Dalton Highway

Geology Overview

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Legend

LITHOLOGY

- Amy creek unit
- Baird Group, Central belt and part of Northern thrust assemblages
- Calcareous schist - metachert and conglomerate subunit, Schist belt
- Calcareous schist, Schist belt
- Chandler fm.- conglomerate, quartz arenite, wacke, shale, siltstone, coal
- Conglomerate, sandstone, and shale, Angayucham Terrane, Serpentinite, and Yukon-Koyukuk Basin
- Dunite, wehrlite, harzburgite, olivine clinopyroxenite, and gabbro with a metamorphic sole of amphibolite, garnet amphibolite, and pyroxene granulite.
- Granitic orthogneiss
- Granitic rocks
- Hammond River shear zone, Central belt and part of Northern thrust assemblages
- High-level deposits of quartz pebble gravel; overlies basalt flows of unit Tb
- Hunt Fork Shale, strongly foliated, Central belt and part of Northern thrust assemblages
- Igneous and sedimentary rocks of oceanic affinity, inc
- Livengood dome chert
- Lost creek unit
- Mafic metavolcanic and metaintrusive rocks, metache
- Marble, Central belt and part of Northern thrust asser
- Massive greenstone to thinly layered greenschist boc
- Metalimestone, Central belt and part of Northern thru
- Metasedimentary and lesser metaigneous rocks, volc
- Mixed lithologies with low noa potential
- Nanushuk grp.-sandstone, siltstone, shale, coal, cong
- Older carbonate rocks of the Nanielik antiform, Centr
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- Phyllite and graywacke, Phyllite belt
- Phyllite and subordinate fine-grained metagraywacke cut by abundant vein quartz.
- Quartz-mica schist, Schist belt
- Quartz-mica schist, chlorite schist, quartzofeldspathic schist, quartzite, and micaeous and graphitic schist.
- Quartz-rich metasedimentary rocks, Central belt and part of Northern thrust assemblages
- Rampart group and associated mafic intrusive rocks, undivided
- Rampart group--igneous rocks
- Rampart group--sedimentary rocks
- Ultramafic and mafic rocks and greenstone
- Unit consists chiefly of biotite and muscovite-biotite granite and granodiorite.
- Variably altered and metamorphosed flows and shallow intrusives of basalt, diabase, and gabbro interbedded with varying proportions of chert, argillite, slate, phyllite, volcaniclastic rocks, graywacke, and carbonate rocks.
- Vesicular and columnar-jointed basalt flows and lahar deposits.
- Volcanic and sedimentary rocks, undivided

PzZsr Pzcr, and Dgnr.

Generalized Potential Bedrock Resources

- Igneous (granite, basalt)
- Carbonate
- Possible materials source (quartz-rich rocks)
- Possible materials source (mixed seds)
- Generally unsuitable, or unknown

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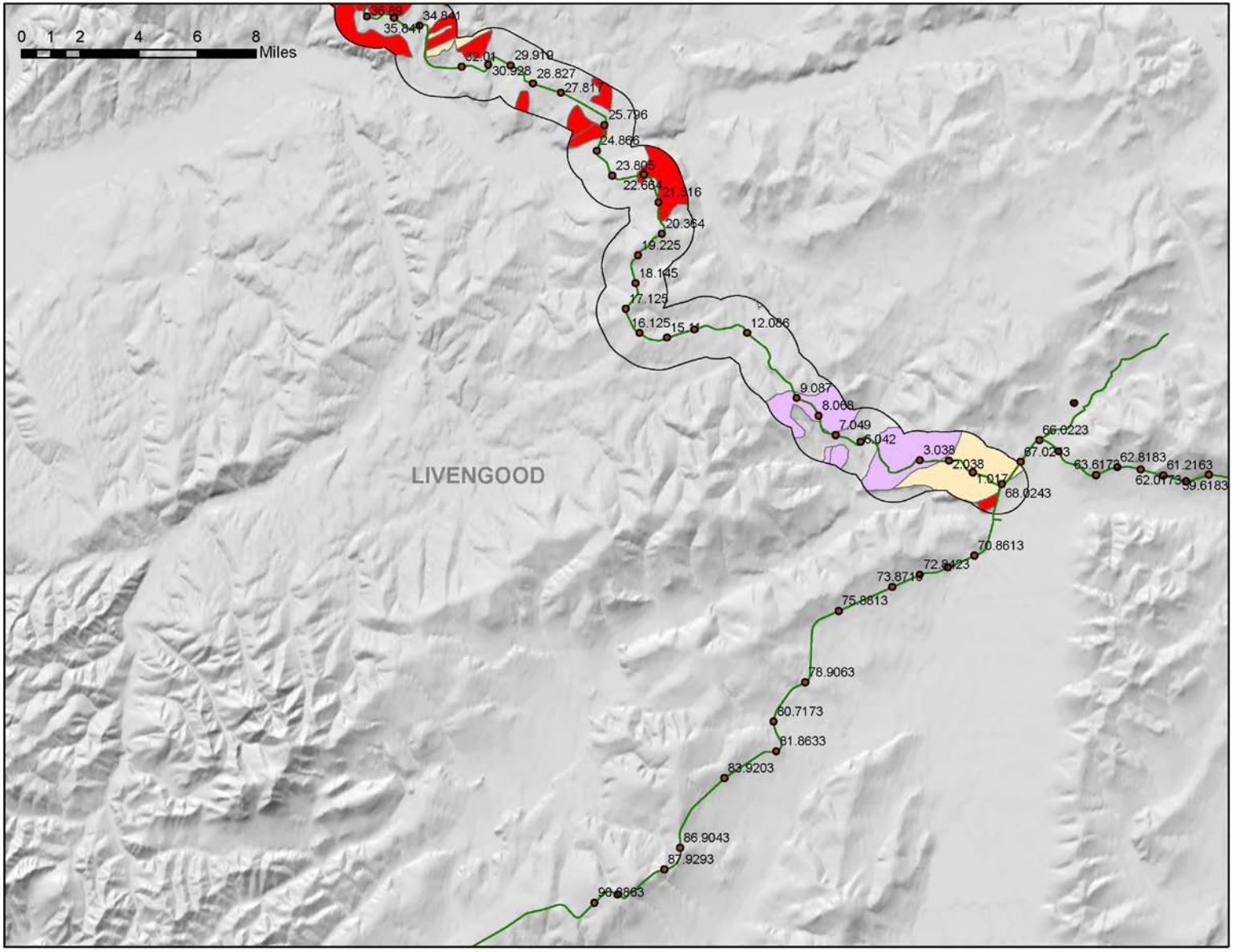

