

STATEWIDE MATERIAL SITE INVENTORY

MATERIAL SITE
INSPECTION REPORT

Federal Project No. STP-000S(823)
AKSAS Project No. 76149

ELLIOTT HIGHWAY

MS 680-114-2
133 Mile Pit

March 18, 2015

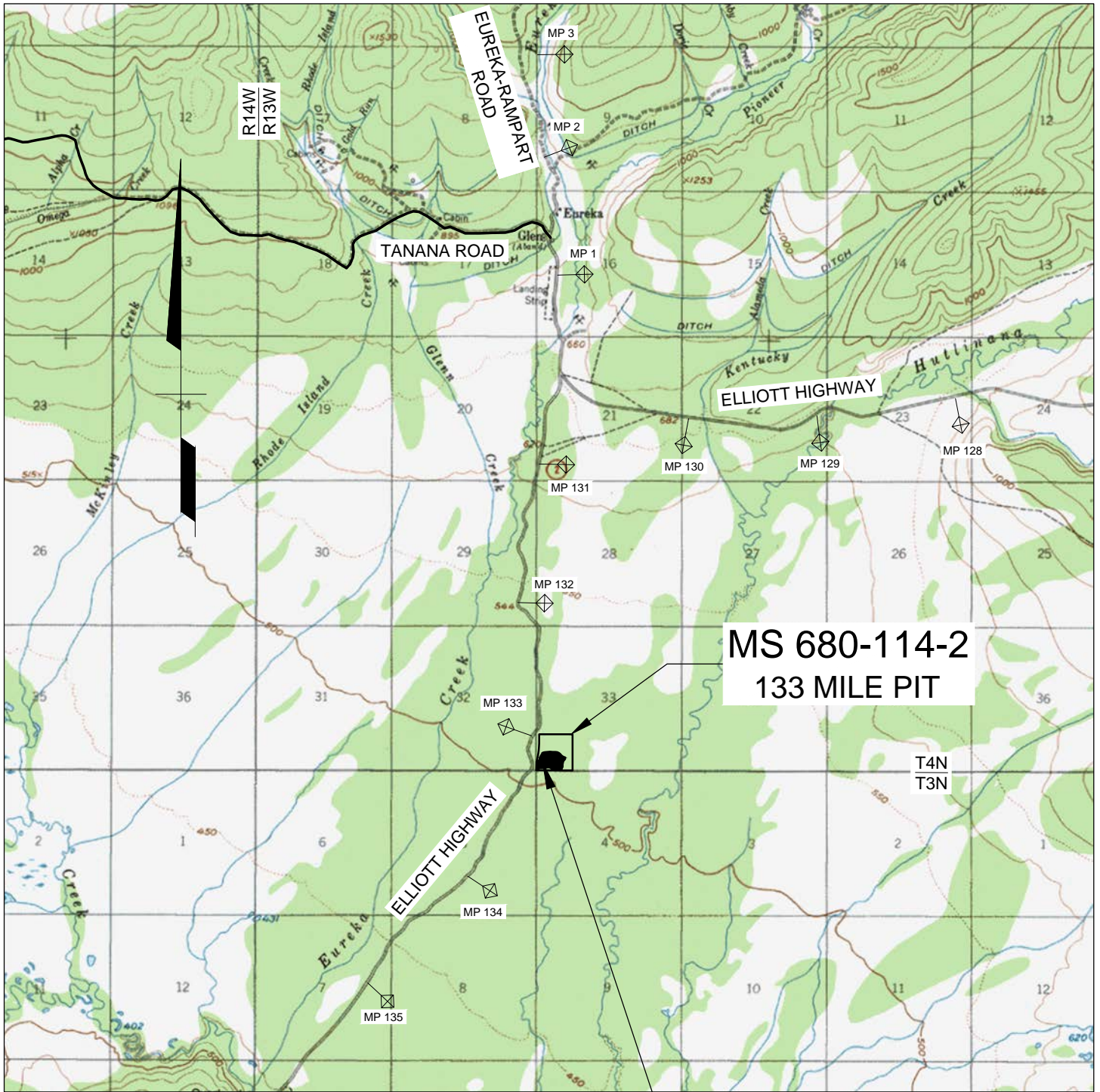
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CATEGORY:

ACTIVE – OPEN

According to information found in the DOT&PF EDMS system in January 2009 and BLM and DNR case file abstracts, this site lies on State of Alaska lands managed by DNR. The land was tentatively approved to the State of Alaska by BLM in 1986 and patented (PA 50-2005-0006) in 2005 (F-26913 / GS 482). DNR issued a material site contract to DOT&PF in 1987 (ADL 410576). DOT&PF was issued a second contract in 1997 (ADL 415977) that was renewed twice and now expires on June 11, 2024. The site was expanded from the original 10 acres to 38 acres in 2005. The site is a DMLW Northern Region Office (NRO) Designated Master Material Site (ADL 419274) under AS 38.05.550(b) for the use and operation for the long-term sale and extraction of materials until closed by DNR. It was on the November 29, 2012 list of sites selected for the DNR program. The site adjoins the Elliot Highway right-of-way and there is an existing access road into the pit. The site appears to contain significant quantities of sand and gravel and should be retained by DOT&PF for future use.

LOCATION MAP



U.S.G.S. QUADRANGLE: TANANA (A-1)

GPS COORDINATES FROM GOOGLE EARTH

UTM (WGS84-METERS)
 ZONE 5: N7,225,136 E630,341
 AK STATE PLANE (NAD83-US SURVEY FT)
 ZONE 4: N4,065,403 E1,606,153

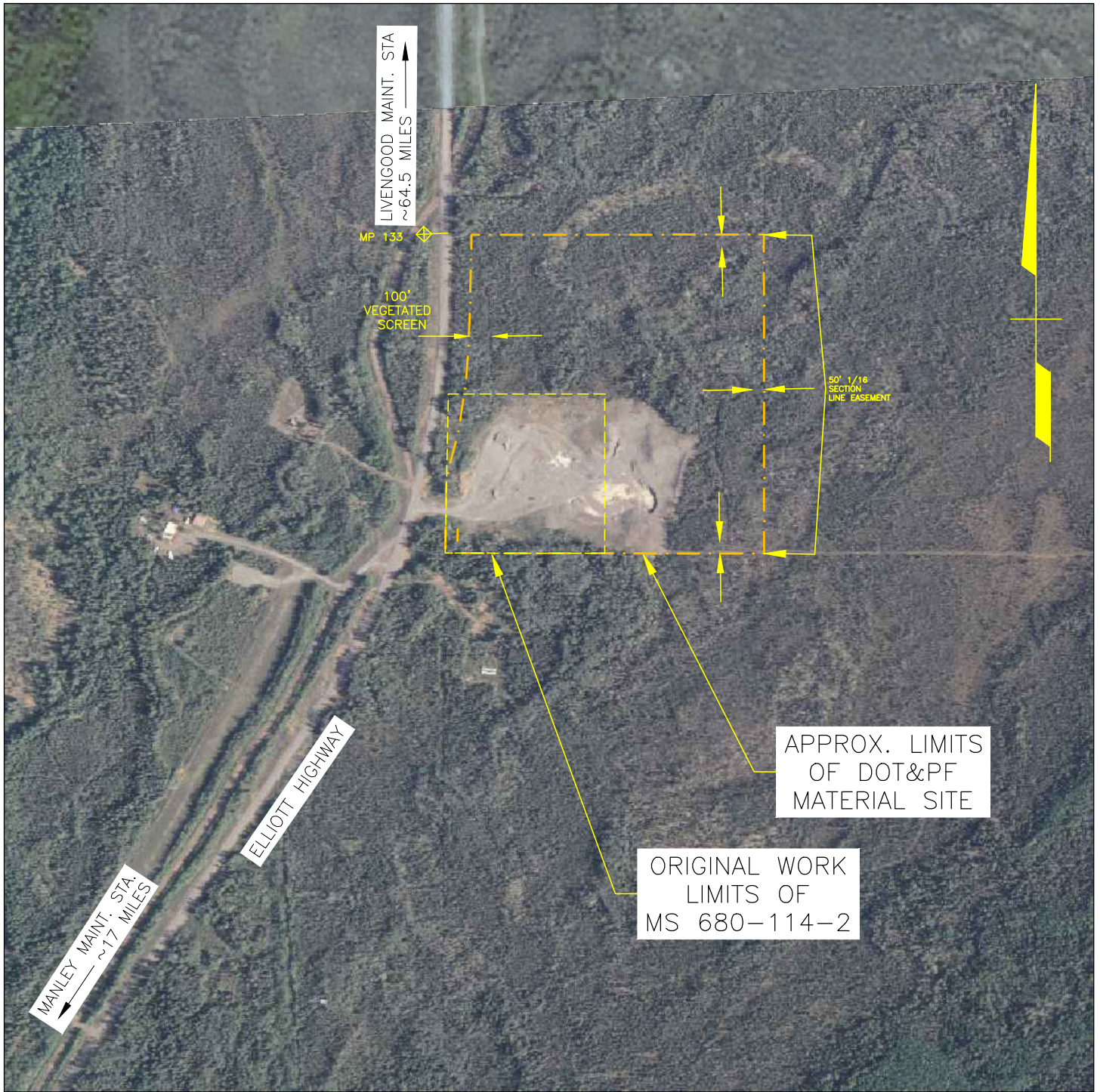
ACTIVE - OPEN



GRAPHIC SCALE IN MILES

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES			
STATEWIDE MATERIAL SITE INVENTORY MS 680-114-2			
SCALE AS SHOWN	DESIGNED CHECKED	P.K.H. C.H.R.	DRAWN DATE
		P.K.H. MAR 2015	PAGE 2

SITE MAP



Z:\project\1443.03\680-682_Elliott_Highway\MS_680-114-2-A\ocod\MS_Site_Map_680-114-2.dwg

Plotted 3/18/2015 9:27 AM by Pete Hardcastle

BASE MAP IS FROM STATEWIDE DIGITAL MAPPING INITIATIVE (SDMI) BY ALASKA MAPPED. THIS IS A PLANNING DOCUMENT ONLY. THE MATERIAL SITE BOUNDARIES SHOWN ON THIS DRAWING ARE APPROXIMATE. OWNERSHIP OF THE LANDS ADJACENT TO THIS SITE ARE UNKNOWN. THE ACCESS ROW SHOULD BE VERIFIED.

