STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINING, LAND AND WATER

X Northern Region 3700 Airport Way Fairbanks, AK 99709 (907) 451-2740 Southcentral Region
 550 W 7th Ave., Suite 900C
 Anchorage, AK 99501-3577
 (907) 269-8552

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MATERIAL SALE CONTRACT AS 38.05.550 – 38.05.565

Issuance Date: 6/25/14

Expiration Date: 6/24/24

ADL #419200

Under AS 38.05.550-38.05.565 (Disposal of Materials) and AS 38.05.810(a) (Public and Charitable Use) and the regulations implementing these statutes, the State of Alaska, **Department of Natural Resources** (DNR), the seller, whose address is 3700 Airport Way, Fairbanks, Alaska 99709, agrees to sell, and the State of Alaska, **Department of Transportation and Public Facilities** (DOT&PF), the buyer, whose address is 2301 Peger Road, Fairbanks, Alaska 99709, agrees to buy the material designated in this contract, subject to the provisions that follow:

1. Description: Location, Material, Quantity, and Price.

(a) The material sale area covered by this contract consists of approximately **224.3** acres. This area is designated by the boundaries shown on the attached sale area map, which is made a part of this contract, or as designated on the ground by the seller, and described as follows:

MS 680-001-2 located at MP 10.5 Elliott Highway Lot 5, that portion lying northwest of USMS 2169, and within the N1/2SW1/4 in section 14, Township 3 North, Range 1 West, Fairbanks Meridian, and within Lot 6, within Lot 7, that portion lying north of the Elliott Highway, and Lot 10, that portion lying north of the Elliott Highway in section 15, Township 3 North, Range 1 West, Fairbanks Meridian

(b) The material to be removed and the price are:

Type of Material	No. of Units	Unit Price **	Total Price **
Gravel with silt & sand	400,000 cy	\$0.50	**

** 11 AAC 05.010(e)(16) requires state, federal and local agencies to pay for materials used in constructing, reconstructing or maintaining a public project as follows: 1) no charge for the first 5,000 cy of material to be used on a project (each year of maintenance constitutes a separate project); and 2) material in excess of 5,000 cy will be charged at the unit price listed in the annual base price schedule established under 11 AAC 71.090 (currently \$ 0.50 cy).

2. Payments and Deposits. No part of the materials sold under this contract may be extracted from the sale area by the buyer except in accordance with the following terms:

(a) The buyer shall remit an earnest money deposit in the amount of **\$ N/A** (consistent with 11 AAC 71.045 or 11 AAC 71.065, and no less than \$250) along with the bid for a competitive sale contract or at the time a negotiated sale buyer signs this contract. The seller will retain the deposit to cover administrative costs incurred in offering the material sale, except that if the buyer removes and pays for at least 75% of the material volume covered by this contract, the deposit may be applied, in whole or in part, to the final payment that becomes due under this contract.

(b) Additional periodic installment payments as required in paragraph 2(c) must be made for material extracted as of the date payment becomes due but may not exceed the total purchase price.

(c) Each periodic installment payment becomes **due and payable on January 31 of each year** without prior notice to the buyer, for the value of material extracted during the calendar year of January 1 through December 31. The installment must be based on records required in paragraph 3 of this contract and must be submitted to the seller no later than January 31 of each year.

(d) **An annual report is due by January 31 of each year**, without prior notice to the buyer that details the volume of material removed during the calendar year of January 1 through December 31. This report shall be filed regardless of whether material was removed during the reporting period. Failure to file the report by the deadline may result in suspension of the contract and financial penalties. A final accounting and payment for material removed, and a completion statement, must be submitted no later than 30 days following contract completion, or when the contract or has completed removal under the contract, or following termination of the contract by the seller or by operation of law. Whether completion is satisfactory will be decided by the Director of the Division of Mining, Land & Water (DMLW) within 30 days after receiving the final accounting report and completion statement.

(e) If the buyer fails to make a payment provided for in this contract, the seller may, under paragraph 8(b) of this contract, order all material extraction suspended immediately. Materials extracted by the buyer during any period of suspension are considered taken in trespass and are to be charged to and paid for by the buyer at triple the unit contract price. Resumption of the lawful taking of materials may be authorized, in writing, by the DMLW only after the payments in arrears plus the penalty provided for in paragraph 2(f) have been paid.

