

Ground Control Survey Report 2023

OSMRE Mining Sites

Digital Orthophotography

December 8th, 20223

Prepared by Surdex Corporation

520 Spirit of St. Louis Blvd

Chesterfield, MO 63025



Project: keyenta network points
Program: GrafNet Version 8.90.5126
Profile: memphis utm15 meters
Source: Network

Datum: NAD83(2011)
Control IDs: BASE3A
Geoid: GEOID18(CONUS).wpg [NAVD88] (Absolute correction)

Map projection Info:
Defined grid: UTM, Zone 12
SD Scaling Settings:
Position: 1.0000

Station	Easting (m)	Northing (m)	H-MSL (m)	SDHori (m)	SDHeig (m)
BASE3A	558837.557	4041633.563	2104.745	0.007	0.005
CP115	547752.714	4045162.820	2197.628	0.016	0.023
CP116	554755.658	4047196.542	2098.810	0.009	0.010
CP117	554518.937	4039774.399	2019.338	0.010	0.012
CP118	557501.278	4042483.373	2133.321	0.009	0.010
CP119	560089.134	4034722.904	2116.034	0.019	0.038
CP120	568105.482	4035364.987	2176.508	0.014	0.029
CP121	561459.931	4028709.599	2143.703	0.014	0.022
CP122	565557.067	4028733.597	2090.436	0.012	0.017
CP133	563038.431	4039169.808	2039.567	0.010	0.013
CP134	555243.437	4044891.189	2049.360	0.009	0.012
CP135	564624.800	4032124.388	2152.097	0.014	0.024
CP136	550853.300	4047389.529	2053.394	0.014	0.027
NVA211	562360.673	4030179.153	2144.548	0.013	0.020
NVA212	565958.496	4035823.685	2108.611	0.015	0.039
NVA213	561758.193	4040638.162	2033.699	0.008	0.007
NVA214	556408.095	4042138.949	2111.714	0.010	0.010
NVA215	553152.543	4045844.472	2064.742	0.012	0.016
NVA216	551243.576	4044135.640	2011.112	0.013	0.021
NVA217	563058.544	4032725.471	2122.088	0.017	0.026

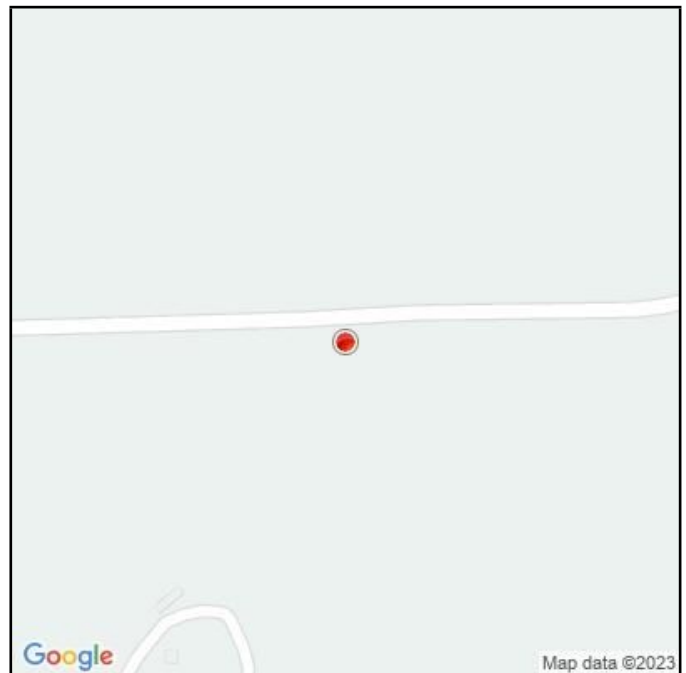
Overview Map



NVA-213 N.JPG

Title:

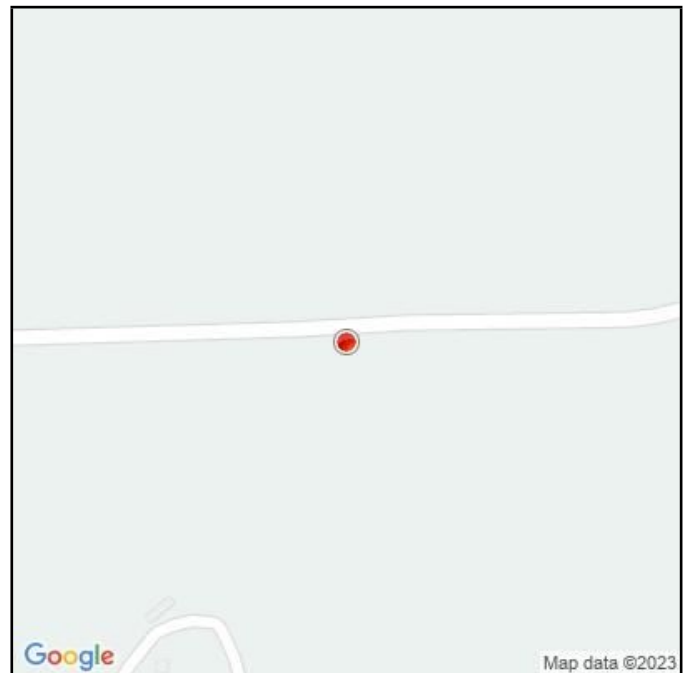
NVA-213 N.JPG



NVA-213 S.JPG

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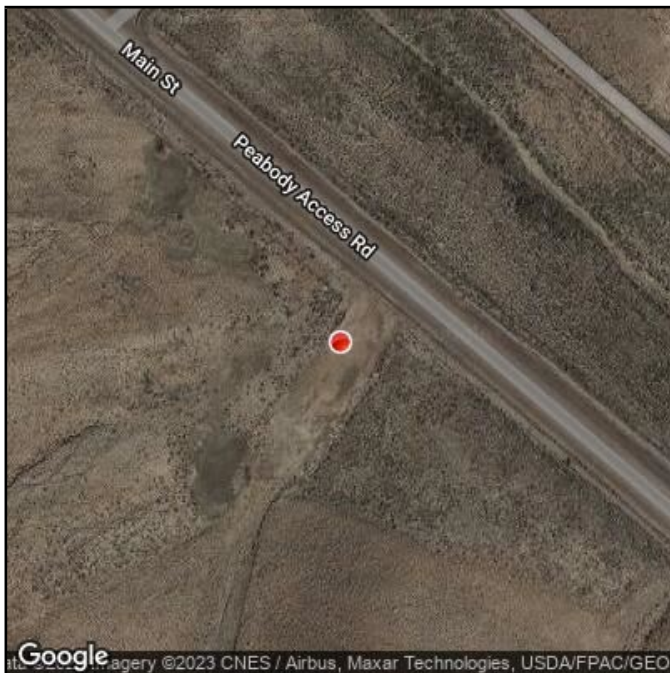
NVA-213 S.JPG



CP-133 N.JPG

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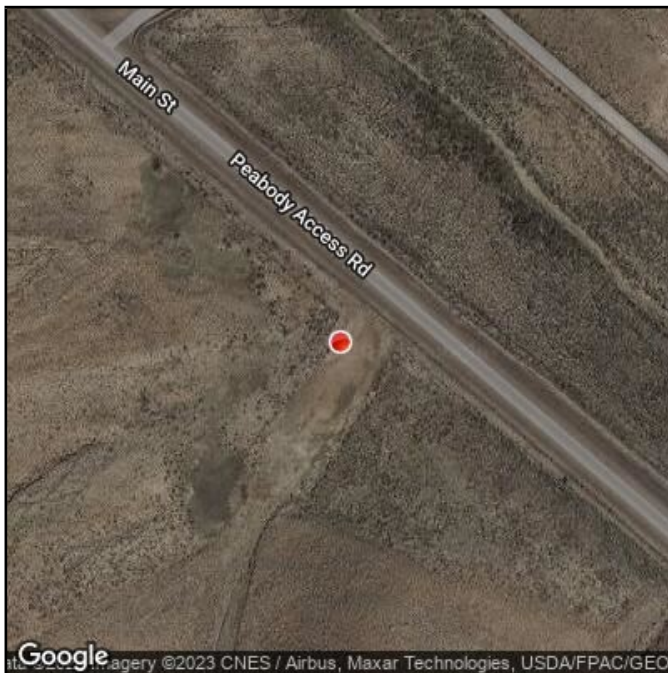
CP-133 N.JPG



CP-133 S.JPG

Title:

CP-133 S.JPG



NVA-212 N.JPG

Title:

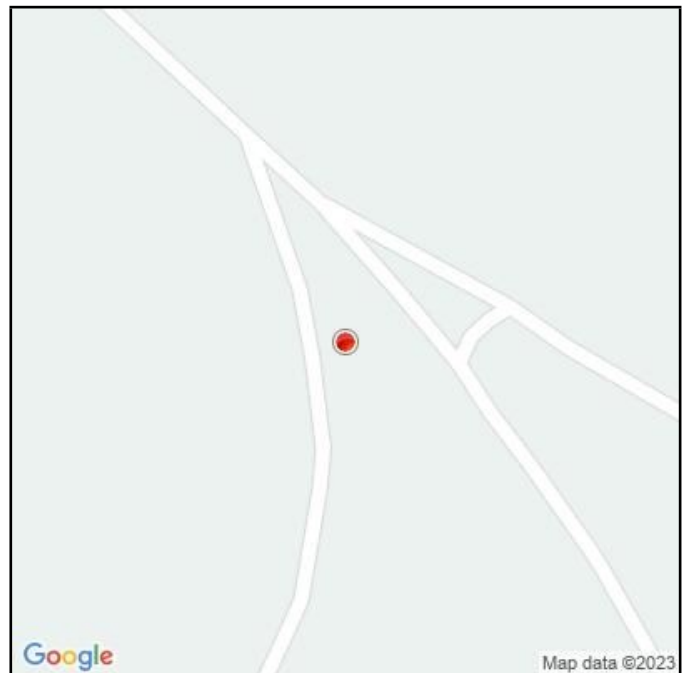
NVA-212 N.JPG



NVA-212 S.JPG

Title:

NVA-212 S.JPG



CP-120 N.JPG

Title:

CP-120 N.JPG

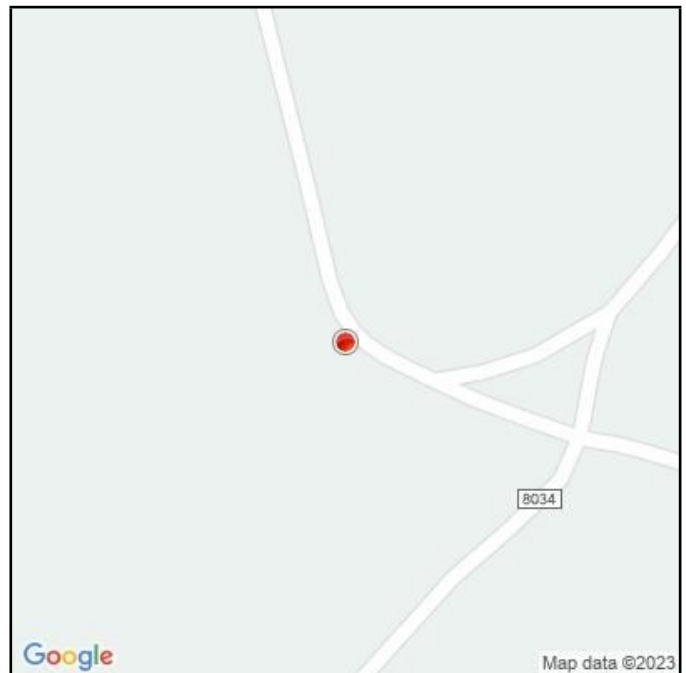


N 36° 27' 40.69"
W 110° 14' 24.09"

7198 ft



Google Imagery ©2023 CNES / Airbus, Maxar Technologies, USDA/FPAC/GEO

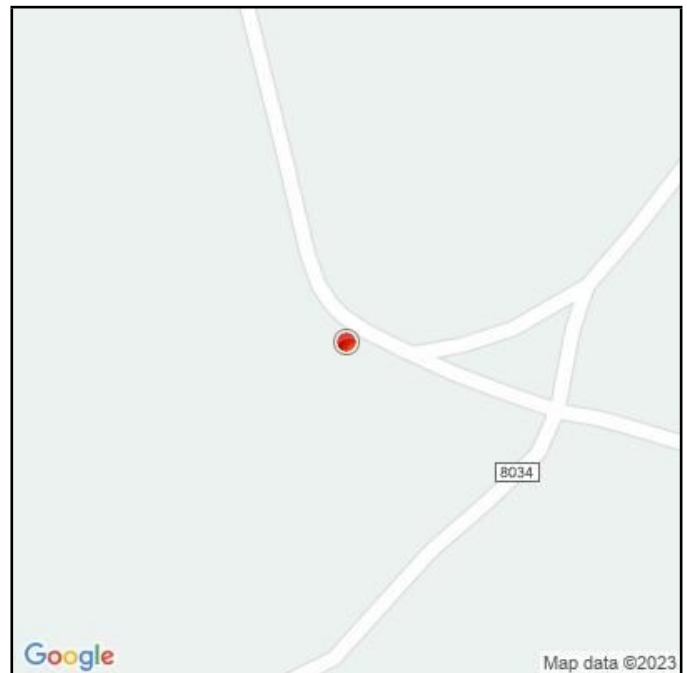


Google Map data ©2023

CP-120 S.JPG

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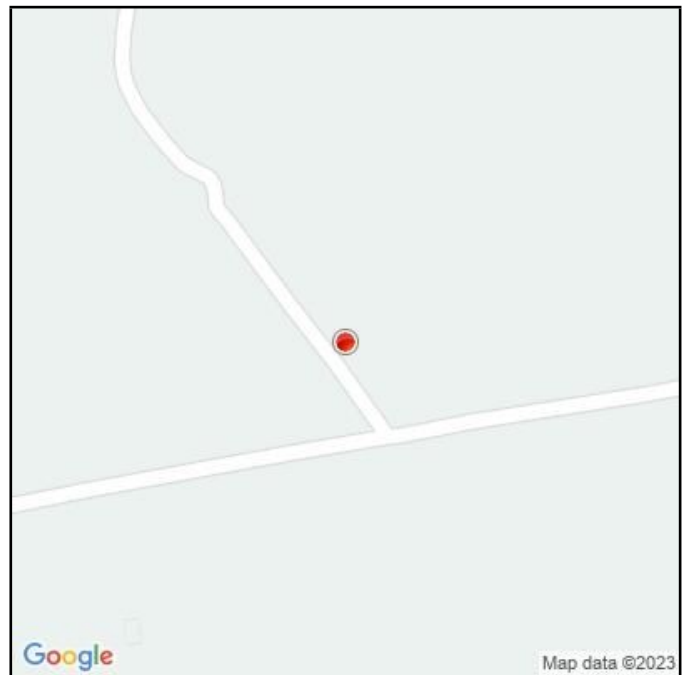
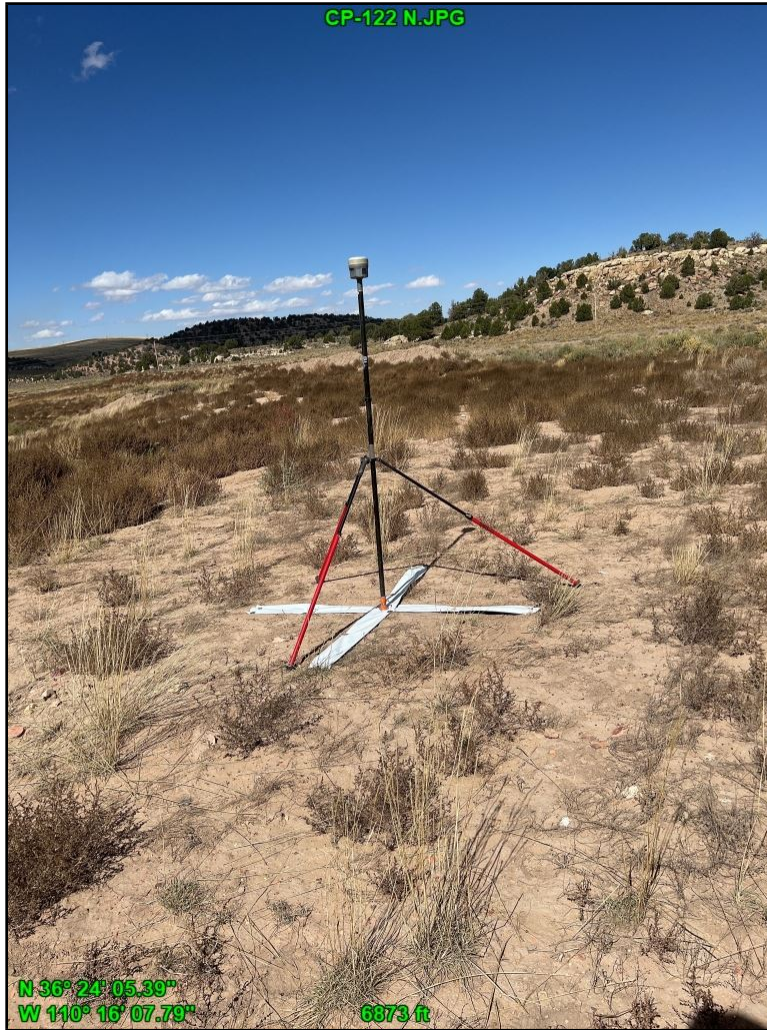
CP-120 S.JPG