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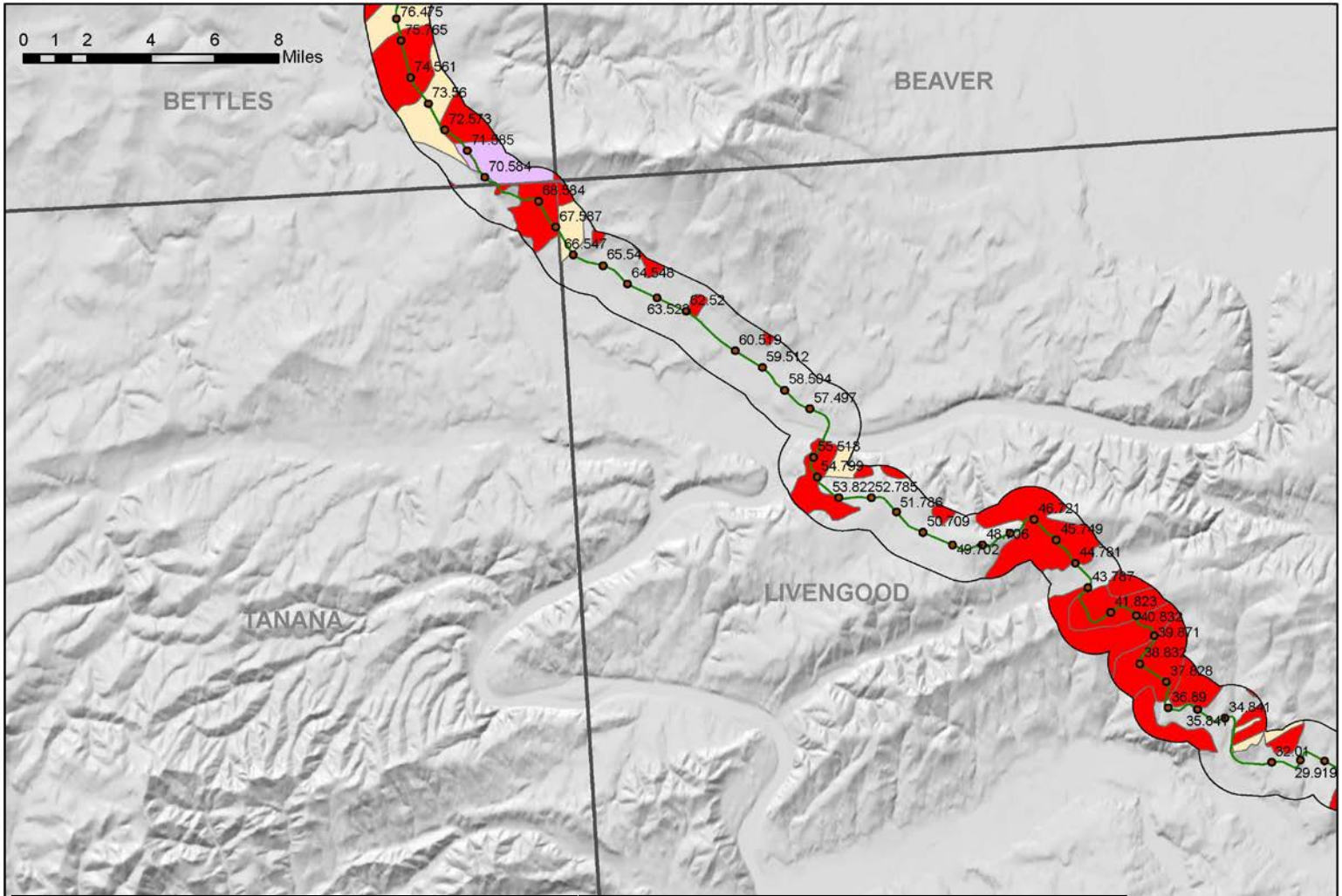

Milepost	DOT MS#	OMS	2004-13 APSC Mined Volume (cy)	2007-14 DOT Mined Volume (cy)	Other Use 2007-14 (cy)	Totaled Production from Pit; roughly w/in last 10yrs	Historic OR Current Dual Use - APSC/ DOT	Type Produced	Nickname/Other	Current APSC Authorization Serial Number	FUP Serial Number
DHMP 059.4	65-9-001-2	078-1	0	1900	2000	3900	Yes	CS	Carlo Allotment		AKFF 092992
DHMP 064.7	65-9-029-2	079-2	9970	34919	1000	45889	Current	CS/RR	Phelps Ck	AKFF 096048	AKFF 092993