(f) Material extraction in excess of the contract amount will be considered taken in trespass and at the discretion of the Director, DMLW, Lands Section, charged to and paid for by the buyer at no less than triple the current unit fair market value as established periodically by the Northern Regional Office or up to three times the pecuniary gain realized by the buyer as a result of the trespass. Said trespass penalties are in additional to any other administrative or legal proceedings imposed by state law.

(g) Late Payment Penalty will be the greater of either the fee specified in 11 AAC 05.010 or interest at the rate set by AS 45.45.010(a) will be assessed on a past-due account until payment is received by the seller.

(h) All payments and deposits must be remitted to the DMLW and must be made payable to the Alaska Department of Revenue.

(i) The following special provisions also apply to payments and deposits under this contract:

Should the administrative base price be changed during the term of this contract, the new price will be effective and apply to the material remaining to be extracted under this contract as of the effective date of the price adjustment.

3. Method of Volume Determination.

(a) The method of volume determination for purposes of payment under this contract, along with any special provisions applicable to volume determination, is:

(1) Based on a loose cubic yard quantity as determined by an "in-place" measurement multiplied by a factor of 1.3; or,

(2) Based on a loose cubic yard quantity as determined by a daily vehicle count designating type of vehicle and vehicle capacity.

(b) The buyer shall keep accurate and up-to-date records of all materials extracted. These records are subject to verification by check measure and inspection of the buyer's books by the seller at any time without notice.

(c) All measurements are to be made by or under the direct supervision of buyer personnel acceptable to the seller, including a qualified engineer where the seller deems appropriate, with quantities certified by that person.

4. Operating Requirements.

(a) <u>Boundary Lines and Survey Monuments</u>. No boundary mark of the sale area or any survey line or witness tree for any survey corner or monument may be severed or removed, nor may any survey corner or monument be damaged or destroyed. Any violation of this clause requires the buyer to bear the expense of re-establishing the line, corner, or monument by a registered surveyor in a manner approved by the seller.

(b) <u>Location</u>. The buyer is responsible for the accurate location of operations under this contract, including any survey that may be necessary for accurate location unless otherwise specified in this contract.

(c) <u>Survey</u>. An as built survey of the material site is not required at this time.

(d) <u>Extraction Area</u>. This contract authorizes removal of material only from the area defined in Section 1(a) of this contract. The buyer is responsible for properly locating the material site and the working limits within that area, as shown on the attached map.

(e) <u>Potential Processing Activities and Other Authorizations</u>. The issuance of this authorization does not alleviate the necessity of the purchaser to obtain authorizations required by other agencies for this activity. Any asphalt processing or related activities and associated structures will not be allowed without prior approval from DNR, the Department of Environmental Conservation and other agencies that require authorizations from the buyer.

(f) <u>Standard of Operations</u>. The buyer shall properly locate the buyer's operations and buyer's improvements within the sale area, and may not commit waste, whether ameliorated or otherwise. In addition to complying with all laws, regulations, ordinances, and orders, the buyer shall maintain the land in a reasonably neat and clean condition. No construction material, fill, waste asphalt, damaged culverts or any other debris shall be stockpiled within pit boundaries. Stockpiled material and/or overburden shall not be placed in wetlands. After completion, expiration, or termination of the contract, the site will be left in a condition that is acceptable to the seller, and reclaimed in accordance with the approved reclamation plan.

(g) <u>Erosion Control and Protection of Waters</u>. Operations in connection with this contract must be conducted so as to avoid damage to streams, lakes, or other waters and land adjacent to them. Vegetation and materials may not be deposited into any stream or other waters. Locations and improvements necessary for stream crossings for haul roads must be approved in advance by the seller. All roads to be abandoned must be treated with measures necessary to prevent erosion in a manner acceptable to the seller. Any damage resulting from failure to perform these requirements must be repaired by the buyer to the satisfaction of the seller. Waters include waters defined in 5 AAC 95.010, Protection of Fish and Game Habitat.

(h) <u>Roads</u>. Before constructing any main haul, secondary or spur road across state land, the buyer shall obtain written approval of the proposed location and construction standards of the road from the seller. Road construction must be conducted so as to avoid damage to streams, lakes, or other waters and land adjacent to them.

