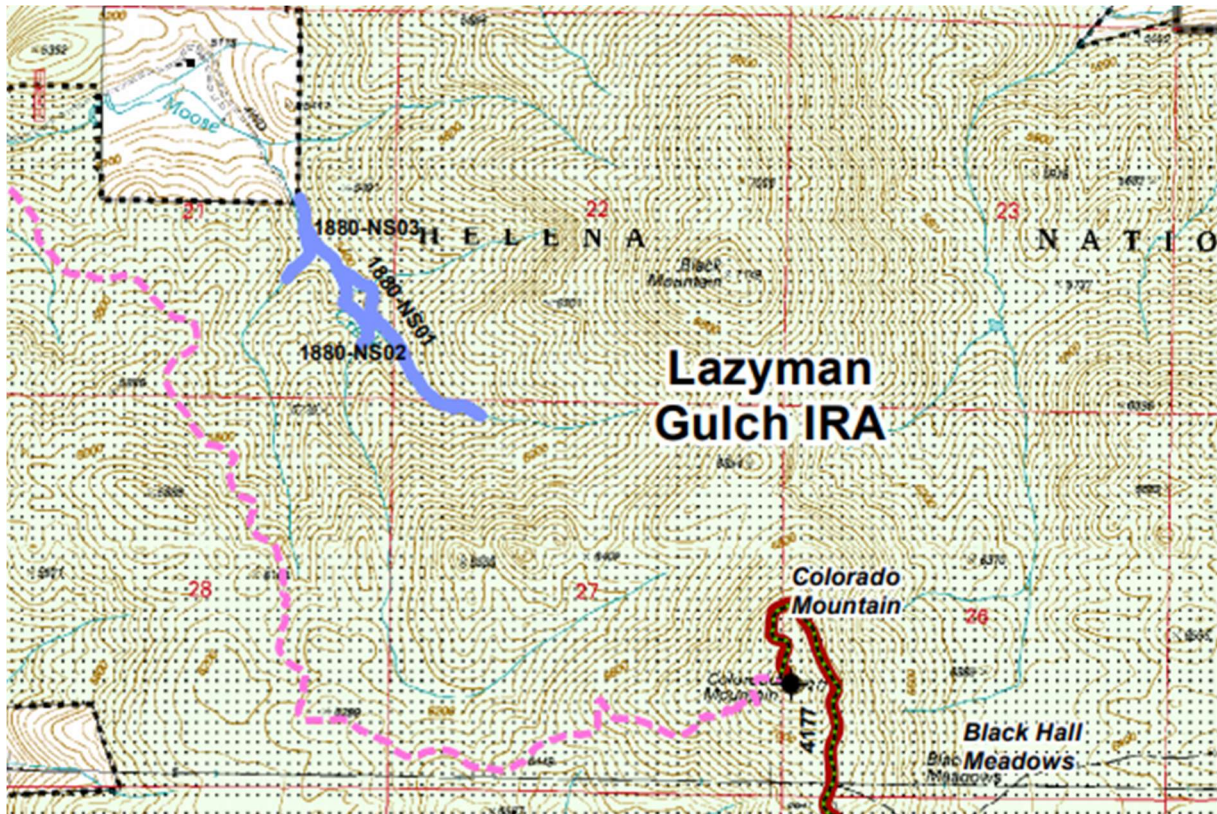


#1880-NS01, NS02, NS03 Moose Creek Waypoints MC-1 to MC-15
May 7, 2020



METHODS:

Waypoint = Placemark.

Paper Maps™ mapping app was used to follow a georeferenced USFS PDF map of the “roads”. Paper Maps uses the term “Placemark” instead of GPS Waypoint.

A screenshot of the Paper Maps field map was used to depict waypoints recorded of the “road” and surrounding terrain (below).

Waypoints were taken approximately every 100-600 feet (50-200 steps). Fifteen waypoints and 37 photos were taken and filed. Representative photos of each road segment are displayed here (slightly less than every other photo taken).

Photos from waypoints are displayed on one page.

Name of Surveyor: Gary Ingman

Date(s) surveyed: May 7, 2020

GPS Model: iPhone 8
Datum: WGS84
GPS Position Format: Degrees decimal
Mapping Apps: Paper Maps™ was used to follow geo-referenced FS Tenmile-South Helena Project Alternative 4 Transportation, Trails, and Road Closure/Obliteration map (D5_2d_20161115_MapTenmileALT4Transport)