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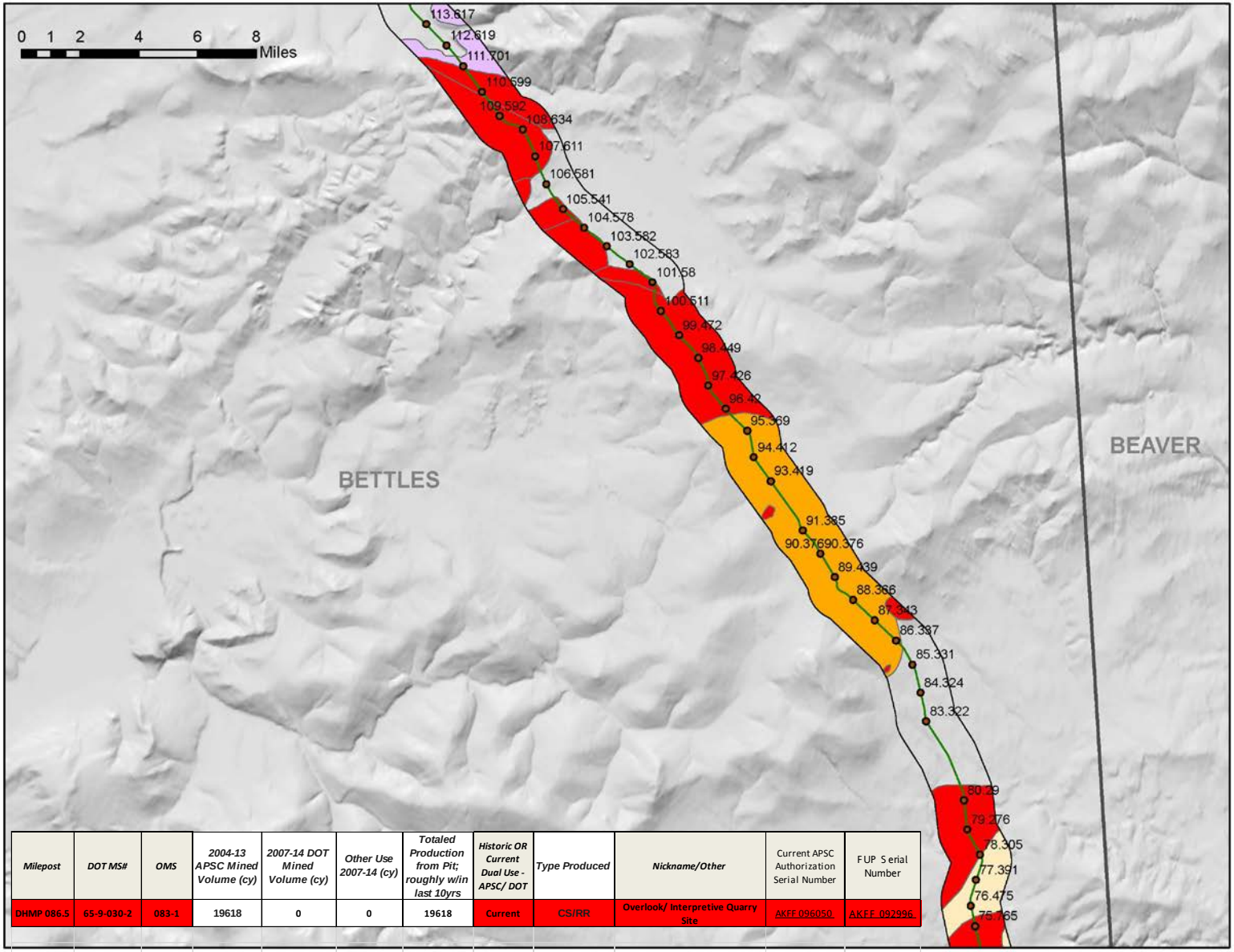

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DHMP 086.5	65-9-030-2	083-1	19618	0	0	19618	Current	CS/RR	Overlook/ Interpretive Quarry Site	AKFF 096050	AKFF 092996