(i) <u>Water Quality</u>. The buyer shall comply with the State of Alaska water quality standards pursuant to 18 AAC 70, including discharge standards when conducting material washing operations.

(j) <u>Other Authorizations</u>. The issuance of this authorization does not alleviate the necessity of the purchaser to obtain authorizations required by other agencies for this activity.

(k) <u>Fire Protection</u>. The buyer shall take all necessary precautions for the prevention of wildfires and is responsible for the suppression, and must bear the suppression costs, of all destructive or uncontrolled fires occurring in or outside the sale area resulting from any of the buyer's operations under this contract. The buyer shall comply with all laws, regulations, and ordinances promulgated by all governmental agencies responsible for fire protection in the area.

(I) <u>Supervision</u>. The buyer shall maintain adequate supervision at all times when operations are in progress to ensure that the provisions of this contract and all applicable federal, state, and local laws, regulations, and ordinances governing the operations are enforced. At all times when operations are in progress, the buyer, or a person authorized by the buyer to assume the responsibilities imposed by this contract, shall be present on the sale area.

(m) <u>Agents</u>. The provisions of this contract apply with equal force upon an agent, employee, or contractor designated by the buyer to perform any of the operations relating to extraction of the materials sold under this contract. The buyer is liable for noncompliance caused by any such agent, employee, or contractor.

(n) <u>Access</u>. The seller makes no representations that it will construct or maintain access to the land. Access over any route not under the seller's control is the responsibility of the buyer. The buyer agrees that any permanent access or right-of-way obtained over privately owned property will provide a permanent easement to the seller.

(o) <u>Alaska Historic Preservation Act</u>. The buyer will consult the Alaska Heritage Resources Survey (907) 269-8721 so that known historic, archaeological and paleontological sites may be avoided. The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any state-owned historic, prehistoric (paleontological) or archaeological site without a permit from the commissioner. Should any sites be discovered during the course of field operations, activities that may damage the site will cease and the Office of History and Archaeology in the Division of Parks and Outdoor Recreation (907) 269-8721 and will be notified immediately.

(p) <u>Vehicle Maintenance</u>. Vehicle maintenance will be performed only over an effective impermeable barrier.

(q) <u>Fuel and hazardous substances</u>. No fuel or hazardous substances are to be stored on the subject parcel. Prior written approval from the seller is required for a change in this restriction. Such approval may include additional operating requirements and a change in the amount required for the performance guarantee. The disposal of hazardous substances or hydrocarbons is prohibited.

(r) <u>Notification</u>. The buyer will immediately notify the Department of Natural Resources and the Department of Environmental Conservation by phone of any unauthorized discharges of oil to water, any discharge of hazardous substances (other than oil), and any discharge of oil greater than 55 gallons solely to land and outside an impermeable revetment. If a discharge of oil is greater than 10 gallons but less than 55 gallons it must be reported within 48 hours by phone or fax. If a discharge greater than 55 gallons is made to a secondary containment, it must be reported within 48 hours by phone or fax. All fires

and explosions must also be reported. The DNR 24 hour spill report number is (907) 451-2678; the fax number is (907) 451-2751. The DEC oil spill report number is (800) 478-9300. DNR and DEC will be supplied with all follow-up incident reports.

(s) <u>Reclamation</u>. Upon completion, expiration, or termination of the contract, the site will be left in a condition that is acceptable to the DMLW and reclaimed in accordance with the DNR approved Mining and Reclamation plan. Reclamation shall be to the standards of the DMLW and shall include repair of access roads to and within the site, disposal of remaining stockpiles, other procedures that will be used to stabilize and reclaim the area and any other site specific measures that may be necessary. This contract is subject to the attached approved reclamation plan in accordance with AS 27.19.

(t) <u>SWPP and APDES</u>. The buyer shall comply with the requirement of the Alaska Pollutant Discharge Elimination System (APES) and if applicable, to maintain and operate the site in accordance with an approved Storm Water Pollution Prevention Plan (SWPP).

(u) <u>Use of Material</u>. This contract authorizes the excavation and use of material for the express purpose of providing material for construction and maintenance of public projects.

(v) Project Specific Operating Requirements.