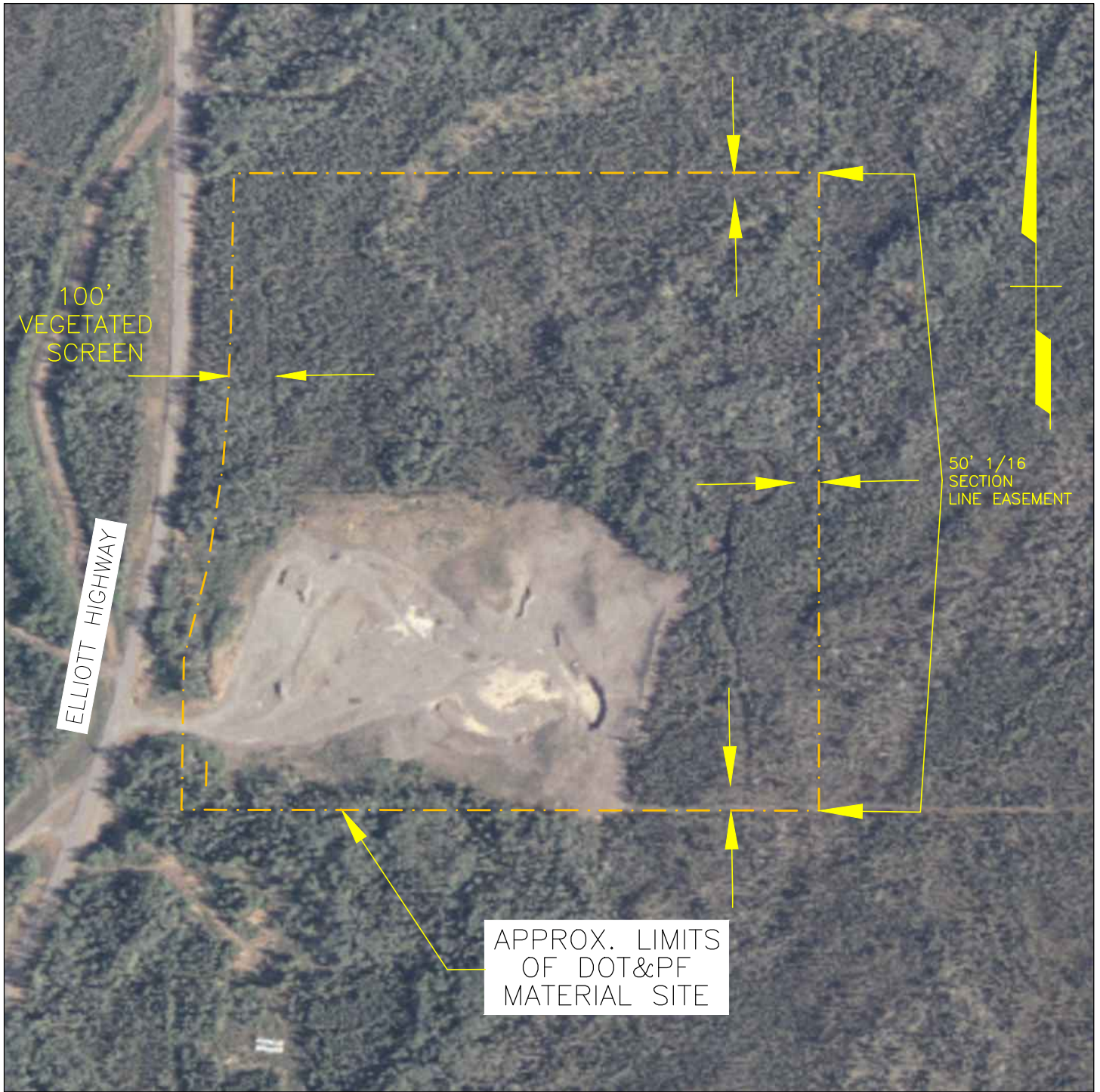
ACTIVE - OPEN



Prepared By:
R&M CONSULTANTS, INC.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES				
STATEWIDE MATERIAL SITE INVENTORY MS 680-114-2				
SCALE AS SHOWN	DESIGNED CHECKED	P.K.H. C.H.R.	DRAWN DATE	P.K.H. MAR 2015
				PAGE 3A

SITE MAP



Z:\project\1443.03\680-682_Elliott_Highway\MS_680-114-2-A\ocod\MS_Site_Map_680-114-2.dwg

Plotted 3/18/2015 9:27 AM by Pete Hardcastle

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SCALE AS SHOWN	DESIGNED CHECKED P.K.H. C.H.R.	DRAWN DATE P.K.H. MAR 2013	PAGE 3B

**STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM**

THIS REPORT IS BASED ON A REVIEW OF EXISTING DATA AND BRIEF FIELD INSPECTIONS. THUS THE DATA CONTAINED HEREIN SHOULD BE CONSIDERED PRELIMINARY AND USED FOR PLANNING PURPOSES ONLY. USERS OF THIS DATA SHOULD VERIFY THE INFORMATION PRIOR TO USING IT FOR DESIGN OR CONSTRUCTION PURPOSES.

**IF OTHER IS SELECTED FOR A SECTION, EXPLAIN IT IN SECTION 44. NOTES.
IF AN ANSWER IS UNKNOWN SELECT "UNKNOWN" OR LEAVE BLANK**

1. **MS_ID** 680-114-2
Enter the full material site number e.g.. 31-3-045-2
2. **DATE_INSPECT** 9/13/2013
Date of field inspection
3. **FLD_INSPEC_ORG** ABE SCHMIDT / R&M CONSULTANTS