CP-122 N.JPG

Title:

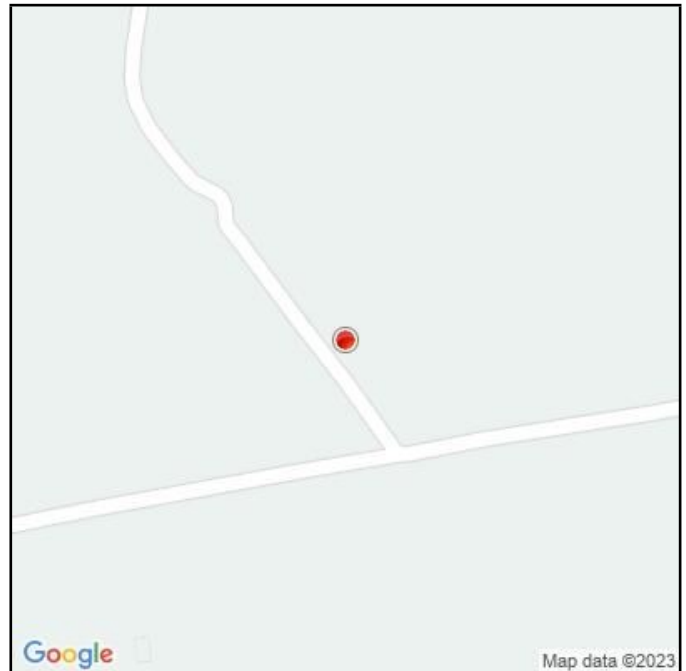
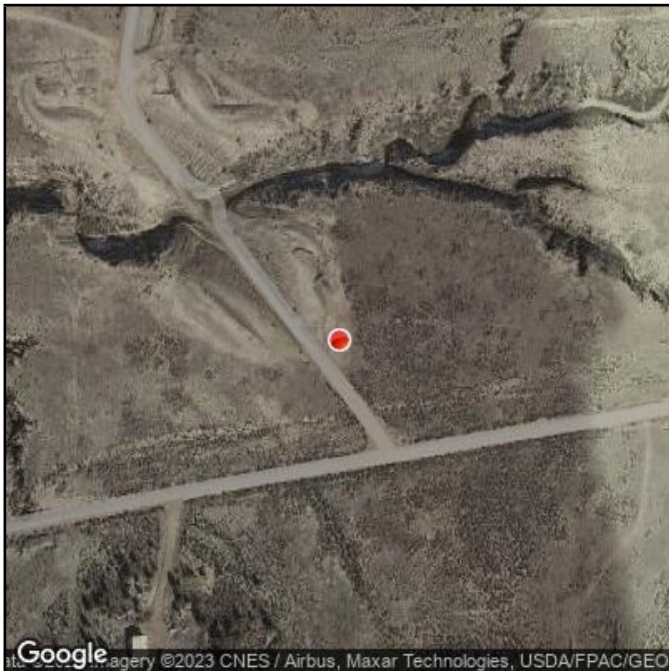
CP-122 N.JPG



CP-122 S.JPG

Title:

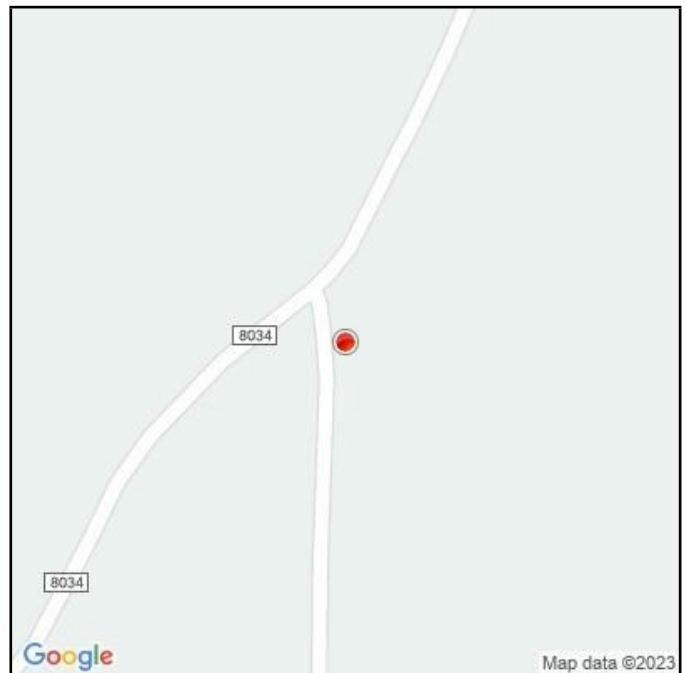
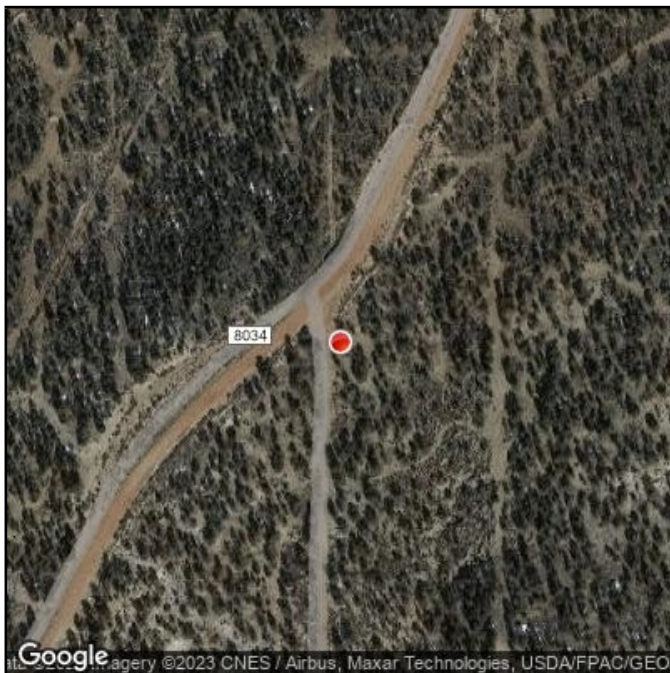
CP-122 S.JPG



NVA-211 N.JPG

Title:

NVA-211 N.JPG



NVA-211 S.JPG

Title:

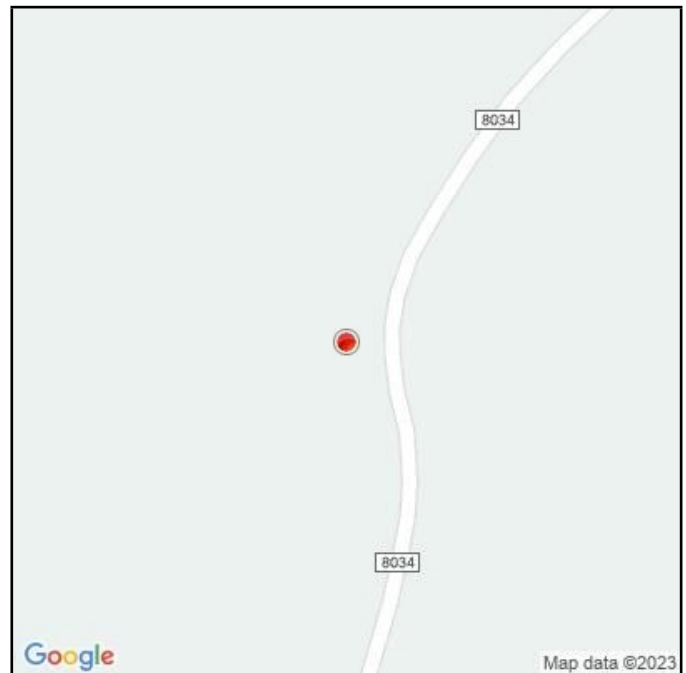
NVA-211 S.JPG



CP-121 N.JPG

Title:

CP-121 N.JPG



CP-121 S.JPG

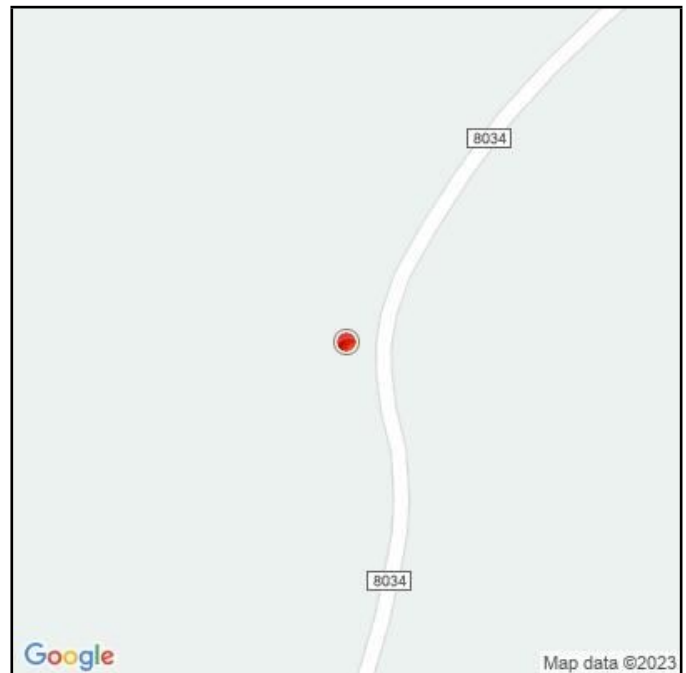
Title:

CP-121 S.JPG



N 36° 24' 05.92"
W 110° 18' 52.44"

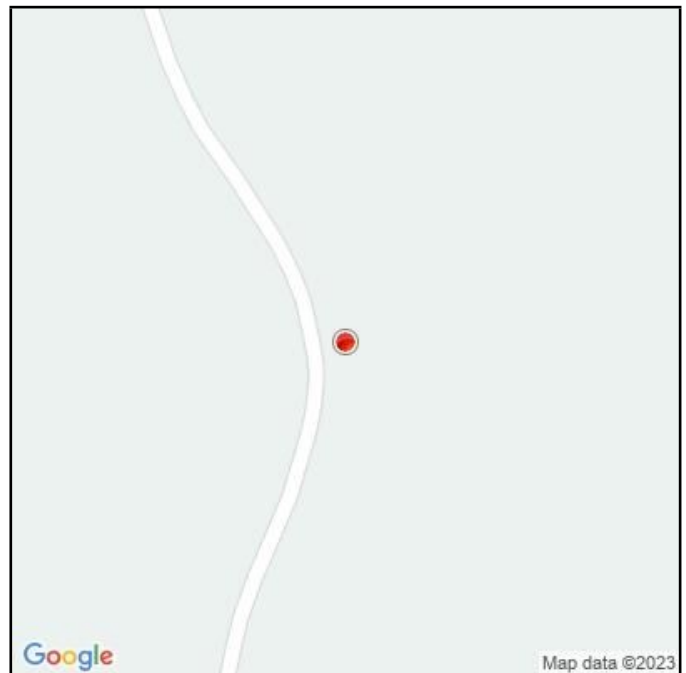
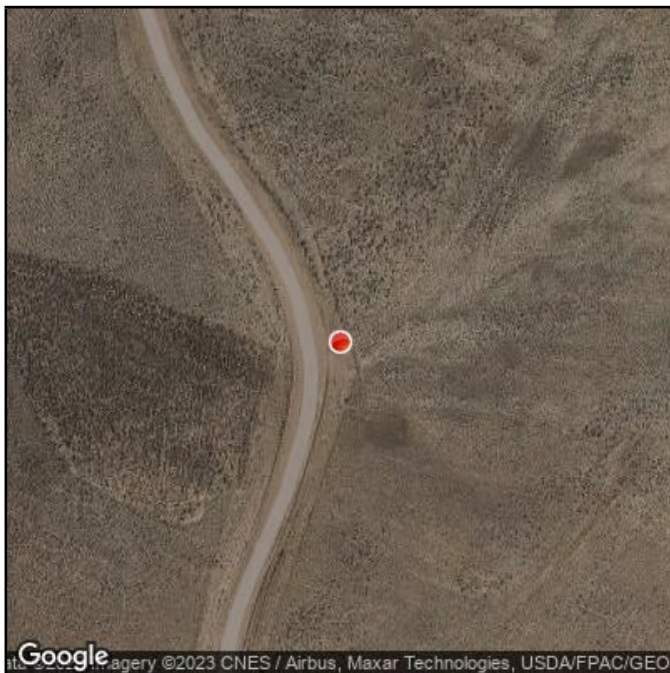
7041 ft



CP-135 N.JPG

Title:

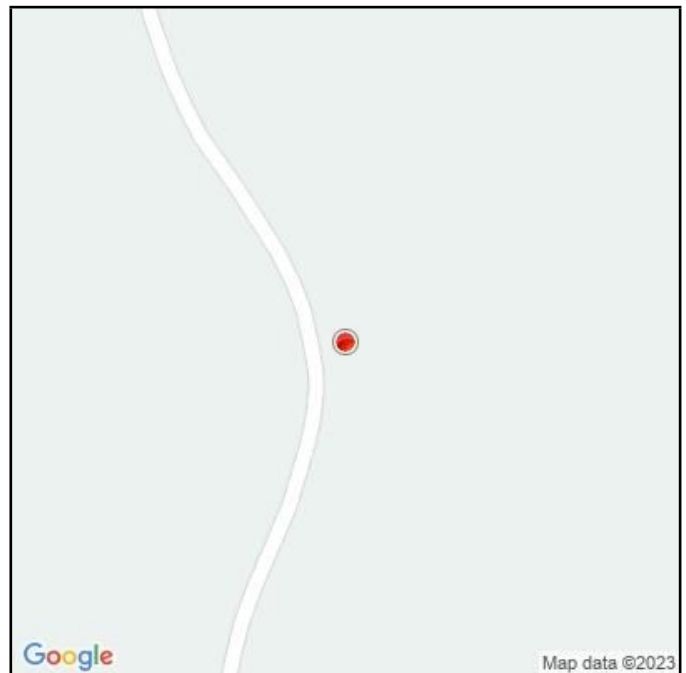
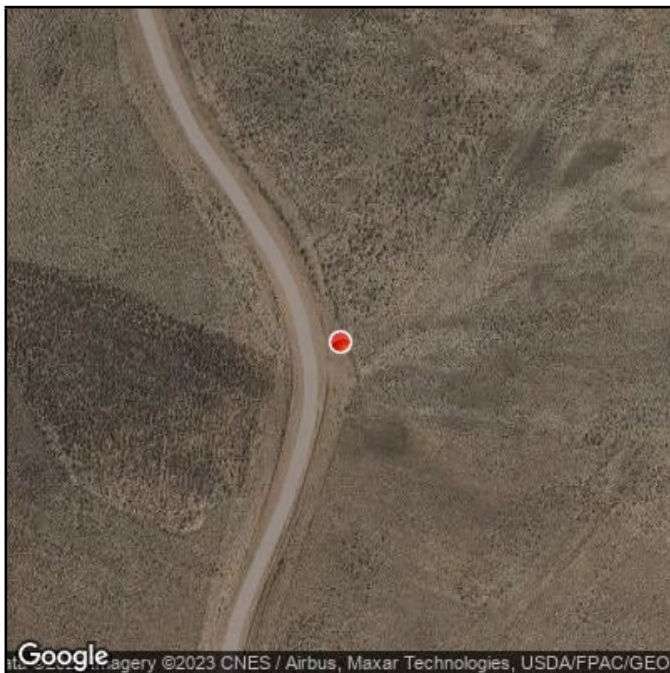
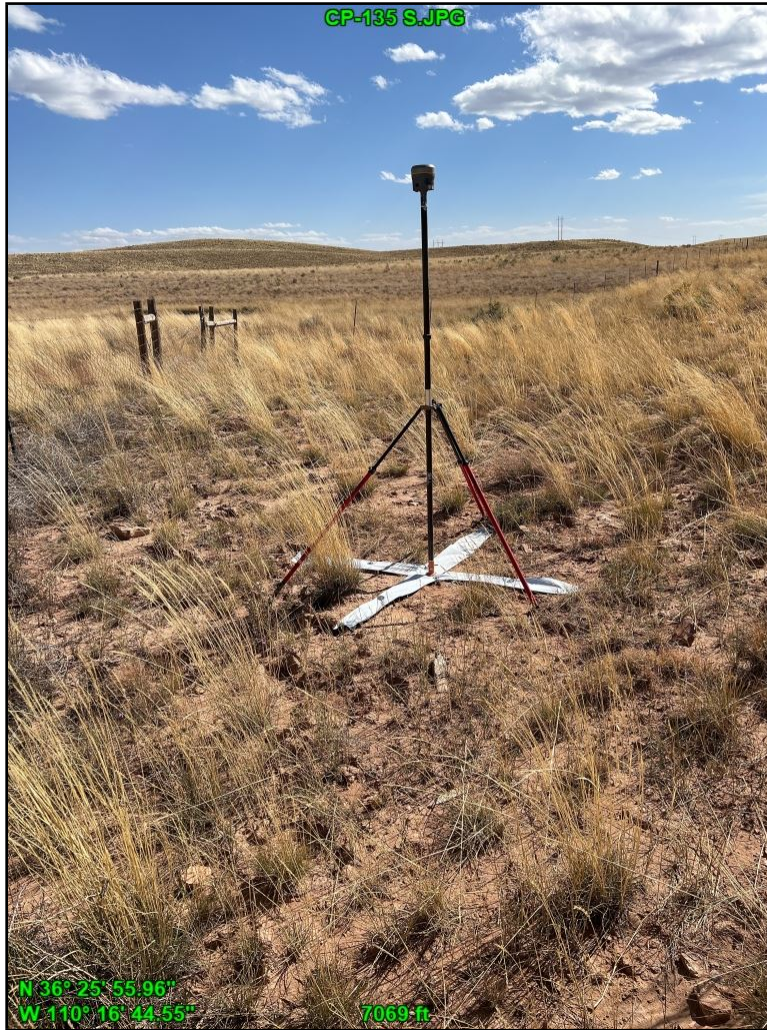
CP-135 N.JPG



