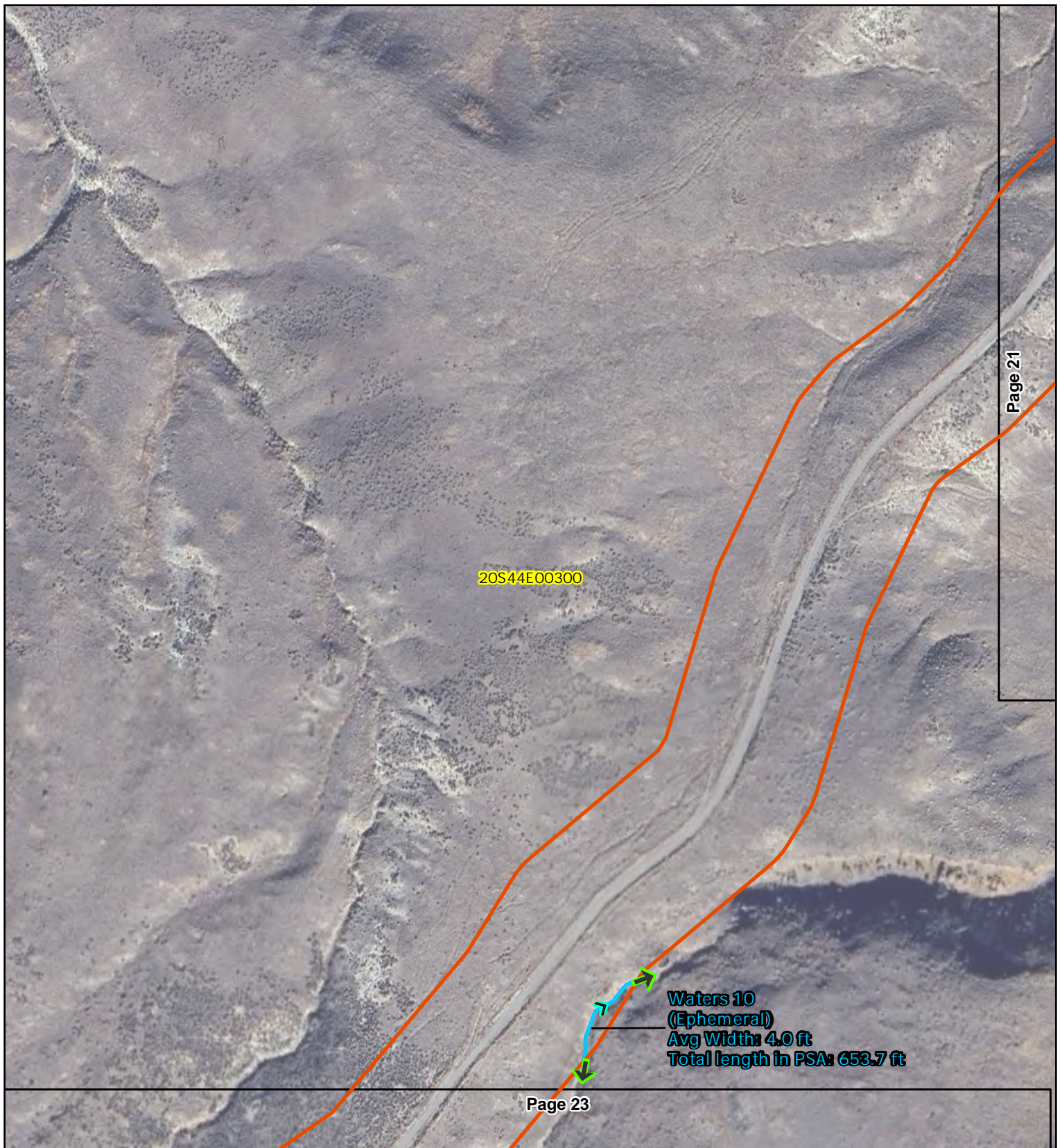


Figure 6 - Page 22 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

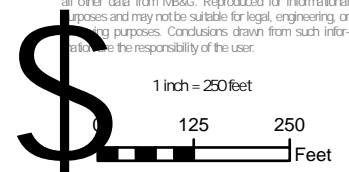
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Flow Direction
- ➡ Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering or planning purposes. Conclusions drawn from such information are the responsibility of the user.



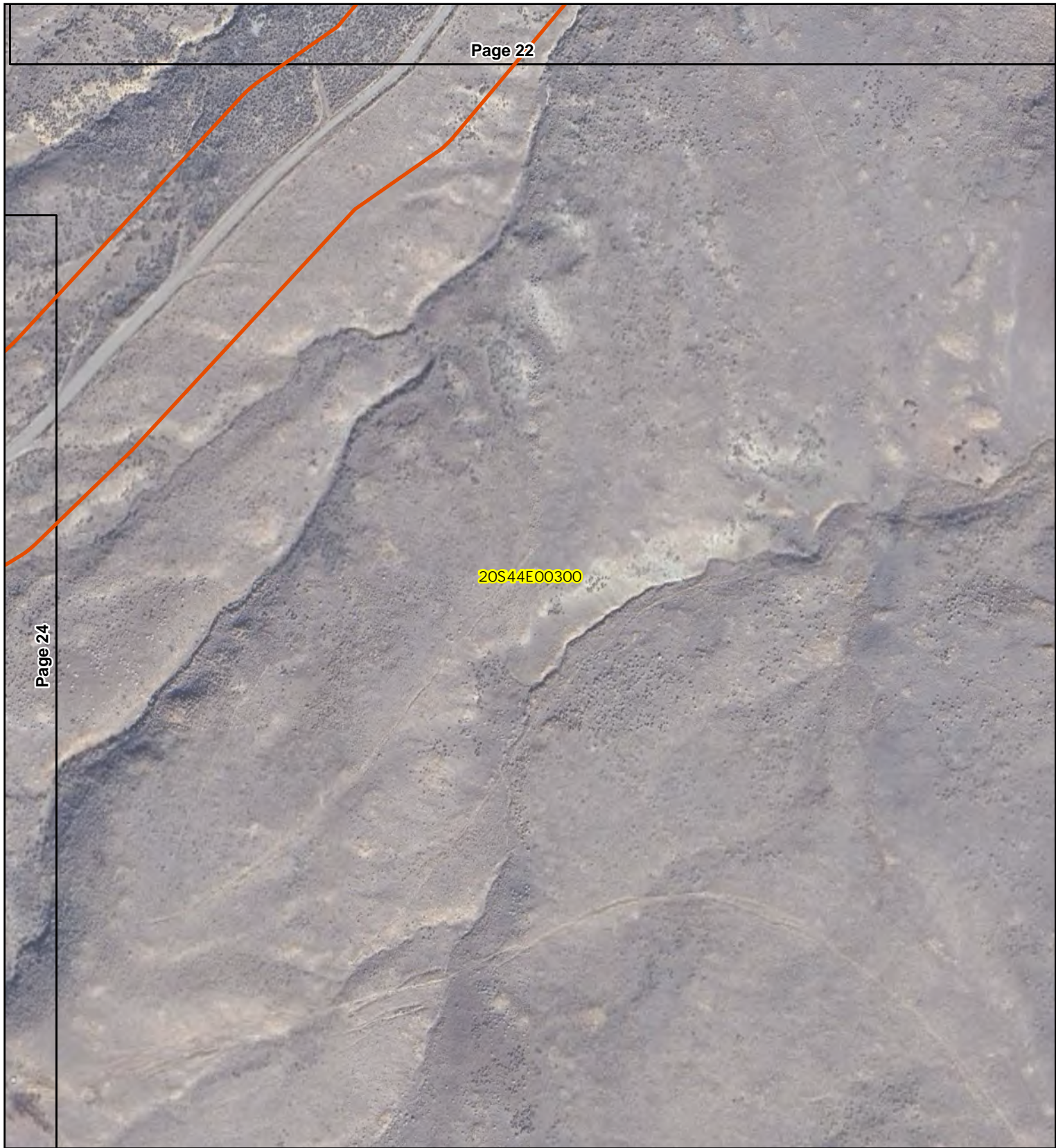





Figure 6 - Page 23 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

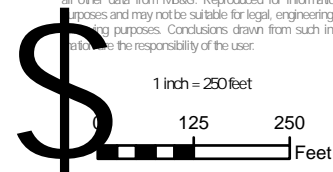
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot



Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



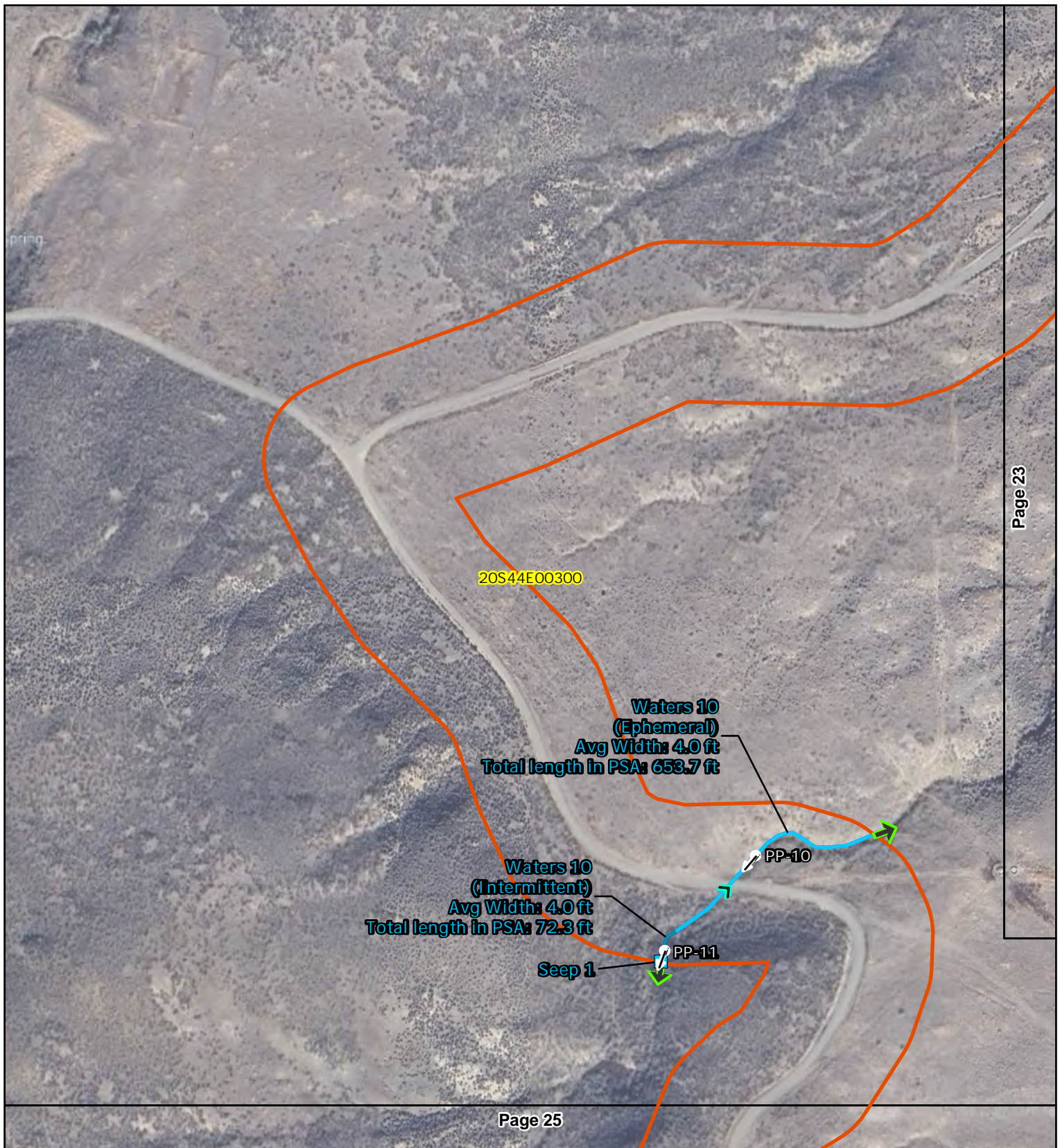


Figure 6 - Page 24 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

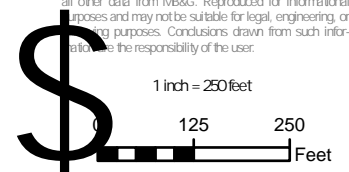
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Intermittent Waters
- Ephemeral Waters

- Seep
- | Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

MB&G
Natural Resource Consultants

Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



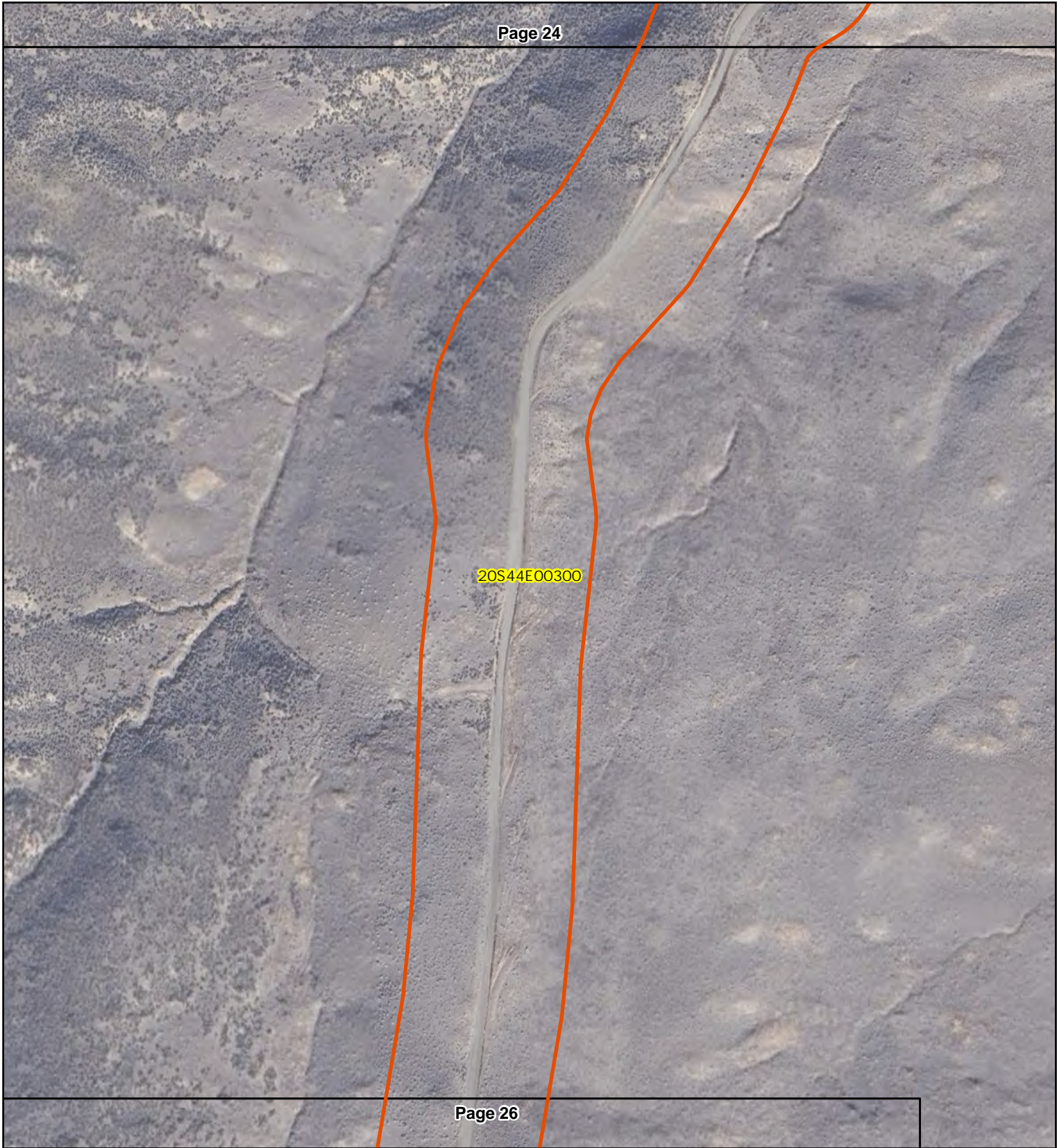






Figure 6 - Page 25 of 59
Wetlands and Waters


Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot

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 1 inch = 250 feet
125 250 Feet

20S44E00300

PP-12

**Waters 11
(Ephemeral)**
Avg Width: 3.0 ft
Total length in PSA: 380.9 ft

Figure 6 - Page 26 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

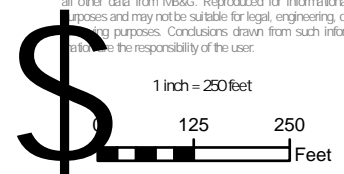
Calico Resources USA Corp.
 Grassy Mountain Mine Project
 Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



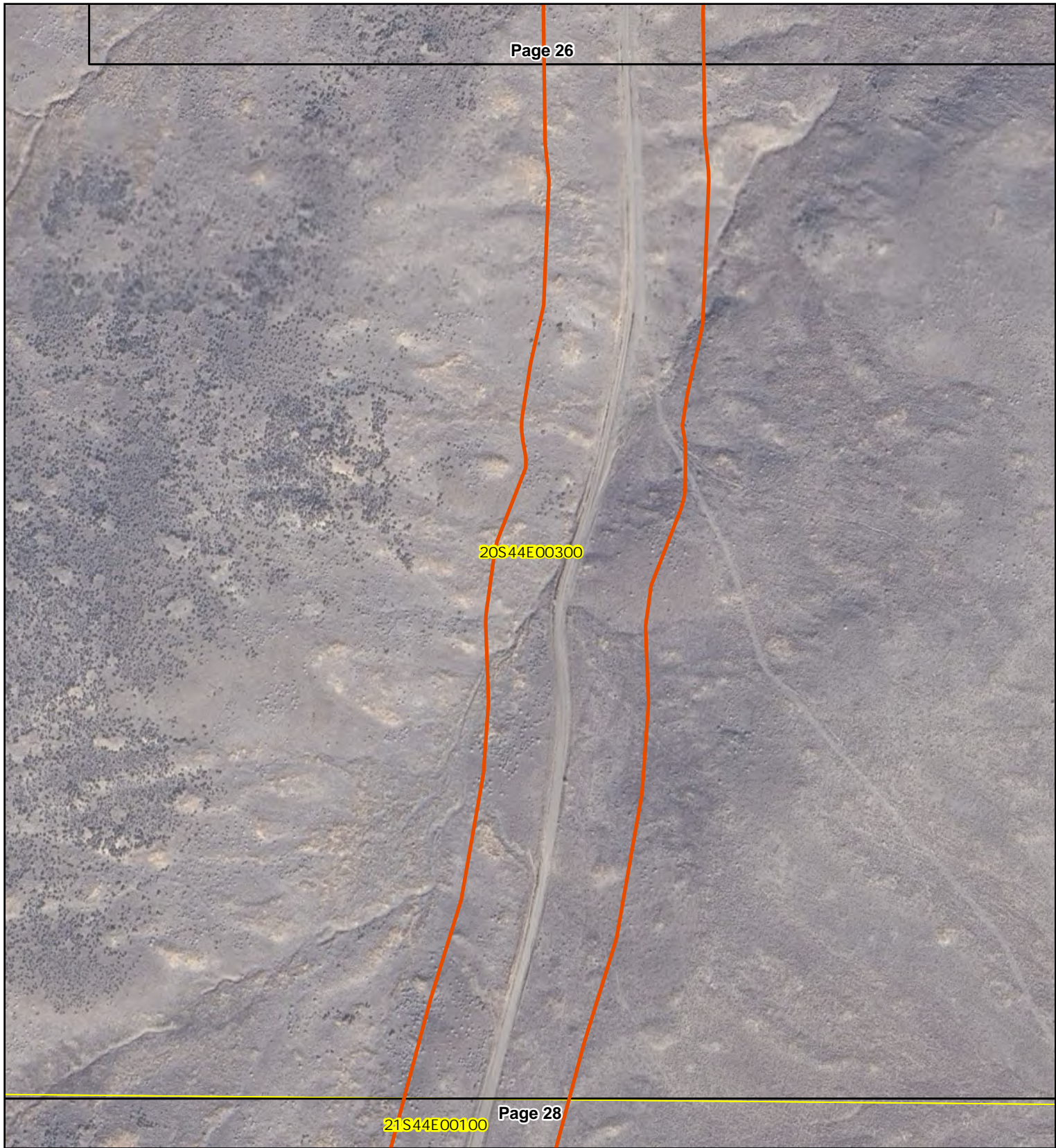


Figure 6 - Page 27 of 59
Wetlands and Waters

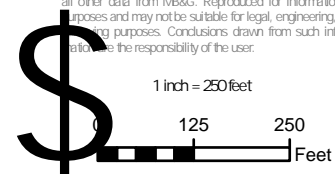
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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- Project Study Area
- Map Book Page
- Tax Lot



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21S44E00100

PP-13

Figure 6 - Page 28 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

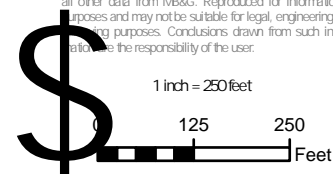
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot
-  Photo Point (PP)



Source: Aerial imagery from Google Earth; PSA from SLR;

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Page 28

21S44E00100

Page 30

Figure 6 - Page 29 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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Grassy Mountain Mine Project
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- Project Study Area
- Map Book Page
- Tax Lot

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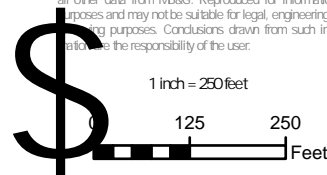







Figure 6 - Page 30 of 59
Wetlands and Waters

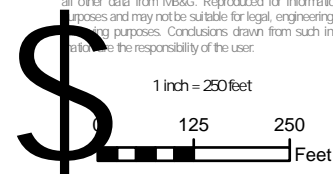
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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-  Project Study Area
-  Map Book Page
-  Tax Lot



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21S44E00100





**Road runoff 1
(Ephemeral)**
Avg Width: 3.0 ft
Total length in PSA: 170.8 ft




PP-14

Figure 6 - Page 31 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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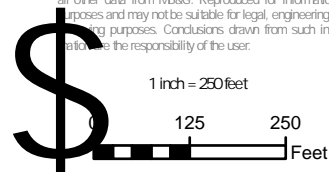
-  Project Study Area
-  Map Book Page
-  Tax Lot
-  Ephemeral Waters

-  Photo Point (PP)
-  Flow Direction
-  Extends Beyond PSA



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21S44E00100

Figure 6 - Page 32 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

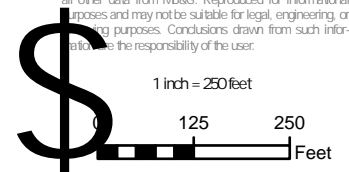
Calico Resources USA Corp.
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-  Map Book Page
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21S44E00100

Figure 6- Page 33 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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-  Project Study Area
-  Map Book Page
-  Tax Lot



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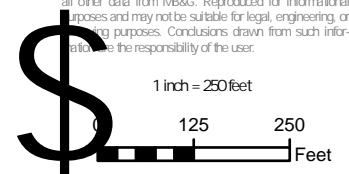





Figure 6 - Page 34 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

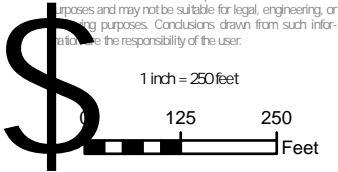
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- Map Book Page
- Tax Lot