Name of inspector / Organization or Company

4. **REGION** NORTHERN
5. **LOCATION** ELLIOTT HIGHWAY
Name of Highway Enter Name of Facility or Secondary Route Name (i.e. Kotzebue Airport, Nash Road, etc.)
6. **MILEPOST** 133
List the closest main highway milepost
7. **NAME** 133 Mile Pit
Enter commonly used name (s), e.g. Hess pit, Gobblers Knob, Midway. List all that apply separated by commas.
8. **MAINT_DIST/STAT** District INTERIOR/FAIRBANKS Station MANLEY HOT SPRINGS
Highway Maintenance District and Station, for locations not on highways select other.
9. **QUAD** TANANA A-1
U.S.G.S. Quad. Map
10. **TOWNSHIP/RANGE** T#S R#E T4N R13W & Meridian FM
Section 33
11. **COOR_UTM** ZONE 5
NORTHING 7,225,136
EASTING 630,341
UTM WGS84 - Meters
12. **COOR_STATE_PLANE** ZONE 4
NORTHING 4,065,403
EASTING 1,606,153
Alaska State Plane NAD83 - Survey Feet
13. **BOROUGH/CITY** UNORGANIZED **TAX ID NO.** NA
14. **DNR_LAND_USE_PLAN** YUKON TANANA AREA PLAN
15. **CATEGORY** (To be filled in the office)
- 15a. **CLASSIFICATION** ACTIVE
- 15b. **STATUS** OPEN

**STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM**

16. **POTENTIAL_STATUS** SIGNIFICANT

Estimated quantity of material in the site at the time of inspection.