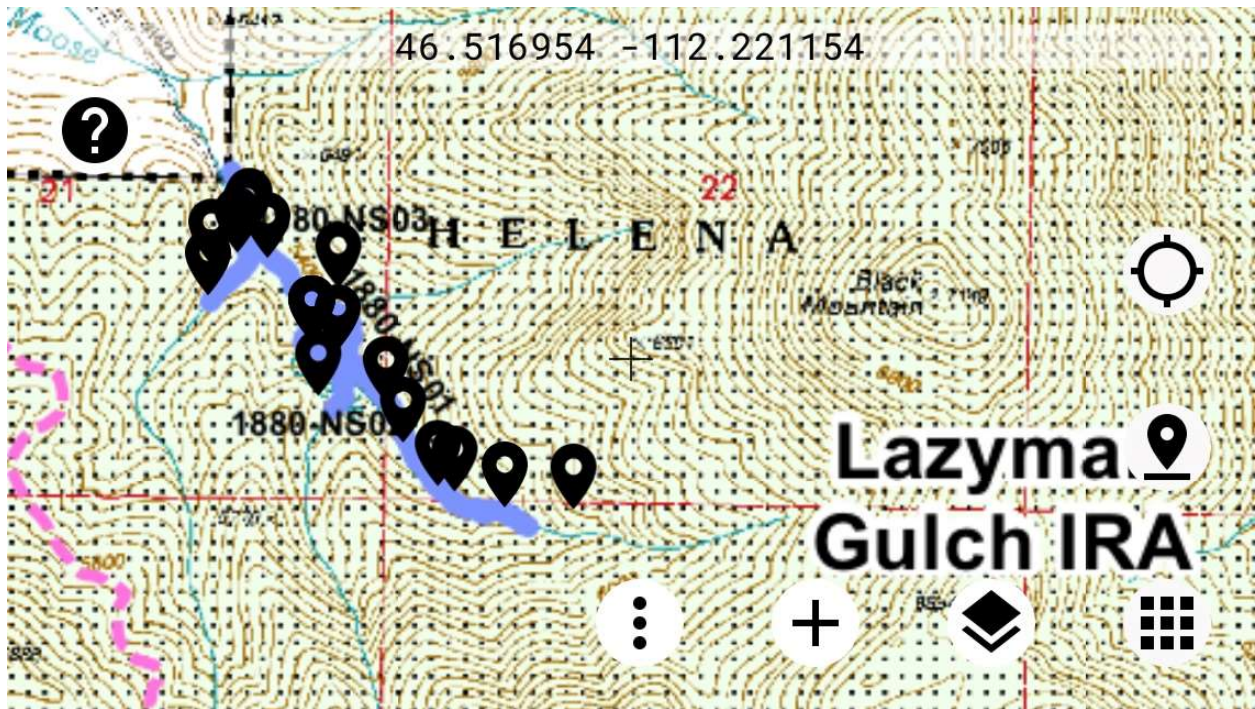
Time spent: 5 hrs 30 minutes

Survey (waypoints, photos, and narrative):

Road 1880-03 - Only slight traces remain of an old mine prospecting access road. The route is inundated with extensive blowdown and is difficult to pass on foot. It has naturally been obliterated and is fading into the landscape. It parallels a tributary to Moose Creek with the stream course located approximately 6 feet from the edge of the roadway. The old roadbed was covered with numerous piles of moose droppings. Fresh elk tracks and droppings were present. Huge spruce and Douglas fir trees are present in this drainage, some of which are on the order of 5 feet dbh. I did not observe signs of human use in the form of trash, cleared trails or campsites. Road 1880-NS03 intersects the main channel of Moose Creek at the lower Waypoint and would likely have crossed Moose Creek historically. There is no remaining sign of any bridge or ford present.

Road 1880-NS01 – This is the main road coming up the Moose Creek drainage from a 160 acre private inholding that effectively controls access to the area. There is a gate at the private property boundary below and this road extends up the creek into the upper reaches of Moose Creek. The road has been used by ATVs (some fresh tracks were noted) and has been cleared of blowdown, as evidenced by numerous cut logs thrown out of the trail. Some parts of the road could accommodate use by a smaller SUV or Jeep. Over the course of its length, the road gradually narrows, crosses an old wooden foot bridge, and morphs into a horse or hunter footpath. Evidence of trail clearing extended into the footpath segment and beyond the end of road feature shown on the USFS transportation map. Vegetation in the lower reaches of the segment consists of mature lodgepole pine and medium sized Douglas fir trees. The size of the fir trees increases further up the drainage and there are some very large trees at the end of the mapped segment. Trail clearing and motorized use on this trail is presumably illegal but goes largely unnoticed given the private landlocked nature of the setting. I skirted the private property to access this public segment before and after this survey and it is difficult.

Road 1880-NS02 – Spur road NS02 is similar to NS03 in that is somewhat difficult to recognize as a former access road and is covered with blowdown and mostly naturally reclaimed. I could not follow it for all of its length due to impassible downed trees.