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1 inch = 250 feet

0 125 250 Feet

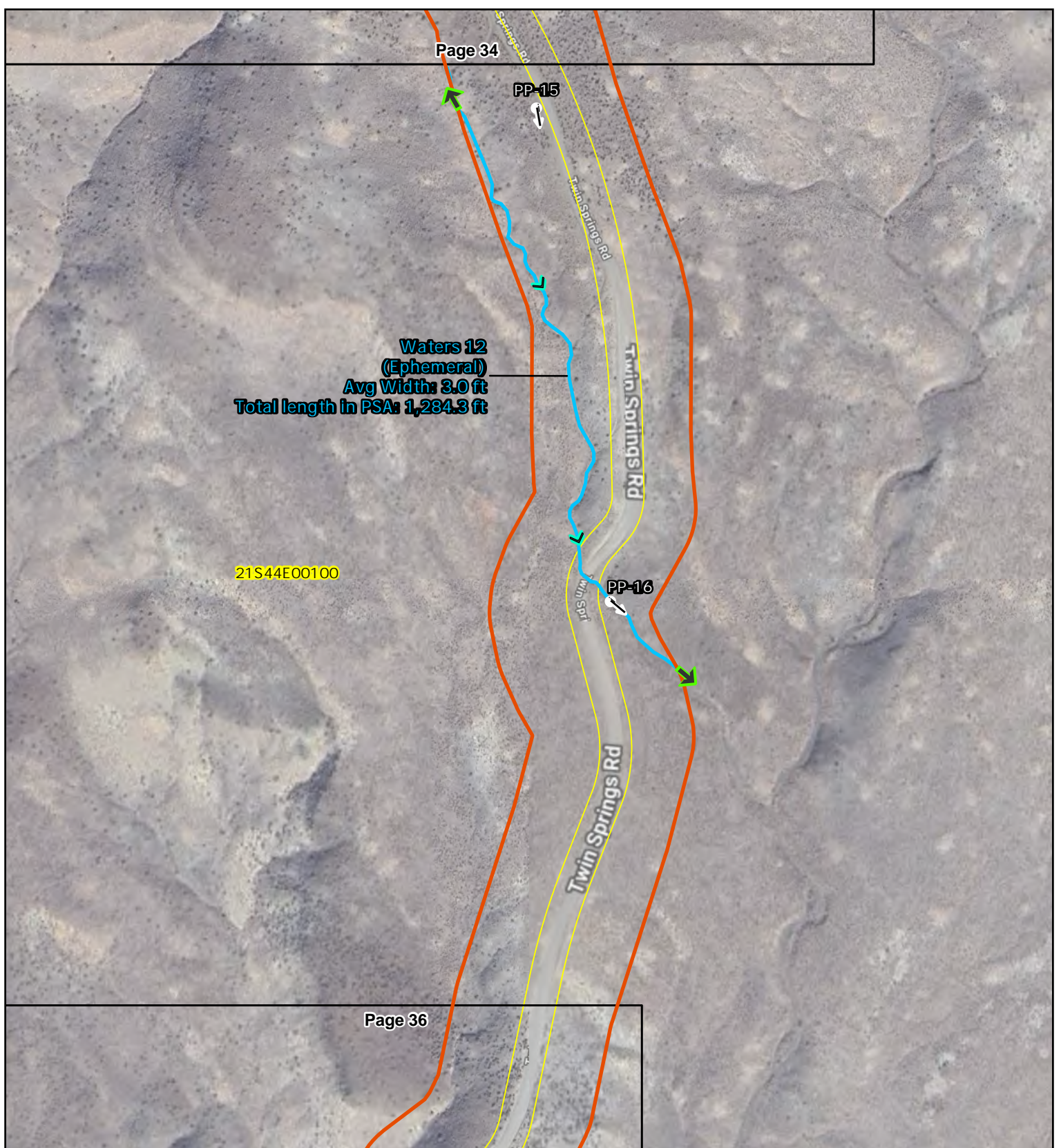


Figure 6 - Page 35 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

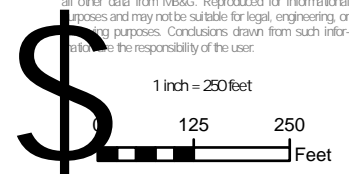
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA



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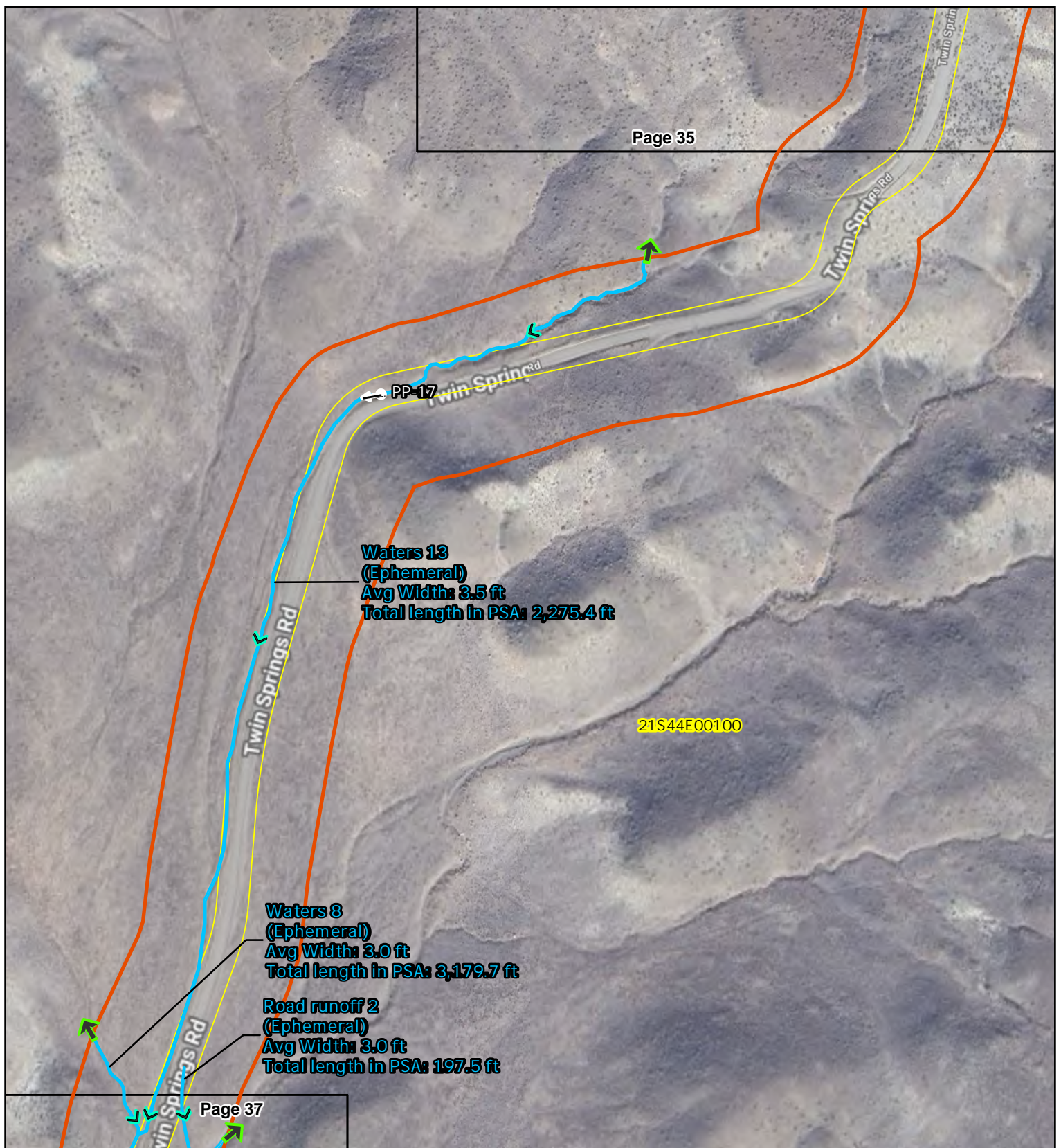


Figure 6 - Page 36 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

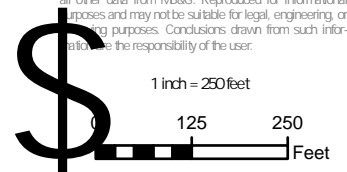
Calico Resources USA Corp.
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Malheur County, Oregon

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- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
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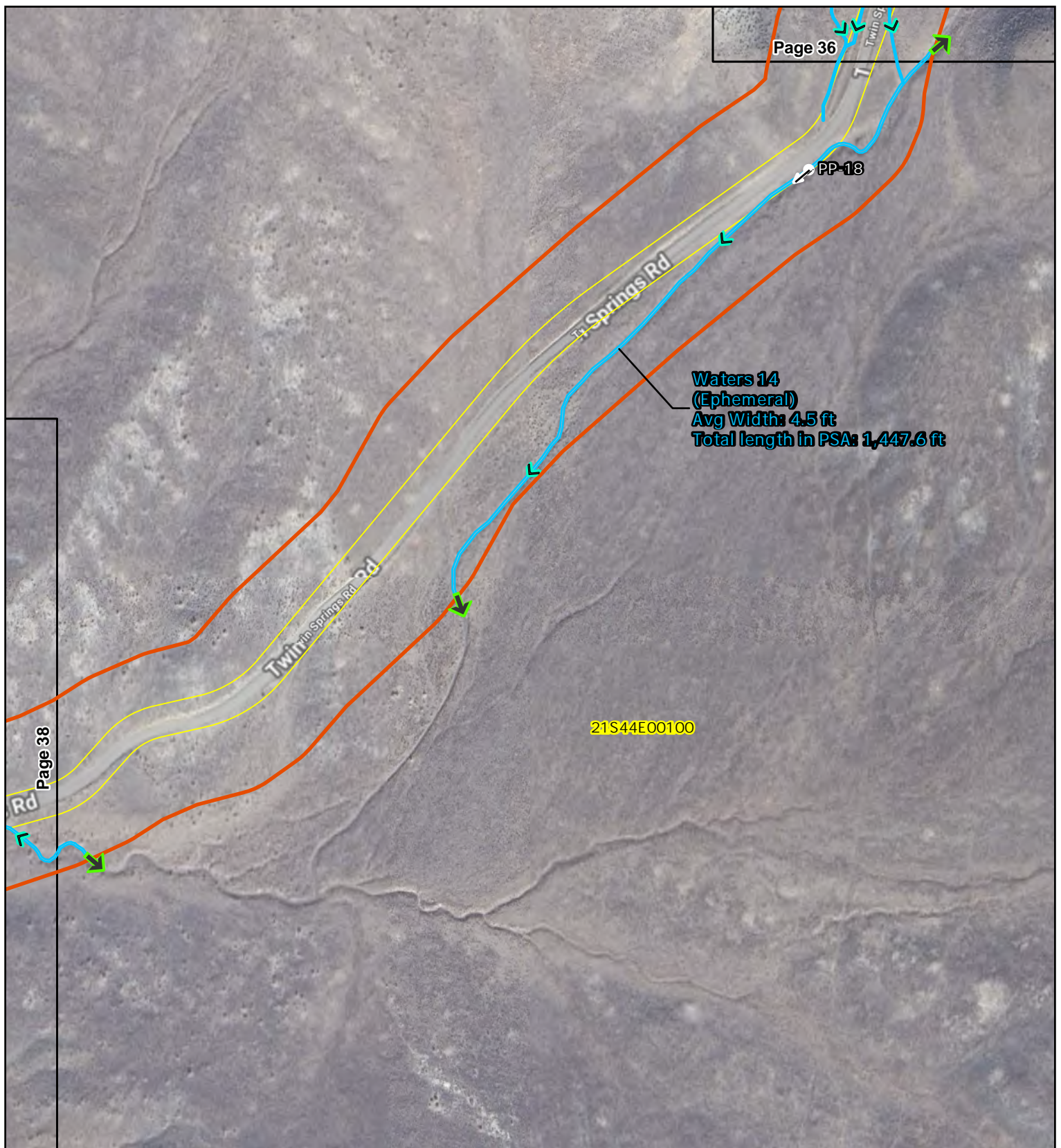


Figure 6 - Page 37 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

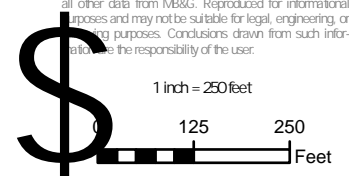
Calico Resources USA Corp.
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Malheur County, Oregon

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- Map Book Page
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- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA

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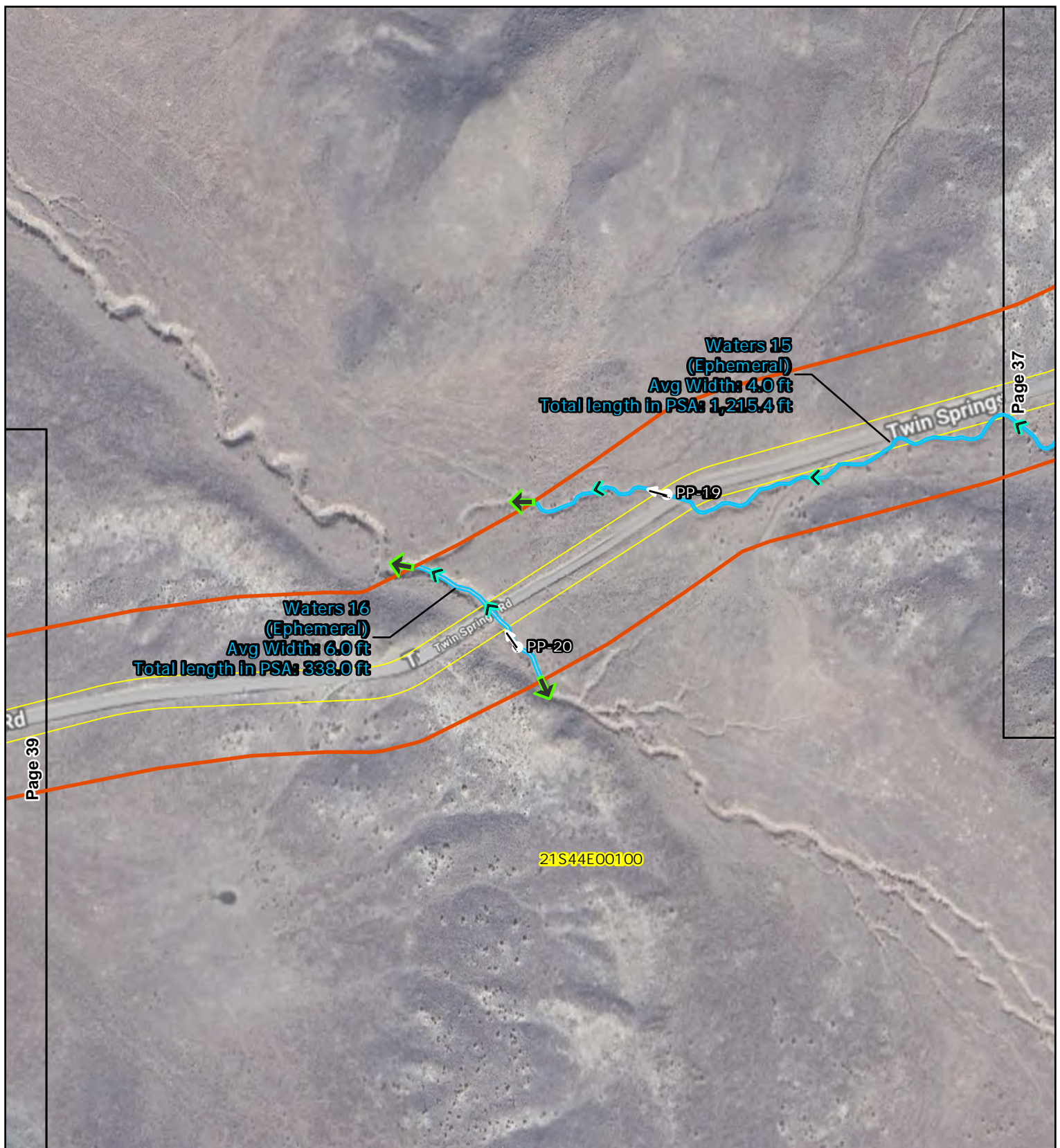


Figure 6 - Page 38 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

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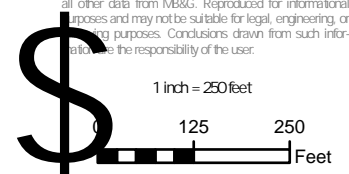




Figure 6 - Page 39 of 59
Wetlands and Waters

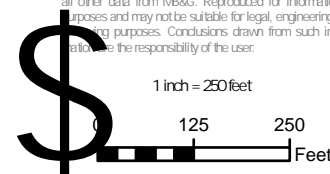
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Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Wetlands
- Photo Point (PP)

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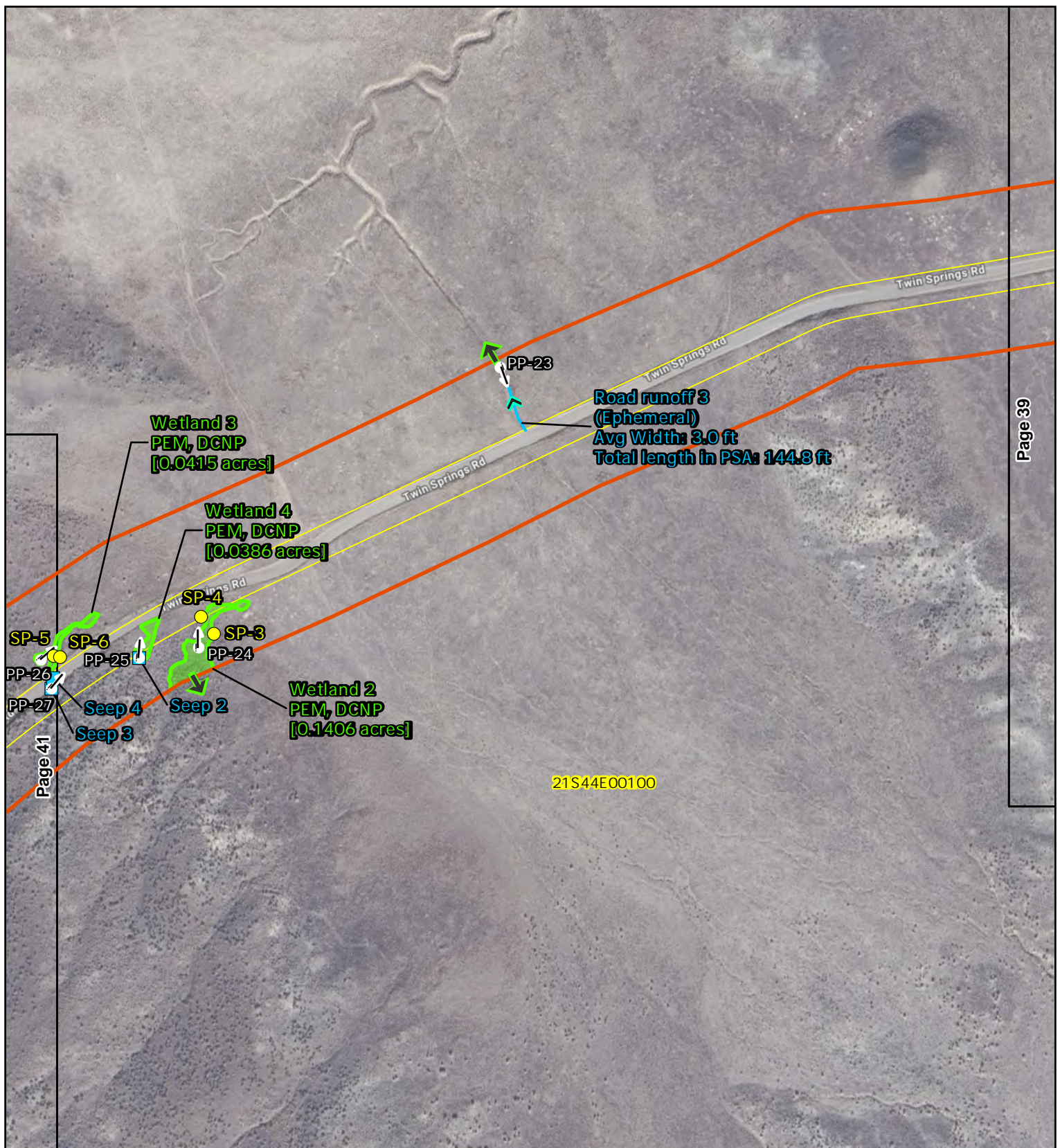


Figure 6 - Page 40 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

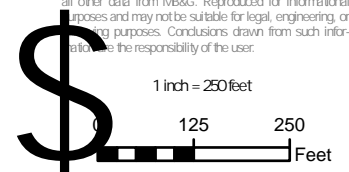
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

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- Map Book Page
- Tax Lot
- Ephemeral Waters
- Wetlands
- Sample Plot (SP)

- Seep
- | Photo Point (PP)
- Flow Direction
- ➔ Extends Beyond PSA

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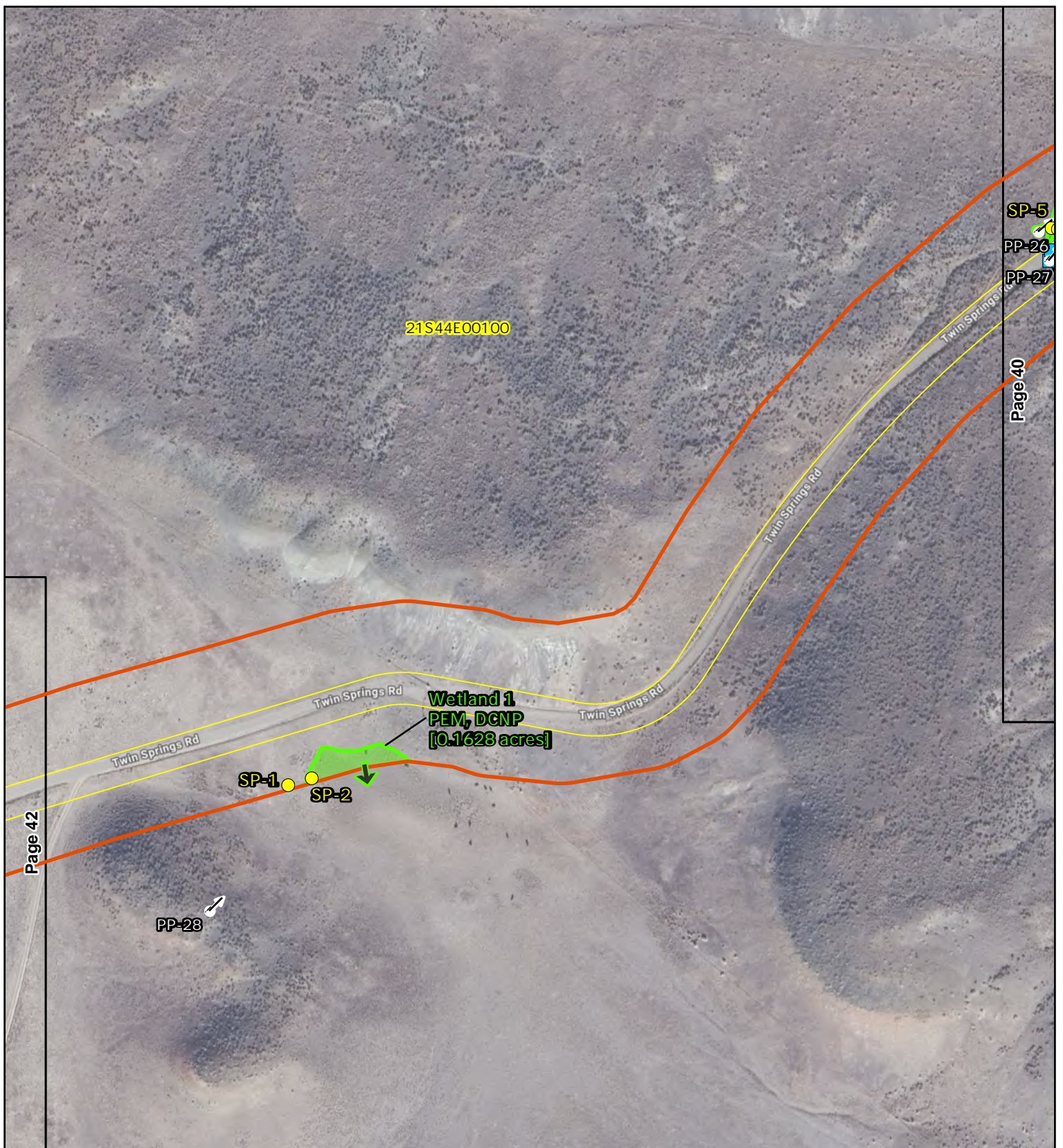


Figure 6- Page 41 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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- Map Book Page
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- Wetlands
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- Seep
- | Photo Point (PP)
- ➔ Extends Beyond PSA

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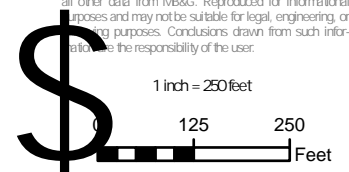




Figure 6 - Page 42 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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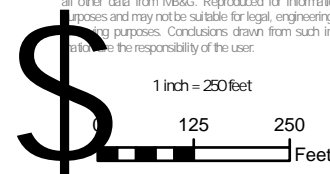
- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA



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1 inch = 250 feet

125 250 Feet

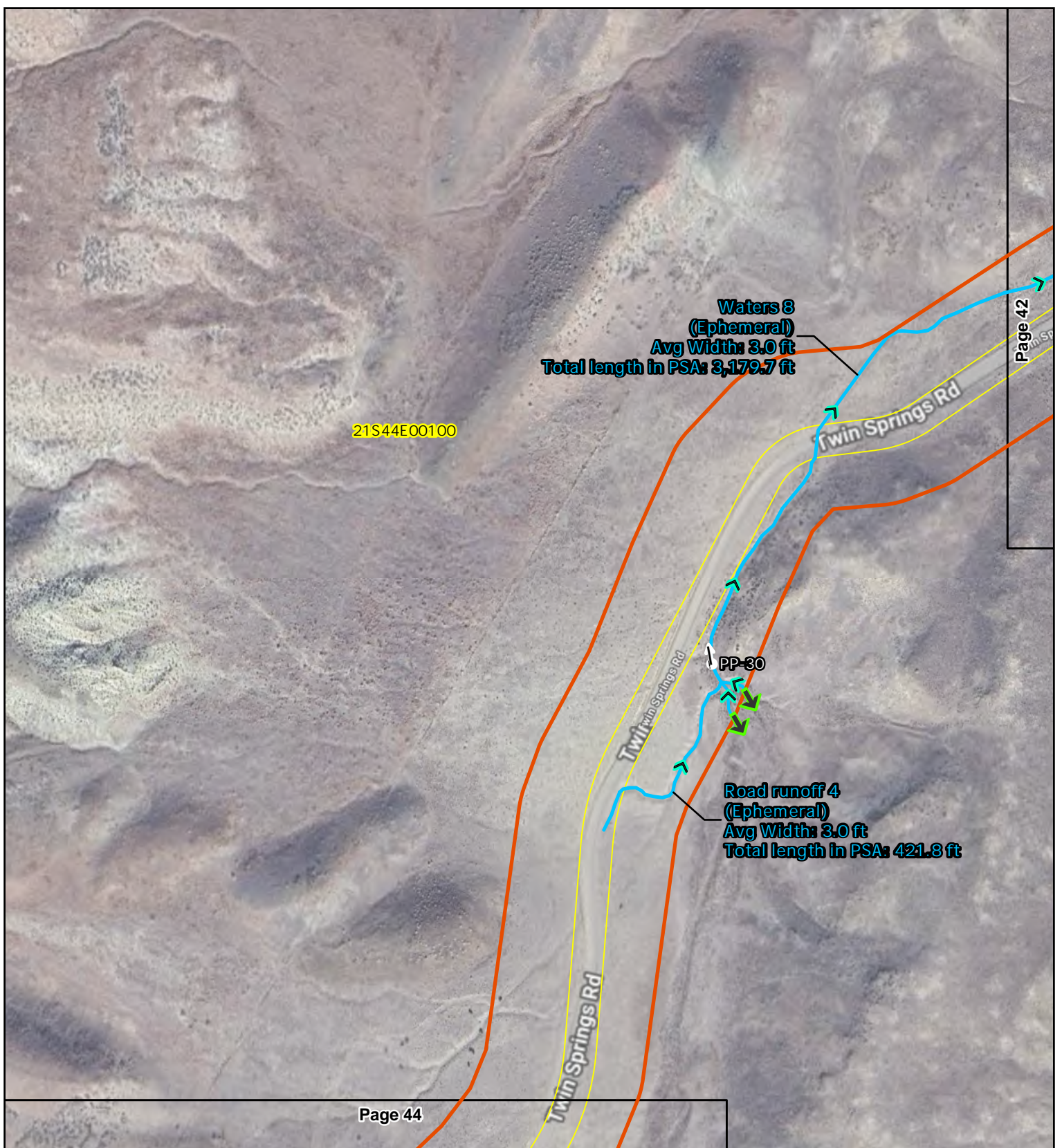


Figure 6 - Page 43 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

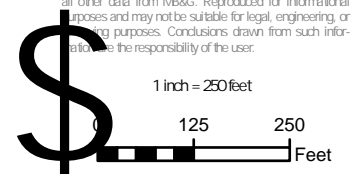
Calico Resources USA Corp.
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- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

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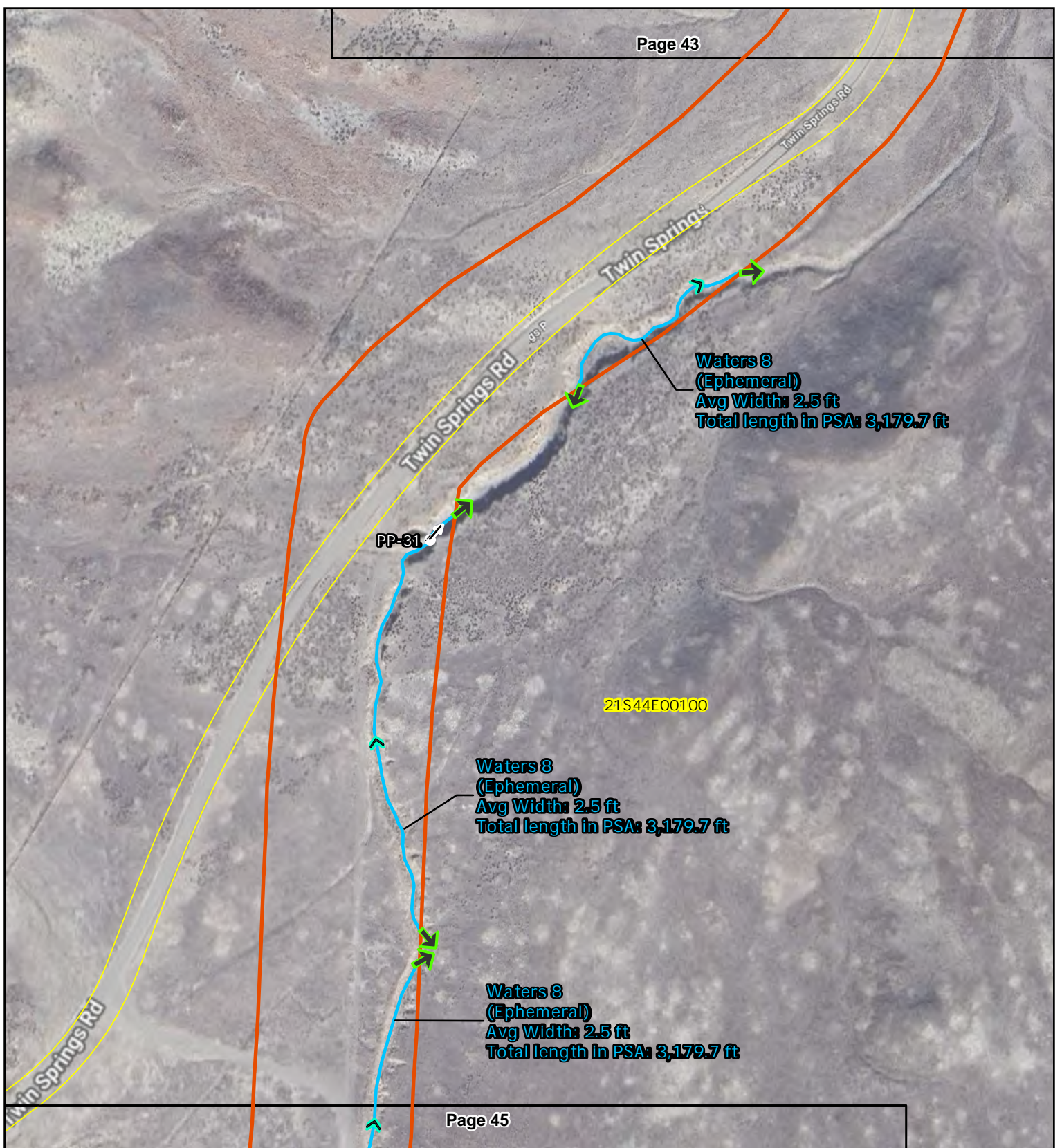


Figure 6 - Page 44 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

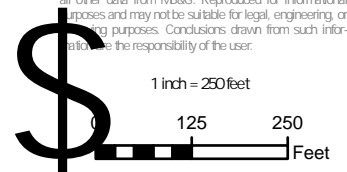
Calico Resources USA Corp.
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- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

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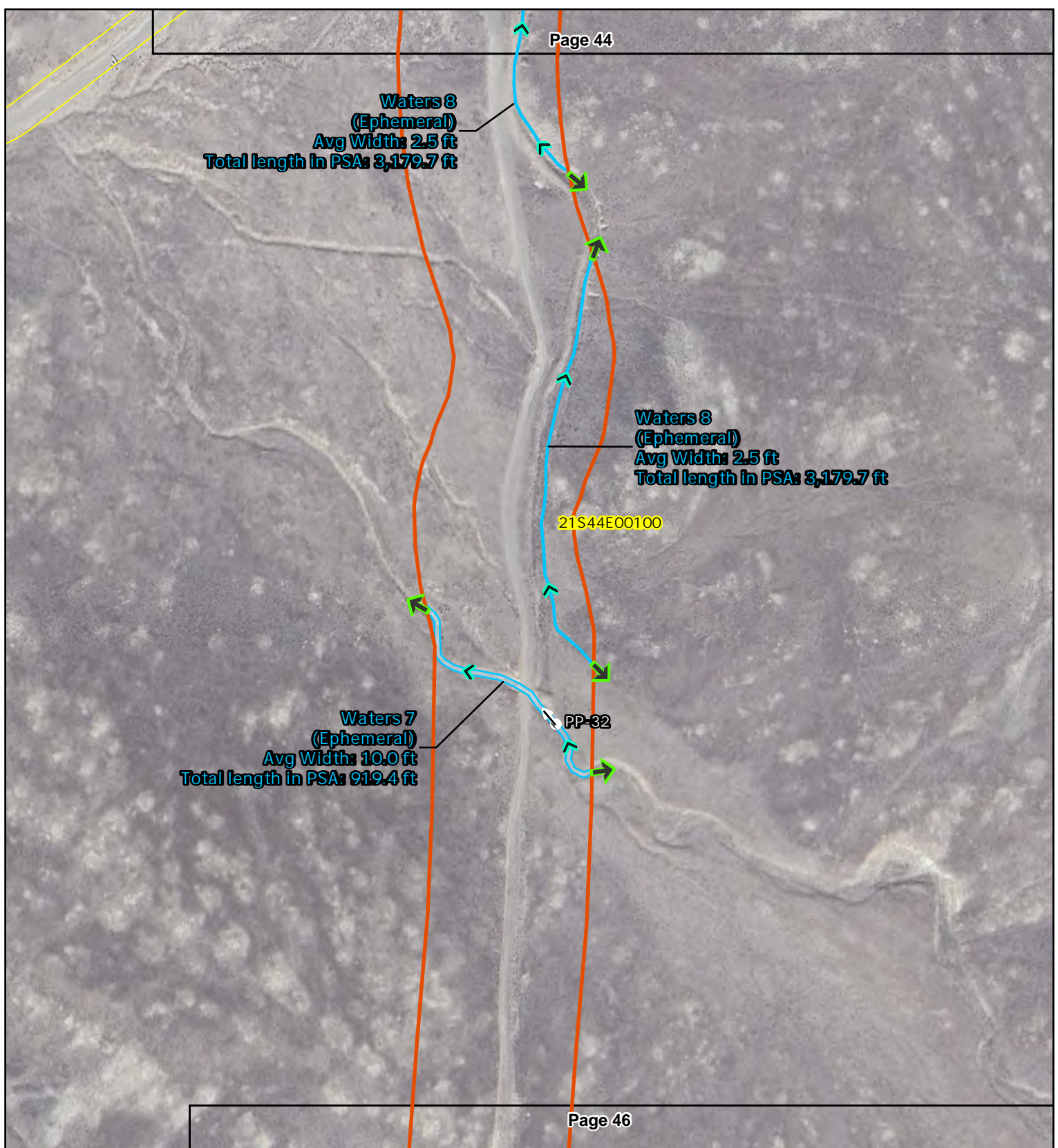


Figure 6 - Page 45 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

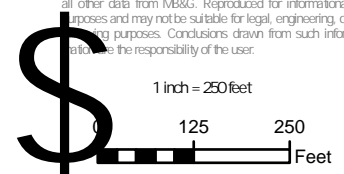
Calico Resources USA Corp.
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Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➡ Extends Beyond PSA

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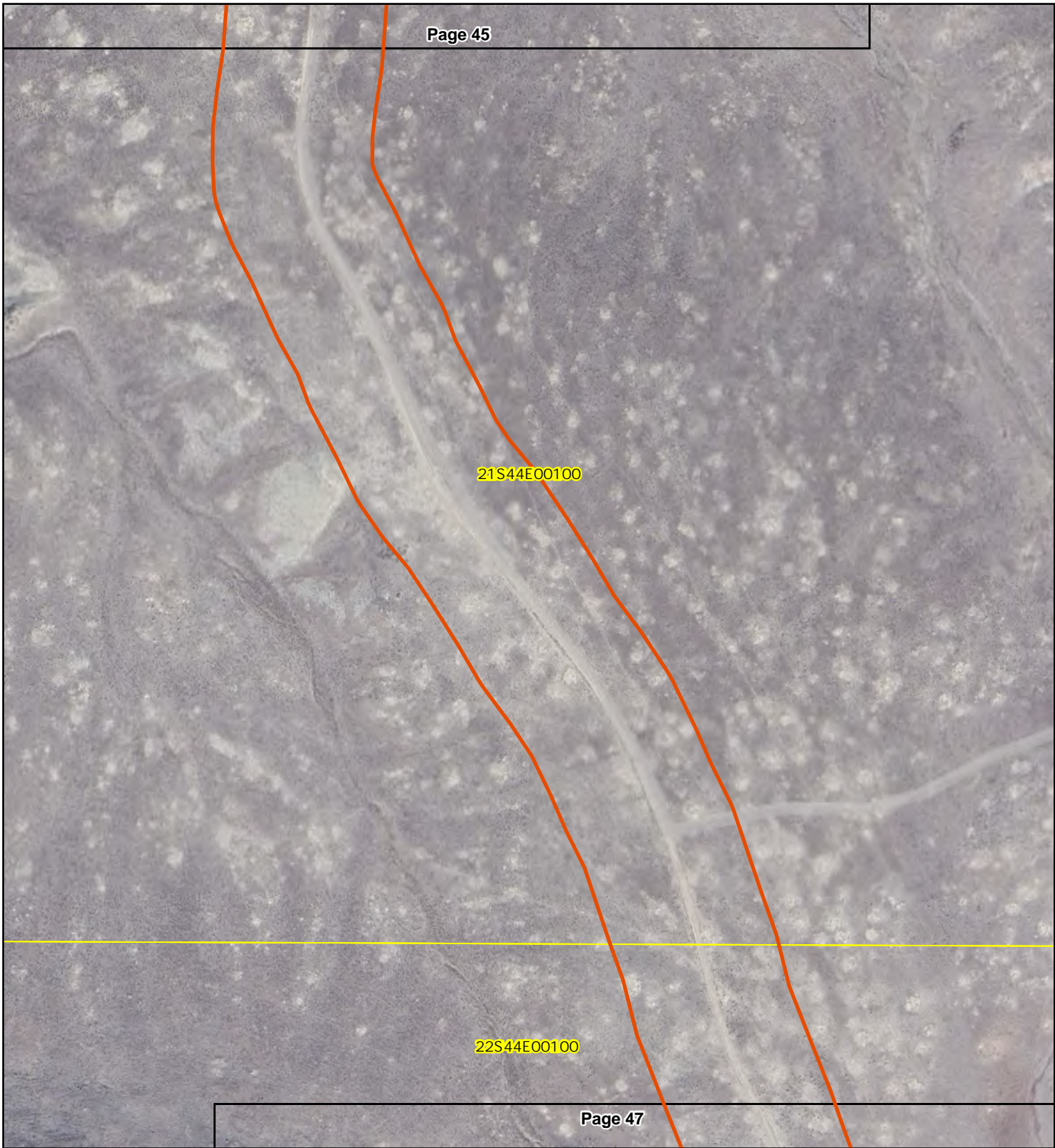


Figure 6 - Page 46 of 59
Wetlands and Waters

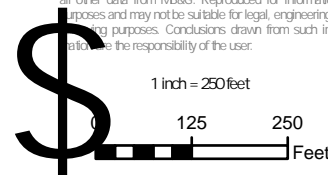
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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22S44E00100

Grassy Mountain Reservoir

Figure 6 - Page 47 of 59 Wetlands and Waters

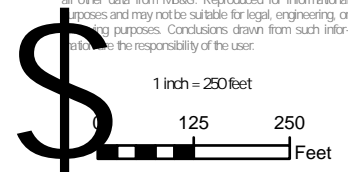
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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-  Project Study Area
-  Map Book Page
-  Tax Lot



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22S44E00100

PP-33

**Waters 7
(Ephemeral)**
Avg Width: 10.0 ft
Total length in PSA: 919.4 ft

Figure 6 - Page 48 of 59 Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

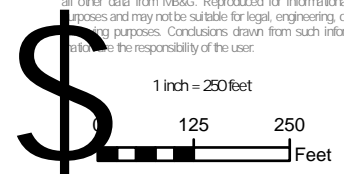
Calico Resources USA Corp.
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Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- ➔ Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



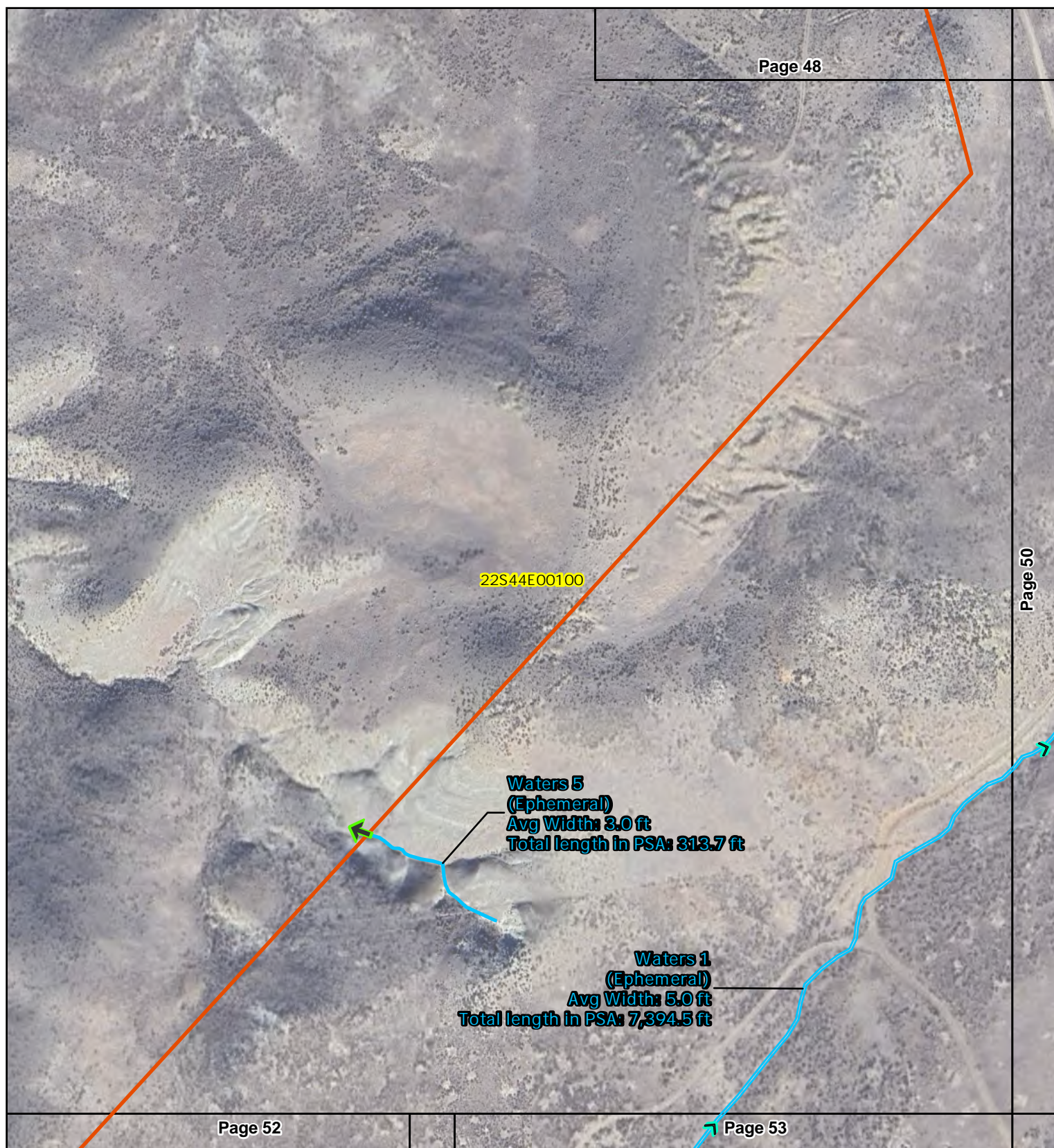








Figure 6 - Page 49 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

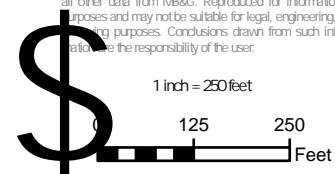
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-  Ephemeral Waters
-  Flow Direction
-  Extends Beyond PSA

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Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



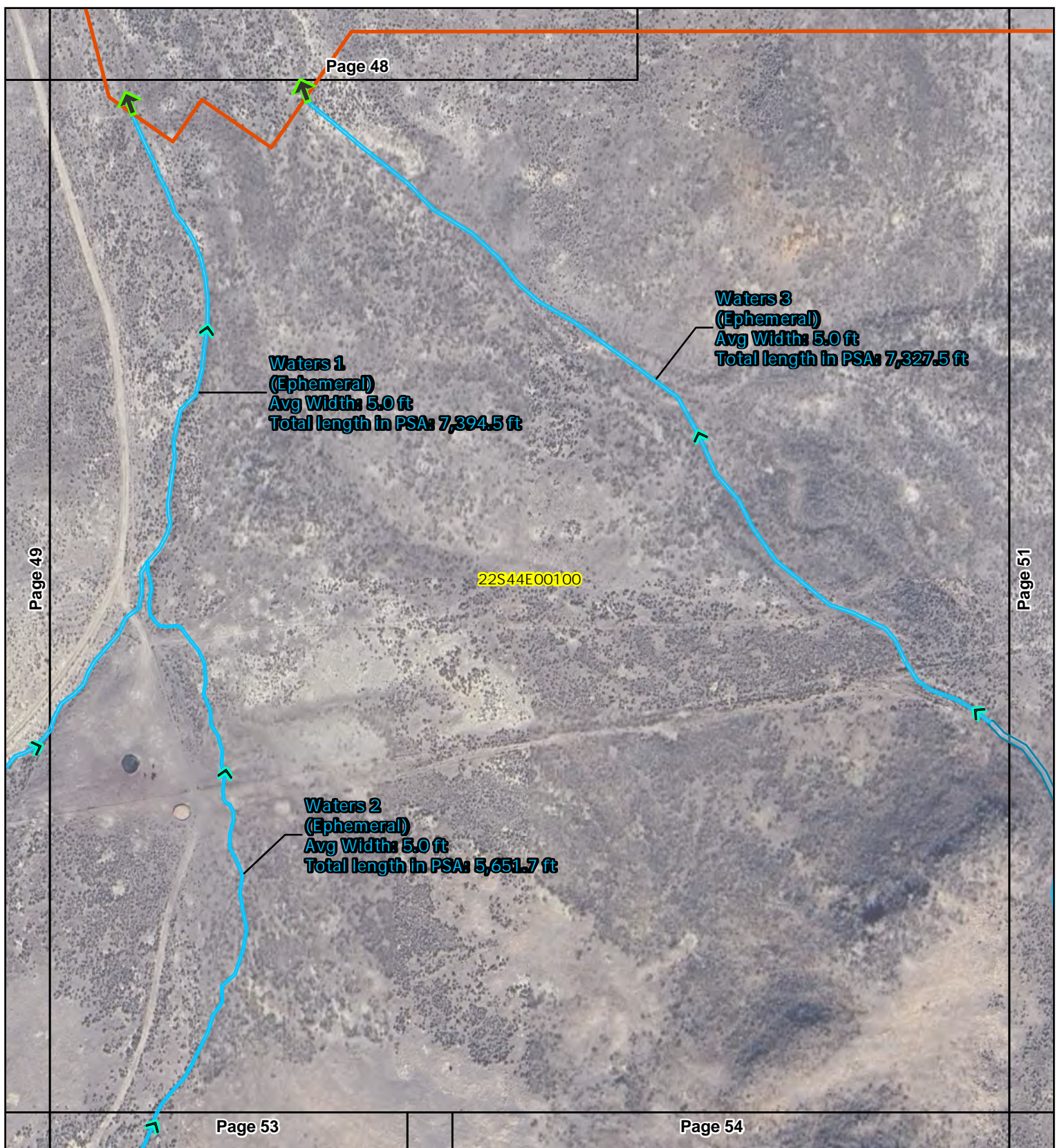


Figure 6 - Page 50 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

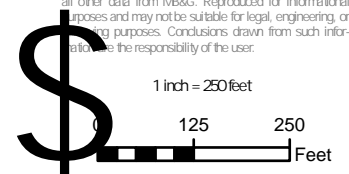
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Intermittent Waters