NONE	There appeared to be no useable material in the site.
LIMITED	There appeared to be less than 25,000 c.y. available within the developed site.
SIGNIFICANT	There appeared to be greater than 25,000 c.y. available within the developed site.
EXPANDABLE	There was limited material within the developed site, but there appeared to be significant material outside existing site limits.
UNDEVELOPED	The pit has not been mined/explored (used only for proposed sites).
CLOSED	There may be useable material left in the pit but it is not available.
UNKNOWN	
OTHER	The site does not fit any of the categories above. Explain in Section 44, Notes.

17. **PRESENT_USERS**

17a. **PRESENT_USER_1** DOT&PF MAINTENANCE

17b. **PRESENT_USER_2** DOT&PF CONSTRUCTION

17c. **PRESENT_USER_3** _____

18. **PERMITTED_ACREAGE** 38.0

Area within site permit or R.O.W. boundaries, from permit application or property plat.

19. **DEVELOPED_ACREAGE** 12

Area within an existing pit, excluding spoil berms lying outside the pit, access roads etc. Explain below.

Includes existing pit that lies partly within site limits and partly outside of the site limits. Approximately 11.7 acres lie within the site.

20. **ACREAGE_COMP_METHOD** FROM MAP/PHOTO

Method used to determine developed acreage.

21. **EST_QUAN_AVAIL** 520,000 ROUGH ESTIMATE

Estimated quantity available (b.c.y.), may be based on acreage computed above plus expansion area.

Explain computation assumptions and calculations below.

Area	<u>Existing Pit</u>	<u>Expansion Area</u>	<u>Other Area</u>
Acres	<u>11.7</u>	<u>19.2</u>	<u>0.0</u>
Est. Depth (ft.)	<u>0</u>	<u>27</u>	
Factor (b.c.y. / acre-foot)	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
Est. Quant. (c.y.)	<u>0</u>	<u>518,000</u>	<u>0</u>

Estimated quantity assumes that the existing pit cannot be worked further. This is based on observed groundwater depths during past site inspections. The estimated quantity also assumes that the undeveloped portion of the site has an average working depth of 30 ft., taking into account an average overburden depth of 3 ft.

**STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM**

<p>31. MAT_TYPE_1 Dominant type</p>	<p><u>FLUVIAL</u></p>	<p>32. MAT_TYPE_2 Subordinate type</p>
<p>BEDROCK</p> <p>WEATHER. BEDROCK</p> <p>FLUVIAL</p> <p>GLACIAL</p> <p>COLLUVIAL</p> <p>EOLIAN</p> <p>SILT</p>	<p>Bedrock sources requiring blasting</p> <p>Bedrock sources requiring ripping</p> <p>Water deposited sand and gravel, includes glaciofluvial</p> <p>Glacial till</p> <p>Talus slopes, etc.</p> <p>Sand Dunes, etc.</p> <p>Silt deposits, loess, fluvial, etc.</p>	

<p>33. PERMAFROST_1 New Site or Expansion Area</p>	<p><u>DETECTED IN MOST TEST HOLES OR PITS</u></p>
<p>34. PERMAFROST_2 Existing Site</p> <p>DETECTED IN MOST TEST HOLES</p> <p>DETECTED IN SOME TEST HOLES</p> <p>DETECTED IN IMMEDIATE VICINITY</p> <p>DETECTED IN NO TEST HOLES</p> <p>DATA OUTDATED</p> <p>UNKNOWN</p> <p>OTHER</p>	<p><u>DATA OUTDATED</u></p>

35. **GROUNDWATER**

Groundwater encountered at 36 ft. in June 1995. Observed at 1 in. below pit floor in 2003.