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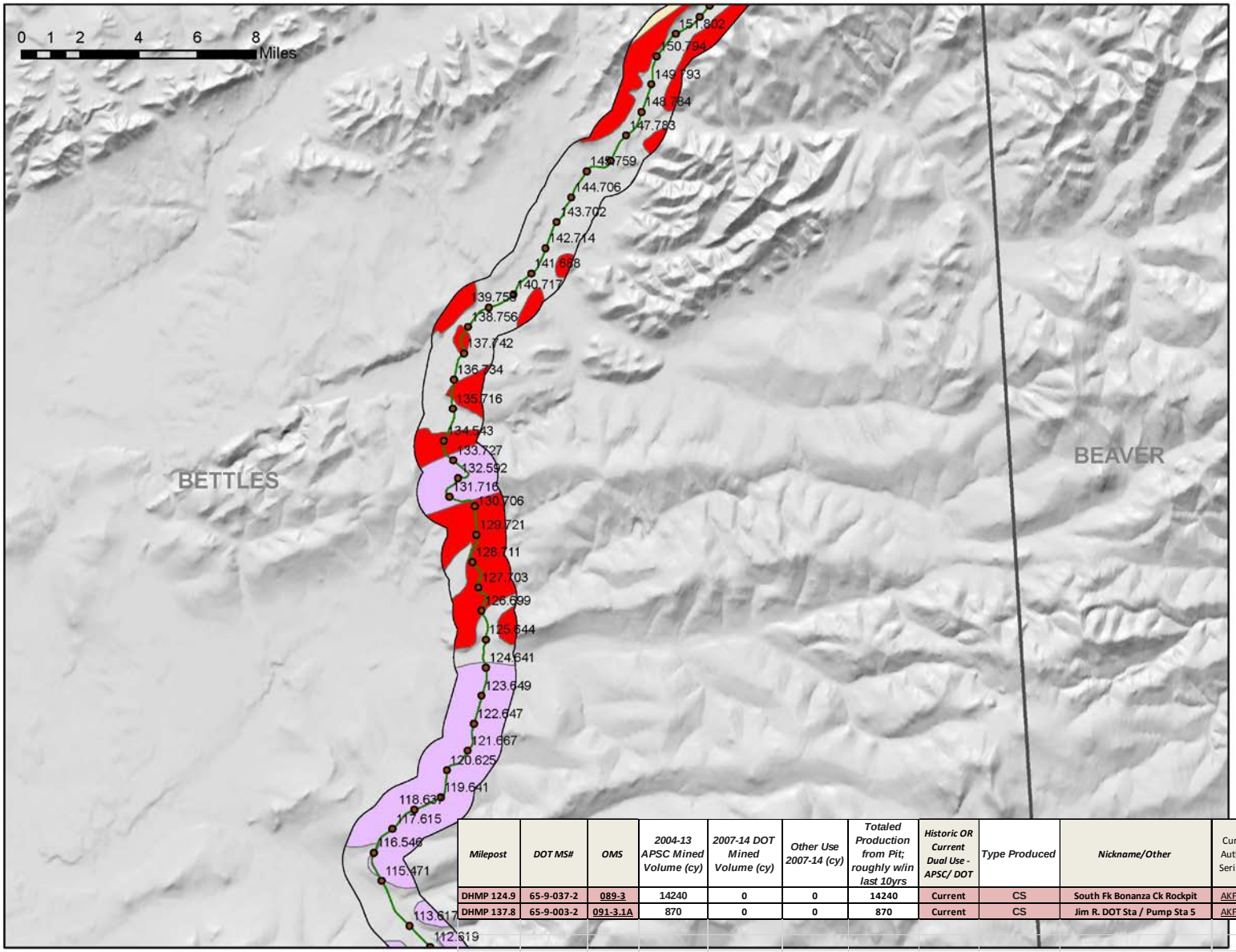

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DHMP 124.9	65-9-037-2	089-3	14240	0	0	14240	Current	CS	South Fk Bonanza Ck Rockpit	AKFF 095749	AKFF 093001
DHMP 137.8	65-9-003-2	091-3.1A	870	0	0	870	Current	CS	Jim R. DOT Sta / Pump Sta 5	AKFF 096055	AKFF 093005

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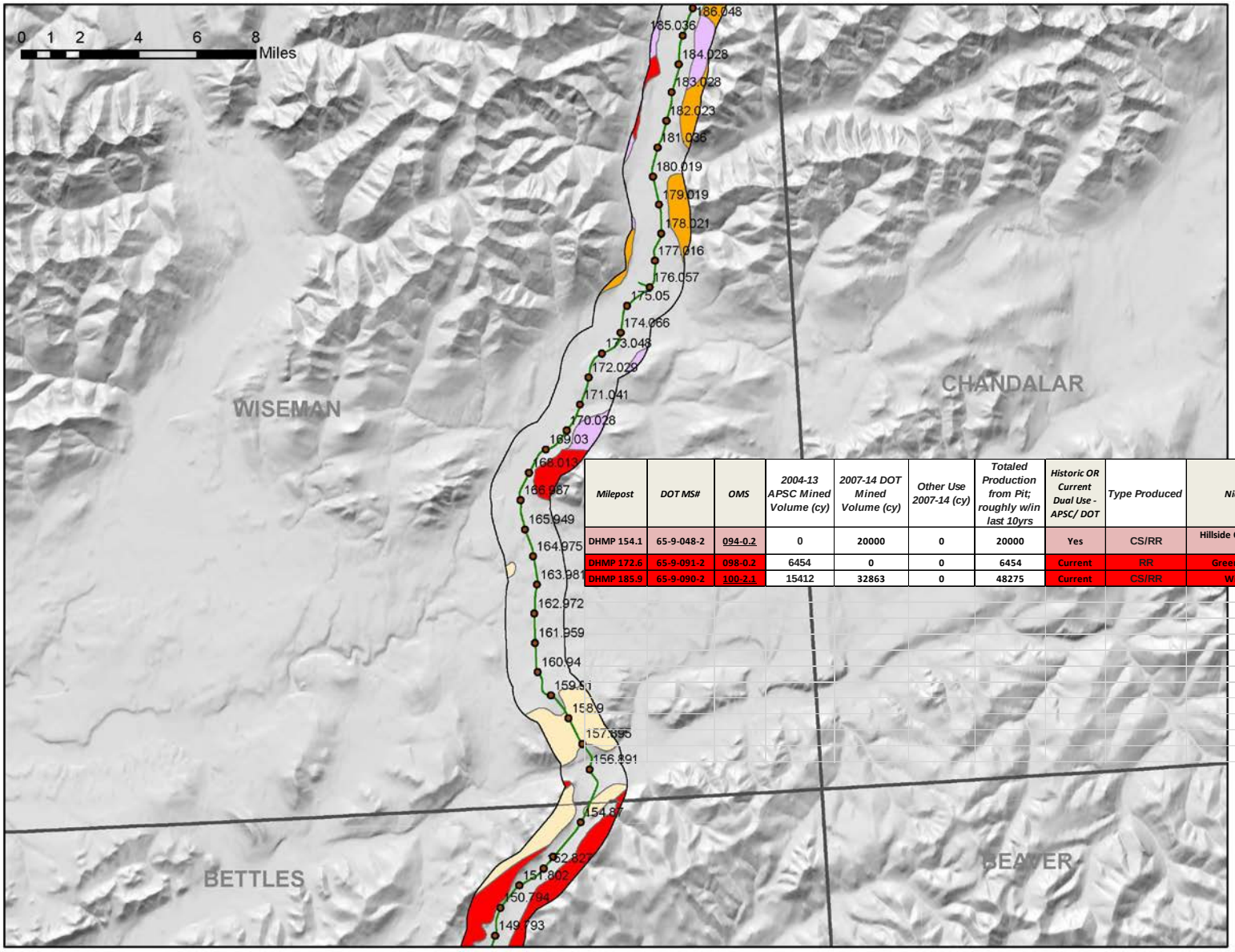