- Ephemeral Waters
- Flow Direction
- ➡ Extends Beyond PSA



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



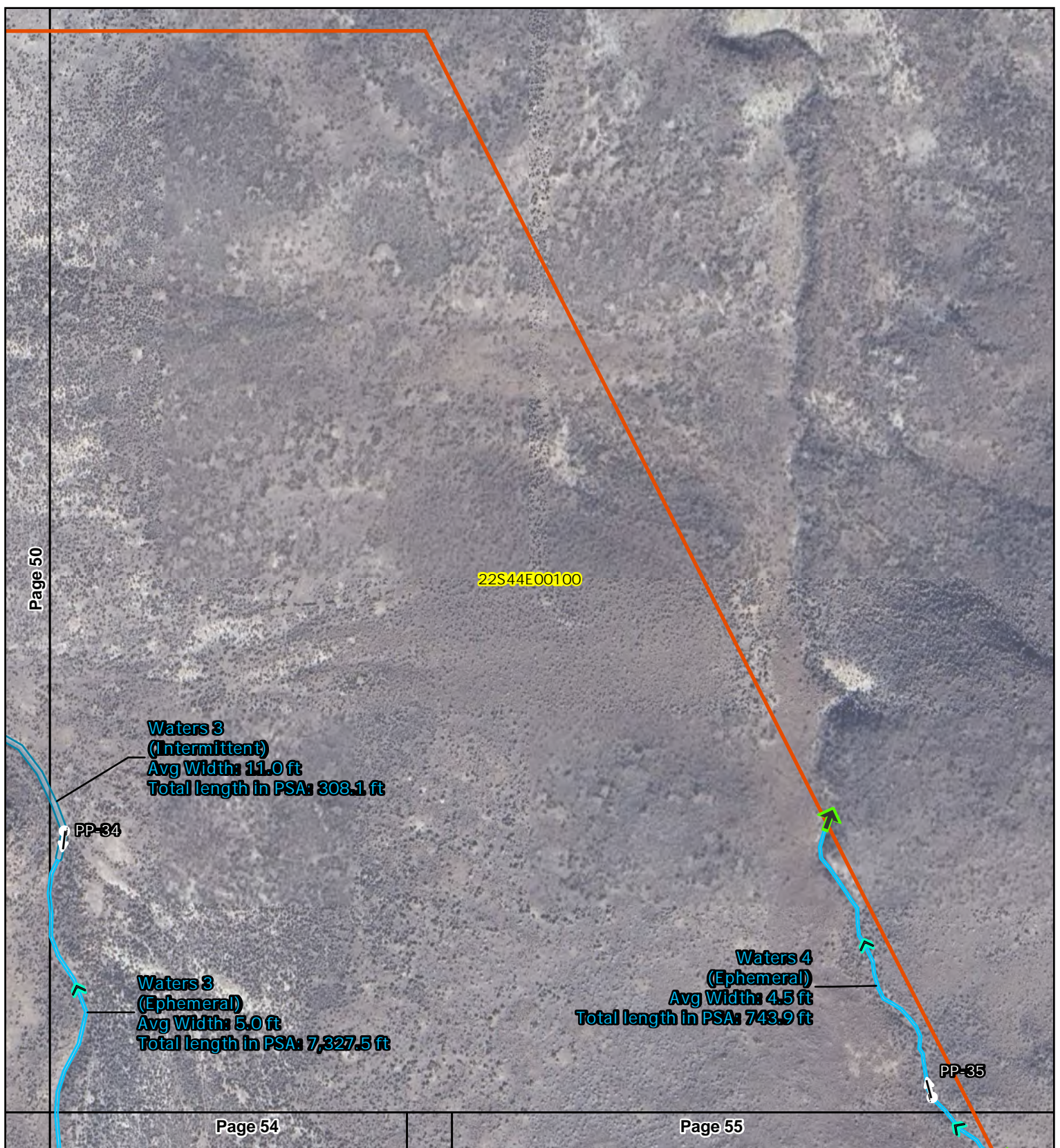


Figure 6 - Page 51 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

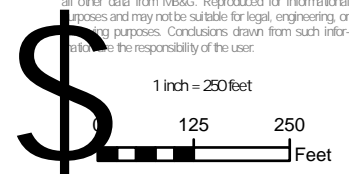
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Intermittent Waters
- Ephemeral Waters

- Photo Point (PP)
- Flow Direction
- Extends Beyond PSA

MB&G
Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



1 inch = 250 feet

125 250 Feet

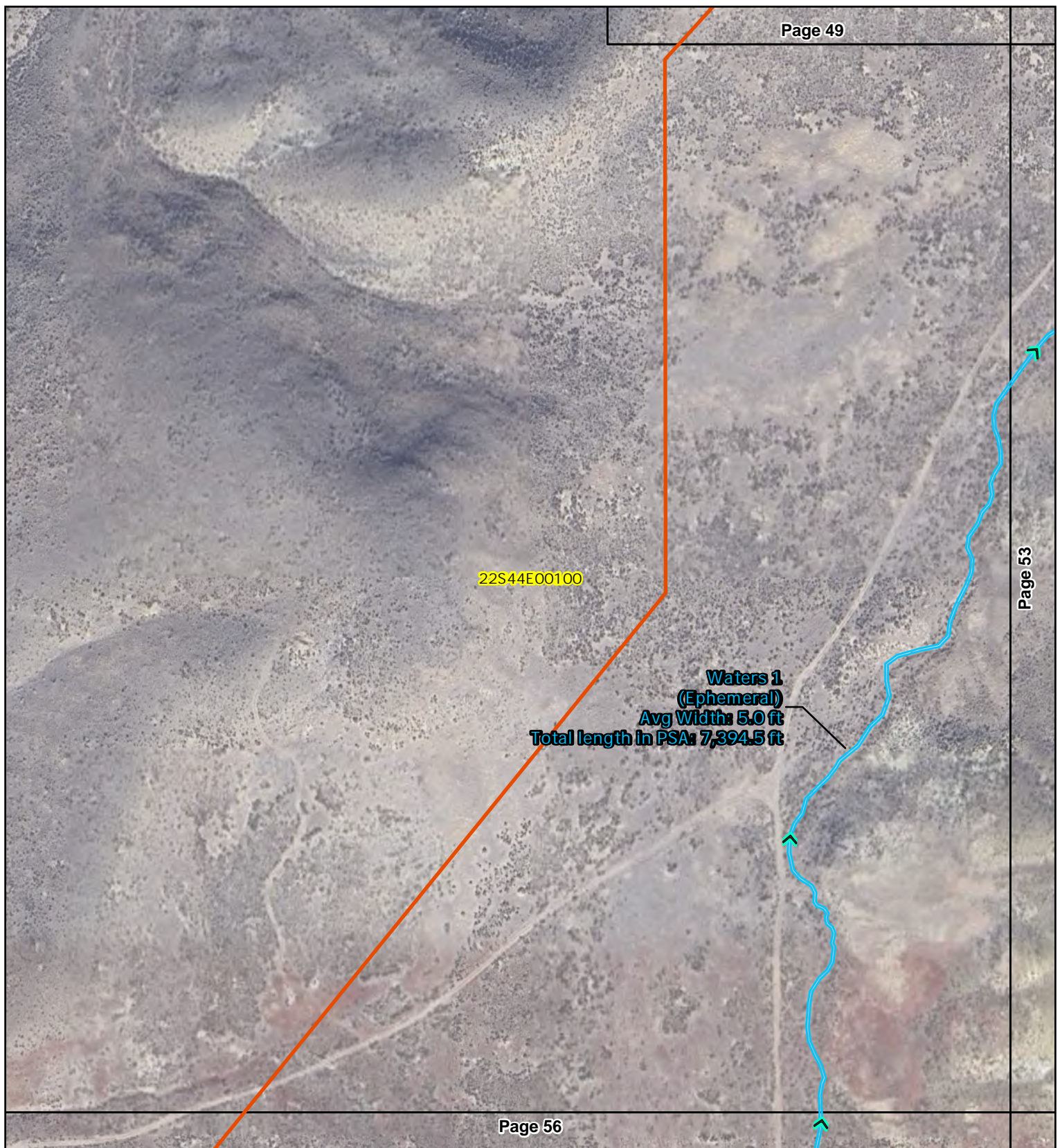


Figure 6 - Page 52 of 59
Wetlands and Waters

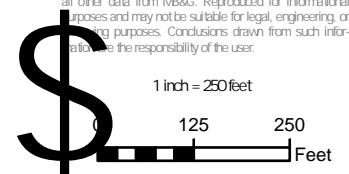
Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot
- Ephemeral Waters
- FlowDirection

 **MB&G**
Natural Resource Consultants

Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or other purposes. Conclusions drawn from such information are the responsibility of the user.



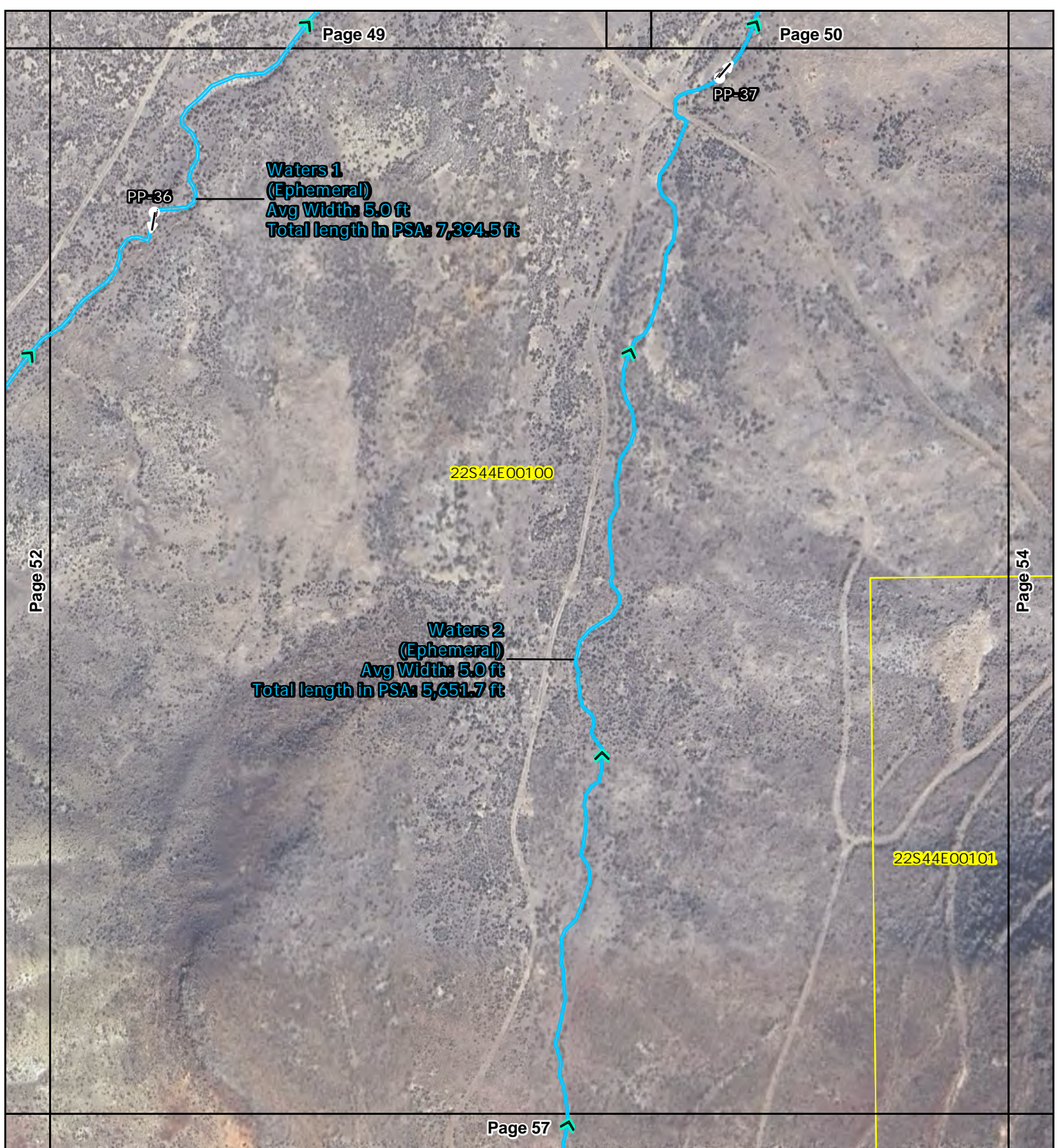


Figure 6 - Page 53 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

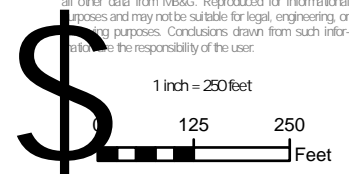
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Photo Point (PP)
- FlowDirection



Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or other purposes. Conclusions drawn from such information are the responsibility of the user.



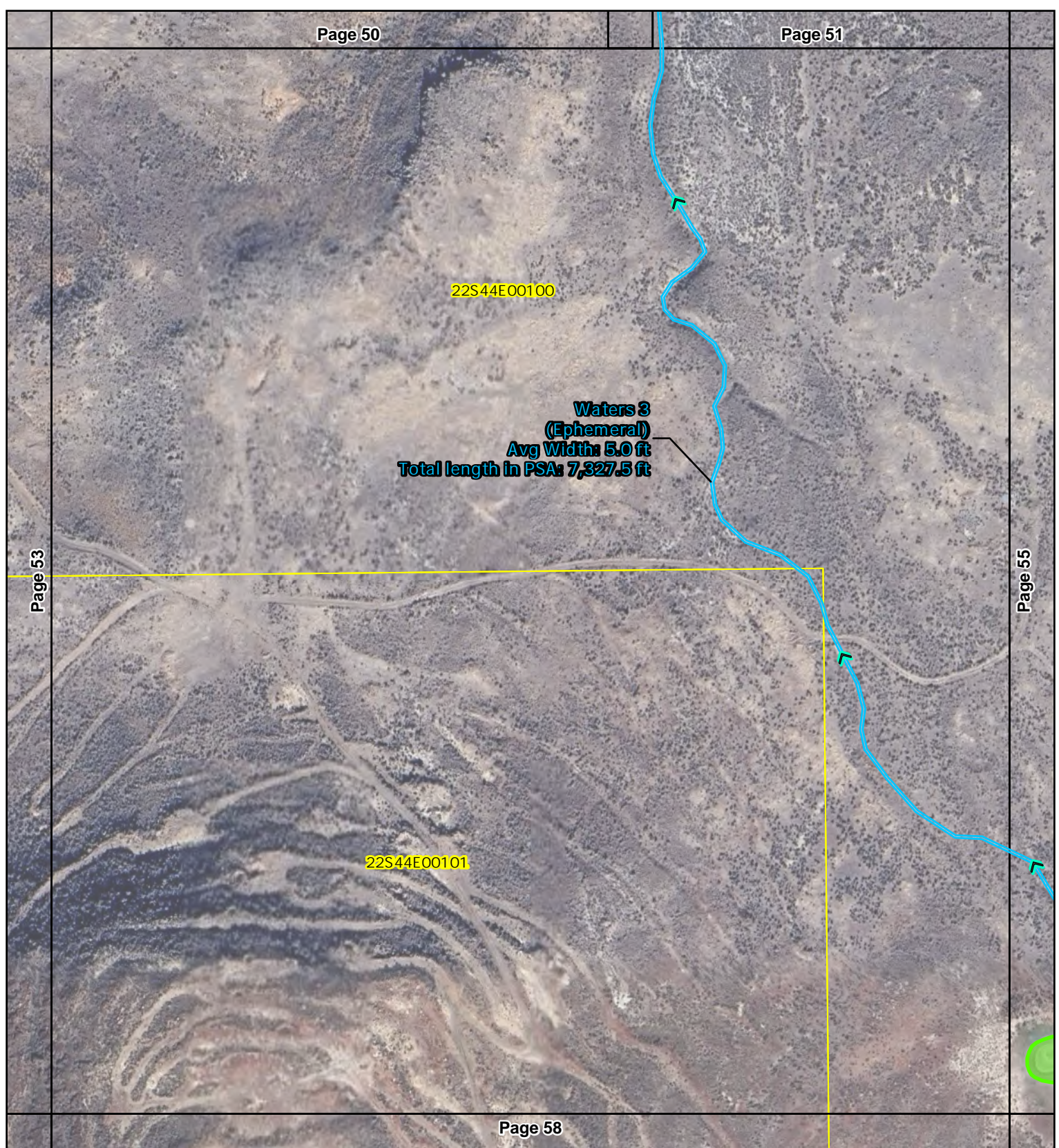


Figure 6 - Page 54 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

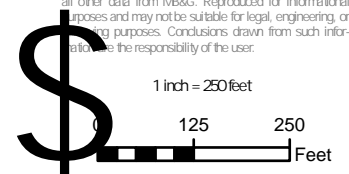
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Wetlands
- FlowDirection



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22S44E00100

**Waters 3
(Ephemeral)**
Avg Width: 5.0 ft
Total length in PSA: 7,327.5 ft

PP-38






Schweizer Reservoir




Livestock Water (Schweizer Reservoir)
PABFh, DCNP
[0.2178 acres]

Figure 6 - Page 55 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

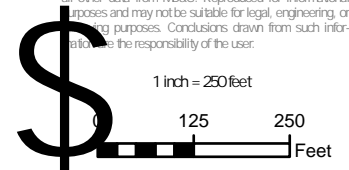
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

-  Project Study Area
-  Map Book Page
-  Tax Lot
-  Ephemeral Waters
-  Wetlands

-  Photo Point (PP)
-  Flow Direction
-  Extends Beyond PSA

 **MB&G**
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Source: Aerial imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



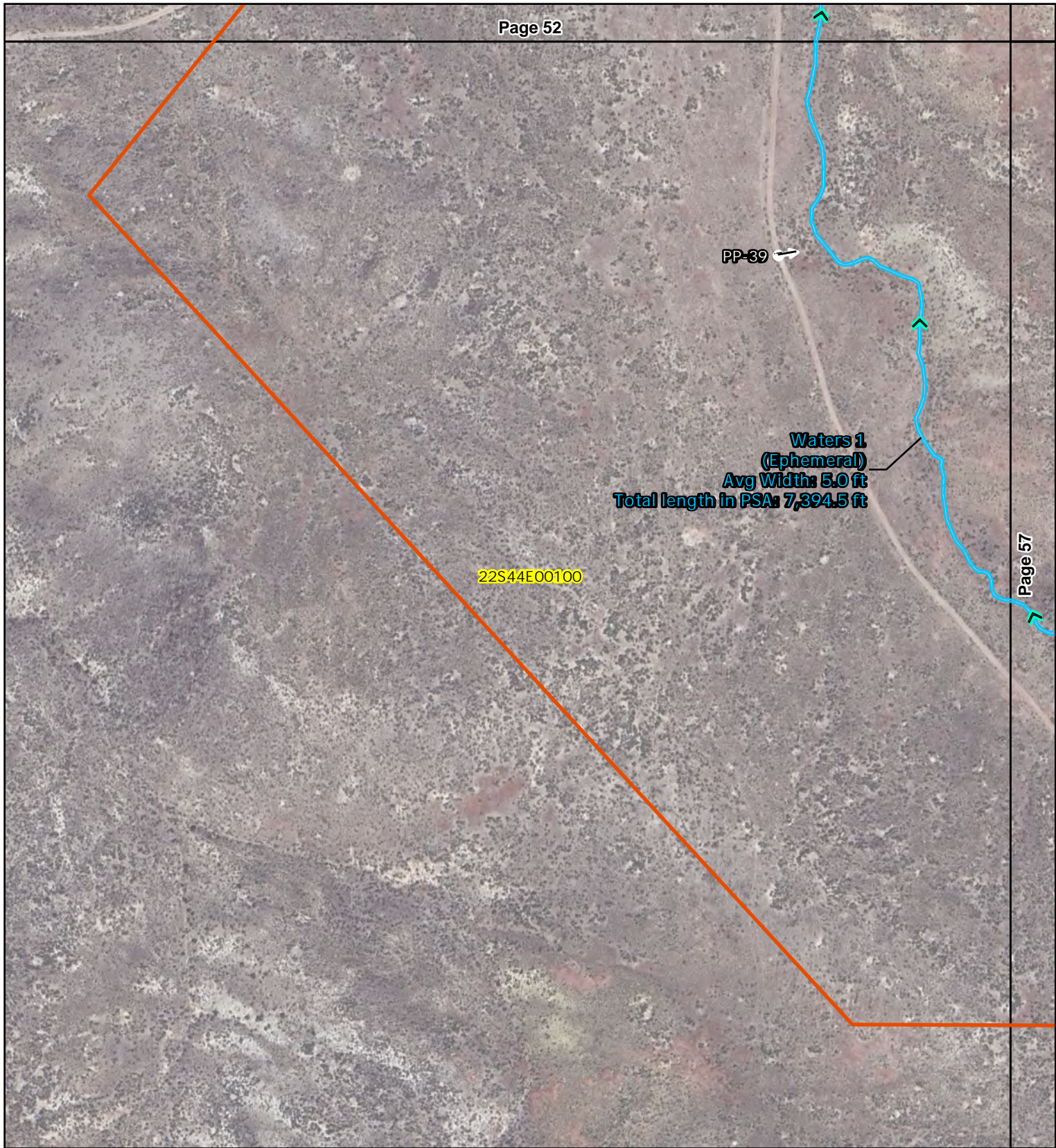








Figure 6 - Page 56 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

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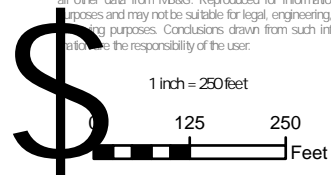
-  Project Study Area
-  Map Book Page
-  Tax Lot

-  Ephemeral Waters
-  Photo Point (PP)
-  FlowDirection



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Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



1 inch = 250 feet

125 250 Feet

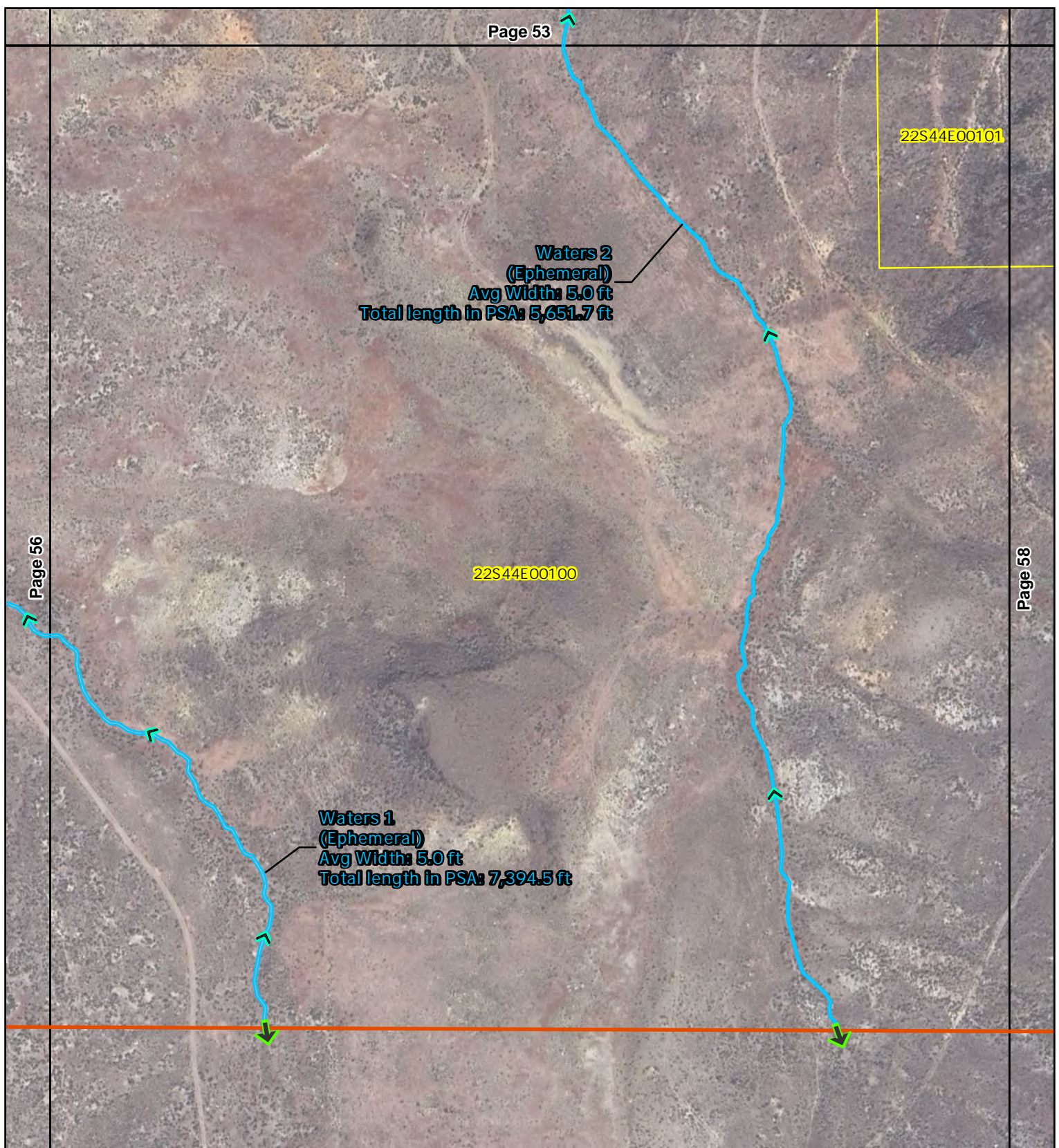


Figure 6 - Page 57 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

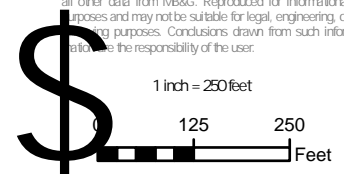
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Flow Direction
- ➔ Extends Beyond PSA

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Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering or planning purposes. Conclusions drawn from such information are the responsibility of the user.