CP-135 S.JPG

Title:

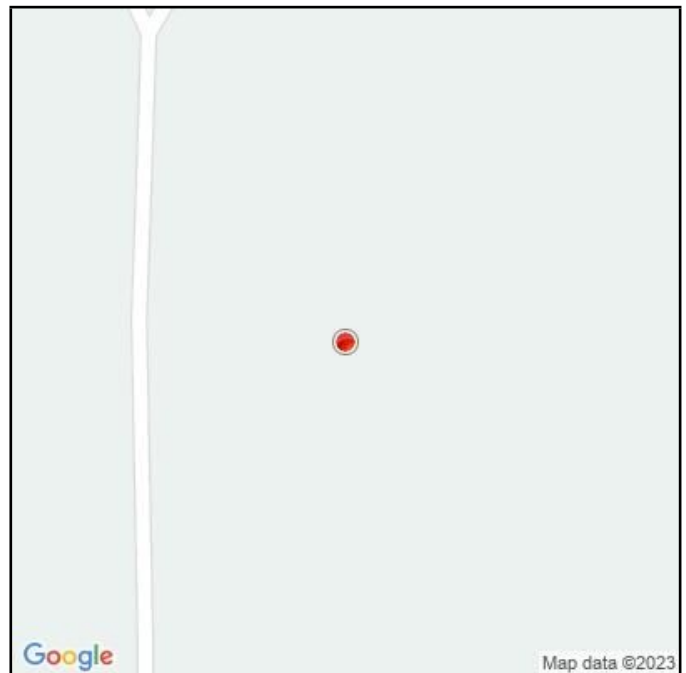
CP-135 S.JPG



NVA-217 N.JPG

Title:

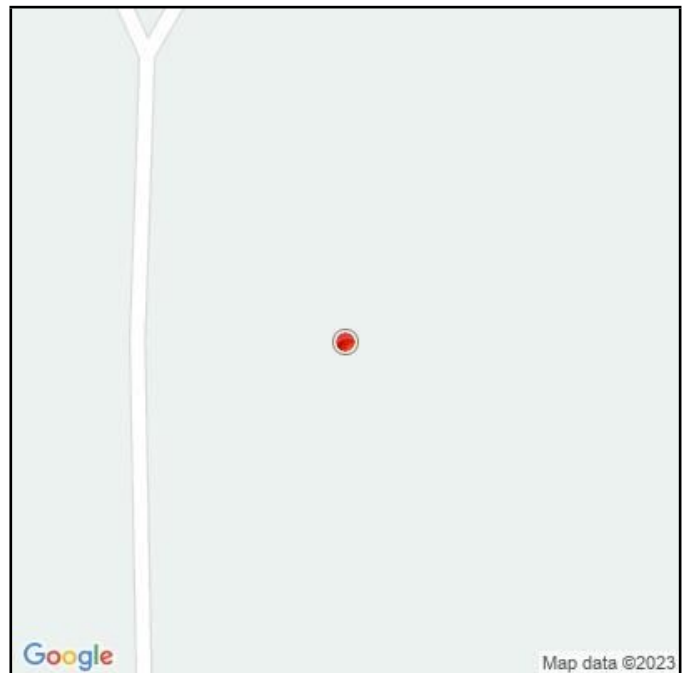
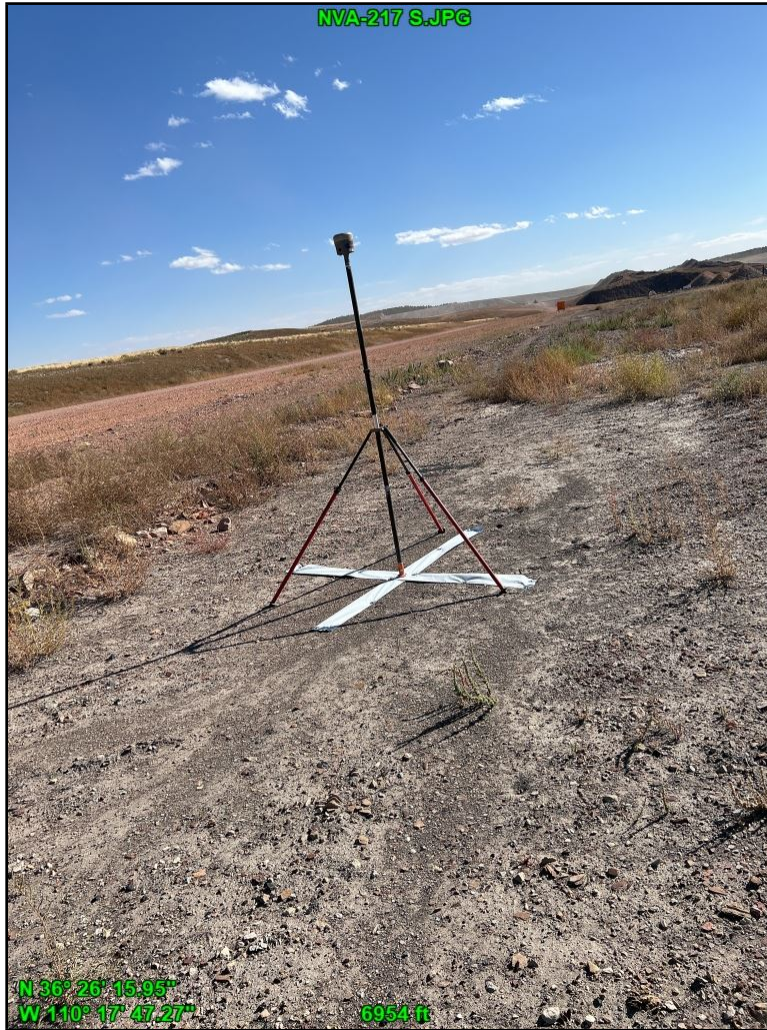
NVA-217 N.JPG



NVA-217 S.JPG

Title:

NVA-217 S.JPG



CP-119 N.JPG

Title:

CP-119 N.JPG



CP-119 S.JPG

Title:

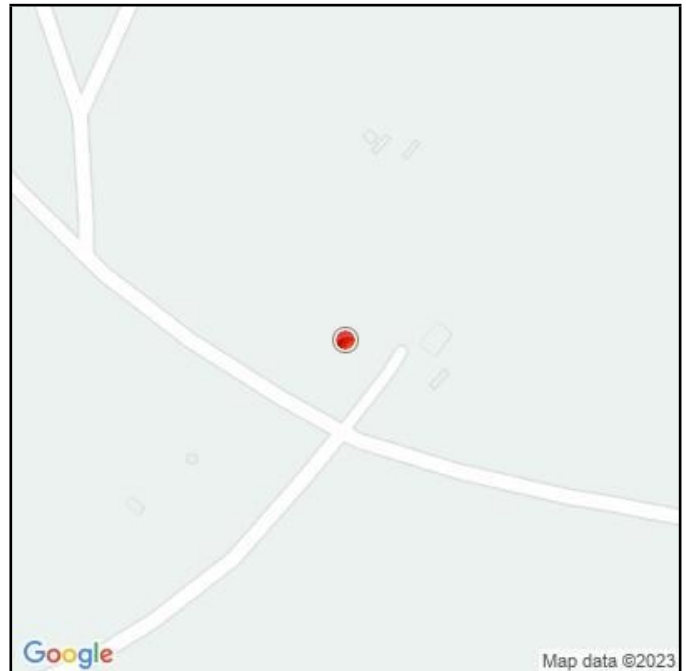
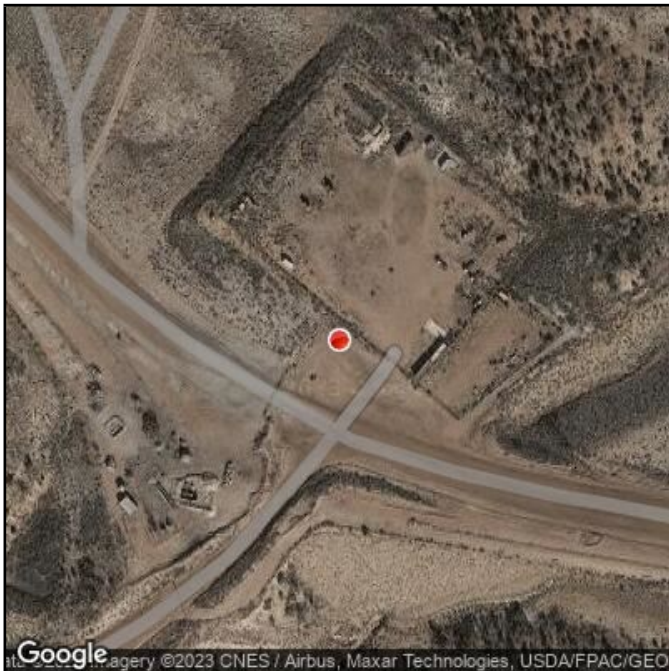
CP-119 S.JPG



NVA-214 N.JPG

Title:

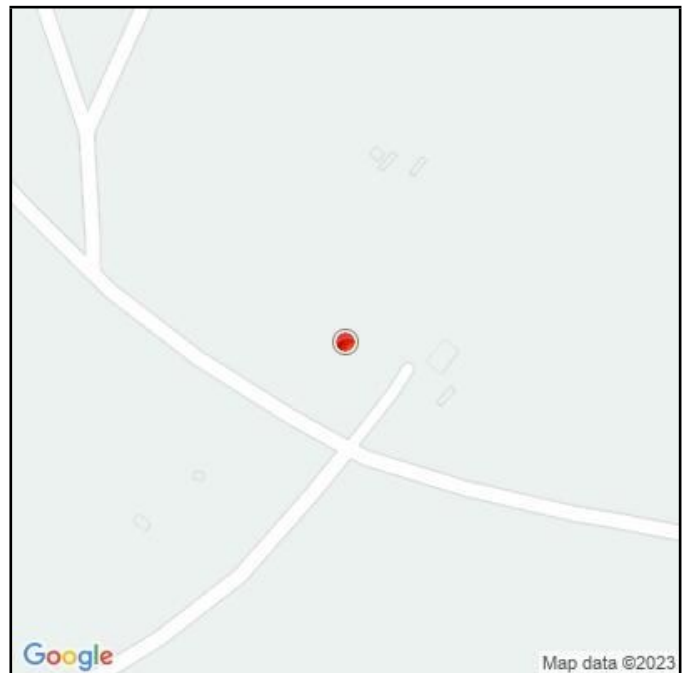
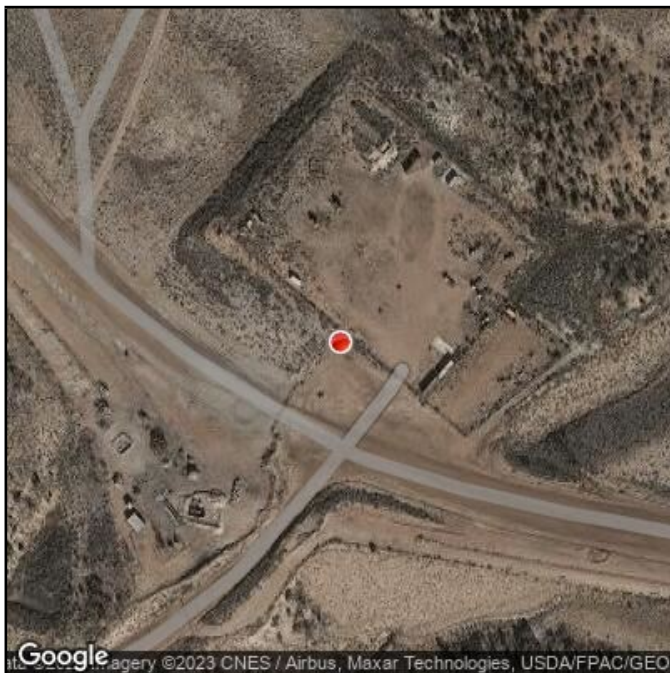
NVA-214 N.JPG



NVA-214 S.JPG

Title:

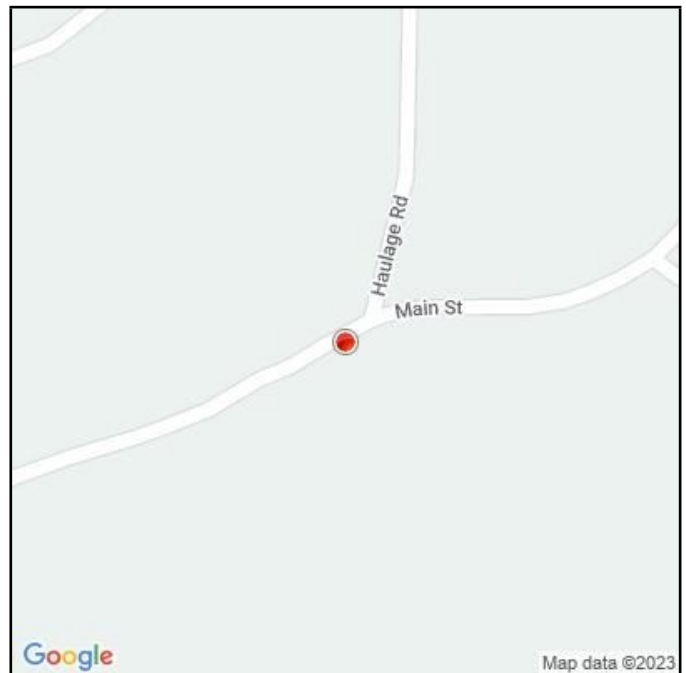
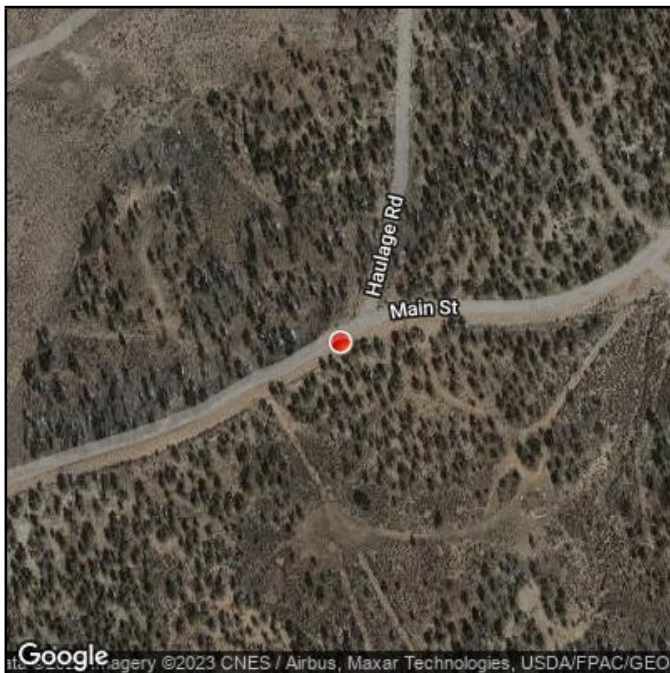
NVA-214 S.JPG



CP-118 N.JPG

Title:

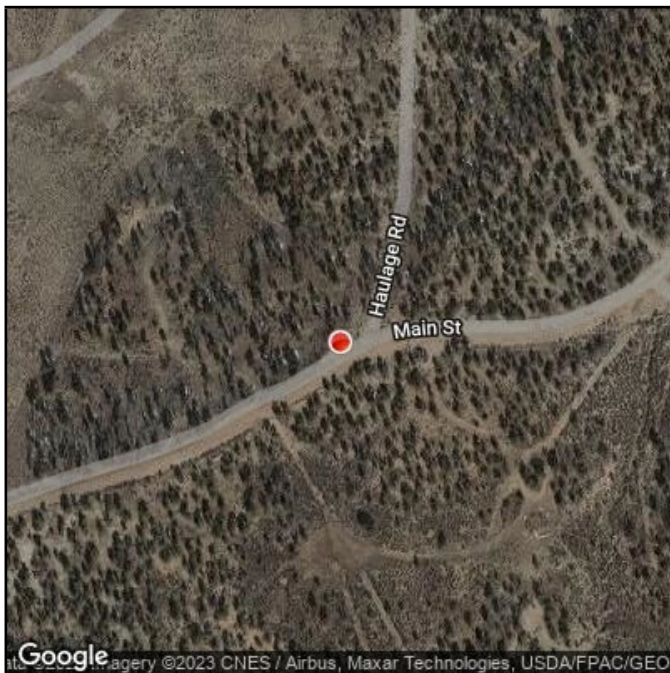
CP-118 N.JPG



CP-118 S.JPG

Title:

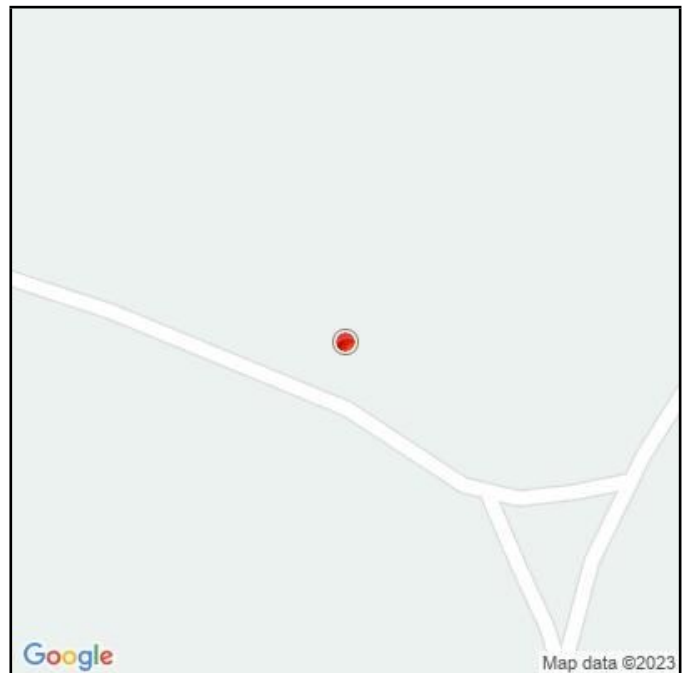
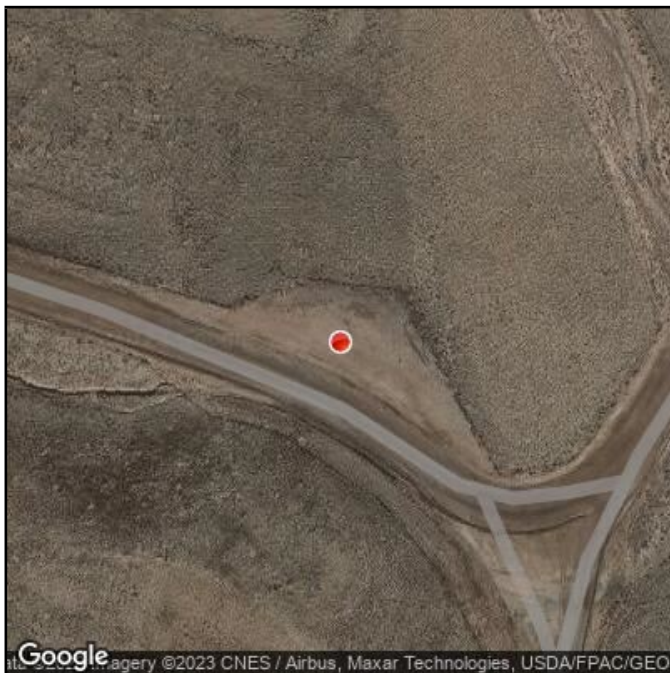
CP-118 S.JPG



CP-117 N.JPG

Title:

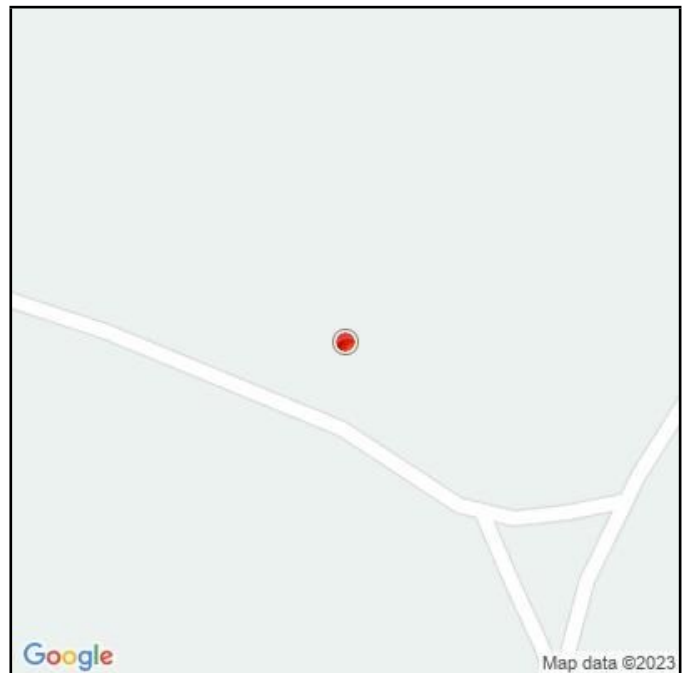
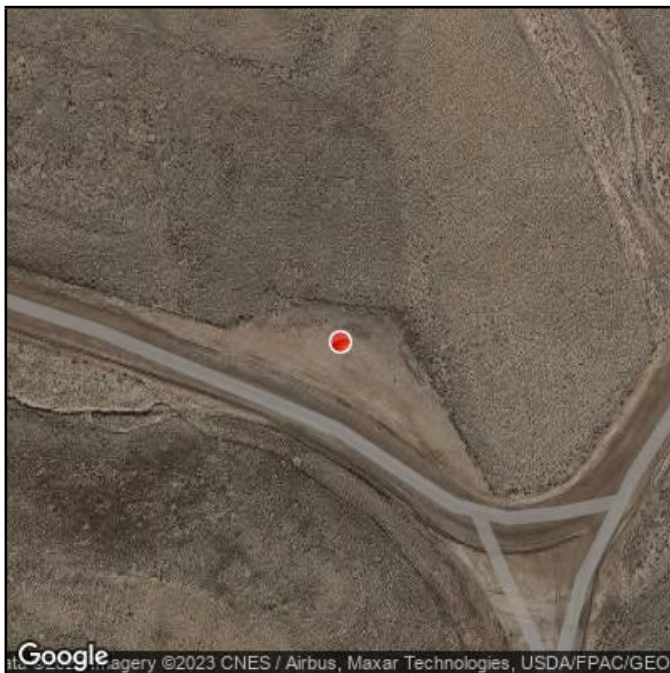
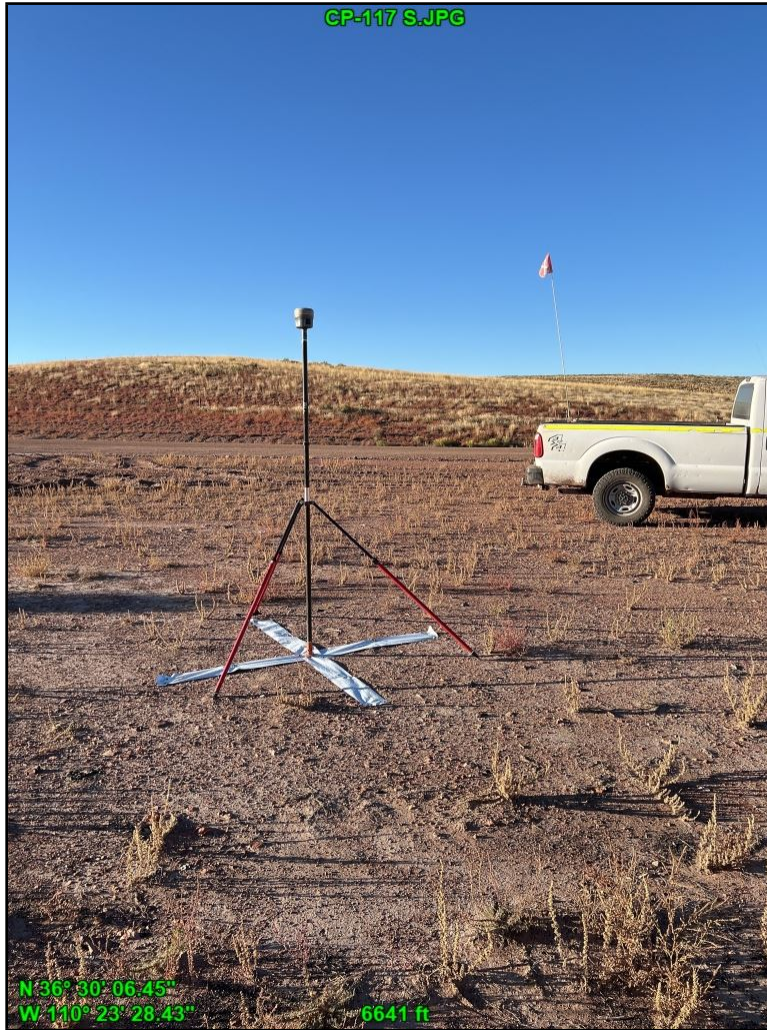
CP-117 N.JPG



CP-117 S.JPG

Title:

CP-117 S.JPG



CP-115 N.JPG

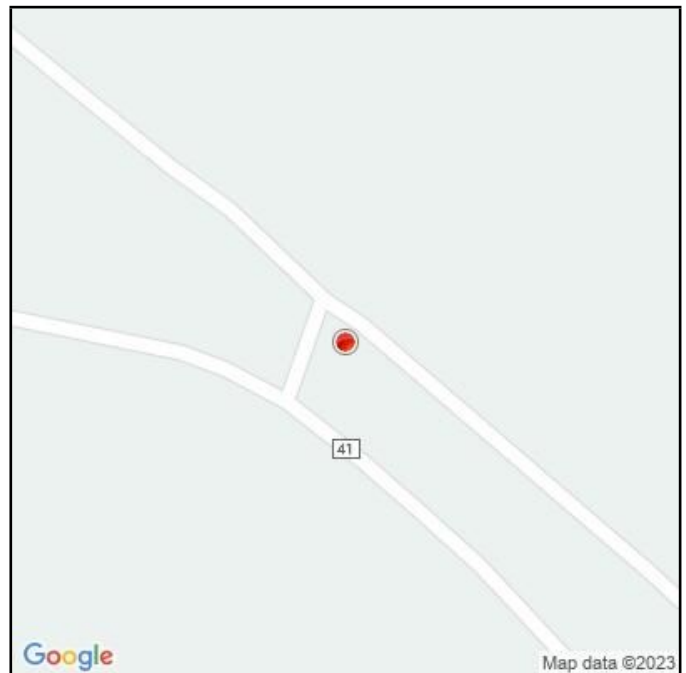
Title:

CP-115 N.JPG



N 36° 33' 02.51"
W 110° 27' 59.33"

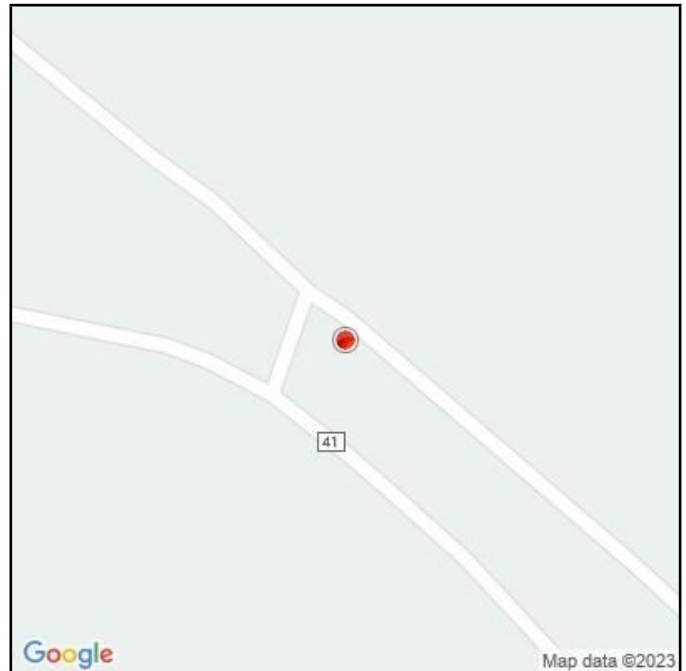
7219 ft



CP-115 S.JPG

Title:

CP-115 S.JPG



NVA-216 N.JPG

Title:

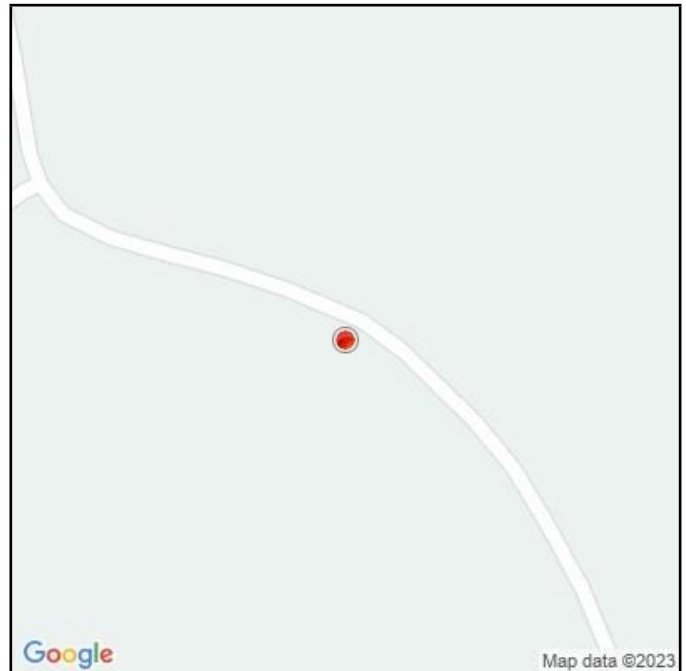
NVA-216 N.JPG



NVA-216 S.JPG

Title:

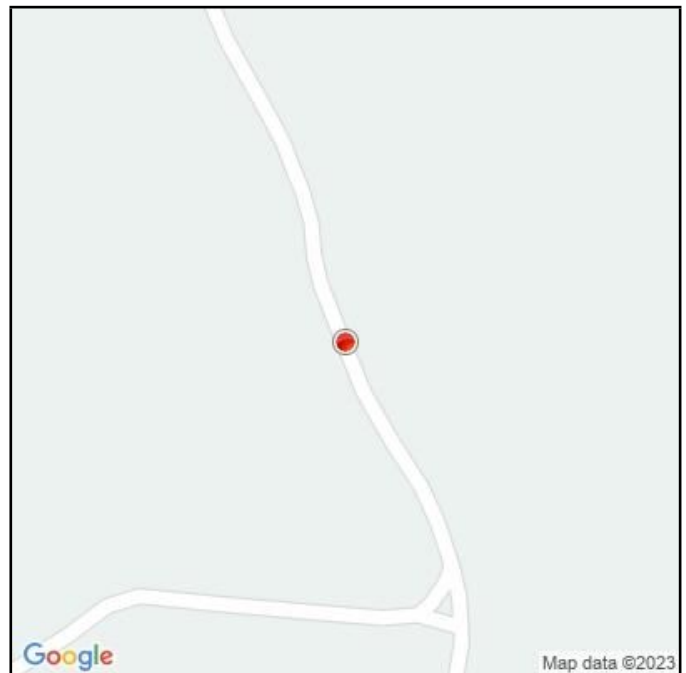
NVA-216 S.JPG



CP-136 N.JPG

Title:

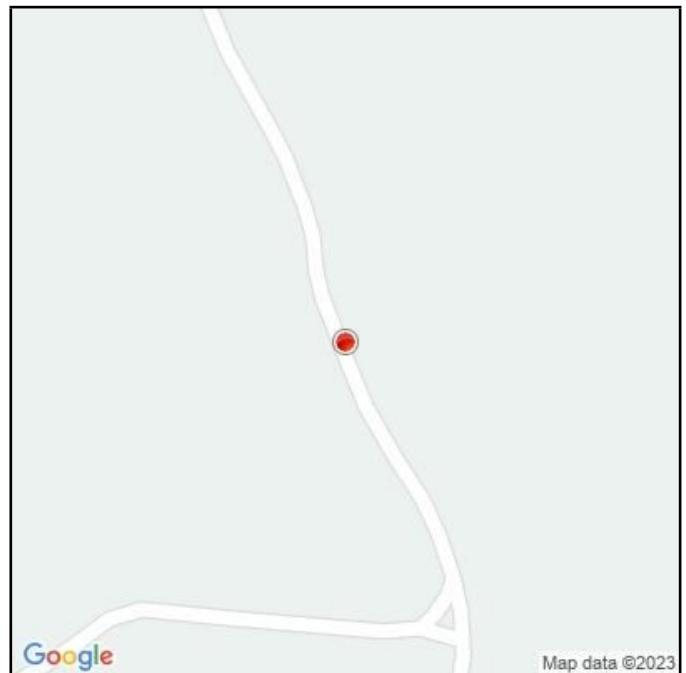
CP-136 N.JPG



CP-136 S.JPG

Title:

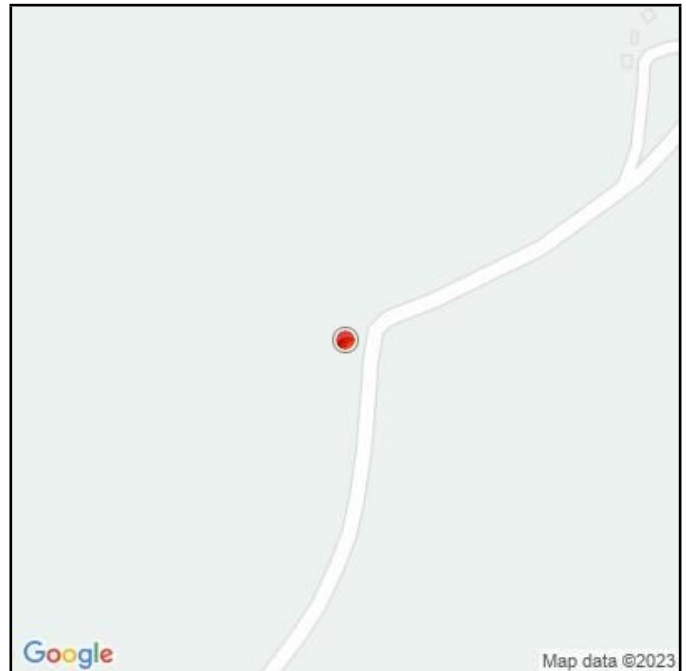
CP-136 S.JPG



CP-116 N.JPG

Title:

CP-116 N.JPG



CP-116 S.JPG

Title:

CP-116 S.JPG



NVA-215 N.JPG

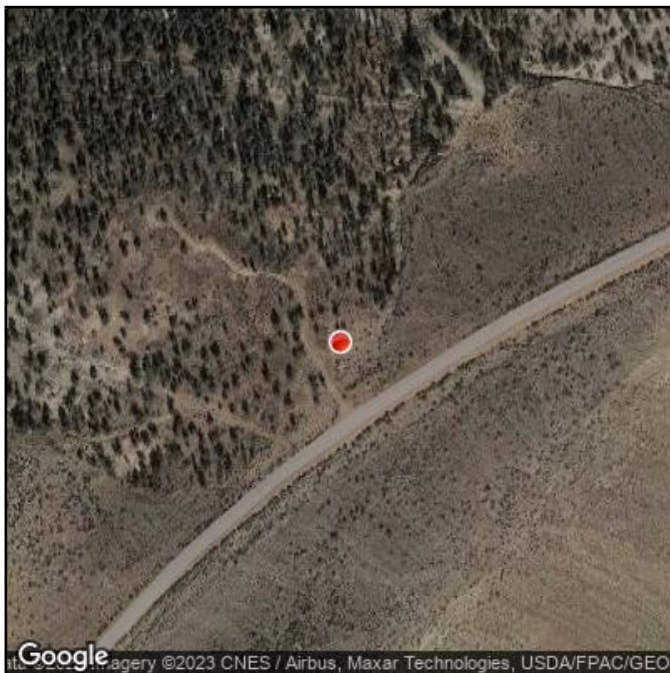
Title:



NVA-215 S.JPG

Title:

NVA-215 S.JPG



CP-134 N.JPG

Title:

CP-134 N.JPG



[illegible]

CP-134 S.JPG

Title:

CP-134 S.JPG



[illegible]

Project: mckinley network points
Program: GrafNet Version 8.90.5126
Profile: memphis utm15 meters
Source: Network

Datum: NAD83(2011)
Control IDs: BASE1, BASE2
Geoid: GEOID18(CONUS).wpg [NAVD88] (Absolute correction)

Map projection Info:
Defined grid: UTM, Zone 12
SD Scaling Settings:
Position: 1.0000

Station	Easting (m)	Northing (m)	H-MSL (m)	SDHori (m)	SDHeig (m)
BASE1	686129.206	3948685.456	2206.550	0.007	0.005
BASE2	688471.732	3943483.540	2039.544	0.007	0.005
CP123	686654.140	3954230.249	2281.019	0.010	0.013
CP124	688708.250	3953490.202	2286.997	0.009	0.010
CP125	683787.931	3951454.682	2198.622	0.009	0.011
CP126	689214.860	3949170.948	2140.149	0.010	0.012
CP127	687055.878	3939328.343	2008.202	0.010	0.012
CP128	687304.602	3944648.379	2064.175	0.010	0.012
CP129	681533.958	3947678.797	2176.004	0.009	0.010
CP130	683332.085	3945541.319	2116.338	0.010	0.012
CP131	688502.327	3942110.814	2016.581	0.008	0.008
CP132	685541.631	3948088.448	2211.507	0.010	0.012
NVA218	686487.847	3953009.168	2269.392	0.010	0.014
NVA219	691141.192	3949784.747	2123.997	0.008	0.008
NVA220	684845.582	3948708.238	2173.822	0.010	0.012
NVA221	682239.283	3949435.097	2190.878	0.010	0.014
NVA222	681582.609	3942597.514	2085.005	0.014	0.022
NVA223	685802.764	3941504.094	2089.599	0.016	0.025
NVA224	678550.764	3944353.594	2140.262	0.013	0.020

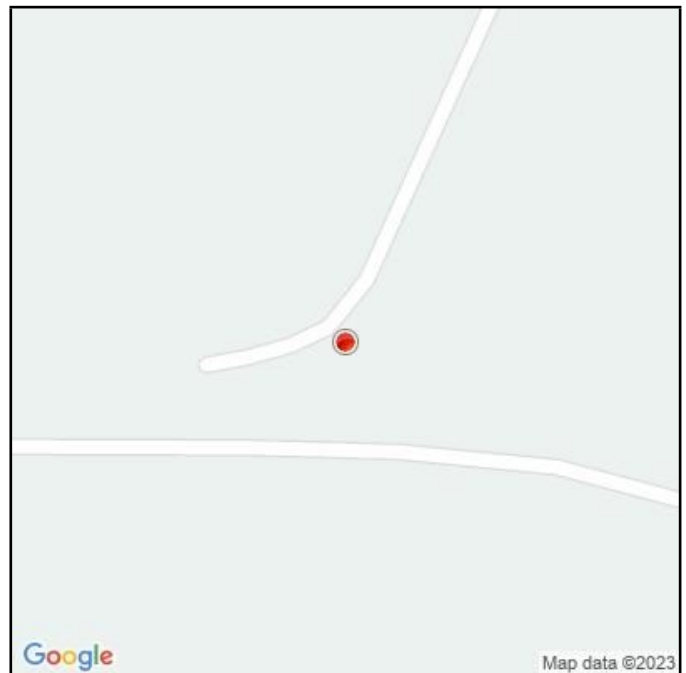
Overview Map



Base1 North.JPG

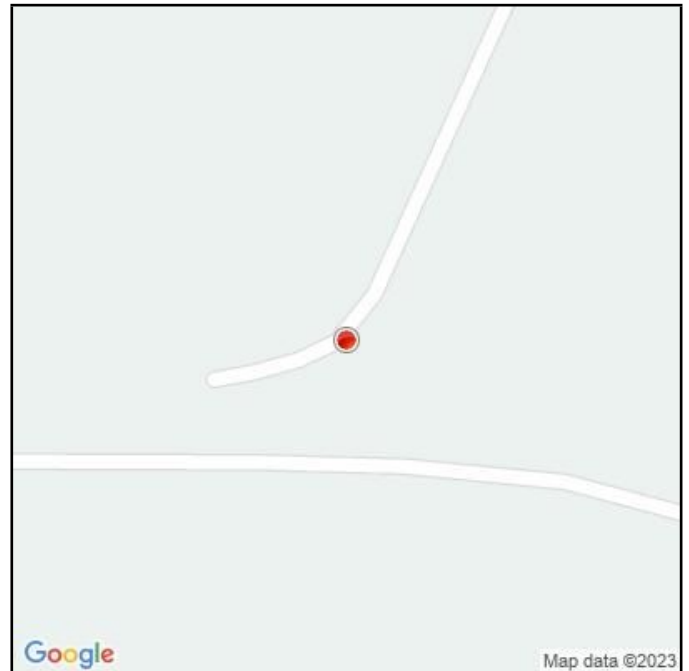
Title:

Base1 North.JPG



Base1 South.JPG

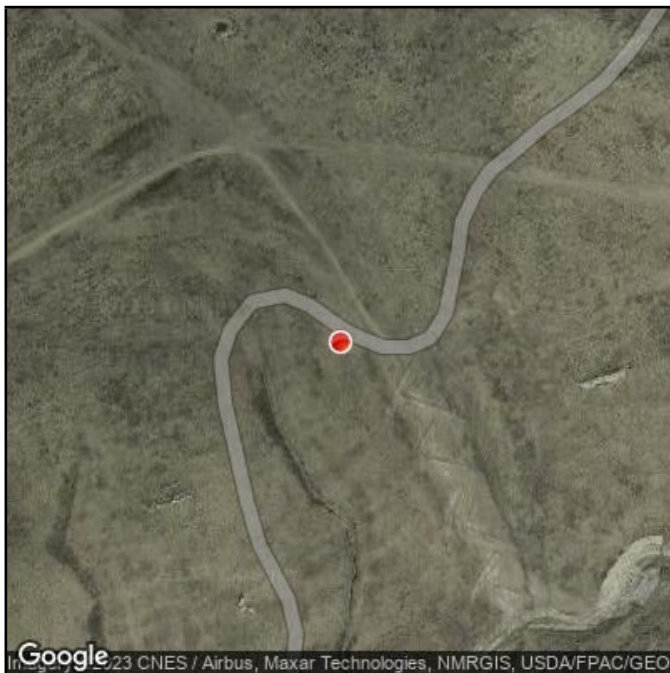
Title:



NVA-219 N.JPG

Title:

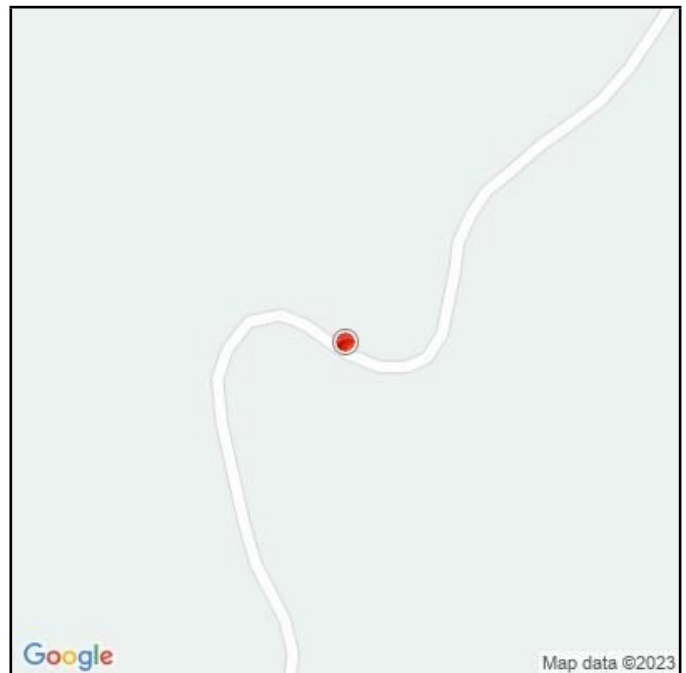
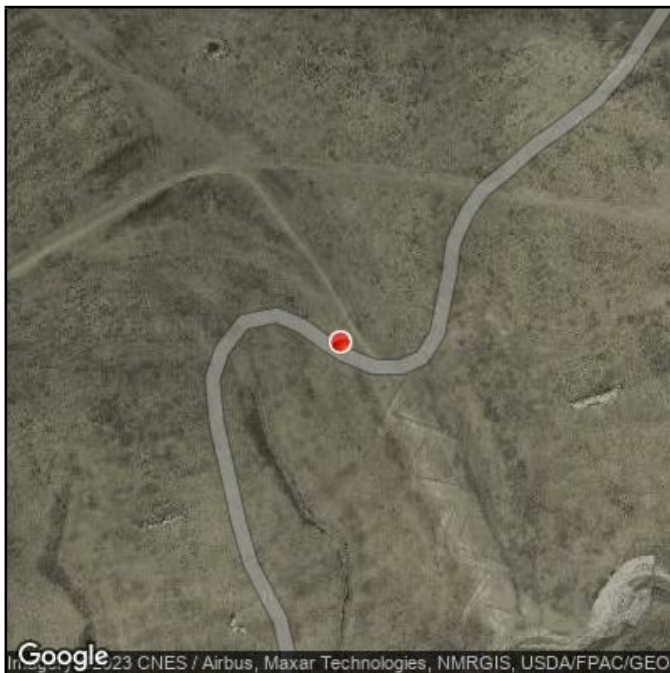
NVA-219 N.JPG



NVA-219 S.JPG

Title:

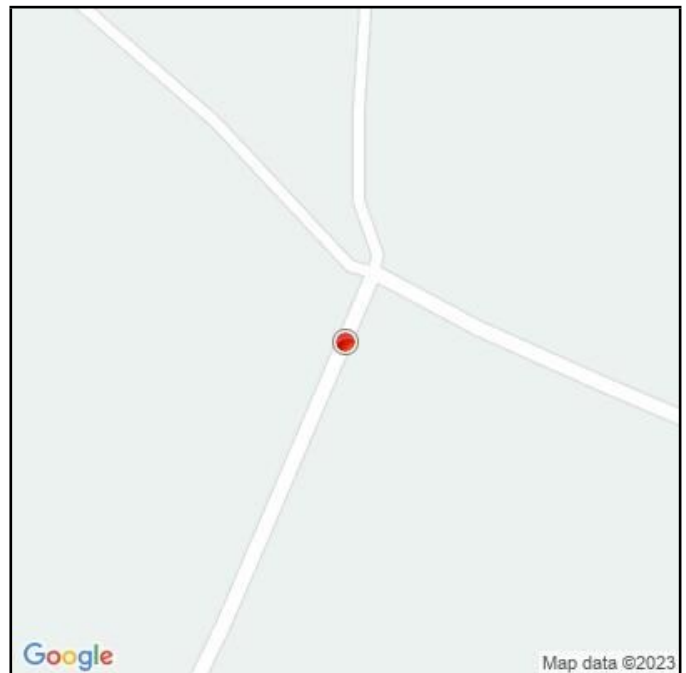
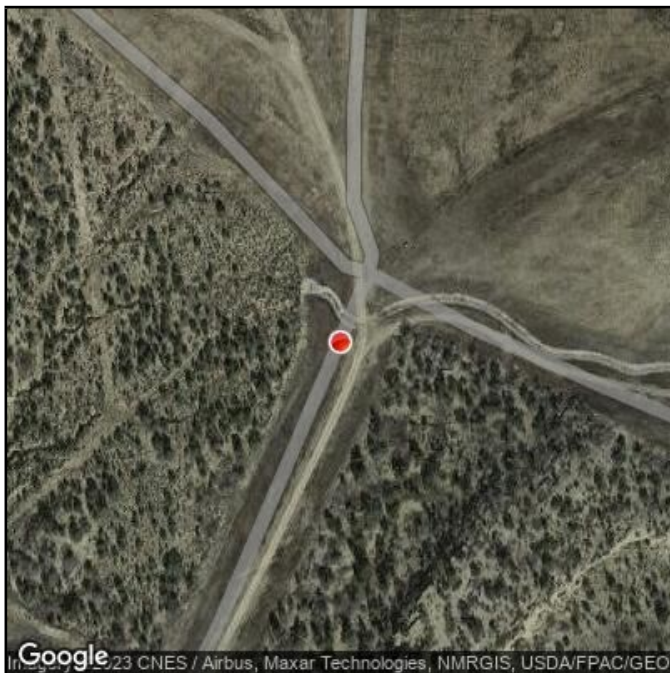
NVA-219 S.JPG



CP-126 N.JPG

Title:

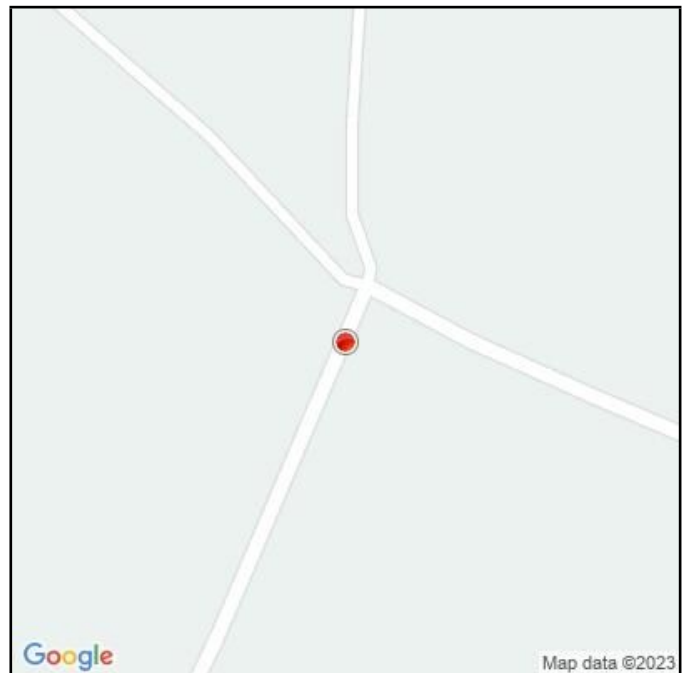
CP-126 N.JPG



CP-126 S.JPG

Title:

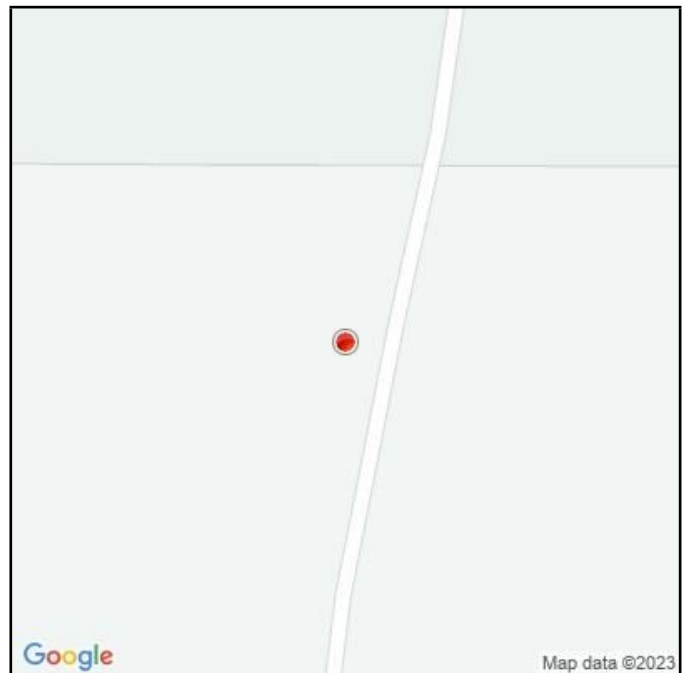
CP-126 S.JPG



CP-132 N.JPG

Title:

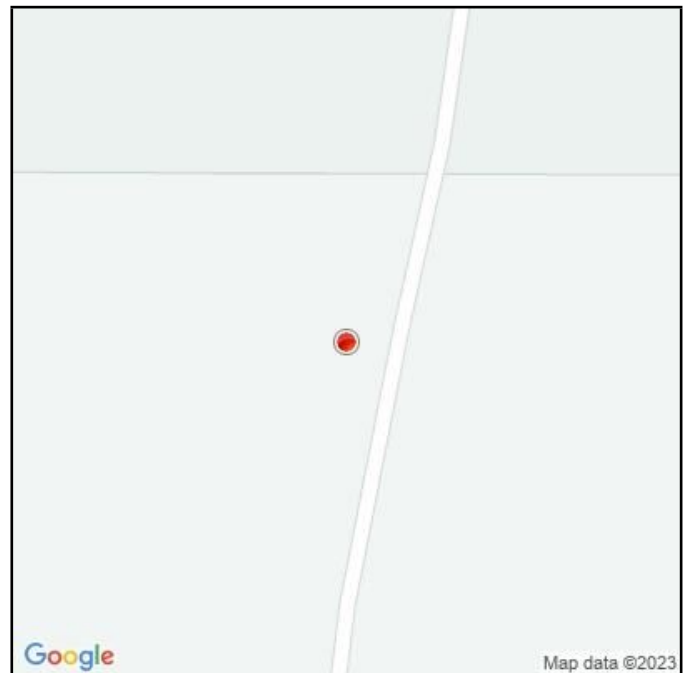
CP-132 N.JPG



CP-132 S.JPG

Title:

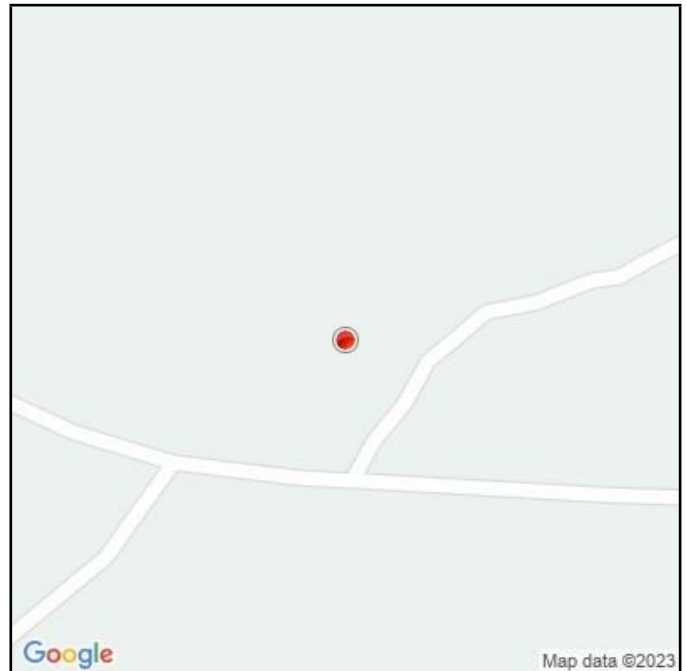
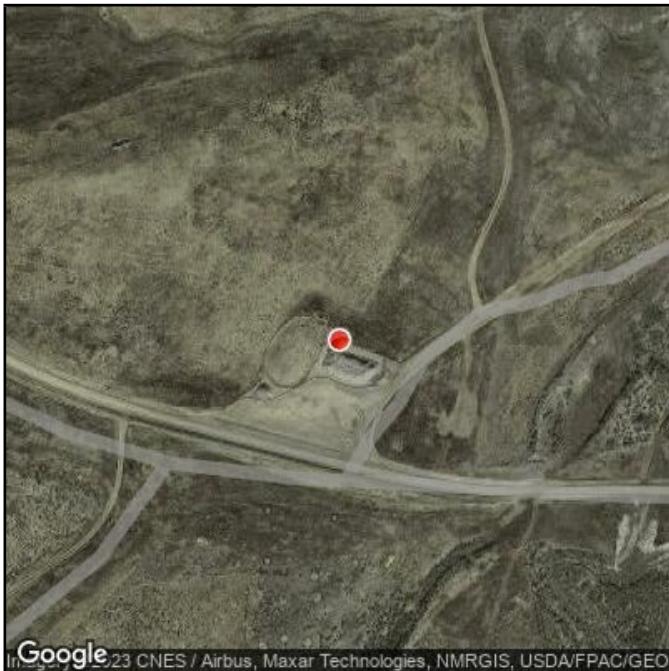
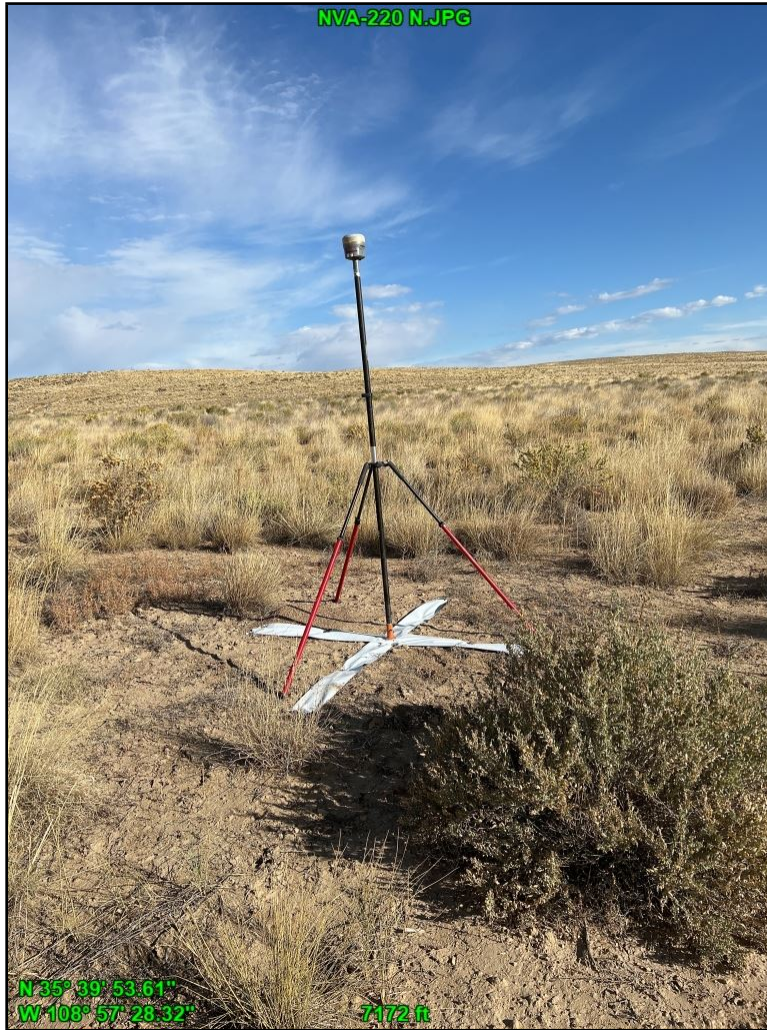
CP-132 S.JPG



NVA-220 N.JPG

Title:

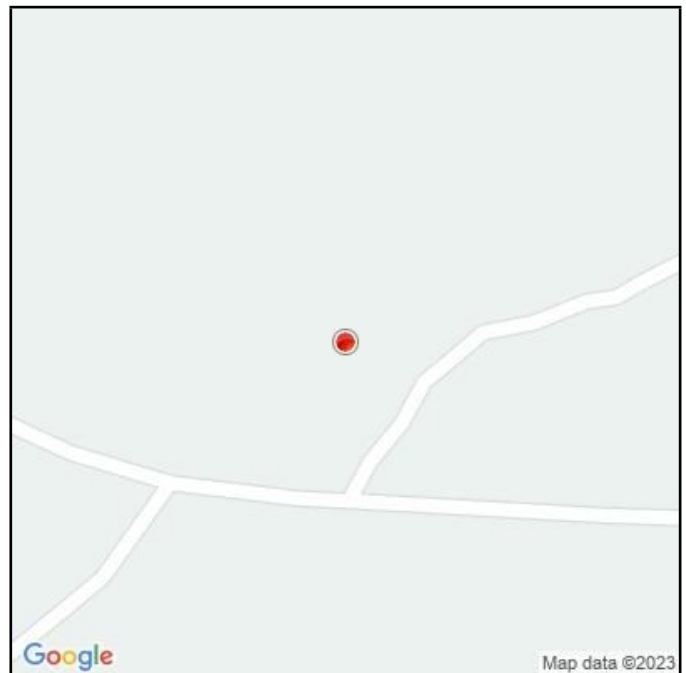
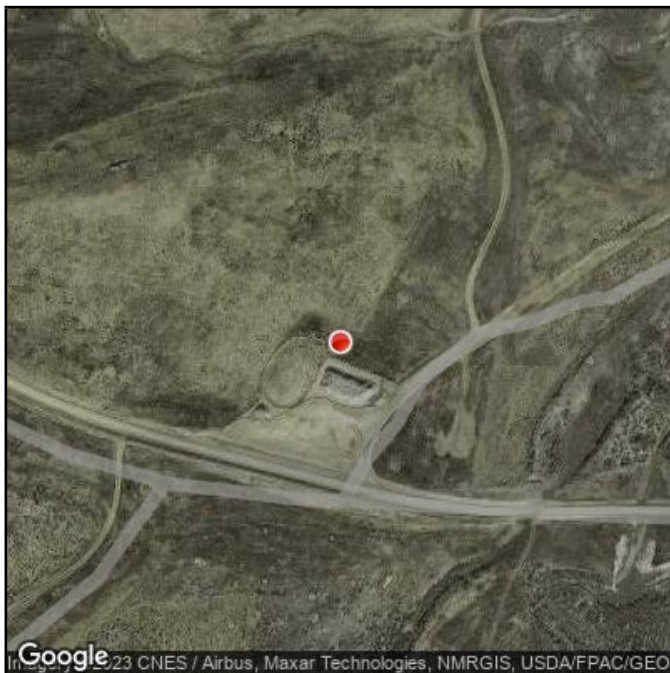
NVA-220 N.JPG



NVA-220 S.JPG

Title:

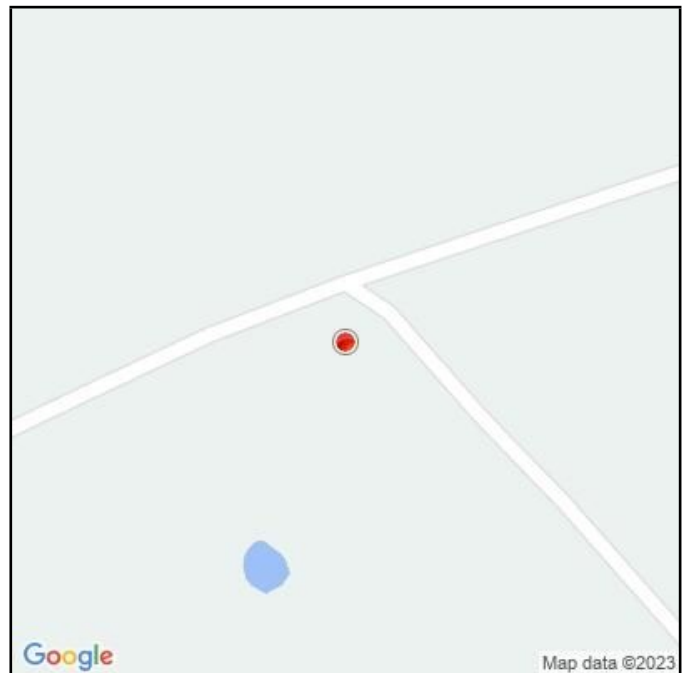
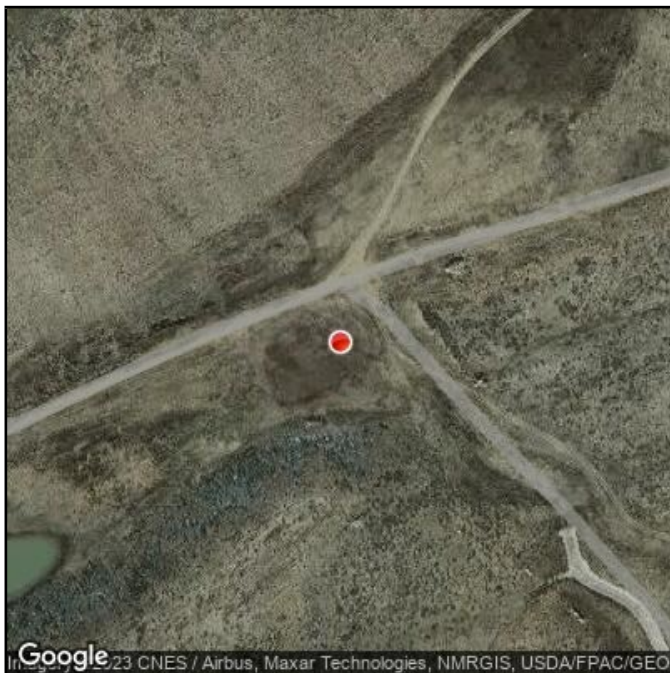
NVA-220 S.JPG



NVA-218 N.JPG

Title:

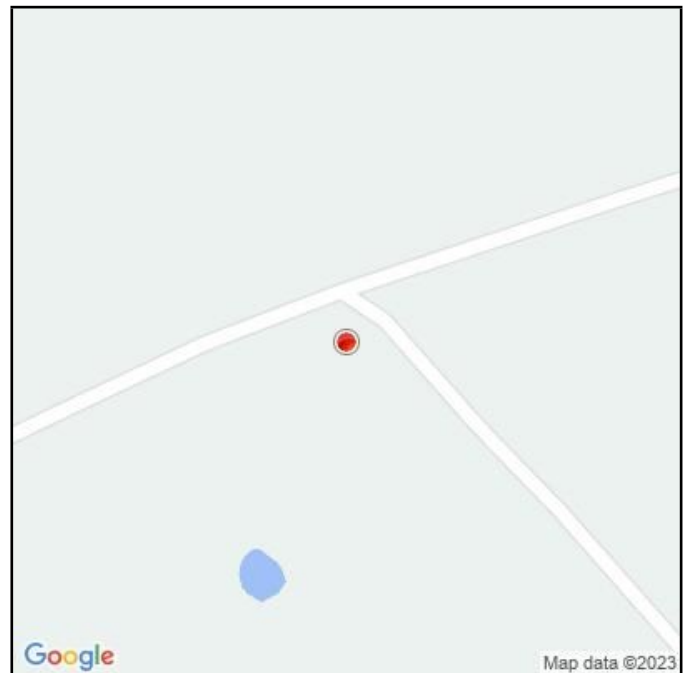
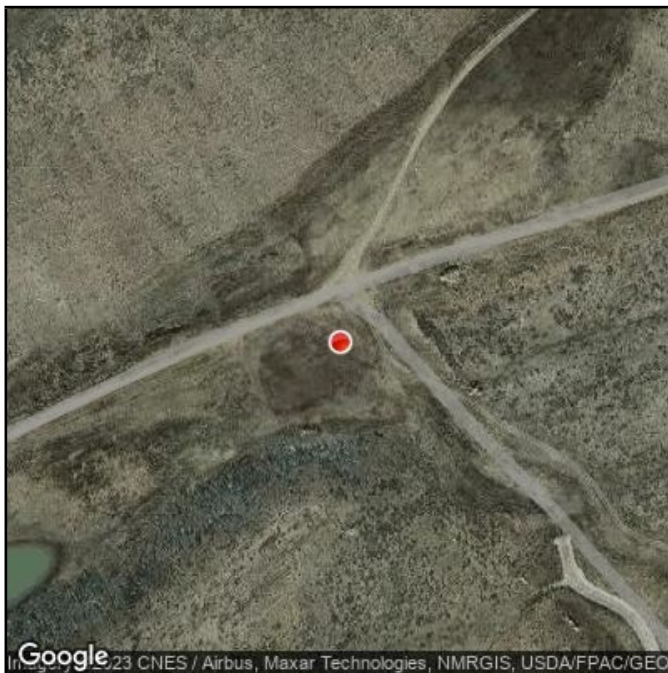
NVA-218 N.JPG



NVA-218 S.JPG

Title:

NVA-218 S.JPG



CP-123 N.JPG

Title:

CP-123 N.JPG



CP-123 S.JPG

Title:

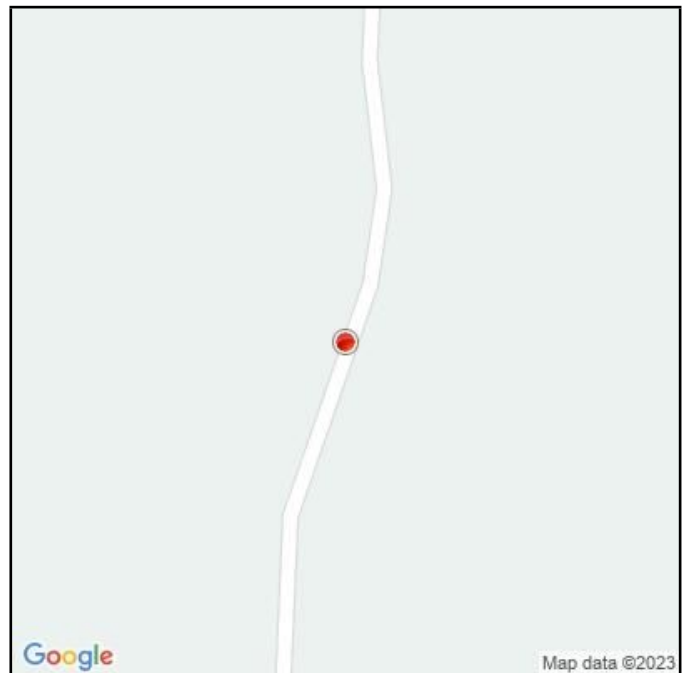
CP-123 S.JPG



CP-124 N.JPG

Title:

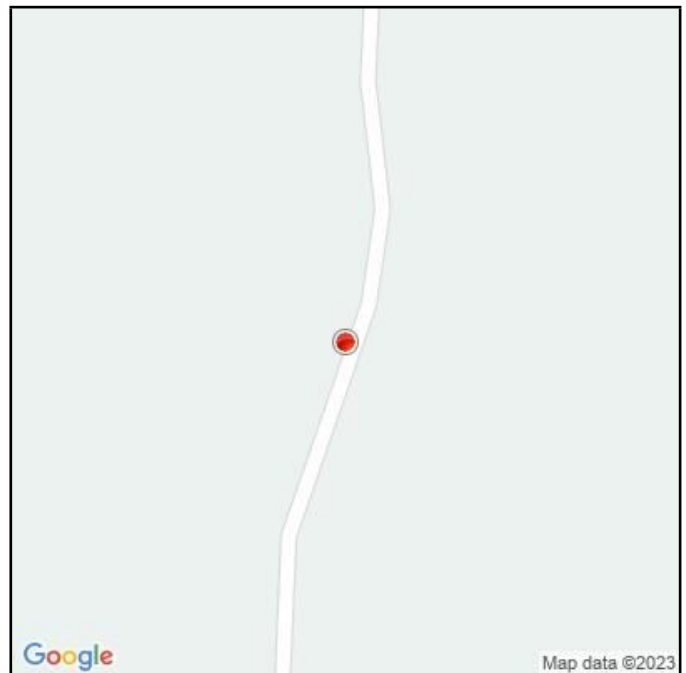
CP-124 N.JPG



CP-124 S.JPG

Title:

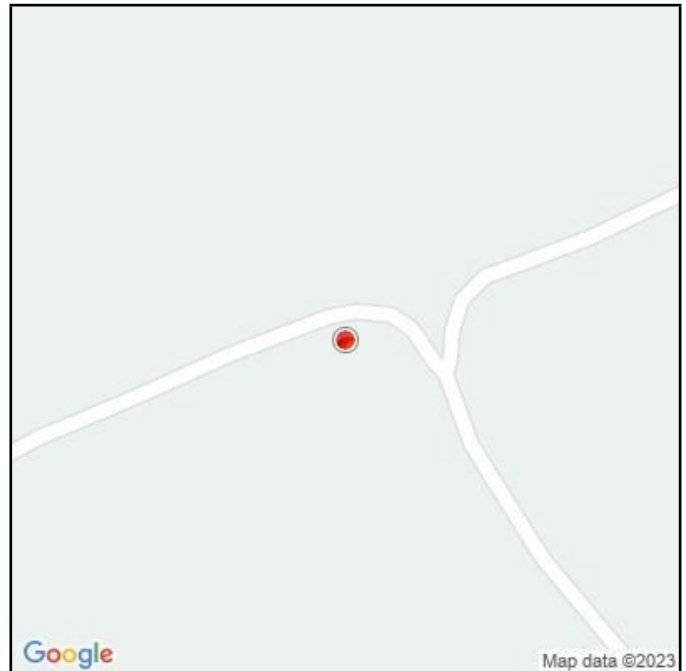
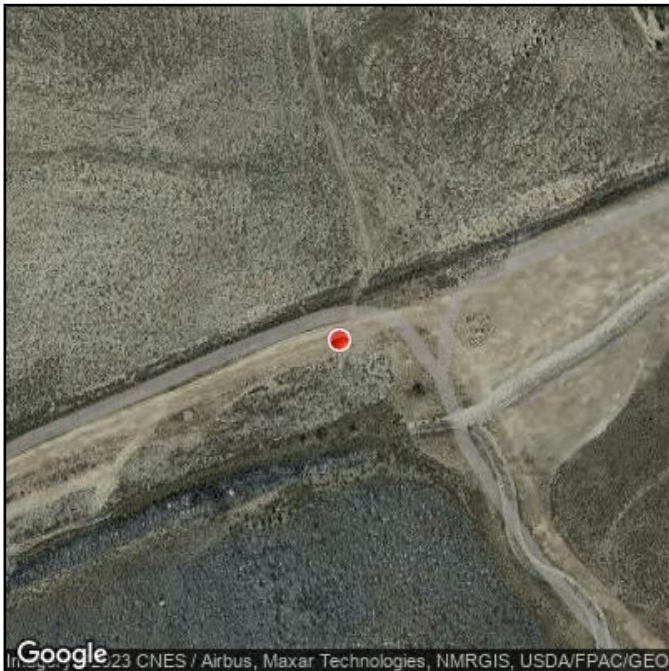
CP-124 S.JPG



CP-125 N.JPG

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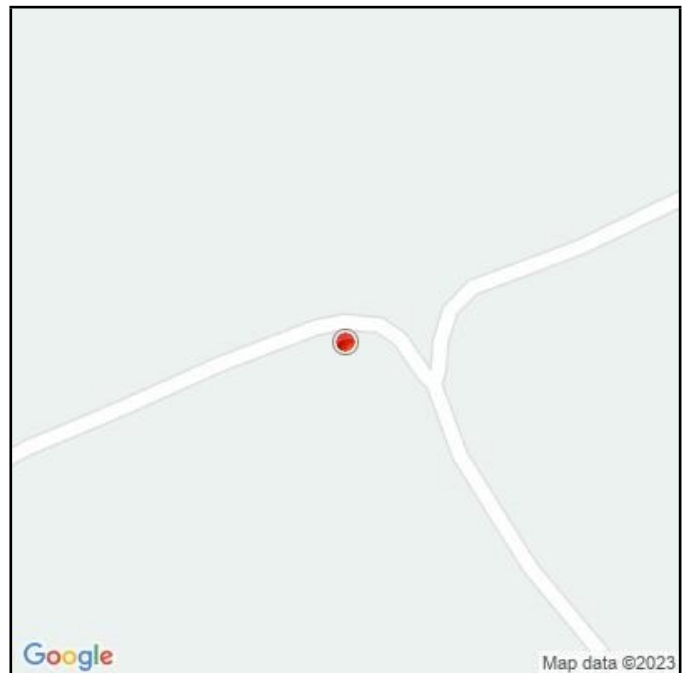
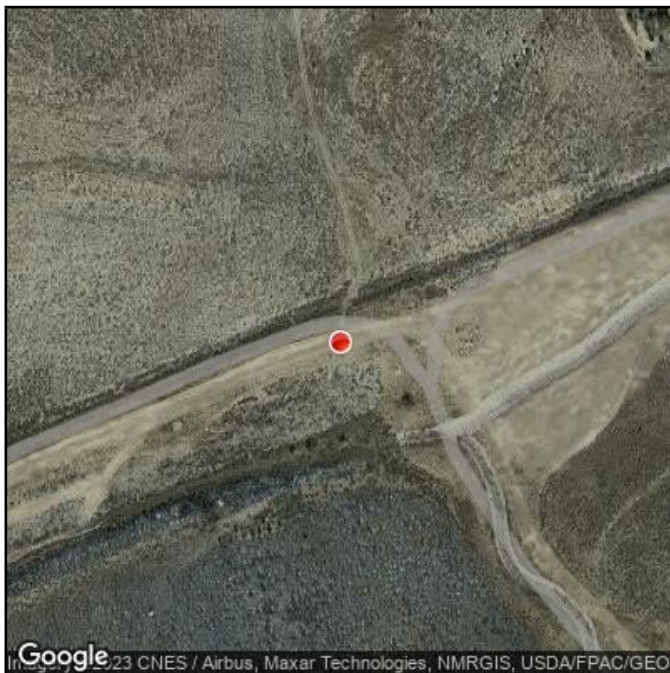
CP-125 N.JPG



CP-125 S.JPG

Title:

CP-125 S.JPG



NVA-221 N.JPG

Title:

NVA-221 N.JPG

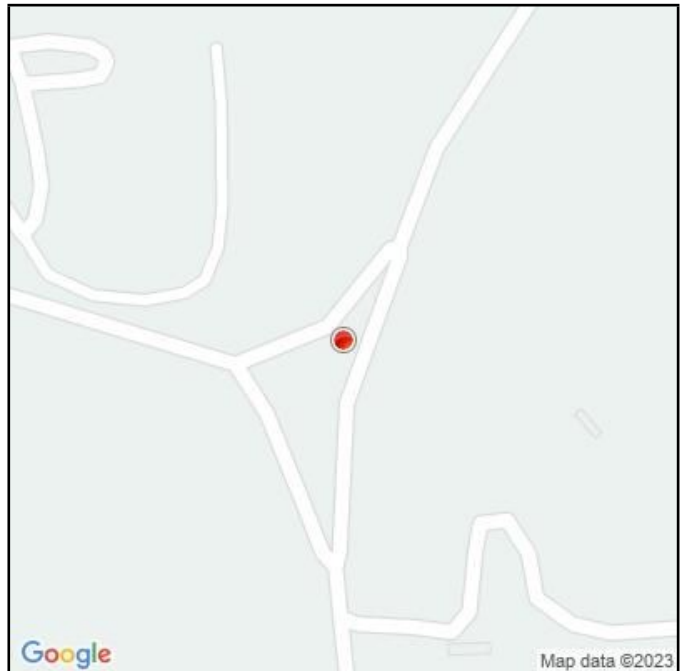


N 35° 40' 18.95"
W 108° 59' 11.27"

7196 ft



Google 2023 CNES / Airbus, Maxar Technologies, NMRGIS, USDA/FPAC/GEO



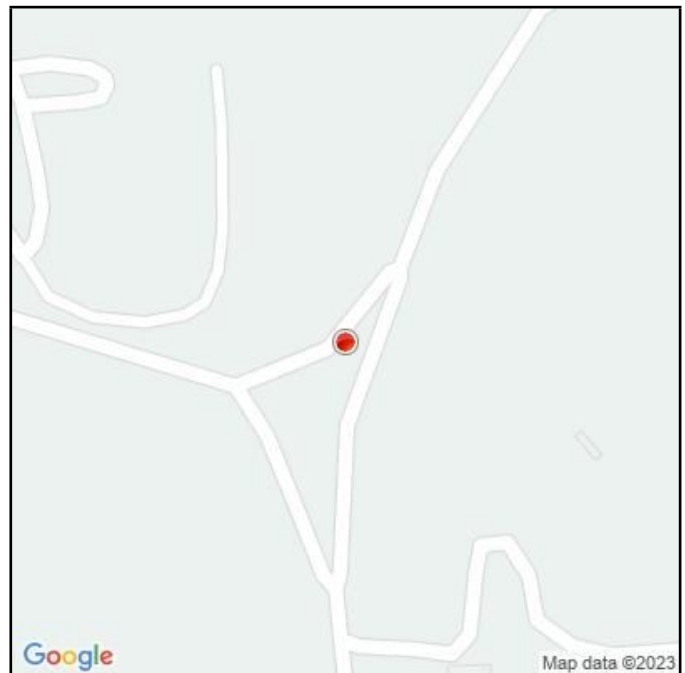
Google

Map data ©2023

NVA-221 S.JPG

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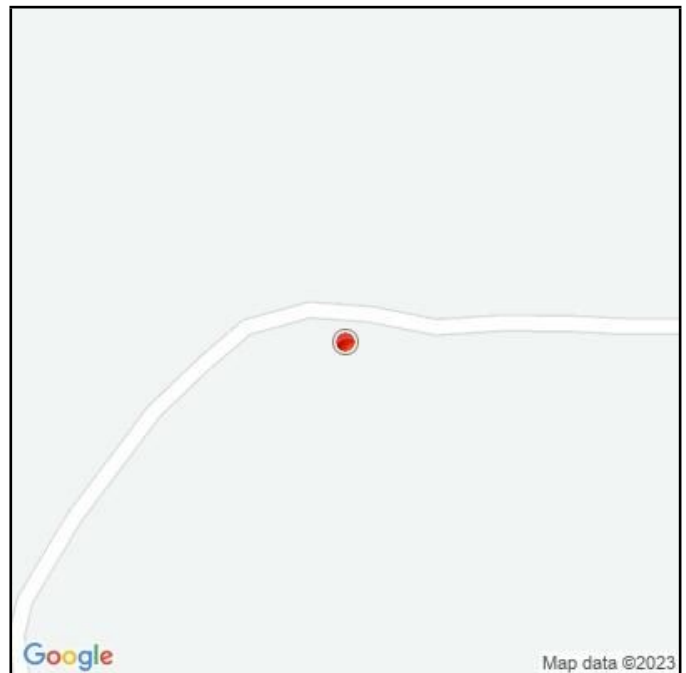
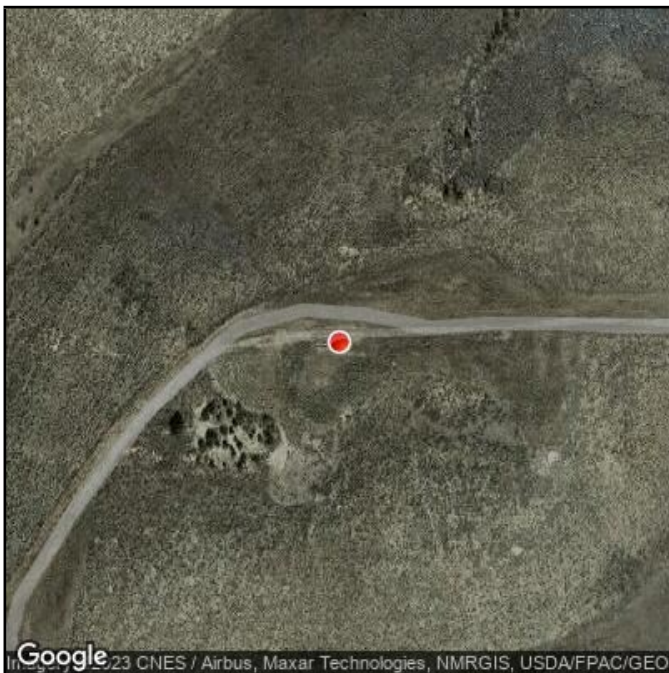
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CP-129 N.JPG

Title:

CP-129 N.JPG



CP-129 S.JPG

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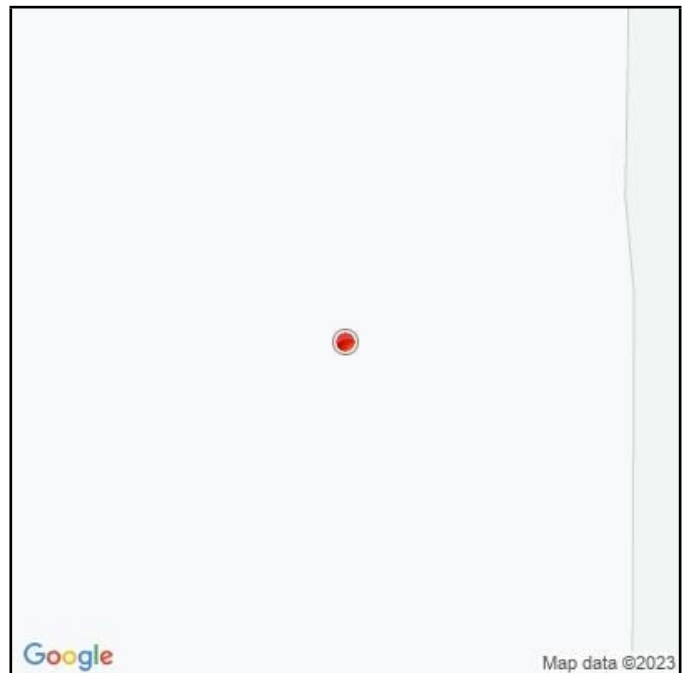
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CP-131 N.JPG