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DHMP 154.1	65-9-048-2	094-0.2	0	20000	0	20000	Yes	CS/RR	Hillside Quarry south of S. Fk Koyukuk		AKFF 093010
DHMP 172.6	65-9-091-2	098-0.2	6454	0	0	6454	Current	RR	Greenstone Rip Rap Pit	AKFF 096016	AKFF 093016
DHMP 185.9	65-9-090-2	100-2.1	15412	32863	0	48275	Current	CS/RR	Wiseman RockPit	AKFF 096060	AKFF 093015

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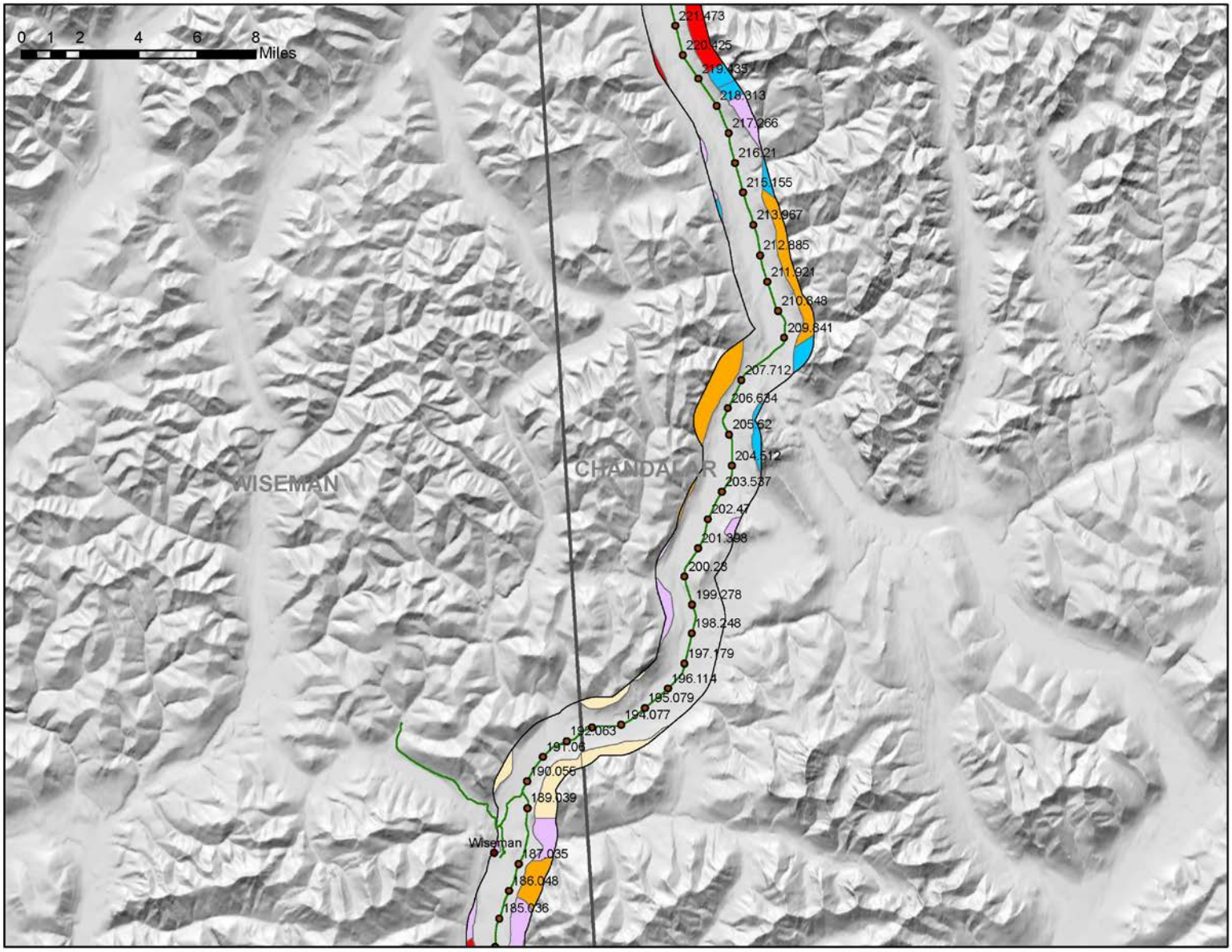
0 1 2 4 6 8
Miles
WISEMAN
CHANDALAR
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220.425
219.435
218.313
217.266
216.21
215.155
213.967
212.885
211.921
210.648
209.841
207.712
206.634
205.62
204.512
203.537
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198.248
197.179
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194.077
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191.06
190.056
189.039
Wiseman
187.035
186.048
185.036