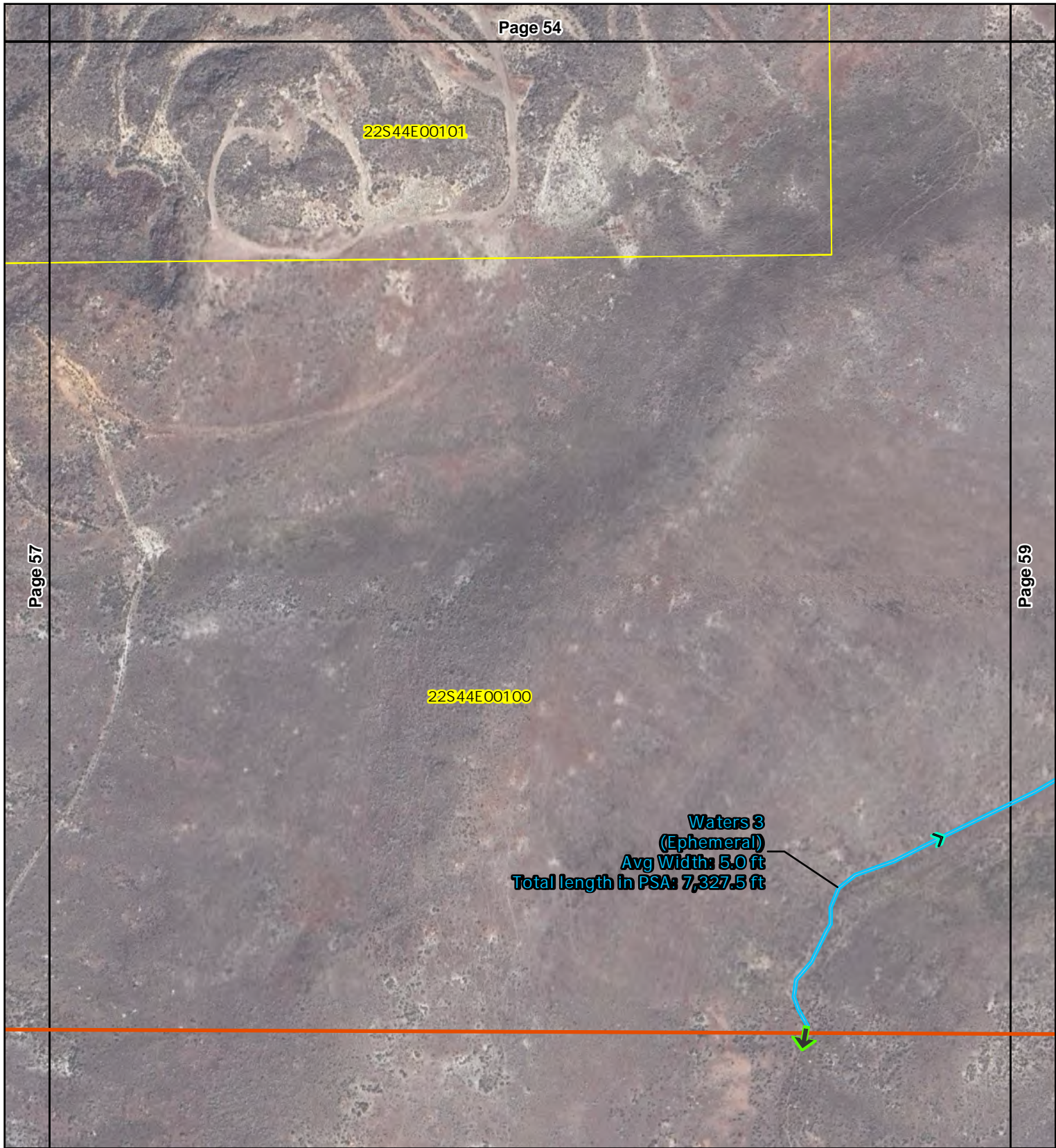


Figure 6 - Page 58 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

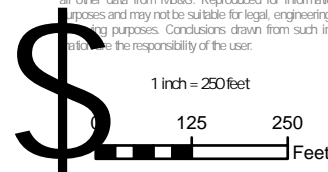
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
- Map Book Page
- Tax Lot

- Ephemeral Waters
- Flow Direction
- Extends Beyond PSA

 **MB&G**
Natural Resource Consultants

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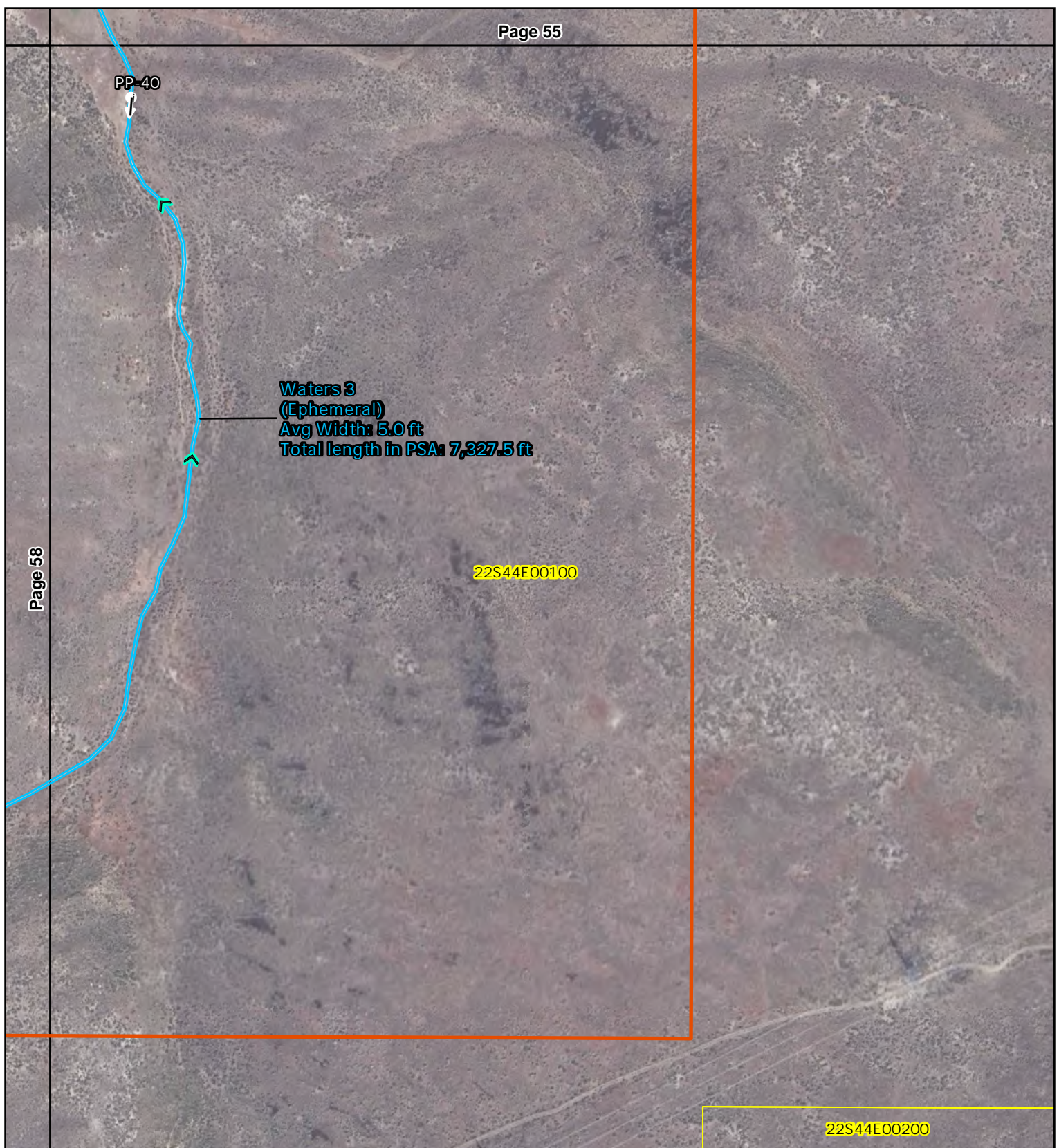


Figure 6 - Page 59 of 59
Wetlands and Waters

Wetlands/waters boundaries surveyed using a GNSS antenna with submeter accuracy. The PSA boundary was digitized in GIS and referenced in the field using mobile-mapping software on a GPS-enabled tablet. As such, there was no loss in precision transferring the boundary of the PSA from the ground to the map.

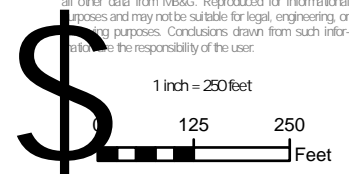
Calico Resources USA Corp.
Grassy Mountain Mine Project
Malheur County, Oregon

- Project Study Area
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- Photo Point (PP)
- FlowDirection



Source: Aerial Imagery from Google Earth; PSA from SLR; all other data from MB&G. Reproduced for informational purposes and may not be suitable for legal, engineering, or planning purposes. Conclusions drawn from such information are the responsibility of the user.



APPENDIX B

Wetland and SDAM Data Forms

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Grassy Mountain Mine City/County: Near Vale/Malheur Co. Sampling Date: 4/23/25
Applicant/Owner: Calico Resources State: OR Sampling Point: SP-1 (upland)
Investigator(s): D. Covington, J. Roper Section, Township, Range: _____
Landform (hillside, terrace, etc.): valley / flat Local relief (concave, convex, none): _____ Slope (%): 0
Subregion (LRR): B Lat: 43.717342 Long: -117.349425 Datum: _____
Soil Map Unit Name: S6491, Rucklick-Ruckles-Lookout (hydric rating: 0) NWI classification: PUSJ
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☒ (If no, explain in Remarks.) (drier)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☒
Hydric Soil Present? Yes ☒ No ☒
Wetland Hydrology Present? Yes ☒ No ☒

Is the Sampled Area
within a Wetland? Yes ☒ No ☒

Remarks: Plot along edge of NWI feature. This is a flat with very little topographic relief. Soils are high in clay and moist but not saturated. Entire feature has surface cracks in the mud. Area is sparsely vegetated, but there is evidence that it is dominated by Scotch thistle mid- to late-season.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		=Total Cover		

Sapling/Shrub Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
		=Total Cover		

Herb Stratum	(Plot size: <u>5 ft rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Onopordum acanthium</u>	<u>20</u>	<u>Y</u>	<u>NL</u>
2.	<u>Poa palustris</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
3.				
4.				
5.				
6.				
7.				
8.				
		<u>30</u> =Total Cover		

Woody Vine Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
		=Total Cover		

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species _____	x 4 = _____
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>30</u> (A)	<u>130</u> (B)
Prevalence Index = B/A = <u>4.3</u>	

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0¹
____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☒

Remarks: Sparsely vegetated cover; high clay content with seasonal ponding. Upland vegetation establishes mid- to late-season in cracks of mud as clay dries out.

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10Y/R 3/3	100	/	/	/	/	Silty clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

- | | | |
|--|---|--|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> 1 cm Muck (A9) (LRR C) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> 2 cm Muck (A10) (LRR B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Mucky Mineral (F1) | <input type="checkbox"/> Reduced Vertic (F18) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Red Parent Material (F21) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> Very Shallow Dark Surface (F22) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Iron Monosulfide (A18) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes _____ No ☒

Remarks: High clay content. No obvious concentrations of redox or depletions in matrix of pore linings. Soil was moist but not saturated.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- | |
|--|
| <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes _____	No <input checked="" type="checkbox"/>	Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Soil is moist but not saturated.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Grassy Mountain Mine City/County: near Vale / Malheur Co. Sampling Date: 4/23/25
Applicant/Owner: Calico Resources State: OR Sampling Point: SP-2 (wetland)
Investigator(s): D. Covington, J. Roper Section, Township, Range: _____
Landform (hillside, terrace, etc.): valley / flat Local relief (concave, convex, none): _____ Slope (%): 0
Subregion (LRR): B Lat: 43.71738 Long: -117.349257 Datum: _____
Soil Map Unit Name: S6491 Rudick-Ruckles-Lookout (non-hydr) NWI classification: PUSJ
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☒ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☒
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ ☒
Hydric Soil Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area
within a Wetland?

Yes ☒ No ☐

Remarks: Wetland 1. Part of NWI feature that extends off site. Mud cracks along the surface, and ground is soft under foot. Depletions near the surface. Drier than normal

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
		=Total Cover		
Herb Stratum	(Plot size: <u>5 ft. rad.</u>)			
1.	<u>Onopordum acanthium</u>	<u>25</u>	<u>Y</u>	<u>NL</u>
2.	<u>(last year's standing dead)</u>			
3.				
4.				
5.				
6.				
7.				
8.				
		<u>25</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1.				
2.				
		=Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%
___ Prevalence Index is ≤3.0¹
___ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: BPI wetland despite lack of hydrophytic vegetation. This is a high clay content playa that becomes vegetated with Scotch thistle later in the season.

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-16	10YR 5/1	60	10YR 4/4	40	C	M/PL	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes ☒ No ☐Remarks: high clay content.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>NA</u>
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>20</u>
Saturation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches): <u>8</u>

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-COR	OMB Control #: 0710-0024, Exp: 09/30/2027 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Grassy Mountain Mine City/County: near Vale / Malheur Co. Sampling Date: 4/25/25
Applicant/Owner: Calico Resources State: OR Sampling Point: SP-3 (wetland)
Investigator(s): D. Covington, J. Roper Section, Township, Range: _____
Landform (hillside, terrace, etc.): toe of slope Local relief (concave, convex, none) Slope (%): 2
Subregion (LRR): B Lat: 43.720351 Long: -117.342871 Datum: _____
Soil Map Unit Name: S6491 Ruckel-Ruckles - Lookout (non-hydric) NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☒ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks: Wetland 2. Appears to originate from hydrology seeping from toe of slope.
Drier than normal

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species _____ x 1 = _____ FACW species <u>1</u> x 2 = <u>2</u> FAC species <u>1</u> x 3 = <u>3</u> FACU species _____ x 4 = _____ UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>15</u> (A) <u>50</u> (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
Herb Stratum (Plot size: <u>5 ft rad.</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% Prevalence Index is ≤3.0 ¹ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Bromus tectorum</u>	<u>20</u>	<u>N</u>	<u>NL</u>	
2. <u>Leymus cinereus</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Pascopyrum smithii</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Juncus balticus</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	
5. <u>Poa bulbosa</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>105</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Remarks: _____

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	98	10YR 3/6	2	C	M	sandy loam w/ some muck	
2-16	10YR 3/2	95	10YR 4/4	5	C	PL	sandy loam w/ some clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5) (LRR C)
☐ 1 cm Muck (A9) (LRR D)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☒ Iron Monosulfide (A18)
☒ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (LRR C)
☐ 2 cm Muck (A10) (LRR B)
☐ Iron-Manganese Masses (F12) (LRR D)
☐ Reduced Vertic (F18)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (F22)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes ☒ No ☐Remarks: Very dark surface layer with some redox features and muck.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1) (Nonriverine)
☐ Sediment Deposits (B2) (Nonriverine)
☐ Drift Deposits (B3) (Nonriverine)
☐ Surface Soil Cracks (B6)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
☐ Biotic Crust (B12)
☐ Aquatic Invertebrates (B13)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Water Marks (B1) (Riverine)
☐ Sediment Deposits (B2) (Riverine)
☐ Drift Deposits (B3) (Riverine)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Shallow Aquitard (D3)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1"
 Water Table Present? Yes ☒ No ☐ Depth (inches): 8"
 Saturation Present? Yes ☒ No ☐ Depth (inches): 1"
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Ground water seep with surface water.

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Grassy Mountain Mine

City/County: near Vale/Malheur Co.

Sampling Date: 4/23/25

Applicant/Owner: Calico Resources

State: OR

Sampling Point: SP-4(Up-land)

Investigator(s): D. Covington, J. Roper

Section, Township, Range: _____

Landform (hillside, terrace, etc.): toe of slope

Local relief (concave, convex, none): _____

Slope (%): 2

Subregion (LRR): B

Lat: 43.720439

Long: -117.342963

Datum: _____

Soil Map Unit Name: S6491 Rucklick-Ruckles-Lookout (non-hydric)

NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year?

Yes ☒ No ☒ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed?

Are "Normal Circumstances" present? Yes ☒ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic?

(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No ☒

Hydric Soil Present? Yes _____ No ☒

Wetland Hydrology Present? Yes _____ No ☒

Is the Sampled Area within a Wetland?

Yes _____ No ☒

Remarks: drier than normal

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: _____)			
1.				
2.				
3.				
4.				
5.				
		=Total Cover		
Herb Stratum	(Plot size: <u>5 ft. rad.</u>)			
1.	<u>Bromus tectorum</u>	<u>70</u>	<u>Y</u>	<u>NL</u>
2.	<u>Pascopyrum smithii</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
3.	<u>Chorispora tenella</u>	<u>2</u>	<u>N</u>	<u>NL</u>
4.				
5.				
6.				
7.				
8.				
		<u>102</u> =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1.				
2.				
		=Total Cover		

% Bare Ground in Herb Stratum 0

% Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species _____	x 4 = _____
UPL species <u>72</u>	x 5 = <u>360</u>
Column Totals: <u>102</u> (A)	<u>450</u> (B)
Prevalence Index = B/A = <u>4.41</u>	

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Index is ≤3.0¹

☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present?

Yes _____ No ☒

Remarks:

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/3	100					Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present?

Yes _____

No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____Water Table Present? Yes _____ No ✓ Depth (inches): _____Saturation Present? Yes _____ No ✓ Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present?

Yes _____

No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Grassy Mountain Mine City/County: near Vale / Malheur Co Sampling Date: 4/23/25
Applicant/Owner: Calico Resources State: OR Sampling Point: SP5 (wetland)
Investigator(s): D. Covington, J. Roper Section, Township, Range: _____
Landform (hillside, terrace, etc.): toe of slope Local relief (concave) convex, none: _____ Slope (%): 1
Subregion (LRR): B Lat: 43.720234 Long: -117.344010 Datum: _____
Soil Map Unit Name: 56491 Rudick-Ruckles-Lookout (non-hydric) NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☒ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: <u>Wetland 3. Originates from seep. Drier than normal.</u>	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		=Total Cover		

Sapling/Shrub Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
		=Total Cover		

Herb Stratum	(Plot size: <u>5 ft. rad.</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Hordeum brachyantherum</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
2.	<u>Poa bulbosa</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>
3.	<u>Poa palustris</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
4.	<u>Leymus cinereus</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>
5.	<u>Juncus bufonius</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
6.				
7.				
8.				
		<u>88</u> =Total Cover		

Woody Vine Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
		=Total Cover		

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust _____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species _____ x 1 = _____
FACW species _____ x 2 = _____
FAC species _____ x 3 = _____
FACU species _____ x 4 = _____
UPL species _____ x 5 = _____
Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
☒ Dominance Test is >50%
☐ Prevalence Index is ≤3.0¹
☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: SP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10 YR 3/1	95	10 YR 4/6	5	C	M/PL	sandy loam with some clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR D)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Iron Monosulfide (A18)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present?

Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

Secondary Indicators (minimum of two required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

Water Table Present? Yes ☒ No ☐ Depth (inches): 3

Saturation Present? Yes ☒ No ☐ Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Arid West Region
See ERDC/EL TR-08-28; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Grassy Mountain Mine City/County: near Vale / Malheur Co. Sampling Date: 4/23/25
Applicant/Owner: Calico Resources State: OR Sampling Point: S 2-6 (upland)
Investigator(s): D. Covington, J. Roper Section, Township, Range: _____
Landform (hillside, terrace, etc.): slope Local relief (concave, convex, none): none Slope (%): 1
Subregion (LRR): B Lat: 43.720228 Long: -117.343965 Datum: _____
Soil Map Unit Name: S6491 Rucklick-Ruckles-Lookout (non-hydric) NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☒ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No ☒
Hydric Soil Present? Yes _____ No ☒
Wetland Hydrology Present? Yes _____ No ☒

Is the Sampled Area
within a Wetland? Yes _____ No ☒

Remarks: Drier than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		=Total Cover		

Sapling/Shrub Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
		=Total Cover		

Herb Stratum	(Plot size: <u>5 ft. rad</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Bromus tectorum</u>	<u>35</u>	<u>Y</u>	<u>NL</u>
2.	<u>Pascopyrum smithii</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>
3.				
4.				
5.				
6.				
7.				
8.				
		<u>85</u>	=Total Cover	

Woody Vine Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
		=Total Cover		

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 = _____
FACW species	x 2 = _____
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species	x 4 = _____
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>85</u> (A)	<u>325</u> (B)
Prevalence Index = B/A = <u>3.8</u>	

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0¹
____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ☒

Remarks:

Sampling Point: SP-6

HYDROLOGY

ENG FORM 6116-1, SEP 2024

Streamflow Duration Field Assessment Form

Project # / Name		Grassy Mountain Mine		Assessor		D. Covington, J. Roper			
Address		N/A		Date		4/22/25			
Waterway Name		Waters 1		Coordinates at downstream end (ddd.mm.ss)		Lat. 43.666738 N Long. -117.368147 W			
Reach Boundaries		N/A		Precipitation w/in 48 hours (cm)		0			
		Channel Width (m)		1.52(m) (5 ft)		<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")			
Observed Hydrology	% of reach w/observed surface flow							0	
	% of reach w/any flow (surface or hyporheic)							0	
	# of pools observed							0	
Observations	Observed Wetland Plants (and indicator status):				Observed Macroinvertebrates:				
	N/A				N/A				
Indicators	1. Are aquatic macroinvertebrates present?				<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		
	2. Are 6 or more individuals of the Order Ephemeroptera present?				<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		
	3. Are perennial indicator taxa present? (refer to Table 1)				<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)				<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No		
	5. What is the slope? (In percent, measured for the valley, not the stream)				7-10		%		
Conclusions									
	Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians				Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial				

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.) N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

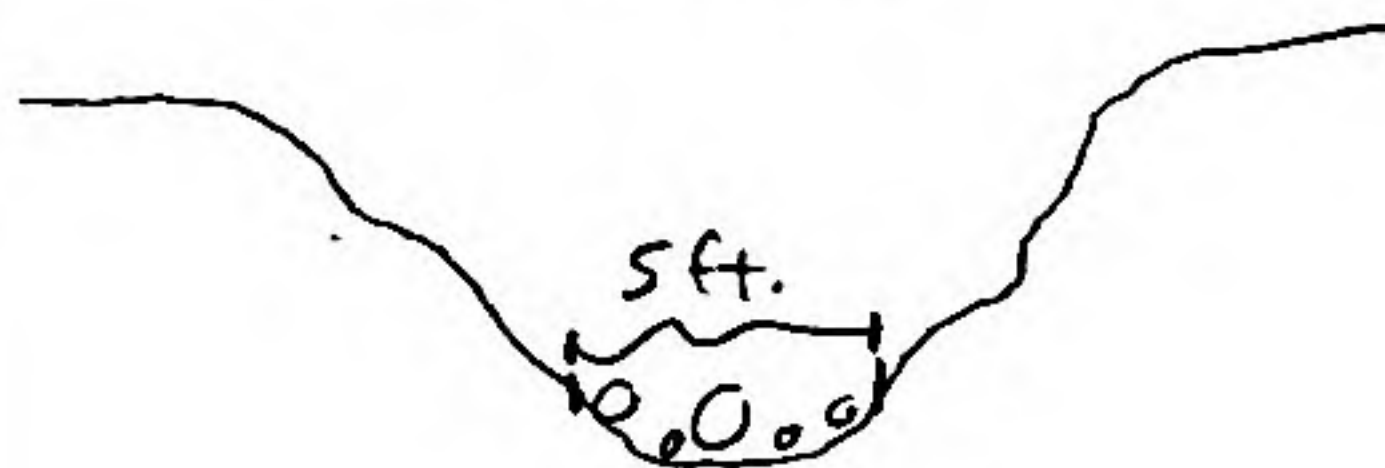
☐ Above Average

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

N/A

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- evidence of ephemeral flow in past 2 months.
- exposed grass roots and small debris wracking
- no riparian vegetation
- no water or wet banks observed.
- small, inset flood plain in wider cross-section