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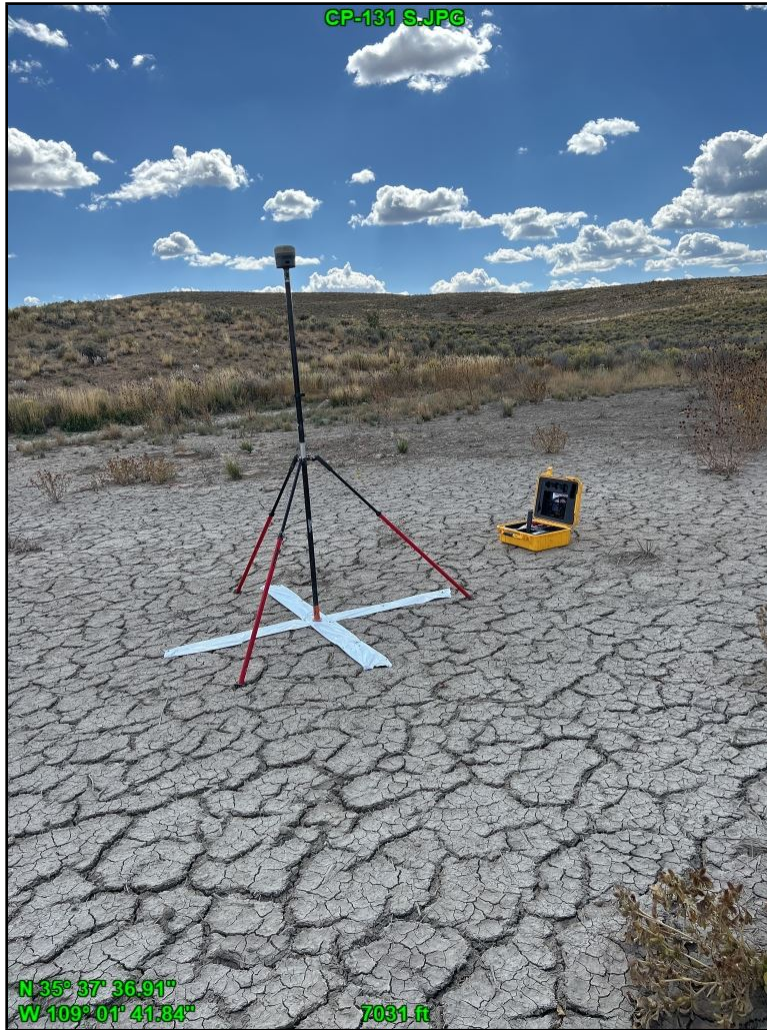
CP-131 N.JPG



CP-131 S.JPG

Title:

CP-131 S.JPG



CP-127 N.JPG

Title:

CP-127 N.JPG



CP-127 S.JPG

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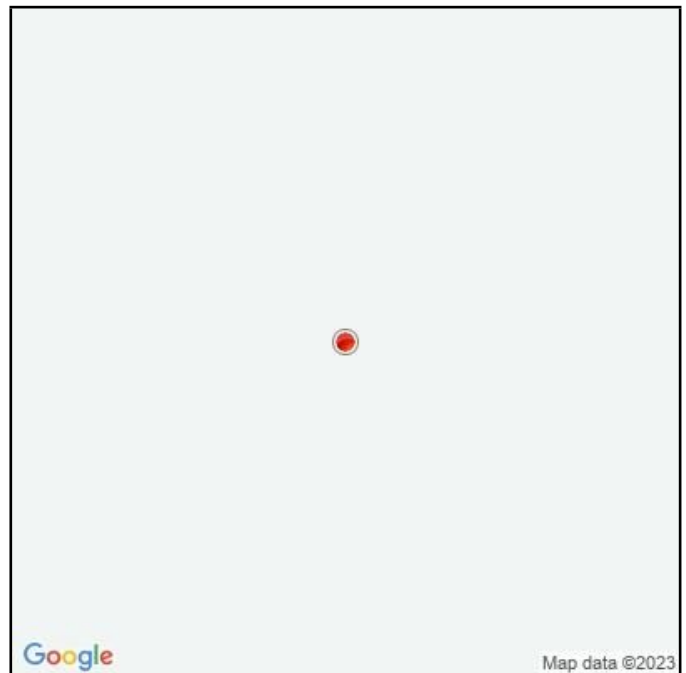
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NVA-224 N.JPG

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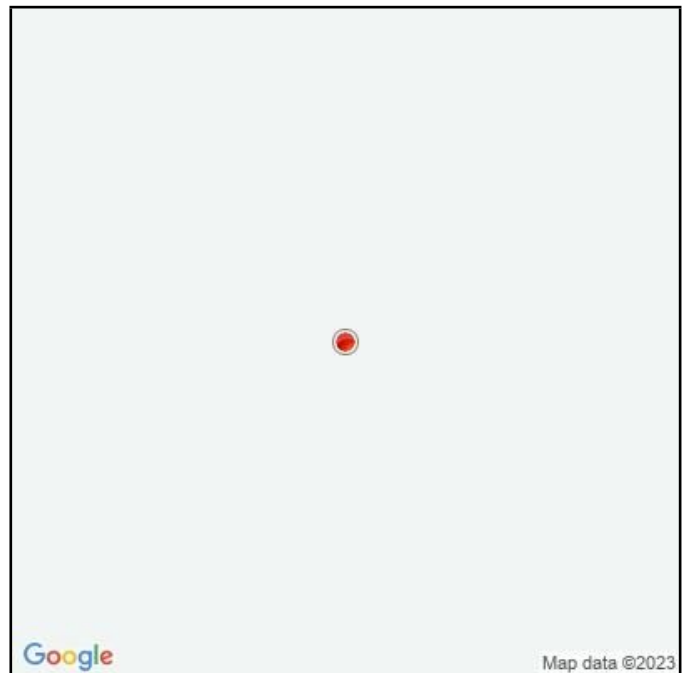
NVA-224 N.JPG



NVA-224 S.JPG

Title:

NVA-224 S.JPG



Base2 North.JPG

Title:



Base2 South.JPG

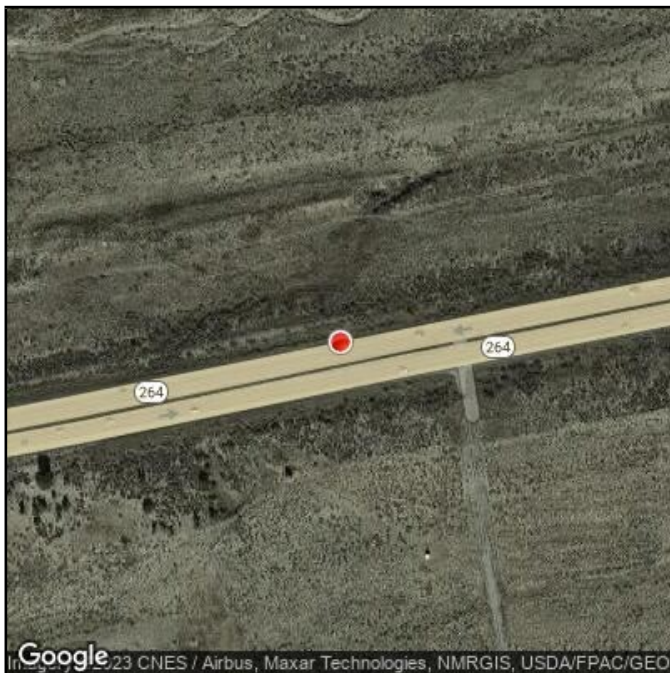
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NVA-222 N.JPG

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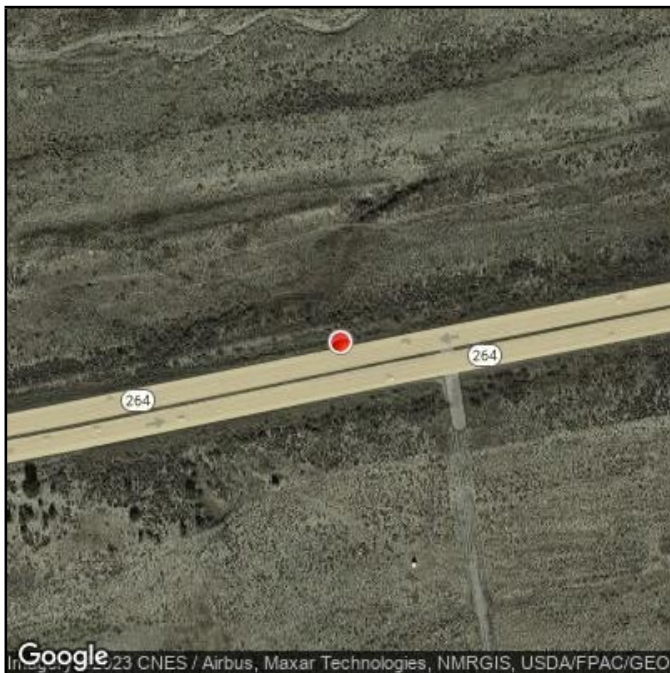
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NVA-222 S.JPG

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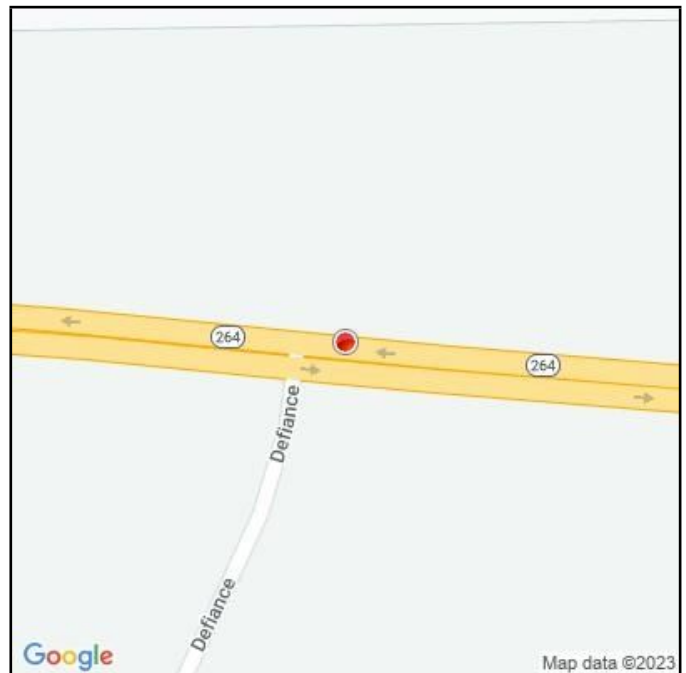
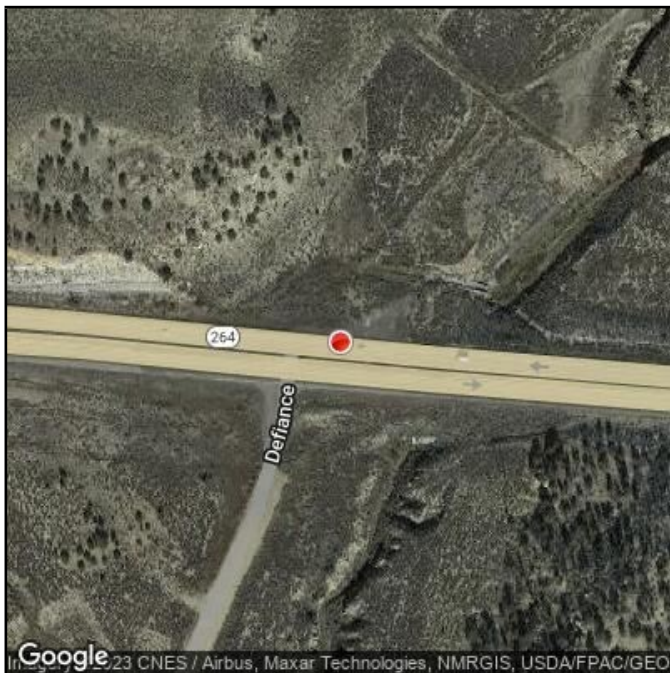
NVA-222 S.JPG



NVA-223 N.JPG

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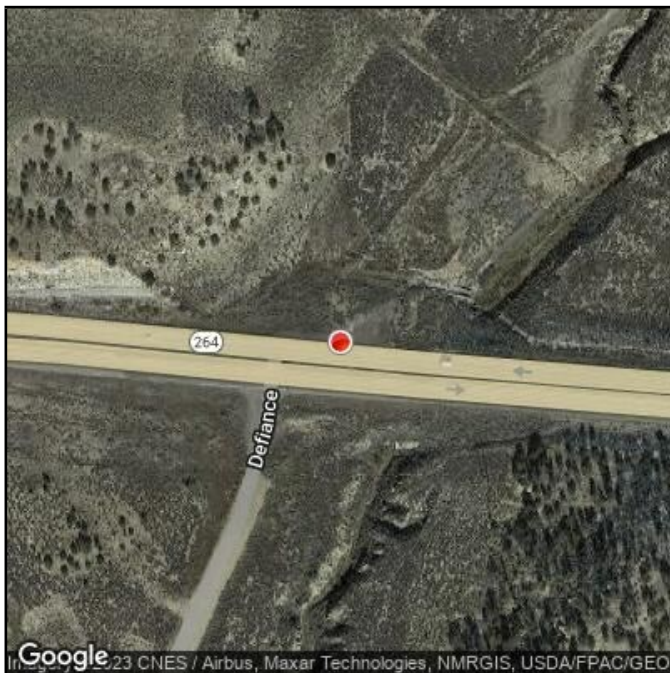
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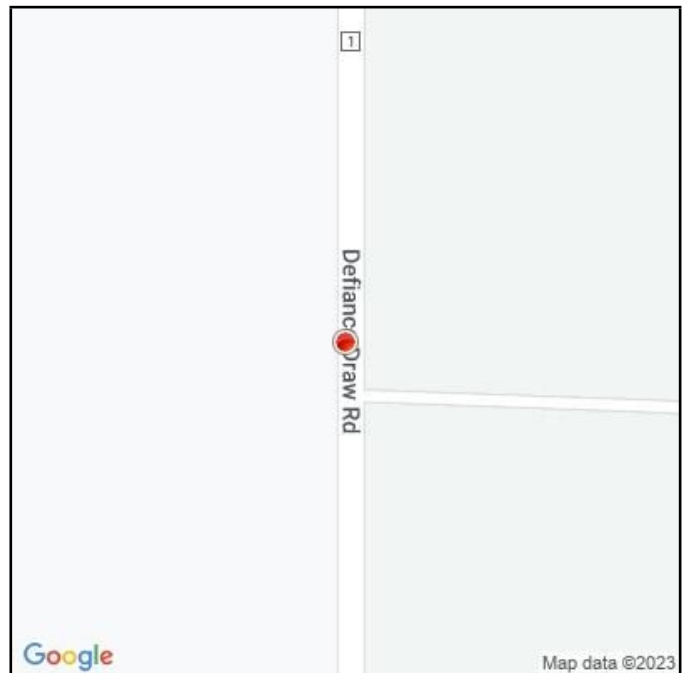
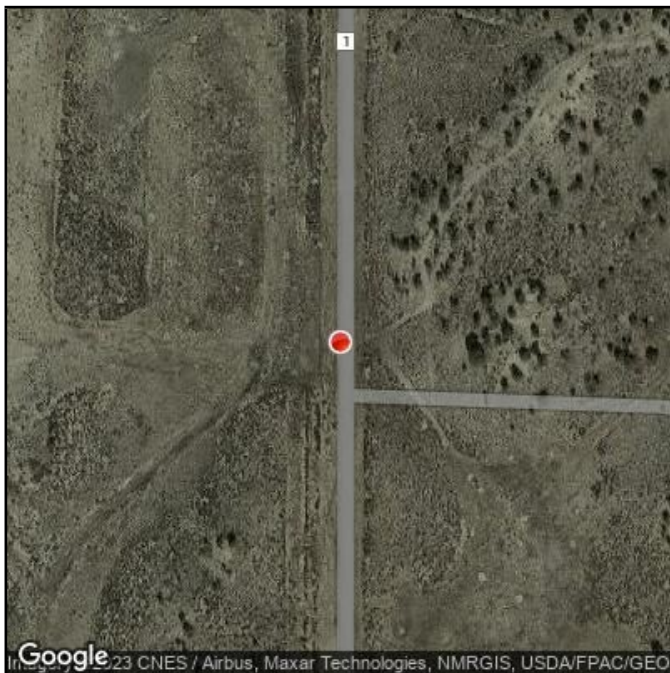
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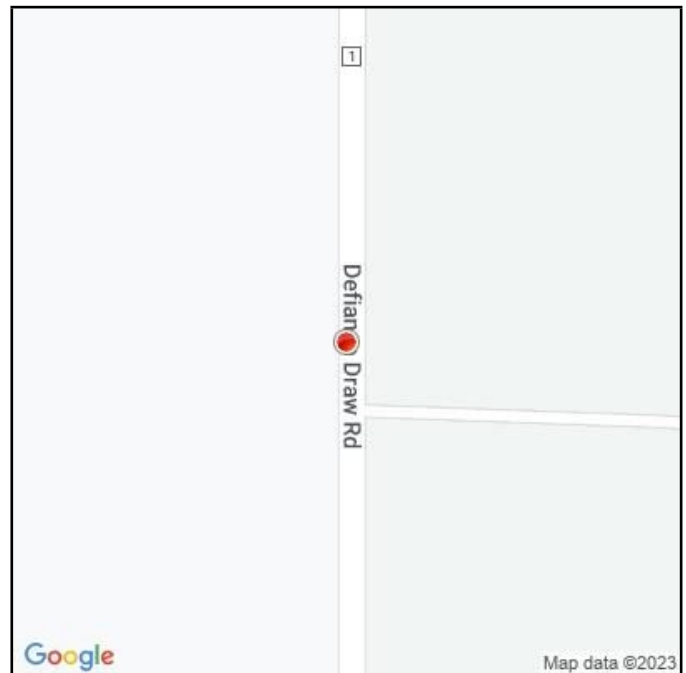
CP-128 N.JPG



CP-128 S.JPG

Title:

CP-128 S.JPG



CP-130 N.JPG

Title:

CP-130 N.JPG



CP-130 S.JPG

Title:

CP-130 S.JPG