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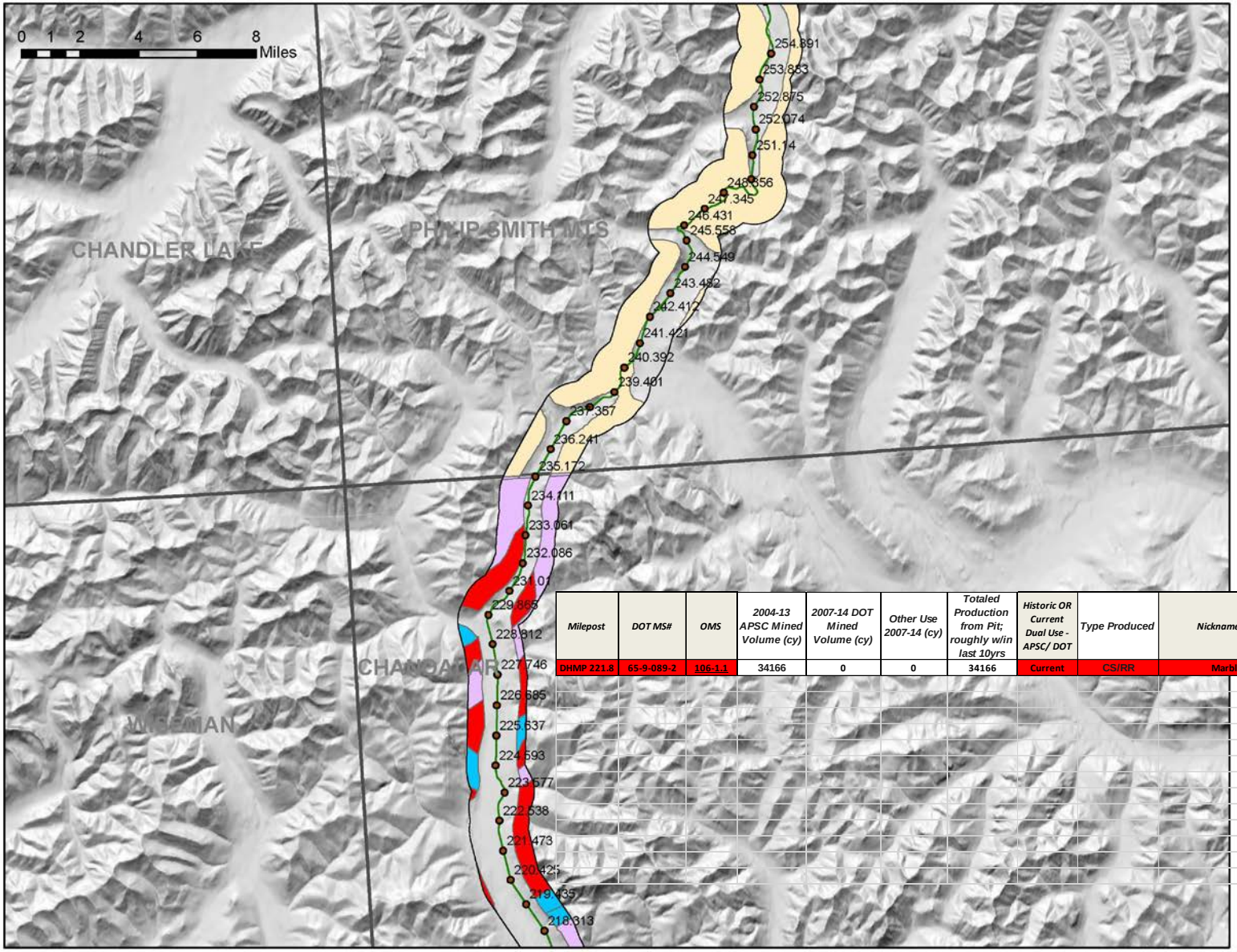

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DHMP 221.8	65-9-089-2	106-1.1	34166	0	0	34166	Current	CS/RR	Marble Pit	AKFF 096063	AKFF 093021