Road #1880 Segments NS01, NS02, NS03 in Moose Creek. Waypoints MC-1 to MC-15.

Screen-shot from Paper Maps™ mapping app of Moose Creek, Road #1880 in Lazyman Inventoried Roadless Area.

WAYPOINTS (#MC-1-MC-15) for 1880 Moose Creek May 7, 2020 – Gary Ingman

SEGMENT 1880-NS03:

WAYPOINT MC-1, -112.235407,46.518214 7-MAY-20

WAYPOINT MC-2, -112.234989,46.518793 7-MAY-20

WAYPOINT MC-3, -112.234139,46.519075 7-MAY-20

WAYPOINT MC-4, -112.233838,46.519382 7-MAY-20

SEGMENT 1880-NS01:

WAYPOINT MC-5, -112.233753,46.519504 7-MAY-20

WAYPOINT MC-6, -112.233148,46.518965 7-MAY-20

WAYPOINT MC-7, -112.230805,46.518308 7-MAY-20

WAYPOINT MC-8, -112.230796,46.516898 7-MAY-20

WAYPOINT MC-9, -112.229181,46.515738 7-MAY-20

WAYPOINT MC-10, -112.228597,46.514830 7-MAY-20

WAYPOINT MC-11, -112.226879,46.513738 7-MAY-20

WAYPOINT MC-12, -112.227184,46.513496 7-MAY-20

WAYPOINT MC-13, -112.225161,46.513382 7-MAY-20

WAYPOINT MC-14, -112.222965,46.513375 7-MAY-20

SEGMENT 1880-NS02:

WAYPOINT MC-1, -112.231409,46.515861 7-MAY-20

REPRESENTATIVE PHOTOS TAKEN AT SELECTED WAYPOINTS

SEGMENT 1880- NS03

PHOTO NS03-1. Looking SW from upper reaches of NS03. My route was from the upper reaches of the road to the main Moose Creek intersection. Tape measure extended to 6 feet.



PHOTO NS03-3. Approximately 300 feet further down the road showing extensive blowdown on the roadbed. Tributary creek is on the left side.



PHOTO NS03-5. Looking SW back up the road with tributary creek on the right.



PHOTO NS03-7. Approximately 300 feet further down the road looking back up the drainage from on the road. Moose droppings on the roadbed.



PHOTO NS03-8. End of the road NS03 where it meets main Moose Creek. Looking NE. Moose Creek is just past the downed log.



SEGMENT 1880-NS01

PHOTO NS01-1. Main Moose Creek Road near junction with spur road NS03, looking SE up the drainage in the direction of travel. Tape measure extended to 6 feet. Young fir trees and mature live lodgepole pine.



PHOTO NS01-3. 300 feet further up the road in the direction of travel. 7-8 foot roadbed.



PHOTO NS01-5. Looking NW back down the road with Moose Creek visible below the road to the left.



PHOTO NS01-7. Looking NW back down the Moose Creek Road. 6 foot tape measure.



PHOTO NS01-8. Footbridge on the main road crossing a side tributary. Road narrowing to an ATV trail. Looking SE up the road.



PHOTO NS01-11. Roadbed is about 6-7 feet wide. Evidence of routine trail clearing by ATV users.



PHOTO NS01-15. Road continues to narrow. Increasingly mature D. fir forest. Evident trail clearing.



PHOTO NS01-19. Road turns into a horse or footpath at Waypoint MC-13. Looking up Moose Creek SE. Tape is at 6 feet.



PHOTO NS01-21. Foot or horse path continues up the drainage with downfall sawn and cleared.



PHOTO NS01-23. At or past the end of NS01 showing hunter trail and no roadbed. Looking SE.



SEGMENT 1880-NS02

PHOTO NS02-1. Spur road NS02 from its lower end near Moose Creek looking S. 6-8 foot roadbed covered with extensive blowdown. Tributary creek on the left, looking upstream.



PHOTO NS02-3. Approximately 300 feet further up the road. Inundated by blowdown.



PHOTO NS02-5. NS02 where it parallels Moose Creek. Looking NW with main Moose Creek to the left of the photo.