(1) <u>Timber Salvage</u>. Timber less than five inches in diameter, brush, and slash shall be disposed of so as to minimize the risk of fire and disease. To limit insect infestation, timber more than five inches in diameter shall be decked in areas of the forest with limited sunlight, but not against residual host trees. The log decks should be separated as much as possible from standing trees but also in areas with limited sunlight. Questions should be directed to the Area Forester at 907-451-2601.

(2) <u>Land Clearing</u>. Land clearing activities should be timed, when possible, to avoid harming nesting birds between May 1st and July 15th. If work is planned during this period, then rendering the land unsuitable for nesting birds beforehand is desirable (please see http://alaska.fws.gov/fisheries/field office/anchorage/pdf/vegetation_clearing.pdf).

(3) <u>Cell Development.</u> Material will be removed from cells. Cells will be mined to a depth of 35 feet before starting a new cell. Material between cells will be fully utilized, allowing for final safe slopes.

(4) <u>Noise.</u> Due to the proximity of the Whitefish Campground, noise impacts will be mitigated by restricting operating to the hours between 6:00AM and 11:00PM, unless otherwise agreed to by the DNR DMLW, DOPOR, and the Contractor and affected via an amendment to this contract with the ADOT&PF. Operations restricted during this time period include mining, processing, loading, and hauling material.

(5) <u>Public Trust Doctrine</u>. The Public Trust Doctrine guarantees public access to, and the public right to use, navigable and public waters and the land beneath them for navigation, commerce, fishing, and other purposes. This authorization is issued subject to the principles of the Public Trust Doctrine regarding navigable or public waters. The DMLW reserves the right to grant other interest consistent with the Public Trust Doctrine.

(6) <u>Right-of-Way.</u> Material sale is subject to Old Elliott Highway Right-of-Way that crosses through the material site.

5. Indemnity of Seller and Bonding. Not applicable.

(a) The buyer shall indemnify and hold the seller harmless from:

(1) all claims and demands for loss or damage, including property damage, personal injury, wrongful death, and wage or employment claims, arising out of or in connection with the use or occupancy of the land or operations by the buyer or the buyer's successors, or at the buyer's invitation; and

(2) any accident or fire on the land; and

(3) any nuisance on the land; and

(4) any failure of the buyer to keep the land in a safe and lawful condition consistent with applicable laws, regulations, ordinances, or orders; and

(5) any assignment, sublease, or conveyance, attempted or successful, by the buyer that is contrary to the provisions of this contract.

The buyer will keep all goods, materials, furniture, fixtures, equipment, machinery, and other property on the land at the buyer's sole risk, and will hold the seller harmless from any claim of loss or damage to them by any cause.

(b) At the seller's discretion, a buyer may be required to file a bond designed to ensure the buyer's performance and to help protect the seller against any liability that may arise as a result of the activities of the buyer. If required, a bond acceptable to the seller in the amount of **\$N/A** must be filed with the seller at the time of execution of this contract to ensure the buyer's performance and financial responsibility.

6. Improvements and Occupancy.

(a) Any improvements or facilities including crushers, mixing plants, buildings, bridges, roads, etc., constructed by the buyer in connection with this sale and within the sale area must be in accordance with plans approved by the seller.

(b) The buyer must, within 60 days after contract completion or termination of the contract by the seller or by operation of law, remove the buyer's equipment and other personal property from the sale area. After removal, the buyer must leave the land in a safe and clean condition that is acceptable to the seller. If the buyer can demonstrate undue hardship, the time for removal of the improvements under this paragraph may be extended at the seller's discretion.

(c) If any of the buyer's property having an appraised value in excess of \$10,000, as determined by the seller, is not removed within the time allowed, that property may, upon 30 days' notice to the buyer, be sold at public auction under the direction of the seller. The proceeds of the sale will inure to the buyer after satisfaction of the expense of the sale and deduction of all amounts then owed to the seller. If there are no other bidders at the sale, the seller may bid on the property, and the seller will acquire all rights, both legal and equitable, that any other purchaser could acquire through a sale and purchase.

(d) If any of the buyer's property having an appraised value of \$10,000 or less, as determined by the seller, is not removed within the time allowed, title to that property automatically vests in the seller.