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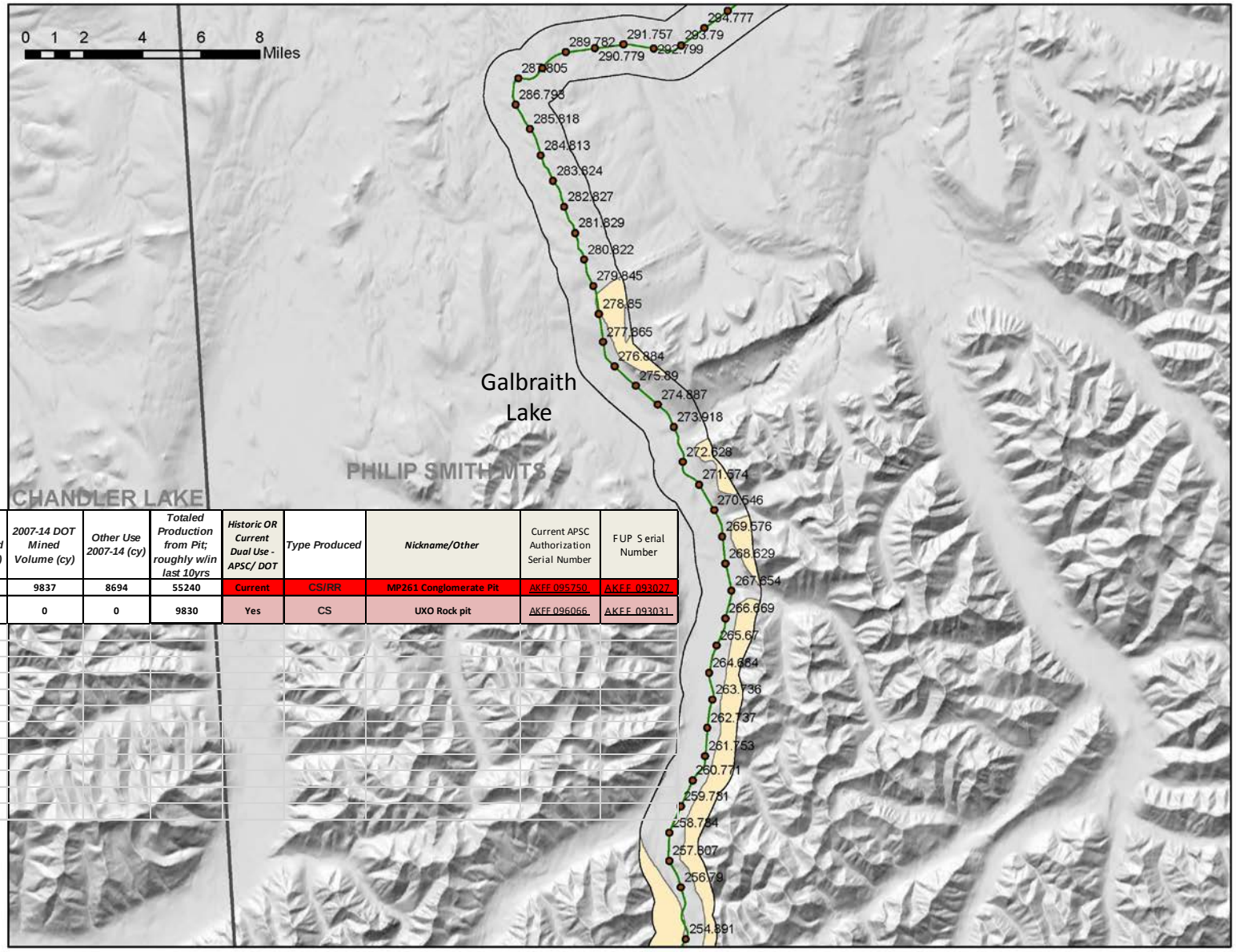

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DHMP 261	65-9-021-2	112-3.1	36709	9837	8694	55240	Current	CS/RR	MP261 Conglomerate Pit	AKFF 095750	AKFF 093027
DHMP 290.4 (access at)	65-9-059-2	117-2BD	9830	0	0	9830	Yes	CS	UXO Rock pit	AKFF 096066	AKFF 093031

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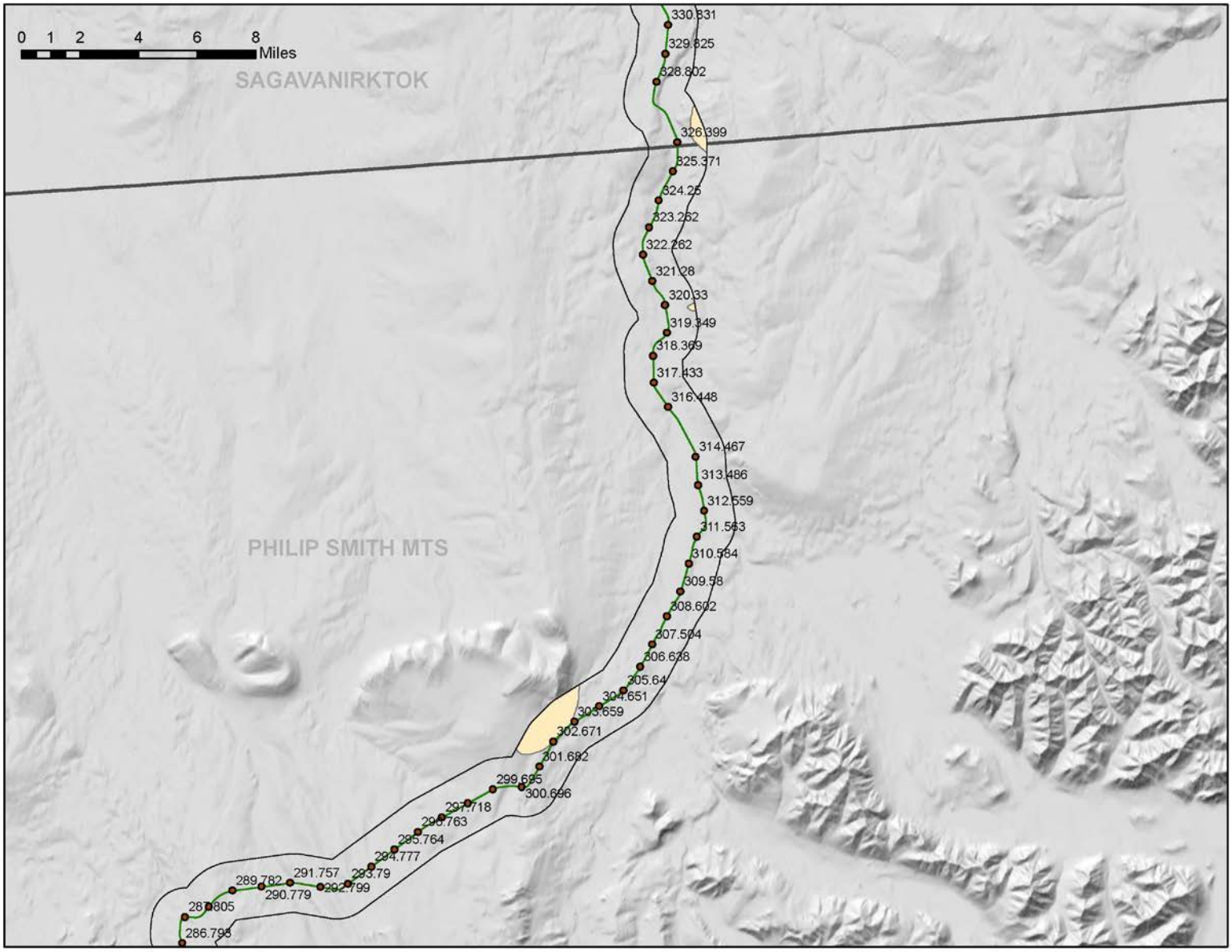