Ancillary Information:

☐ Riparian Corridor

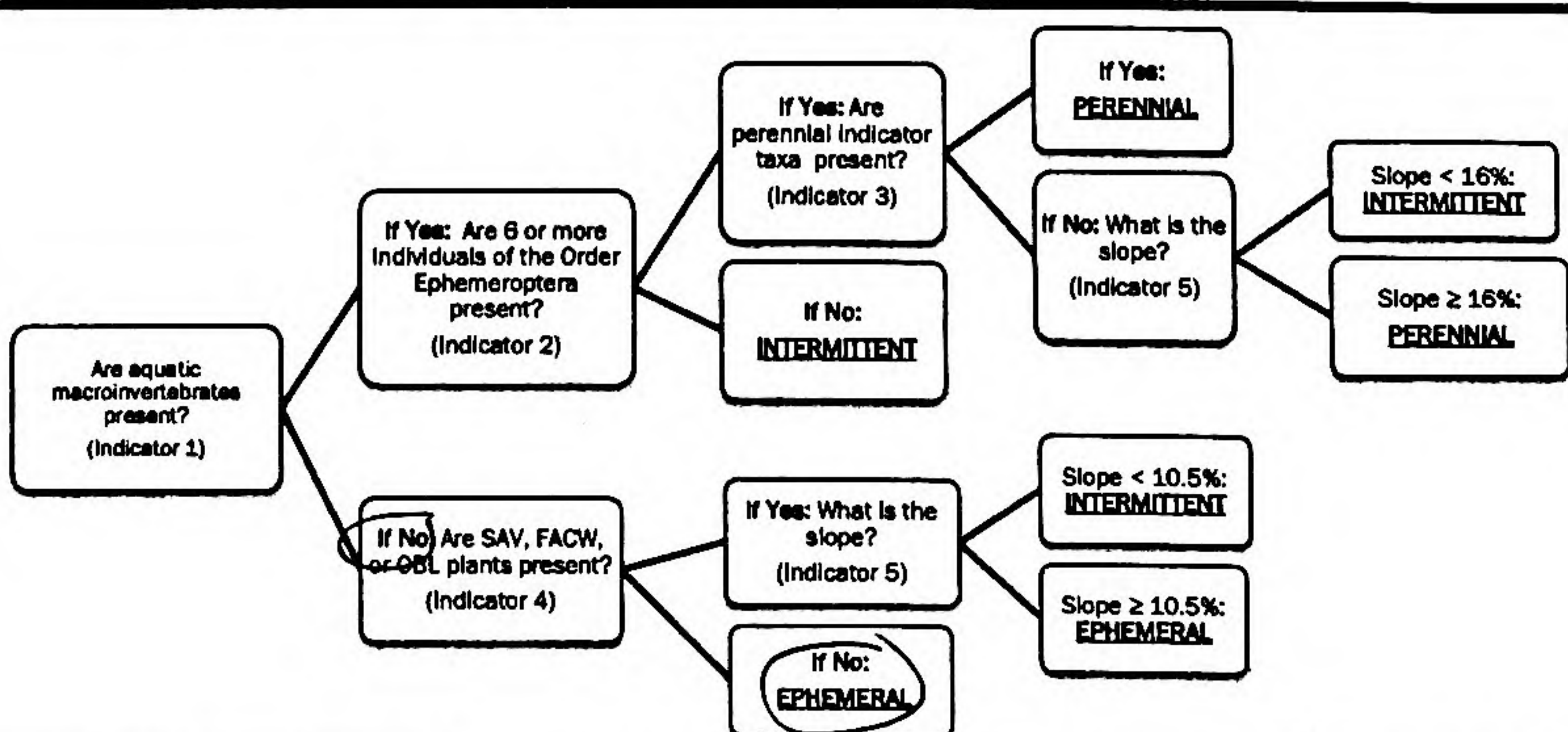
☒ Erosion and Deposition - some evidence of substrate entrainment/deposition; debris wracking, exposed grass roots.

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/22/25</u>																
Waterway Name <u>Waters 2</u>		Coordinates at downstream end Lat. <u>43.675356</u> N Long. <u>-117.363392</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>1.22 (m)</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u>																	
Observations	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Observed Wetland Plants (and indicator status): <u>N/A</u> </div> <div style="width: 50%;"> Observed Macroinvertebrates: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Taxon</th> <th style="text-align: center;">Indicator Status</th> <th style="text-align: center;">Ephemeroptera?</th> <th style="text-align: center;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 10px;"><u>N/A</u></td> </tr> </tbody> </table> </div> </div>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>										
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1. Are aquatic macroinvertebrates present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																
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5. What is the slope? (In percent, measured for the valley, not the stream) <u>7-10</u> %																		
Conclusions	 <pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[If Yes: Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> I1[INTERMITTENT] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> Q5[If No: What is the slope? (Indicator 5)] Q5 -- "Slope < 16%" --> I2[INTERMITTENT] Q5 -- "Slope ≥ 16%" --> P1 Q4 -- Yes --> Q5 Q4 -- No --> E1[EPHEMERAL] Q5 -- "Slope < 10.5%" --> I3[INTERMITTENT] Q5 -- "Slope ≥ 10.5%" --> E2[EPHEMERAL] </pre>																	
Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians <u>N/A.</u>		Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial																

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.) N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

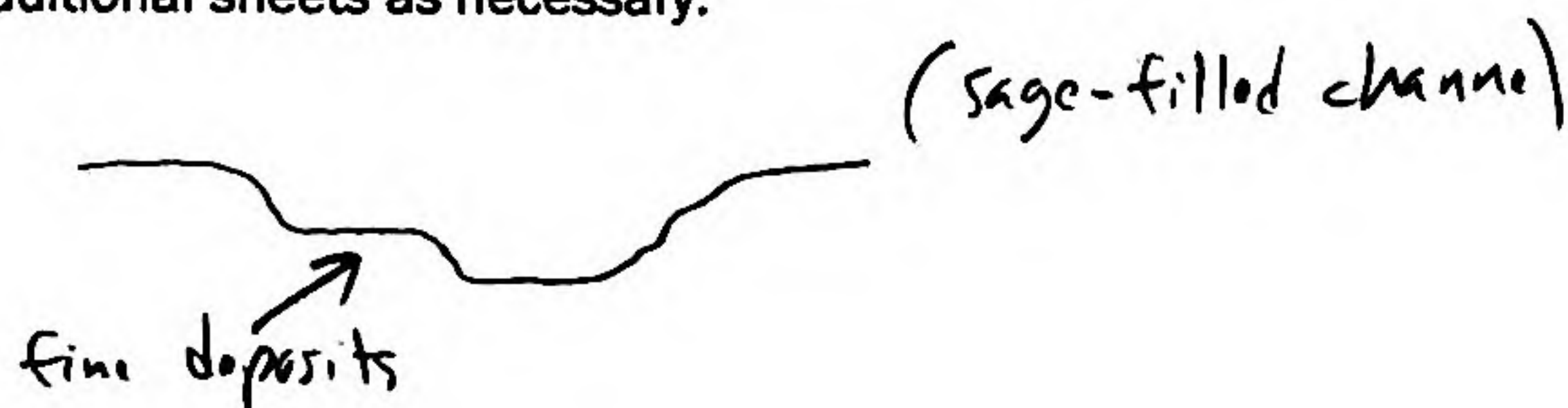
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- exposed fines + gravels.
- evidence of ephemeral flow in past 2 months
- channel inhabited by mature sage.
- flow pattern: sinuous + braided in flat reaches

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

evidence of entrainment + deposition / wracking

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name		Grassy Mountain Mine		Assessor		D. Covington, J. Roper	
Address		N/A		Date		4/22/25	
Waterway Name		Waters 3		Coordinates at downstream end (ddd.mm.ss)		Lat. 43.669567 N Long. -117.353255 W	
Reach Boundaries		N/A		Precipitation w/in 48 hours (cm)		0	
		Channel Width (m)		1.52 m		<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")	
Observed Hydrology	% of reach w/observed surface flow 0 (5 ft)						
	% of reach w/any flow (surface or hyporheic) 0						
	# of pools observed 0						
Observations	Observed Wetland Plants (and indicator status):			Observed Macroinvertebrates:			
	N/A			N/A			
Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
	2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
	3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
	5. What is the slope? (In percent, measured for the valley, not the stream) 8-12%						
Conclusions							
	Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians			Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial			

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- steep banks ; high incision
- evidence of ephemeral flow in past 2 months
- exposed grass/shrub roots from channel erosion
- channel is well-vegetated

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

- evidence of substrate movement and debris wracking

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/22/25</u>																
Waterway Name <u>Waters 3 (int.)</u>		Coordinates at downstream end Lat. <u>43.677177</u> N Long. <u>-117.356634</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>3.02 - 3.66</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> <u>10-12 ft.</u> % of reach w/any flow (surface or hyporheic) <u>80</u> # of pools observed <u>2</u>																	
Observations	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Observed Wetland Plants (and indicator status): <u>Juncus balticus (FACW)</u> </div> <div style="width: 50%;"> Observed Macroinvertebrates: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Taxon</th> <th style="text-align: center;">Indicator Status</th> <th style="text-align: center;">Ephemeroptera?</th> <th style="text-align: center;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; height: 50px;"><u>N/A</u></td> </tr> </tbody> </table> </div> </div>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>										
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Conclusions																		
Single Indicators: <input type="checkbox"/> Fish <u>N/A</u> <input type="checkbox"/> Amphibians		Finding: <input type="checkbox"/> Ephemeral <input checked="" type="checkbox"/> Intermittent <input type="checkbox"/> Perennial																

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.) N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

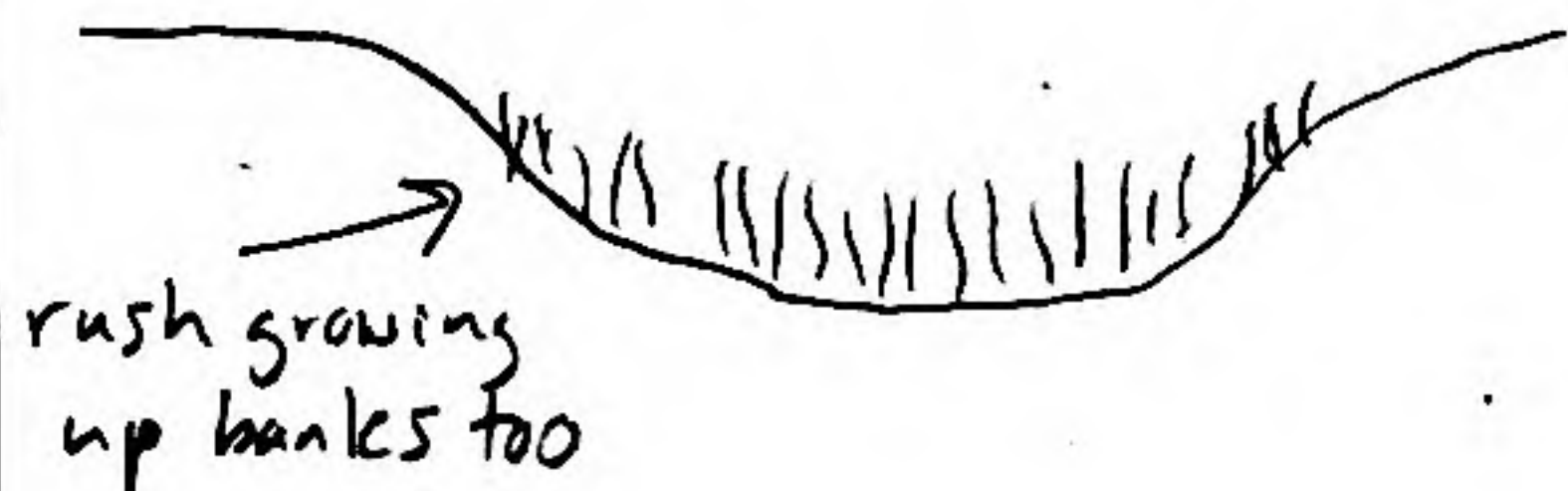
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- wider, flatter section of Waters 3
- area of net deposition; not much evidence of scour
- some pooling throughout intermittent reach; most/muddy fines.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• area of net deposition of fines, organics, + small gravels

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>								
Address <u>N/A</u>		Date <u>4/22/25</u>								
Waterway Name <u>Waters 4</u>		Coordinates at downstream end (ddd.mm.ss) Lat. <u>43.675819</u> N Long. <u>-117.350449</u> W								
Reach Boundaries <u>N/A</u>										
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>1.37</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")								
Observed Hydrology	% of reach w/observed surface flow <u>0</u> <u>4.5 ft</u>									
	% of reach w/any flow (surface or hyporheic) <u>0</u>									
	# of pools observed <u>0</u>									
Observations	Observed Wetland Plants (and indicator status): <u>N/A</u>		Observed Macroinvertebrates:							
			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Taxon</th> <th>Indicator Status</th> <th>Ephemeroptera?</th> <th># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>		
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	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>10-15</u> %									
Conclusions	<pre> graph LR Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[If Yes: Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> I1[INTERMITTENT] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> Q5[If No: What is the slope? (Indicator 5)] Q4 -- Yes --> Q5 Q4 -- No --> E1[EPHEMERAL] Q5 -- "Slope < 16%" --> I2[INTERMITTENT] Q5 -- "Slope ≥ 16%" --> P2[PERENNIAL] Q5 -- "Slope < 10.5%" --> I3[INTERMITTENT] Q5 -- "Slope ≥ 10.5%" --> E2[EPHEMERAL] </pre>									
	Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians	Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial								

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

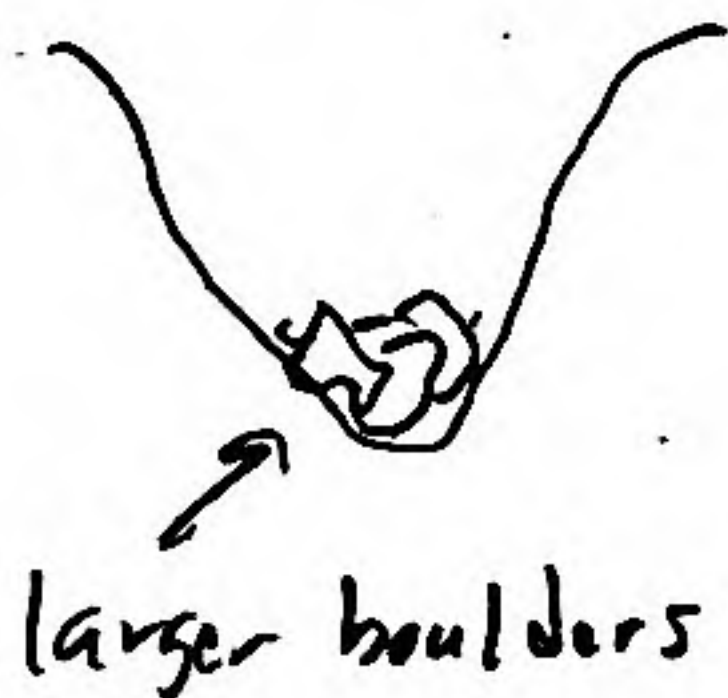
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- steep banks and adjacent side slopes
- no riparian corridor
- channel bed is well-vegetated with grasses and some mature sagebrush.
- evidence of some ephemeral flow in past 2 months.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

- Not much bank or channel scour, but but there is some deposition of fines, and wracking of organics

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>								
Address <u>N/A</u>		Date <u>4/22/25</u>								
Waterway Name <u>Waters 5</u>		Coordinates at downstream end Lat. <u>43.677063</u> N Long. <u>-117.368624</u> W								
Reach Boundaries <u>N/A</u>		<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")								
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>0.91</u>									
% of reach w/observed surface flow <u>0</u> (3 ft+)										
% of reach w/any flow (surface or hyporheic) <u>0</u>										
# of pools observed <u>0</u>										
Observed Hydrology	Observed Wetland Plants (and indicator status): <div style="text-align: center; font-size: 1.5em;">N/A</div>									
	Observed Macroinvertebrates: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 30%;">Taxon</th> <th style="text-align: center; width: 15%;">Indicator Status</th> <th style="text-align: center; width: 15%;">Ephemeroptera?</th> <th style="text-align: center; width: 40%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; height: 50px; vertical-align: middle; font-size: 1.5em;">N/A</td> </tr> </tbody> </table>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	N/A		
Taxon	Indicator Status	Ephemeroptera?	# of Individuals							
N/A										
Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>8-10</u> %									
Conclusions	<pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[If Yes: Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> I2[If No: INTERMITTENT] Q3 -- Yes --> P1[If Yes: PERENNIAL] Q3 -- No --> Q5[If No: What is the slope? (Indicator 5)] Q4 -- Yes --> Q5 Q4 -- No --> I4[If No: EPHMERAL] Q5 --> S1[Slope < 10.5%: INTERMITTENT] Q5 --> S2[Slope >= 10.5%: EPHMERAL] Q5 --> S3[Slope < 16%: INTERMITTENT] Q5 --> S4[Slope >= 16%: PERENNIAL] </pre>									
	Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians N/A									
		Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial								

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.) **N/A**

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

- ☐ Prolonged Abnormal Rainfall / Snowpack
 - ☐ Below Average
 - ☐ Above Average
- ☐ Natural or Anthropogenic Disturbance
- ☐ Other: _____

N/A

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- dry channel dominated by cobble, gravels, sand
- ephemeral drainage for surrounding hillsides
- shrubs and cheatgrass in channel

Ancillary Information:

- ☐ Riparian Corridor
- ☒ Erosion and Deposition
- ☐ Floodplain Connectivity

• entrainment and deposition of fluvial material

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>									
Address <u>N/A</u>		Date <u>4/22/25</u>									
Waterway Name <u>Waters 7</u>		Coordinates at downstream end (ddd.mm.ss) Lat. <u>43.700246</u> N Long. <u>-117.365117</u> W									
Reach Boundaries <u>N/A</u>		<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")									
Precipitation w/in 48 hours (cm) <u>0</u>		Channel Width (m) <u>2.44 - 3.66</u>									
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (8-12 ft)										
	% of reach w/any flow (surface or hyporheic) <u>0</u>										
	# of pools observed <u>0</u>										
Observations	Observed Wetland Plants (and indicator status): <u>N/A</u>		Observed Macroinvertebrates: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Taxon</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 15%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 20px;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>			
	Taxon	Indicator Status	Ephemeroptera?	# of Individuals							
<u>N/A</u>											
Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>2-5</u> %										
Conclusions	<pre> graph TD I1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> I2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] I1 -- No --> I4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] I2 -- Yes --> I3[If Yes: Are perennial indicator taxa present? (Indicator 3)] I2 -- No --> I5a[If No: What is the slope? (Indicator 5)] I3 -- Yes --> P1[If Yes: PERENNIAL] I3 -- No --> I5b[If No: What is the slope? (Indicator 5)] I4 -- Yes --> I5c[If Yes: What is the slope? (Indicator 5)] I4 -- No --> E1[If No: Ephemeral] I5a --> I5a1[Slope < 16%: INTERMITTENT] I5a --> I5a2[Slope >= 16%: PERENNIAL] I5c --> I5c1[Slope < 10.5%: INTERMITTENT] I5c --> I5c2[Slope >= 10.5%: EPHEMERAL] </pre>										
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians </div> <div style="width: 65%;"> Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial </div> </div>										

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

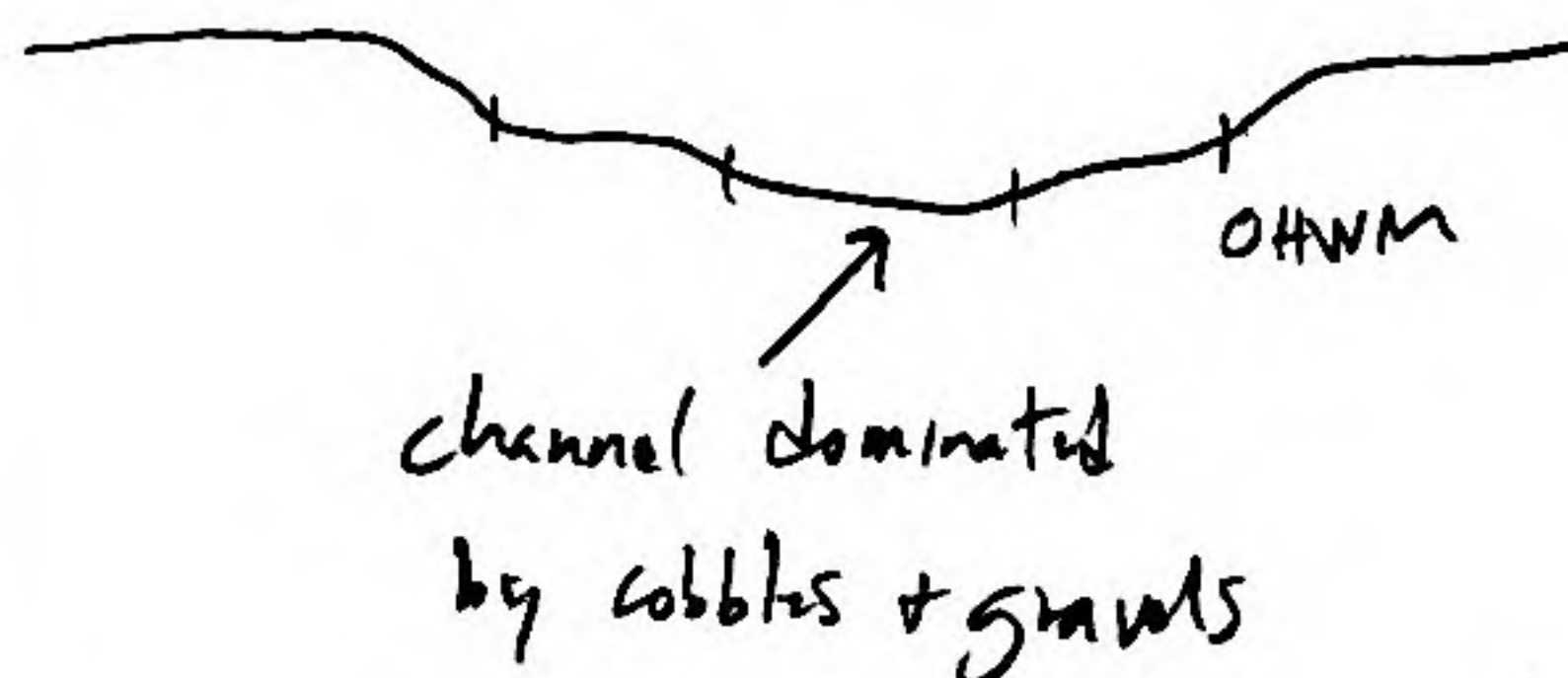
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- This reach is an area of net deposition; very little scour
- Some organic debris wracking + deposition of fines.
- sparsely vegetated channel w/ grasses

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• Deposition of fines + organic debris

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>											
Address <u>N/A</u>		Date <u>4/22/25</u>											
Waterway Name <u>Waters 8</u>		Coordinates at downstream end (ddd.mm.ss) Lat. <u>43.705396</u> N Long. <u>-117.365214</u> W											
Reach Boundaries <u>N/A</u>		<input checked="" type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")											
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>0.76</u>												
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> Observed Hydrology </div> <div style="width: 85%;"> % of reach w/observed surface flow <u>0</u> (2.5 ft) % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u> </div> </div>													
Observations	Observed Wetland Plants (and indicator status): <u>N/A</u>		Observed Macroinvertebrates: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Taxon</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 15%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; height: 50px;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>					
	Taxon	Indicator Status	Ephemeroptera?	# of Individuals									
<u>N/A</u>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="5" style="width: 5%; text-align: center; vertical-align: middle;">Indicators</td> <td colspan="2" style="padding: 5px;">1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="2" style="padding: 5px;">2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="2" style="padding: 5px;">3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="2" style="padding: 5px;">4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="2" style="padding: 5px;">5. What is the slope? (In percent, measured for the valley, not the stream) <u>2-5</u> %</td> </tr> </table>			Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. What is the slope? (In percent, measured for the valley, not the stream) <u>2-5</u> %	
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	5. What is the slope? (In percent, measured for the valley, not the stream) <u>2-5</u> %												
Conclusions													
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians <u>N/A</u> </div> <div style="width: 65%;"> Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial </div> </div>												

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

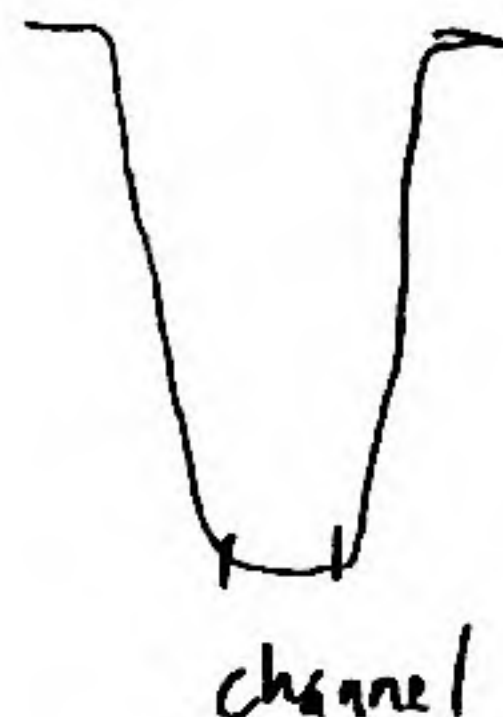
☐ Above Average

☒ Natural or Anthropogenic Disturbance

☐ Other: _____

channel appears to have been created.
Lack of natural bed armoring has led to downcutting.