(e) Special provisions. Special provisions applicable to improvements and occupancy under this contract are listed in paragraph 4 of this contract.

7. Inspection.

(a) The seller must be accorded access, at all times, to the sale area and to the books and records of the buyer, the buyer's contractors, and any sub-contractors relating to operations under this contract for purposes of inspection to assure the faithful performance of the provisions of this contract and other lawful requirements.

(b) At all times when construction or operations are in progress, the buyer shall have a representative readily available to the area of operations who is authorized to receive, on behalf of the buyer, any notices and instructions given by the seller in regard to performance under this contract, and to take appropriate action as is required by this contract.

8. Termination and Suspension.

(a) The seller may terminate the buyer's rights under this contract if the buyer breaches the contract and fails to correct this breach within 30 days after written notice of the breach and an opportunity to be heard.

(b) If the buyer fails to comply with any of the provisions of this contract, the seller may shut down the buyer's operations upon issuance of written notice, until corrective action, as specified by the seller in its notice, is taken. If this corrective action is not taken within 30 days after written notice is served upon the buyer, the seller may terminate the contract under paragraph 8(a) of this contract. The buyer's failure to take immediate corrective action when ordered to remedy dangerous conditions or unwarranted damage to natural resources may be corrected by the seller to prevent danger or additional damage. Any cost incurred by the seller as a result of this corrective action, or by the buyer's failure to take corrective action, must be paid by the buyer.

(c) This contract may also be terminated by mutual agreement of both parties on terms agreed to in writing by both parties.

9. Reservations. The seller reserves the right to permit other compatible uses, including the sale of materials, on the land in the sale area if the seller determines that those uses will not unduly impair the buyer's operations under this contract. Under AS 38.05.125 the seller further expressly reserves to itself, and its successors, forever,

(a) all oil, gas, coal, ores, minerals, fissionable materials, geothermal resources, and fossils of every kind, that may be in or upon the land described above, or any part of it; and

(b) the right to explore the land for oil, gas, coal, ores, minerals, fissionable materials, geothermal resources, and fossils; and

(c) the right to enter by itself or its agents, attorneys, and servants on the land, or any part of it, at any time for the purpose of opening, developing, drilling, and working mines or wells on this or other land and taking out and removing from it all oil, gas, coal, ores, minerals, fissionable materials, geothermal resources, and fossils; and

(d) the right by itself or its agents, attorneys, and servants at any time (1) to construct, maintain, and use all buildings, machinery, roads, pipelines, powerlines, and railroads; (2) to sink shafts, drill wells, and remove soil; and (3) to occupy as much of the land as may be necessary or convenient for these purposes; and

(e) generally all rights to and control of the land, that are reasonably necessary or convenient to make beneficial and efficient the complete enjoyment of the property and rights that are expressly reserved.

10. Inclusion of Applicable Laws and Regulations. The buyer shall comply with all laws and regulations applicable to operations under this contract, including the provisions of AS 27.19 and 11 AAC 97 regarding mining reclamation, the provisions of AS 41.15 for wildfire prevention and control, the provisions of AS 38.05.550 - 38.05.565, material sale regulations 11 AAC 71, state fish and game regulations pertaining to the protection of wildlife and wildlife habitat, and state regulations pertaining to safety, sanitation, and the use of explosives. These laws and regulations are, by this reference, made a part of this contract, and a violation of them is cause for termination or suspension of this contract in addition to any penalties prescribed by law. These laws and regulations control if the terms of this contract are in conflict with them in any regard.

11. Assignment. This contract may not be assigned by the buyer without the seller's prior written consent to the assignment.

12. Permits. Any permits necessary for operations under this contract must be obtained by the buyer before commencing those operations.

13. Passage of Title. All right, title and interest in or to any material included in the contract shall remain in the State until it has been paid for; provided, however, that the right, title and interest in or to any material that has been paid for but not removed from the sale area by the buyer within the period of the contract or any extension thereof as provided for in this contract shall vest in the seller.

14. Expiration and Extension. This contract expires on the date stated at the top of the contract unless an extension is granted by the seller in accordance with 11 AAC 71.210 (material sale regulations).

15. Warranties. This sale is made without any warranties, express or implied, as to quantity, quality, merchantability, profitability, or fitness for a particular use, of the material to be extracted from the area under contract.