**STATEWIDE MATERIAL SITE INVENTORY
MATERIAL SITE INSPECTION FORM**

36. LITHOLOGY_1

FLUVIAL

37. LITHOLOGY_2

Dominant type

Subordinate type

IGNEOUS ROCK	Undifferentiated Igneous Rocks
GRANITIC	Granite/Monzonite/Granodiorite
DIORITE/GABBRO	Diorite/Gabbro
BASALT	Dark colored fine-grained Igneous Rocks
GREENSTONE	Altered Volcanic Rocks w/green tint
METAMORPHIC ROCK	Undifferentiated Metamorphic Rocks
SCHIST/PHYLLITE	Includes rocks ranging from slate to schist
GNEISS	Includes hard schistose rocks
MARBLE	
CATACLASTIC	Incl. Valdez Formation Rocks, Kenai Penn.
MÉLANGE	Incl. McHugh Formation Rocks, Kenai Penn.
SEDIMENTARY ROCK	Undifferentiated Sedimentary Rocks
CONGLOMERATE	
SANDSTONE	Includes greywacke, etc.
SHALE/MUDSTONE	
LIMESTONE	
FLUVIAL	River and stream deposits (floodplain), includes outwash.
ALLUVIAL	Alluvial / Debris Fan deposits
GLACIOFLUVIAL	Eskers, kames, etc.
GLACIAL	Till
COLLUVIAL	Talus, etc.
EOLIAN	Sand Dunes, etc.
SILT	Loess, fluvial silts, etc.
OTHER	Explain in Section 44.

38. MATERIAL_CLASSIFICATION

ASTM Classification, generally they should range from coarse to fine.

38a. <u>GP</u>	38c. <u>GP-GM</u>	38e. <u>SM</u>	38g. _____
38b. <u>GW-GM</u>	38d. <u>GM</u>	38f. _____	38h. _____

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39. COBBLES_AND_BOULDERS

Test Boring Callout / ASTM Classification, either a. or b. and c. not both (Can use ranges i.e. 0 to 20)

39a.	CONTAINS	_____	
39b.	Est. % by VOL.	10 to 30	(Est. From Visual Observations)
39c.	MAX. SIZE (in.)	12	(Observed Size)

40. AGG_TEST_RESULTS

Year of test or report- Test result / Year of test or report- Test Results

40a. SG APP COARSE	1995- 2.66 / 1997- 2.66
40b. SG APP FINE	1995- 2.58 / 1997- 2.69
40c. ABSORPTION CRSE	1997- 1.68
40d. ABSORPTION FINE	
40e. NORDIC ABRASION	
40f. L.A. ABRASION	1995- 22, 24/ 2001- 24
40g. DEGRADATION (T-13)	1995- 44, 27, 30 / 2001- 41
40h. NASO4 LOSS COARSE	1995- 1.6 / 2001- 1.6
40i. NASO4 LOSS FINE	1995- 2.3 / 2002-1.6

41. POTENTIAL_USABILITY

CRUSHED PRODUCTS PRODUCED

Best known potential use of the material, based on records, exploration and laboratory data.

CONCRETE AGGREGATE PRODUCED	The site has produced concrete aggregate
PAVING AGGREGATE PRODUCED	The site has produced paving aggregate
CRUSHED PRODUCTS PRODUCED	Base, Surface Coarse, Subbase, etc. has been produced.
TYPE A AND B MATERIAL AVAILABLE	0 to 10 percent passing 200
TYPE C AVAILABLE	Compactable material
TYPE C NOT AVAILABLE	Uncompactable material (Lower Kuskokwim and Yukon River, etc.)
UNKNOWN	
OTHER	Explain in Section 44.

42. SPECIAL_PROBLEMS

Special problems encountered or anticipated with use of the material, based on records, exploration and laboratory data.

ORGANIC CONTENT	The material is very difficult to compact.
HIGHLY WEATHERED GRAVEL	The gravel is highly weathered and may break down when handled.
BREAKS DOWN UNDER USE	Material breaks down on grade.
SENSITIVE TO WATER CONTENT	Material is sensitive to water content, i.e.. some glacial tills, soft bedrock.
VARIABLE MATERIAL	Deposit contains mixture of suitable and unsuitable material.
POSSIBLE CONTAMINATION	Site may be contaminated by petroleum products or hazardous materials.
CONTAINS ASBESTOS	Site contains naturally occurring asbestos.
POTENTIAL ASBESTOS	Site in area where naturally occurring asbestos is mapped.
ACID ROCK DRAINAGE	Site contains rock susceptible to producing acid rock drainage.
OTHER	Explain in Section 44, Notes.

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43. RIPRAP

NOT POSSIBLE

Class II or larger. Does not include production for erosion control riprap for ditches or culverts.

PREVIOUS PRODUCTION

There is a record of production.

POSSIBLE FURTHER INVESTIGATION NEEDED

The site is a bedrock quarry containing hard rock

NOT POSSIBLE

The site has soft rock or soil.

UNKNOWN

OTHER

Explain in Section 44, Notes.

44. NOTES

Note number of item being discussed.