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- This is an artificial, excavated channel through silt deposits. It is not part of a natural stream, so it does not have natural armoring on the bed to mitigate downcutting.
- Channel is severely incised, but evidence of occasional flow is minimal.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• sparse evidence of sediment movement and wrackling of small organics

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>								
Address <u>N/A</u>		Date <u>4/23/25</u>								
Waterway Name <u>Waters 9</u>		Coordinates at downstream end Lat. <u>43.898742</u> N Long. <u>-117.303832</u> W								
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)								
Precipitation w/in 48 hours (cm) <u>0</u>		Channel Width (m) <u>1.52 - 2.13</u>								
<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")										
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (<u>5-7 ft</u>)									
	% of reach w/any flow (surface or hyporheic) <u>0</u>									
	# of pools observed <u>0</u>									
Observations	Observed Wetland Plants (and indicator status):		Observed Macroinvertebrates:							
	<u>N/A</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Taxon</th> <th style="width: 20%;">Indicator Status</th> <th style="width: 20%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; height: 50px;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>		
Taxon	Indicator Status	Ephemeroptera?	# of Individuals							
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Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
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	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>1-3</u> %									
Conclusions	<pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> Q5[What is the slope? (Indicator 5)] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> I1[INTERMITTENT] Q4 -- Yes --> Q5 Q4 -- No --> E1[EPHEMERAL] Q5 -- Yes --> I2[Slope < 16%: INTERMITTENT] Q5 -- Yes --> P2[Slope >= 16%: PERENNIAL] Q5 -- No --> E2[EPHEMERAL] </pre>									
	Single Indicators: <input type="checkbox"/> Fish <u>N/A</u> <input type="checkbox"/> Amphibians									
Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial										

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

N/A

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- grass-lined channel (upland species)
- no evidence of flow, erosion, or deposition
- some of the silty bottom is soft/muddy
- OHWM difficult to determine
- lots of cattle tracks

Ancillary Information:

☐ Riparian Corridor

☐ Erosion and Deposition

☐ Floodplain Connectivity

N/A

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/23/25</u>																
Waterway Name <u>Waters 10</u>		Coordinates at downstream end Lat. <u>43.798100</u> N Long. <u>-117.316209</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>0.91 - 1.52</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (3-5 ft) % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u>																	
Observations	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Observed Wetland Plants (and indicator status): <u>N/A</u> </div> <div style="width: 50%;"> Observed Macroinvertebrates: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Taxon</th> <th style="text-align: center;">Indicator Status</th> <th style="text-align: center;">Ephemeroptera?</th> <th style="text-align: center;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 10px;"><u>N/A</u></td> </tr> </tbody> </table> </div> </div>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>										
Taxon	Indicator Status	Ephemeroptera?	# of Individuals															
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Indicators	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. Are aquatic macroinvertebrates present?</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/> Yes</td> <td style="width: 20%; text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>2. Are 6 or more individuals of the Order Ephemeroptera present?</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>3. Are perennial indicator taxa present? (refer to Table 1)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="3">5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %</td> </tr> </table>			1. Are aquatic macroinvertebrates present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Are 6 or more individuals of the Order Ephemeroptera present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Are perennial indicator taxa present? (refer to Table 1)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %		
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4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No																
5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %																		
Conclusions	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Are aquatic macroinvertebrates present? (Indicator 1)</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)</p> <p>If No: Are SAV, FACW, or OBL plants present? (Indicator 4)</p> </div> <div style="width: 50%;"> <p>If Yes: Are perennial indicator taxa present? (Indicator 3)</p> <p>If No: What is the slope? (Indicator 5)</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>If Yes: PERENNIAL</p> <p>If No: INTERMITTENT</p> </div> <div style="width: 50%;"> <p>Slope < 16%: INTERMITTENT</p> <p>Slope ≥ 16%: PERENNIAL</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>If Yes: What is the slope? (Indicator 5)</p> <p>If No: EPHEMERAL</p> </div> <div style="width: 50%;"> <p>Slope < 10.5%: INTERMITTENT</p> <p>Slope ≥ 10.5%: EPHEMERAL</p> </div> </div> </div>																	
Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians <u>N/A</u>		Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial																

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

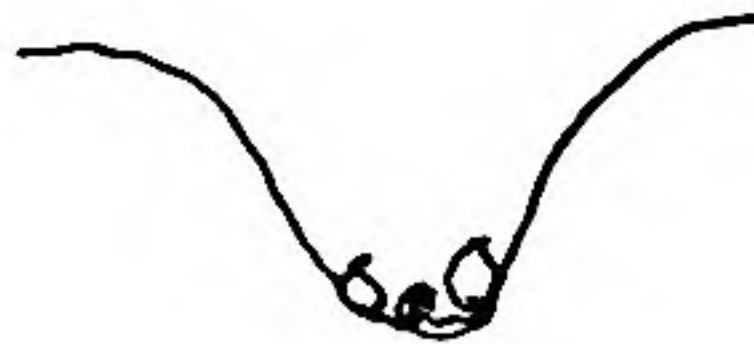
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- OHWM indicator: topographic break
- grass and shrub-lined channel w/ upland species.
- coarse sand deposition
- there is a seep upstream that collects in the channel, but then flow is subsurface through the project area.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• mainly deposition of coarse sand and small gravels

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>									
Address <u>N/A</u>		Date <u>4/23/25</u>									
Waterway Name <u>Waters 11</u>		Coordinates at downstream end (ddd.mm.ss) Lat. <u>43.787952</u> N Long. <u>-117.318909</u> W									
Reach Boundaries <u>N/A</u>											
Precipitation w/in 48 hours (cm) <u>0</u>		Channel Width (m) <u>0.91</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")								
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (3 ft.)										
	% of reach w/any flow (surface or hyporheic) <u>0</u>										
	# of pools observed <u>0</u>										
Observations	Observed Wetland Plants (and indicator status): <u>N/A</u>		Observed Macroinvertebrates: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Taxon</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 15%;">Ephemeroptera?</th> <th style="width: 35%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>			
	Taxon	Indicator Status	Ephemeroptera?	# of Individuals							
<u>N/A</u>											
Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %										
Conclusions	<pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[If Yes: Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> C1[INTERMITTENT] Q3 -- Yes --> C2[PERENNIAL] Q3 -- No --> Q5[If No: What is the slope? (Indicator 5)] Q4 -- Yes --> Q5 Q4 -- No --> C3[EPHEMERAL] Q5 -- "Slope < 16%: INTERMITTENT" --> C4[INTERMITTENT] Q5 -- "Slope >= 16%: PERENNIAL" --> C5[PERENNIAL] Q5 -- "Slope < 10.5%: INTERMITTENT" --> C6[INTERMITTENT] Q5 -- "Slope >= 10.5%: EPHEMERAL" --> C7[EPHEMERAL] </pre>										
Single Indicators: <input type="checkbox"/> Fish <u>N/A</u> <input type="checkbox"/> Amphibians		Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial									

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

N/A

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- slight swale in landscape
- some FAC *Leymus cinereus*, but mostly UPL plants
- CHWM was hard to determine
- very little evidence of flow, except for some scour across the adjacent road crossing and minor deposition of coarse sand in channel.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

- some erosion along road crossing
- minor deposition of coarse sand

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>								
Address <u>N/A</u>		Date <u>4/23/25</u>								
Waterway Name <u>Waters 12</u>		Coordinates at downstream end Lat. <u>43.737466</u> N Long. <u>-117.310731</u> W								
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)								
Precipitation w/in 48 hours (cm) <u>0</u>		Channel Width (m) <u>0.61 - 1.07</u>								
<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")										
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (2-3.5 ft)									
	% of reach w/any flow (surface or hyporheic) <u>0</u>									
	# of pools observed <u>0</u>									
Observations	Observed Wetland Plants (and indicator status):		Observed Macroinvertebrates:							
	<u>N/A</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Taxon</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 15%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; height: 50px;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>		
Taxon	Indicator Status	Ephemeroptera?	# of Individuals							
<u>N/A</u>										
Indicators	1. Are aquatic macroinvertebrates present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	2. Are 6 or more individuals of the Order Ephemeroptera present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	3. Are perennial indicator taxa present? (refer to Table 1) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
	5. What is the slope? (In percent, measured for the valley, not the stream) <u>8-10</u> %									
Conclusions	<pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> I2[INTERMITTENT] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> Q5[What is the slope? (Indicator 5)] Q4 -- Yes --> Q5 Q4 -- No --> E1[EPHEMERAL] Q5 -- "Slope < 10.5%" --> I3[INTERMITTENT] Q5 -- "Slope >= 10.5%" --> E2[EPHEMERAL] </pre>									
	Single Indicators: <u>N/A</u> <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians									
Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial										

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- OHWM is extent of coarse sand deposition
- sparsely vegetated channel bottom with upland plants
- only evidence of ephemeral flow is channel form and coarse sand deposits

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

deposition of coarse sand

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>								
Address <u>N/A</u>		Date <u>4/23/25</u>								
Waterway Name <u>Waters 13</u>		Coordinates at downstream end (ddd.mm.ss) Lat. <u>43.733363</u> N Long. <u>-117.315285</u> W								
Reach Boundaries <u>N/A</u>		<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")								
Precipitation w/in 48 hours (cm) <u>0</u>		Channel Width (m) <u>0.91 - 1.22</u>								
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (3.4 ft)									
	% of reach w/any flow (surface or hyporheic) <u>0</u>									
	# of pools observed <u>0</u>									
Observations	Observed Wetland Plants (and indicator status): <u>N/A</u>		Observed Macroinvertebrates:							
			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Taxon</th> <th style="width: 15%;">Indicator Status</th> <th style="width: 15%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 10px;"><u>N/A</u></td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>		
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Conclusions	<pre> graph TD Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> Q5[What is the slope? (Indicator 5)] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> I1[INTERMITTENT] Q4 -- Yes --> Q5 Q4 -- No --> E1[EPHEMERAL] Q5 -- "Slope < 16%" --> I2[INTERMITTENT] Q5 -- "Slope >= 16%" --> P2[PERENNIAL] Q5 -- "Slope < 10.5%" --> I3[INTERMITTENT] Q5 -- "Slope >= 10.5%" --> E2[EPHEMERAL] </pre>									
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 35%; padding: 5px;"> Single Indicators: <input type="checkbox"/> Fish <u>N/A</u> <input type="checkbox"/> Amphibians </td> <td style="padding: 5px;"> Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial </td> </tr> </table>			Single Indicators: <input type="checkbox"/> Fish <u>N/A</u> <input type="checkbox"/> Amphibians	Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial					
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Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- dry wash with upland grasses
- some old evidence of erosion/deposition of coarse sand, but no recent evidence
- OHWM by topo breaks

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• old evidence of coarse sand deposition

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Givington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/23/25</u>																
Waterway Name <u>Waters 14</u>		Coordinates at downstream end Lat. <u>43.728900</u> N Long. <u>-117.317253</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>1.22 - 1.52</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (4-5 ft.) % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u>																	
Observations	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Observed Wetland Plants (and indicator status): <u>N/A</u> </div> <div style="width: 50%;"> Observed Macroinvertebrates: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Taxon</th> <th style="text-align: center;">Indicator Status</th> <th style="text-align: center;">Ephemeroptera?</th> <th style="text-align: center;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 10px;"><u>N/A</u></td> </tr> </tbody> </table> </div> </div>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>										
Taxon	Indicator Status	Ephemeroptera?	# of Individuals															
<u>N/A</u>																		
Indicators	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. Are aquatic macroinvertebrates present?</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/> Yes</td> <td style="width: 20%; text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>2. Are 6 or more individuals of the Order Ephemeroptera present?</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>3. Are perennial indicator taxa present? (refer to Table 1)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="3">5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %</td> </tr> </table>			1. Are aquatic macroinvertebrates present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Are 6 or more individuals of the Order Ephemeroptera present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Are perennial indicator taxa present? (refer to Table 1)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %		
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5. What is the slope? (In percent, measured for the valley, not the stream) <u>5-8</u> %																		
Conclusions	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <pre> graph LR Q1[Are aquatic macroinvertebrates present? (Indicator 1)] -- Yes --> Q2[If Yes: Are 6 or more individuals of the Order Ephemeroptera present? (Indicator 2)] Q1 -- No --> Q4[If No: Are SAV, FACW, or OBL plants present? (Indicator 4)] Q2 -- Yes --> Q3[If Yes: Are perennial indicator taxa present? (Indicator 3)] Q2 -- No --> I1[INTERMITTENT] Q3 -- Yes --> P1[PERENNIAL] Q3 -- No --> Q5[If No: What is the slope? (Indicator 5)] Q4 -- Yes --> Q5 Q4 -- No --> I2[EPHEMERAL] Q5 -- "Slope < 16%" --> I3[INTERMITTENT] Q5 -- "Slope ≥ 16%" --> P2[PERENNIAL] Q5 -- "Slope < 10.5%" --> I4[INTERMITTENT] Q5 -- "Slope ≥ 10.5%" --> I5[EPHEMERAL] </pre> </div>																	
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Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

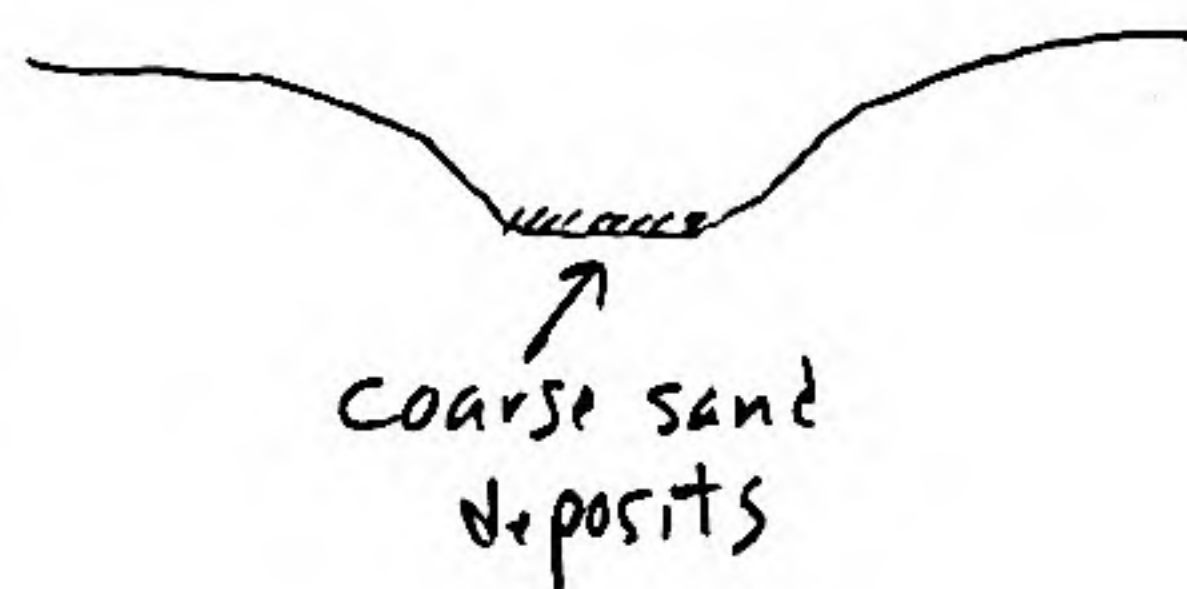
☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- OHWN determined by unvegetated channel bottom and top breaks
- Sparsely vegetated with upland grasses and Scotch thistle seedlings.
- This "channel" may have originated as a cattle trail.

Ancillary Information:

☐ Riparian Corridor

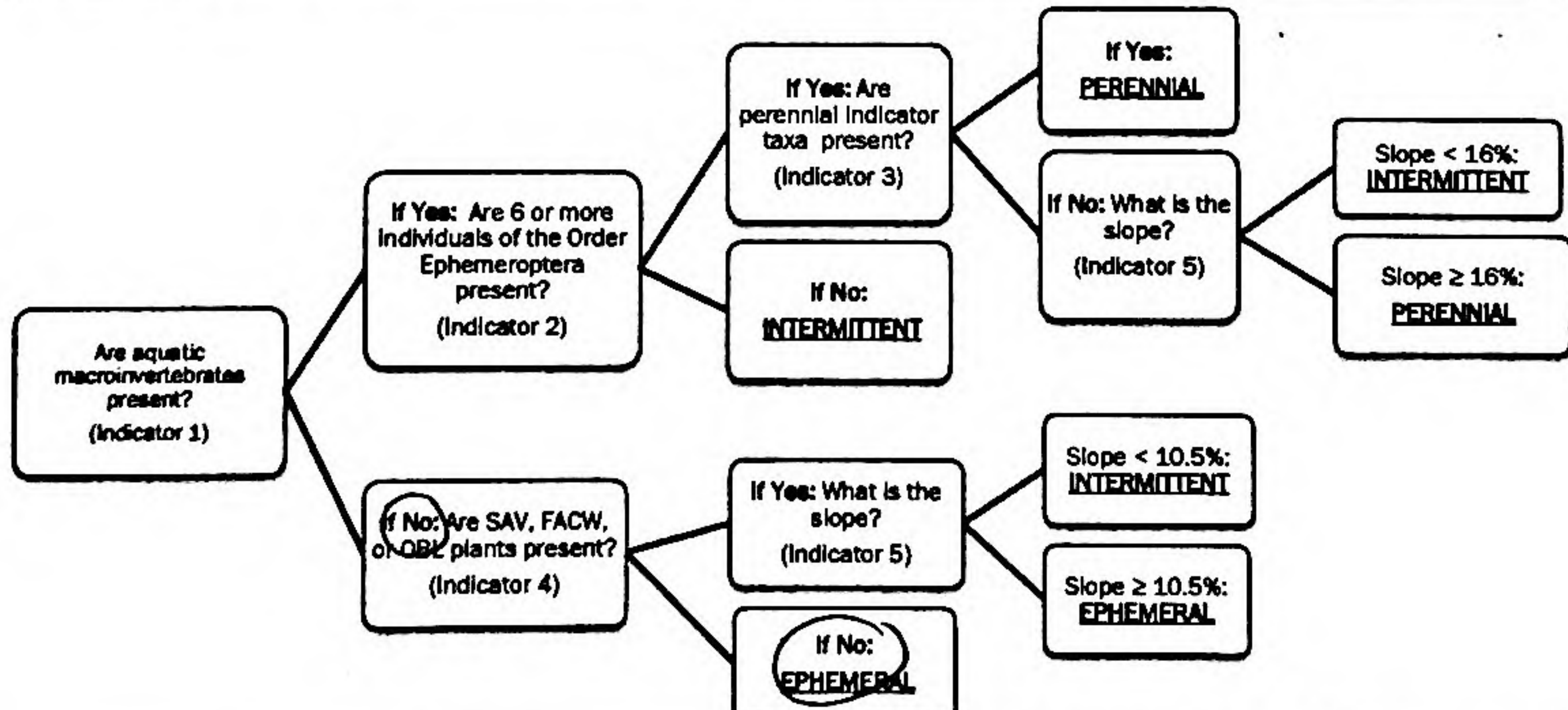
☒ Erosion and Deposition • deposition of coarse sand

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/23/25</u>																
Waterway Name <u>Waters 15</u>		Coordinates at downstream end Lat. <u>43.725075</u> N Long. <u>-117.325350</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>1.14</u>	<input checked="" type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (3.75 ft) % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u>																	
Observations	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Observed Wetland Plants (and indicator status):</th> <th style="width: 50%;">Observed Macroinvertebrates:</th> </tr> <tr> <td style="height: 100px; vertical-align: middle; text-align: center;">N/A</td> <td style="height: 100px; vertical-align: middle; text-align: center;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Taxon</th> <th style="width: 20%;">Indicator Status</th> <th style="width: 20%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="height: 50px; text-align: center;">N/A</td> </tr> </tbody> </table> </td> </tr> </table>			Observed Wetland Plants (and indicator status):	Observed Macroinvertebrates:	N/A	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Taxon</th> <th style="width: 20%;">Indicator Status</th> <th style="width: 20%;">Ephemeroptera?</th> <th style="width: 30%;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="height: 50px; text-align: center;">N/A</td> </tr> </tbody> </table>	Taxon	Indicator Status	Ephemeroptera?	# of Individuals	N/A						
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Taxon	Indicator Status	Ephemeroptera?	# of Individuals															
N/A																		
Indicators	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. Are aquatic macroinvertebrates present?</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/> Yes</td> <td style="width: 20%; text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>2. Are 6 or more individuals of the Order Ephemeroptera present?</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>3. Are perennial indicator taxa present? (refer to Table 1)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td>4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)</td> <td style="text-align: center;"><input type="checkbox"/> Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/> No</td> </tr> <tr> <td colspan="3">5. What is the slope? (In percent, measured for the valley, not the stream) <u>7-10</u> %</td> </tr> </table>			1. Are aquatic macroinvertebrates present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Are 6 or more individuals of the Order Ephemeroptera present?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Are perennial indicator taxa present? (refer to Table 1)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Are FACW, OBL, or SAV plants present? (Within 1/2 channel width)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. What is the slope? (In percent, measured for the valley, not the stream) <u>7-10</u> %		
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Single Indicators: <input type="checkbox"/> Fish <input type="checkbox"/> Amphibians <u>N/A</u>		Finding: <input checked="" type="checkbox"/> Ephemeral <input type="checkbox"/> Intermittent <input type="checkbox"/> Perennial																

Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

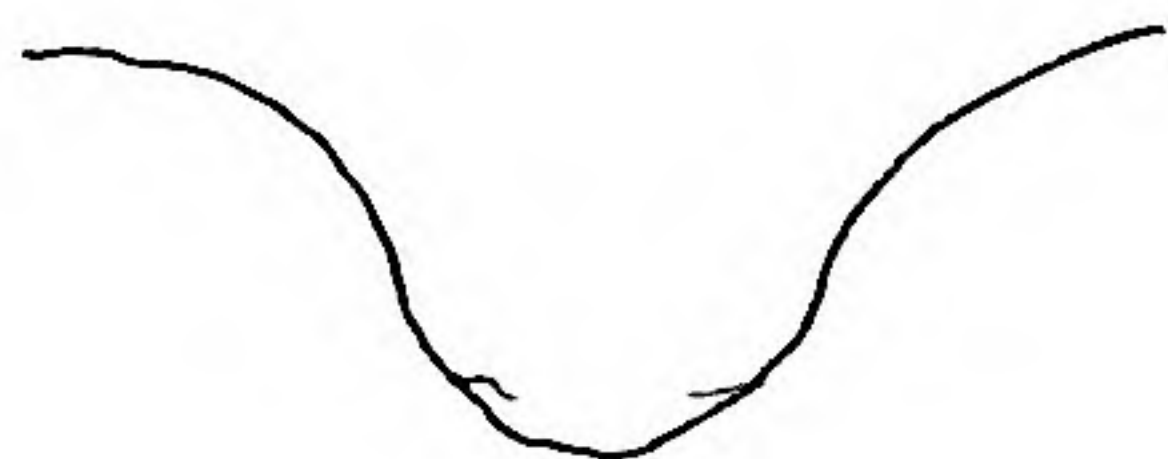
☐ Above Average

☒ Natural or Anthropogenic Disturbance

☐ Other: _____

- old berm cuts off portion of channel. It starts again outside study area.

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- Dry channel along road
- OTHM determined by organic debris wracking / coarse sand deposits.