16. Valid Existing Rights. This contract is entered into and made subject to all valid existing rights, including easements, rights-of-way, reservations, or other interests in land, in existence on the date the contract is entered into.

17. Notices. All notices and other writings required or authorized under this contract must be made by certified mail, postage prepaid, to the parties at the following address:

To the Seller: Alaska Division of Mining, Land and Water 3700 Airport Way Fairbanks, Alaska 99709-4699

To the Buyer: Alaska Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, Alaska 99709

18. Integration and Modification. This contract, including all laws and documents that by reference are incorporated in it or made a part of it, contains the entire agreement between the parties. This contract may not be modified or amended except by a document signed by both parties to this contract. Any amendment or modification that is not in writing, signed by both parties, and notarized is of no legal effect.

19. Severability of Clauses of Sale Contract. If any provision of this contract is adjudged to be invalid, that judgment does not affect the validity of any other provision of this contract, nor does it constitute any cause of action in favor of either party as against the other.

20. Construction. Words in the singular number include the plural, and words in the plural number include the singular.

21. Headings. The headings of the numbered paragraphs in this contract shall not be considered in construing any provision of this contract.

22. "Extracted," "Extraction". In this contract, use of the terms "extracted" and "extraction" encompasses the severance or removal, as well as extraction, by the buyer of any materials covered by this contract.

23. Waiver. No agent, representative or employee of the seller has authority to waive any provision of this contract unless expressly authorized to do so in writing by the director of the DMLW.

ADL 419200 Material Sale Contract ADOT&PF Material Sale MP 10.5 Elliot Highway

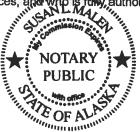
BY SIGNING THIS CONTRACT, the State of Alaska, as seller, and the buyer, agree to be bound by its provisions as set out above.

BUYER: State of Alaska SELLER: State of Alaska DOT/PF **Department of Natural Resources** Director, Division of Mining, Land and Water Address: **STATE OF ALASKA**) ss. 4TH Judicial District THIS IS TO CERTIFY that on May 23, 2014, before me appeared Keyn L known by me to be the person named in and who executed this Material Sale Contract and acknowledged voluntarily signing it as buyer. OFFICIAL SEAL ERONICA GARRISON NOTARY PUBLIC Notary Public in and for the State of Alaska STATE OF ALASKA My commission expires Wth offil Please do not write below this line. This space reserved for Department of Natural Resources.

STATE OF ALASKA 4TH Judicial District

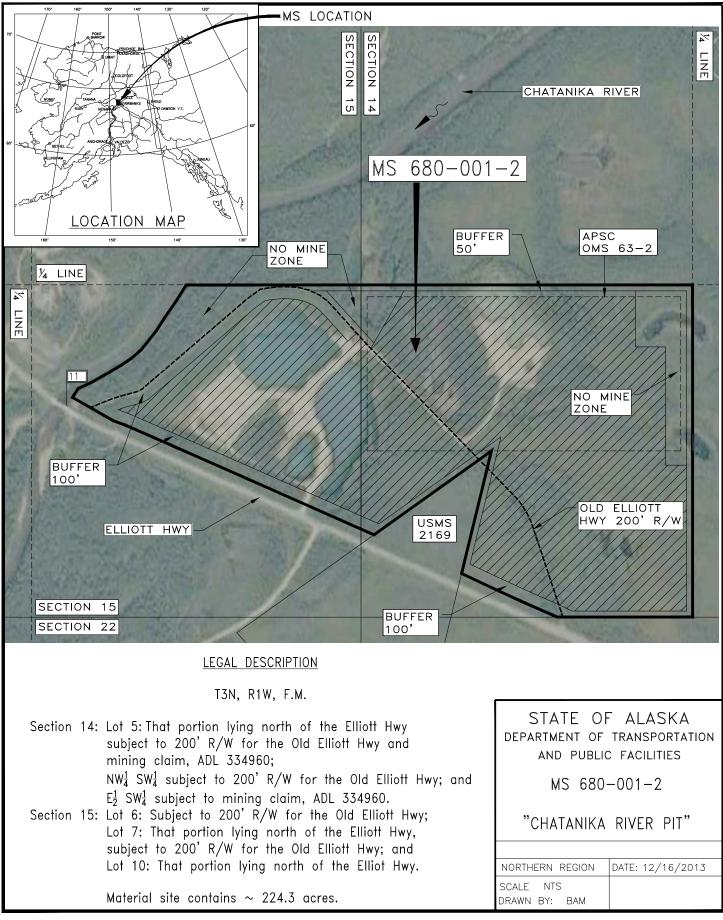
) SS.)