FIELD FORMS

HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORT/ROAD CLOSURE MAP							Technician: <u>Isgration</u>			
Route Location: <u>1880 NS01, NS02, NS03</u>		<u>Moose Creek</u>		Route# (from map): <u>1880</u>		(Lazyman Jericho (circle))				
Date: <u>5/7/20</u>	Time Out: <u>2:00 PM</u>	Time In: <u>7:30 PM</u>	Duration: <u>5.5 hours</u>	Waypoint every <u>300'</u>	Pg <u>1</u> of <u>2</u>					
GPS Model/ID: <u>iPhone B Paper Maps</u>		Datum: <u>GPS position (UTM/hdms)</u>		Scale: <u>150-600'</u>						
Comments: Eg. Improvements needed for heavy equipment? Big rocks. Tree removal. Side slope (vehicle would roll). Sharp turns										
Field Tools: <u>GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat) Tape measure</u>										
Time	Wpt	Steps	Photo#	Description (of photo)	Comment	Aspect	Width	Slope	Water	Lat-Long/UTM
NS03	MC-1	0	NS01-2	At start of segment from upper end of drainage		0°	5-10'	50'		46.51824 -112.235407
			NS01-2	Looking back, SW direction. Minimally recognizable road bed.						
	MC-2	100	NS03-3	Looking NE, blowdown on trail. Huge spruce trees		9°	5'	0'		46.518793 -112.237989
			NS03-4	Looking SW. Lots of moose droppings & wolf signs.						
			NS03-5	Intermediate trail, lots of blowdown.						
			NS03-6	Looking back up trail, SW.						
	MC-3	100	NS03-7	Lower segment of former road, Moose pellets.		8-10°	5'	0'		46.519075 -112.234437
	MC-4	50	NS03-8	End of spur road NS03.		8-10°	<5°	0' # wide.		46.519382 -112.232838
NS01	MC-5	0	NS01-1	Main Moose Creek Road/Trail looking SE.		8°	5°	60'		46.519584 -112.233795
			NS01-2	" " Looking NW.						
	MC-6	100	NS01-3	Looking up Moose Creek. Possible w/ ATV or Jeep.		8°	5°	50'		46.519765 -112.233148
			NS01-4	Looking back down.						
	MC-7	200	NS01-5	Looking down (SE w/ creek to left).						46.519306 -112.232805
			NS01-6	Looking in direction of trail/up drainage.						
			NS01-7	Looking down Moose Creek.						
	MC-8	200	NS01-8	Old exit window. Looking up Moose Creek Road.		7°	5°	40'		46.516898 -112.232796
			NS01-9	Up trail. ATV driveable.						
			NS01-10	Looking back down Moose Creek.						
	MC-9	200	NS01-11	Up the trail.		7°	10°	75'		46.515738 -112.229180
			NS01-12	Down drainage.						
	MC-10	200	NS01-13	Trail and valley immediately looking up drainage.		6°	15°	80'		46.514870 -112.228587
			NS01-14	Looking down valley.						

HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORT/RD CLOSURE MAP Technician: Ingram

Route Location: 1880 NS01, NS02, NS03 Routell (from map): 1880 (Lazyman Jericho (circle))
 Date: 5/7/20 Time Out: 2:00pm Time In: 7:30pm Duration: 5.5 hours Waypoint every 300' Pg 2 of 2

GPS Model/ID: iPhone 8, Paper Maps Datum: GPS position (UTM/hdms): 300-600'

Comments: Eg: Improvements needed for heavy equipment? Big rocks, Tree removal, Side slope (vehicle would roll); Sharp turns

Field Tools: GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat) Paper Whistle 6' in red photo.

Time	Wpt	Steps	Photo	Description (of photo)	Comment	Aspect	Width'	Slope	Water	Lat-Long/UTM
NS01 (cont'd)										
	MC-11	200	NS01-15	Looking SE/up. Mtn D. fir, LPP		6'	15-20'	35'		46.513738 -112.224879
			NS01-16	Looking down, less downhill. Large boulders						
	MC-12	100	NS01-17	Loop road across creek, Mt NS-01						46.513496 -112.227184
			NS01-18	Loop heads back down Moose Creek on far side						
				Not passable. Lots of blowdown						
	MC-13	200	NS01-19	Moose Creek Road turns into a horse path		4'	20'	50'		46.513382 -112.225161
			NS01-20	Looking back where loop road turns off left						
	MC-14		NS01-21	up drainage Mtn D. fir forest. Horse path		3'	25'	50'		46.513375 -112.22465
			NS01-22	Looking down.						
			NS01-23	Large D. fir trees past end of road on the tank map.						
			NS01-24	Hunter trail continues up bottom of drainage.						
NS02										
	MC-15		NS02-1	Spur road NS-02 from upper end of creek. X-ing		6-8'	15'	20'		
			NS02-2	Looking up						
			NS02-3	Looking down						
			NS02-4	Blowdown						
			NS02-5	Obliterated old spur road						
					Commentary					
					Spur routes NS02 and NS03 are effectively obliterated w/ blowdown. Not passable on foot and creek crossings would need bridges or culverts. Main route NS01 is being maintained and cleared of blowdown illegally by the lower private landowners or people they give access to upper portions of NS01 are a horse path or a hunter trail. Not a road!					