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

very little

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

Streamflow Duration Field Assessment Form

Project # / Name <u>Grassy Mountain Mine</u>		Assessor <u>D. Covington, J. Roper</u>																
Address <u>N/A</u>		Date <u>4/23/25</u>																
Waterway Name <u>Waters 16</u>		Coordinates at downstream end Lat. <u>43.724284</u> N Long. <u>-117.326409</u> W																
Reach Boundaries <u>N/A</u>		(ddd.mm.ss)																
Precipitation w/in 48 hours (cm) <u>0</u>	Channel Width (m) <u>1.52 - 2.13</u>	<input type="checkbox"/> Disturbed Site / Difficult Situation (Describe in "Notes")																
Observed Hydrology	% of reach w/observed surface flow <u>0</u> (5-7 ft) % of reach w/any flow (surface or hyporheic) <u>0</u> # of pools observed <u>0</u>																	
Observations	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Observed Wetland Plants (and indicator status): <u>N/A</u> </div> <div style="width: 50%;"> Observed Macroinvertebrates: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Taxon</th> <th style="text-align: center;">Indicator Status</th> <th style="text-align: center;">Ephemeroptera?</th> <th style="text-align: center;"># of Individuals</th> </tr> </thead> <tbody> <tr> <td colspan="4" style="text-align: center; padding: 10px;"><u>N/A</u></td> </tr> </tbody> </table> </div> </div>			Taxon	Indicator Status	Ephemeroptera?	# of Individuals	<u>N/A</u>										
Taxon	Indicator Status	Ephemeroptera?	# of Individuals															
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Notes: (explanation of any single indicator conclusions, description of disturbances or modifications that may interfere with indicators, etc.)

N/A

Difficult Situation:

Describe situation. For disturbed streams, note extent, type, and history of disturbance.

☐ Prolonged Abnormal Rainfall / Snowpack

☐ Below Average

☐ Above Average

N/A

☐ Natural or Anthropogenic Disturbance

☐ Other: _____

Additional Notes: (sketch of site, description of photos, comments on hydrological observations, etc.) Attach additional sheets as necessary.



- dry channel sparsely vegetated with upland grasses
- some organics wracking and deposition of gravels and sand.
- OHWM determined by extent of deposition and top breaks
- very little evidence of recent ephemeral flow

Ancillary Information:

☐ Riparian Corridor

☒ Erosion and Deposition

• erosion around grass roots and deposition of sands/gravels

☐ Floodplain Connectivity

Observed Amphibians, Snake, and Fish:

Taxa	Life History Stage	Location Observed	Number of Individuals Observed
N/A			

APPENDIX C

Site Photographs



PHOTO 1

Date: April 23, 2025

Looking southeast at upland conditions along the northern portion of the Project Study Area (PSA).



PHOTO 2

Date: April 23, 2025

Looking east (downstream) at the J-H Canal, the only perennial waters observed within the PSA.



PHOTO 3

Date: April 23, 2025

Looking north (downstream) at representative ephemeral streambed conditions in the northern reaches of Waters 9.



PHOTO 4

Date: April 23, 2025

Looking northeast (downstream) at representative ephemeral streambed conditions in the middle reaches of Waters 9.



PHOTO 5

Date: April 23, 2025

Looking northwest at a representative portion of the PSA where the vegetation community is dominated by greasewood (*Sarcobatus vermiculatus*, FACU).



PHOTO 6

Date: April 23, 2025

Looking west (downstream) at representative ephemeral streambed conditions in the southernmost reaches of Waters 9.



PHOTO 7

Date: April 23, 2025

Looking southwest at an area mapped as an intermittent stream in the National Hydrography Dataset (NHD), but no signs of recent flow were observed. The bottom of the channel is fully vegetated with occasional gopher mounds and tunnels.



PHOTO 8

Date: April 23, 2025

Looking north at representative upland conditions in the higher-elevation portions of the PSA.



PHOTO 9

Date: April 23, 2025

Looking southeast at upland conditions along the PSA.



PHOTO 10

Date: April 23, 2025

Looking southwest (upstream) at ephemeral streambed conditions of Waters 10. Waters 10 is culverted under/across the road (the red line represents the roadbed).



PHOTO 11

Date: April 23, 2025

Looking south at Seep 1, which provides hydrology to the intermittent reaches of Waters 10.



PHOTO 12

Date: April 23, 2025

Looking southwest (upstream) at representative ephemeral streambed conditions of Waters 11.



PHOTO 13

Date: April 23, 2025

Looking north at upland conditions in the PSA.



PHOTO 14

Date: April 23, 2025

Looking northwest at upland conditions in the PSA.



PHOTO 15

Date: April 23, 2025

Looking south at upland conditions in the PSA. Waters 12 (ephemeral) enters the PSA from the topographic draw on the right side of the photo.



PHOTO 16

Date: April 23, 2025

Looking southeast at ephemeral streambed conditions of Waters 12.



PHOTO 17

Date: April 23, 2025

Looking west (downstream) at ephemeral streambed conditions of Waters 13. Note the density of Scotch thistle (*Onopordum acanthium*, NL) in this area.



PHOTO 18

Date: April 23, 2025

Looking southwest (downstream) at ephemeral streambed conditions of Waters 14.



PHOTO 19

Date: April 23, 2025

Looking west (downstream) at ephemeral streambed conditions of Waters 15. This feature may also be used to convey stormwater runoff away from the road.



PHOTO 20

Date: April 23, 2025

Looking northwest (downstream) at ephemeral streambed conditions of Waters 16 with Scotch thistle along the banks.



PHOTO 21

Date: April 23, 2025

Looking east across Pond 2 (PUS3J, DCNP – see definitions below).

Cowardin class PUS3J = Palustrine (P), Unconsolidated Shore (US), Mud (3), Intermittently Flooded (J).

HGM class DCNP = Depressional Closed, Non-permanently Flooded.



PHOTO 22

Date: April 23, 2025

Looking northeast across Pond 1 (PUS3J, DCNP).



PHOTO 23

Date: April 23, 2025

Looking south along road runoff 3 (ephemeral).

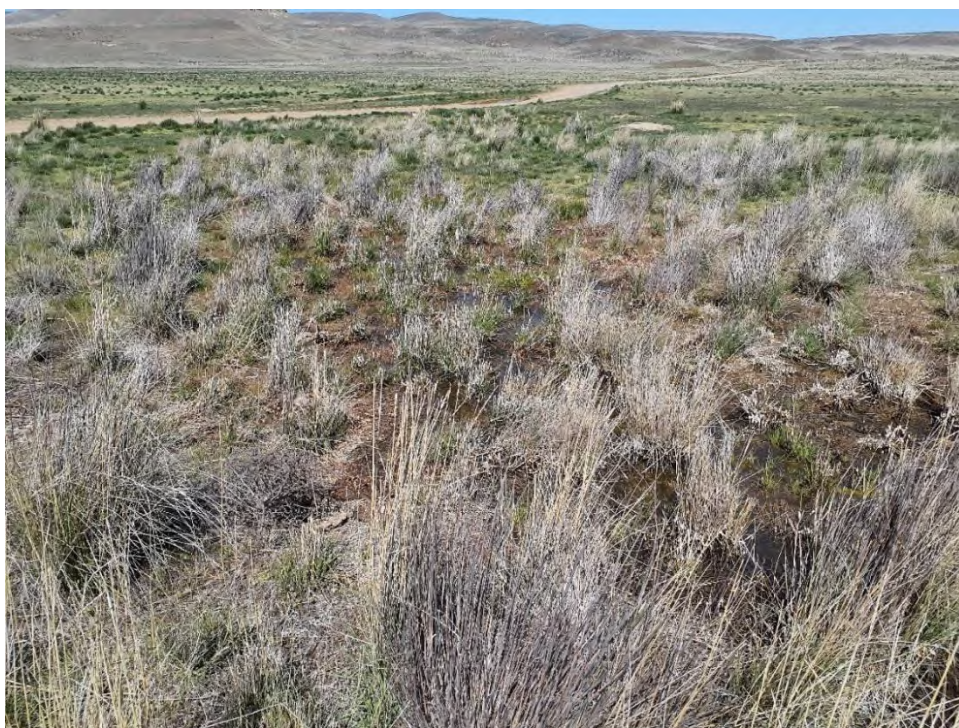


PHOTO 24

Date: April 23, 2025

Looking north at saturated PEM (Palustrine Emergent) conditions in Wetland 2.



PHOTO 25

Date: April 23, 2025

Looking north at Seep 2 and Wetland 4 (PEM, DCNP).



PHOTO 26

Date: April 23, 2025

Looking northeast at vegetation community in PEM Wetland 3.



PHOTO 27

Date: April 23, 2025

Looking northeast at flows from Seep 3 (right) and Seep 4 (left). Seeps 2, 3, and 4 are part of a seep complex that provides hydrology to Wetland 2, Wetland 3, and Wetland 4.

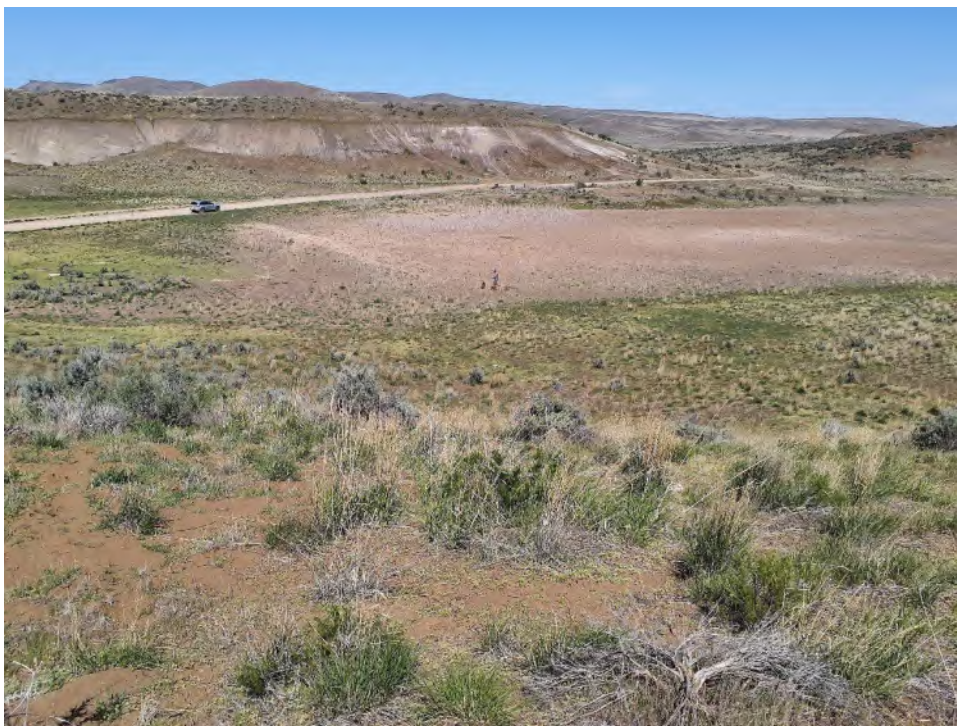


PHOTO 28

Date: April 23, 2025

Looking northeast at Wetland 1. This wetland is a PEM wetland within the PSA, and transitions to a seasonal pond as it moves southeast away from the PSA.



PHOTO 29

Date: April 22, 2025

Looking south at an area mapped as an intermittent waters in the NHD, but lacks any defined bed and banks, and there was no evidence of recent flow (i.e., there were no sediment deposits, grasses bent in one direction, debris wracking, etc.).



PHOTO 30

Date: April 22, 2025

Looking north (downstream) at ephemeral streambed conditions of Waters 8.



PHOTO 31

Date: April 22, 2025

Looking northeast (down-stream) at a deeply incised reach of Waters 8 (ephemeral) as it leaves the PSA.



PHOTO 32

Date: April 22, 2025

Looking northwest (down-stream) at ephemeral streambed conditions of Waters 7.



PHOTO 33

Date: April 22, 2025

Looking south (upstream) at another reach of Waters 7 (ephemeral).



PHOTO 34

Date: April 22, 2025

Looking south (upstream) at where the intermittent reach of Waters 3 begins.



PHOTO 35

Date: April 22, 2025

Looking north (downstream)
at ephemeral streambed
conditions in Waters 4.



PHOTO 36

Date: April 22, 2025

Looking south (upstream) at
ephemeral streambed
conditions of Waters 1.



PHOTO 37

Date: April 22, 2025

Looking northeast (down-stream) at scour from the last ephemeral flow of Waters 2.



PHOTO 38

Date: April 22, 2025

Looking west-southwest at constructed berm for Livestock Water (Schweizer Reservoir). Reservoir overflow (blue line) is shunted to Waters 3 (ephemeral).



PHOTO 39

Date: April 22, 2025

Looking east at upland conditions across the southern part of the PSA.



PHOTO 40

Date: April 22, 2025

Looking south (upstream) at ephemeral streambed conditions of Waters 3 upstream of the Livestock Water (Schweizer Reservoir).

APPENDIX D

Additional Tables and Information

Climatological Data for ONTARIO, OR - April 2025

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2025-04-01	52	33	42.5	3	0	T	M	M
2025-04-02	56	34	45.0	5	0	T	M	M
2025-04-03	56	35	45.5	6	0	0.00	M	M
2025-04-04	60	34	47.0	7	0	0.00	M	M
2025-04-05	64	29	46.5	7	0	0.00	M	M
2025-04-06	70	31	50.5	11	1	0.00	M	M
2025-04-07	65	44	54.5	15	5	0.01	M	M
2025-04-08	62	41	51.5	12	2	0.01	M	M
2025-04-09	68	35	51.5	12	2	0.00	M	M
2025-04-10	80	38	59.0	19	9	0.00	M	M
2025-04-11	71	54	62.5	23	13	0.00	M	M
2025-04-12	60	39	49.5	10	0	T	M	M
2025-04-13	61	37	49.0	9	0	0.00	M	M
2025-04-14	69	31	50.0	10	0	0.00	M	M
2025-04-15	74	36	55.0	15	5	0.00	M	M
2025-04-16	73	45	59.0	19	9	0.00	M	M
2025-04-17	62	40	51.0	11	1	0.00	M	M
2025-04-18	64	29	46.5	7	0	0.00	M	M
2025-04-19	66	31	48.5	9	0	0.00	M	M
2025-04-20	68	41	54.5	15	5	0.00	M	M
2025-04-21	63	36	49.5	10	0	0.00	M	M
2025-04-22	63	39	51.0	11	1	0.00	M	M
2025-04-23	69	43	56.0	16	6	0.00	M	M
2025-04-24	71	41	56.0	16	6	0.00	M	M
2025-04-25	71	35	53.0	13	3	0.01	M	M
2025-04-26	72	49	60.5	21	11	0.00	M	M
2025-04-27	73	48	60.5	21	11	0.09	M	M
2025-04-28	76	42	59.0	19	9	0.00	M	M
2025-04-29	64	48	56.0	16	6	T	M	M
2025-04-30	71	42	56.5	17	7	0.00	M	M
Average Sum	66.5	38.7	52.6	385	112	0.12	M	M

Monthly Total Precipitation for ONTARIO, OR

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2024	2.19	1.26	0.83	0.94	1.21	0.69	0.24	0.02	0.12	0.26	2.18	2.73	12.67
2025	1.42	3.20	1.01	0.12	M	M	M	M	M	M	M	M	M
Mean	1.81	2.23	0.92	0.53	1.21	0.69	0.24	0.02	0.12	0.26	2.18	2.73	12.67

14 Days prior to site visit			Observed		WETS	
Day	Date	Precip (in.)	Period	Total	Range	
1	4/21/2025	0.00	Oct 2024	0.26	0.35	0.76
2	4/20/2025	0.00	Nov 2024	2.18	0.57	1.06
3	4/19/2025	0.00	Dec 2024	2.73	0.89	1.77
4	4/18/2025	0.00	Jan 2025	1.42	0.66	1.38
5	4/17/2025	0.00	Feb 2025	3.20	0.37	1.07
6	4/16/2025	0.00	Mar 2025	1.01	0.50	1.19
7	4/15/2025	0.00	Apr 1-22 2025	0.02	0.29	0.63
8	4/14/2025	0.00				
9	4/13/2025	0.00				
10	4/12/2025	T				
11	4/11/2025	0.00				
12	4/10/2025	0.00				
13	4/09/2025	0.00	7 Days Prior	0.00	0.09	0.20
14	4/08/2025	0.01	14 Days Prior	0.01	0.19	0.40
Field Investigation		Apr 22-23 2025	0.00	2025 Water Year Total	10.82	3.63 7.86

Table 2. Summary of Precipitation from October 2024 to April 22, 2025, near Ontario Oregon.

Category	Jan 2025	Feb 2025	Mar 2025	Apr 1-22 2025	7 Days Prior	14 days Prior	2025 Water Year Totals*
Recorded Precipitation (inches)	1.42	3.20	1.01	0.02	0.00	0.01	10.82
30-70% Normal Range (inches)	0.66-1.38	0.37-1.07	0.50-1.19	0.29-0.63	0.09-0.20	0.19-0.40	3.63-7.86
Comparison to Normal Range	Above	Above	Within	Below	Below	Below	Above

WETS Station: ONTARIO, OR													
Requested years: 1995 - 2024													
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall					
Jan	36.9	23.4	30.2	1.13	0.66	1.38	4	-					
Feb	45.2	26.6	35.9	0.88	0.37	1.07	3	-					
Mar	56.8	32.6	44.7	0.97	0.50	1.19	3	-					
Apr	64.7	37.6	51.1	0.71	0.40	0.86	3	-					
May	74.6	46.5	60.6	1.18	0.57	1.45	4	-					
Jun	84.0	54.3	69.1	0.67	0.37	0.81	2	-					
Jul	95.2	61.9	78.5	0.17	0.00	0.13	0	-					
Aug	92.0	58.5	75.2	0.24	0.03	0.16	0	-					
Sep	81.5	48.4	64.9	0.30	0.12	0.34	1	-					
Oct	65.7	37.7	51.7	0.63	0.35	0.76	2	-					
Nov	48.8	28.9	38.9	0.88	0.57	1.06	3	-					
Dec	37.3	23.6	30.4	1.46	0.89	1.77	5	-					
Annual:					7.71	10.17							
Average	65.2	40.0	52.6	-	-	-	-	-					
Total	-	-	-	9.22			31	-					
GROWING SEASON DATES													
Years with missing data:	24 deg = 3	28 deg = 3	32 deg = 3										
Years with no occurrence:	24 deg = 0	28 deg = 0	32 deg = 0										
Data years used:	24 deg = 27	28 deg = 27	32 deg = 27										
Probability	24 F or higher	28 F or higher	32 F or higher										
50 percent *	3/25 to 11/2: 222 days	4/15 to 10/20: 188 days	4/29 to 10/10: 164 days										
70 percent *	3/20 to 11/8: 233 days	4/10 to 10/25: 198 days	4/25 to 10/15: 173 days										
* Percent chance of the growing season occurring between the Beginning and Ending dates.													
STATS TABLE - total precipitation (inches)													
Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1903												0.10	0.10
1904	0.85	5.48	M3.65	M0.10	0.20	0.20	0.74	0.10	0.20	0.55	T	0.70	12.77
1905	1.07	0.44	1.58	2.40	1.82	1.64	T				0.30	0.59	9.84
1906	M0.70	1.50	2.00	0.70		0.88	0.20		0.30		0.80	2.05	9.13
1907		0.95	0.95	0.50	0.10	1.67	0.35	0.25	0.25	0.62	M0.35	1.25	7.24
1908	M0.30	0.10	0.65	0.22	0.41		0.10						1.78
1909													
1910													
1911													
1912													
1913													
1914													
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	1939													
	1940													
	1941													
	1942													
	1943													
	1944													
	1945							0.09	0.06	0.44	0.58	1.46	2.48	5.11
	1946	0.68	0.86	1.40	0.32	0.39	0.10	0.06	T	0.17	1.01	1.24	M0.23	6.46
	1947				0.98	0.50	1.95	0.00	0.03	0.31	1.21	0.71	0.23	5.92
	1948	0.51	0.59	0.60	0.97	0.89	0.52	0.22	0.11	0.12	0.28	1.08	M0.83	6.72
	1949	0.14	0.35	0.54	0.02	1.40	0.27	0.07	0.01	0.19	0.43	1.02	0.42	4.86
	1950	1.87	1.22	M1.26	0.28	0.60	0.92	0.10	0.03	0.06	0.41	0.72	1.41	8.88
	1951	1.16	1.55	0.73	0.86	1.02	0.66	0.02	0.28	0.15	1.07	1.40	1.88	10.78
	1952	1.38	1.25	0.36	0.65	0.54	1.22	0.20	T	0.58	T	0.69	0.87	7.74
	1953	1.64	1.60	0.58	1.05	3.18	1.12	T	0.11	T	0.47	0.54	1.05	11.34
	1954	0.69	0.37	0.66	0.61	0.77	0.51	T	0.41	0.39	0.17	1.10	0.99	6.67
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1998				0.89	4.39	M0.34	1.73	T	0.55	0.02	1.00	0.69	9.61	
1999	M0.69	2.48	0.80	0.07	0.25	M1.04	MT	T	0.00	M0.23	0.52	1.00	7.08	
2000	2.37	2.56	0.91	0.63	0.32	0.31	T	0.02	0.32	1.45	0.52	M0.81	10.22	
2001	1.24	0.44	1.40	M0.46	0.22	0.55	0.19	0.01	0.07	0.71	1.33	0.97	7.59	
2002	0.47	0.34	0.52	0.86	0.06	0.63	M0.11	0.08	0.26	0.17	0.44	1.68	5.62	
2003	1.18	0.46	1.06	1.09	1.54	0.22	0.21	0.11	0.14	T	0.79	1.38	8.18	
2004	1.77	1.92	0.21	0.70	1.26	0.37	M0.03	0.45	0.11	0.64	0.23	M0.48	8.17	
2005	M0.38	0.23	1.31	0.50	M2.93	0.87	0.08	M0.03	M0.11	1.20	1.39	3.47	12.50	
2006	1.59	0.45	2.94	1.62	0.57	0.32	T	0.07	0.36	0.25	0.94	1.46	10.57	
2007	0.04	0.74	0.06	0.55	0.44	0.79	T	0.16	0.69	0.62	0.83	1.14	6.06	
2008	0.61	0.43	0.65	0.17	0.34	0.26	0.33	T	1.01	0.39	1.02	1.30	6.51	
2009	0.71	0.44	0.79	0.11	1.42	1.99	0.08	0.63	T	1.41	0.52	1.88	9.98	
2010	1.40	0.99	0.43	1.07	1.34	1.27	0.01	0.94	0.03	0.96	0.84	3.43	12.71	
2011	0.86	0.30	2.67	0.33	1.99	0.72	0.25	T	0.14	1.15	0.38	0.34	9.13	
2012	1.40	M0.37	1.30	1.19	1.21	0.28	T	T	0.08	0.86	1.13	0.95	8.77	

2013	0.54	0.39	0.27	0.21	0.53	0.67	0.00	T	1.16	0.26	0.80	0.45	5.28
2014	0.64	1.28	1.26	1.13	0.42	0.27	0.01	0.53	0.42	0.53	1.39	2.54	10.42
2015	0.56	0.71	0.63	0.50	1.67	0.21	0.49	0.02	0.45	0.79	1.11	2.85	9.99
2016	0.75	0.29	0.43	0.46	0.30	0.12	0.21	0.01	0.05	0.80	0.57	1.95	5.94
2017	3.31	1.51	1.62	1.14	M1.28	0.60	0.01	0.02	0.40	0.50	1.67	M0.54	12.60
2018	1.11	M0.27	0.91	0.59	0.95	0.42	T	T	0.02	0.91	0.56	0.98	6.72
2019	1.38	3.12	1.10	1.51	2.52	0.18	T	0.07	1.07	0.71	0.07	1.01	12.74
2020	1.48	0.32	0.81	0.30	1.81	2.16	0.08	0.01	0.08	0.40	1.32	0.39	9.16
2021	1.14	1.35	0.17	0.19	0.59	0.37	0.41	0.63	0.28	1.13	0.66	1.25	8.17
2022	0.77	0.03	0.19	0.91	1.02	1.05	T	0.30	T	0.43	0.73	2.88	8.31
2023	0.87	0.08	1.97	1.05	1.35	1.32	T	2.29	0.28	0.25	0.90	M0.96	11.32
2024	2.19	1.26	0.83	0.94	1.21	0.69	0.24	0.02	0.12	0.26	2.18	2.73	12.67
2025	1.42	3.20	1.01	0.12	M0.10								5.85

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2025-05-27

NRCS method - Rainfall Documentation Worksheet Hydrology Tools for Wetland Determination			
NRCS Engineering Field Handbook Chapter 19			
Date	5/27/2025	Landowner/Project	City of Tillamook Waterline
Weather Station	Ontario	State	Oregon
County	Project in Malheur Co.	Growing Season	188 days
Photo/obs Date	April 22-23, 2025	Soil Name	

shaded cells are locked or calculated

Long-term rainfall statistics (from WETS table or State Climatology Office)							
Month	30% chance <	30% chance >	Precip	Condition Dry, Wet, Normal	Condition Value	Month Weight Value	Product of Previous 2 Columns
1st Prior Month*	April	0.40	0.86	0.12	D	1	3
2nd Prior Month*	March	0.50	1.19	1.01	N	2	2
3rd Prior Month*	February	0.37	1.07	3.20	W	3	1
Sum							10

*compared to photo/observation date

Note: If sum is	
6 - 9	prior period has been drier than normal
10 - 14	prior period has been normal
15 - 18	prior period has been wetter than normal

Condition value:
Dry =1
Normal =2
Wet =3

Conclusions:	prior period has been normal
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