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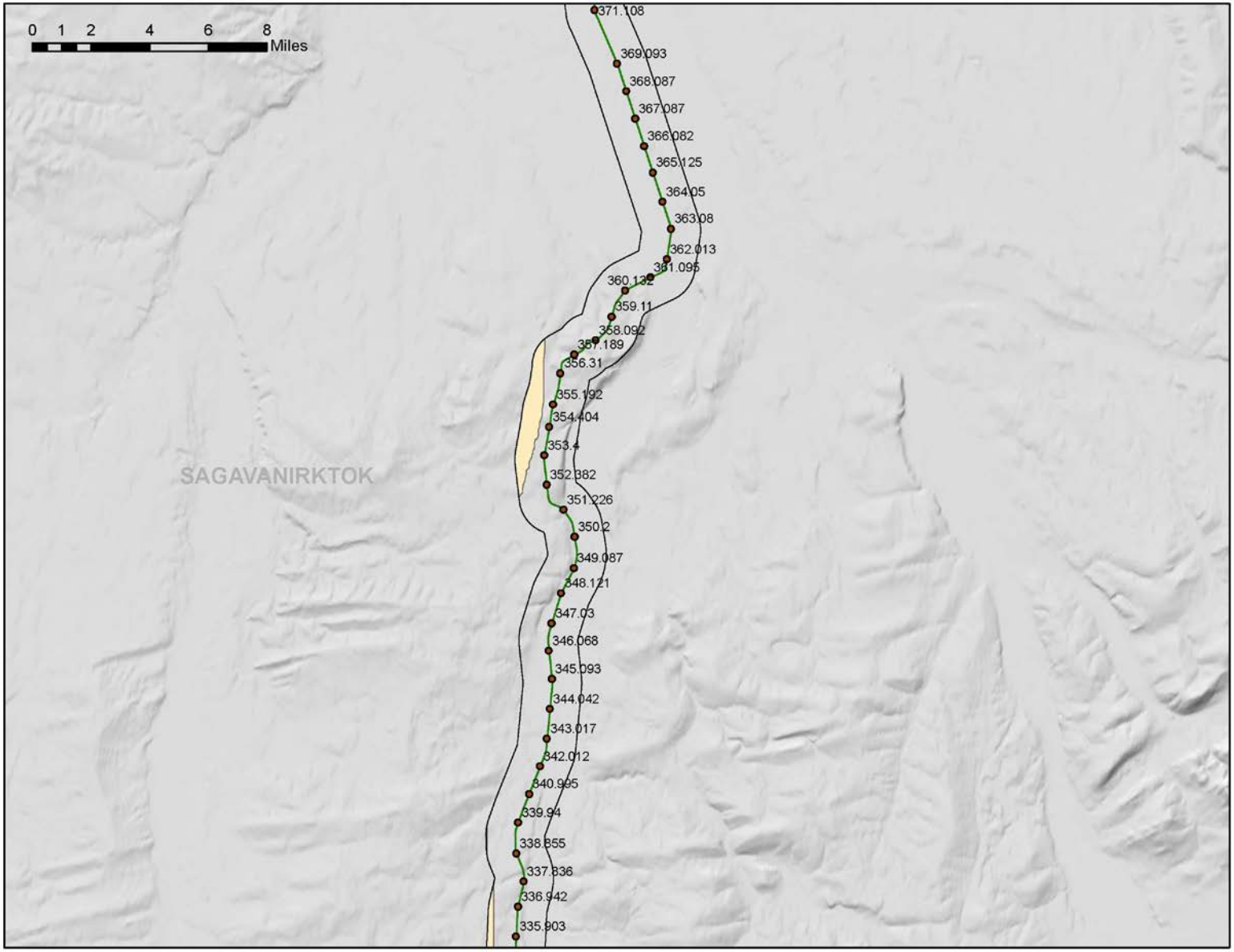

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Useful geologic investigations to consider:

- Detailed geologic mapping
  - Bedrock & surficial
- Materials-related bedrock parameters
  - Weathering
  - Fractures/jointing
  - Engineering specs (LA abrasion, etc.)
- Landform analysis
  - Identify & delineate potential sand & gravel resources