THIS IS TO CERTIFY that on <u>TOKEZE</u>, 20<u>14</u>, before me appeared <u>Jeanna</u> <u>Modes</u> known by me to be the representative of the Division of Mining, Land and Water, Department of Natural Resources, who executed this Material Sale Contract on behalf of the State of Alaska, Department of Natural Resources, and who is total, authorized by the State to do so.



Notary Public in and for the State of Alaska My commission expires: With Marke

102-137 (Rev. 10/01)



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State of Alaska Department of Transportation and Public Facilities

Mining and Reclamation Guidelines Material Site 680-001-2 / Chatanika Pit Mile 10.5 Elliott Highway

These guidelines are subject to the Alaska Department of Natural Resources (DNR) Material Sale Contract ADL 419200 and stipulations contained therein. For each new use or project, the user or contractor shall submit a Project Mining and Reclamation Plan to DNR for approval, subject to DOT&PF review, prior to any mining activities.

Legal Description

T3N, R1W, FM:

- Section 14: Lot 5: That portion lying north of the Elliott Hwy subject to 200' R/W for the Old Elliott Highway and mining claim ADL 334960; NW¼ SW¼, subject to the 200' R/W for the Old Elliott Highway; and E½ SW¼ subject to mining claim ADL 334960.
- Section 15: Lot 6: Subject to 200' R/W for the Old Elliott Highway; Lot 7: That portion lying north of the Elliott Highway, subject to 200' R/W for the Old Elliott Highway; and Lot 10: That portion lying north of Elliott Highway.

Described parcel contains approximately 224.3 acres.

General Information

The site is located at Mile 10.5 Elliott Highway, north of the road and east of the Chatanika River. The site combines and expands upon two Designated Material Sites, 680-001-2 (MMS ADL 418805) and 680-003-2 (MMS ADL 419624). There is a gated access road leading into the site. Material consists of alluvial sand and gravel with silt and cobbles overlain by silty overburden. The site is typically mined by dragline or bailing with an excavator. The site has provided material for borrow and crushed aggregate for various highway maintenance and construction projects since the 1960's.

DOT&PF conducted exploratory drilling in 2000 and 2013. Silty overburden ranged from 3 to 13 feet thick. There are organic-rich silt-filled sloughs present on site. Permafrost is present, primarily in undisturbed areas. The water table, where present, varies with river stage but typically ranges from 3 to 6 feet deep. Previously cleared inactive areas have revegetated with willow and alder. Undisturbed areas are vegetated with spruce and birch up to 12 inch diameter. Additional site information is available at the DOT&PF Materials office, 2301 Peger Road, Fairbanks, Alaska 99709.

Development Plan

DOT&PF has conducted a Record of Survey on the site in 2013 and marked the boundary with carsonite posts. Because this is a combined site, multiple areas have been developed previously. Each mined cell shall be depleted of gravel, mined to a minimum depth of 35 feet below the

water surface before starting a new cell or area. Because gravel deposits are not uniform across the site, areas with deep overburden will likely be left in place. When a new cell is started adjacent to an old cell, the material between cells shall be extracted to fully utilize material, except when needed for work pad or access.

Buffers

Maintain a 100-foot-wide buffer along the Elliott Highway right-of-way. Maintain a 100-foot buffer along the east side of the Old Elliott Highway centerline in Section 15 only. Maintain a 50-foot-wide buffer around the remaining site perimeter. Do not disturb or place strippings or overburden in buffers. Clearly mark buffers in work areas.

No Mine Zones

Three "No Mine Zones" are located within the site: between the river and the Old Elliott Highway, in the northeast corner, on the northern edge (at section line), as shown on the attached site plan. The intent is to protect/preserve the Chatanika River corridor and remnant sloughs/ponds present within the zones, at request of agencies. DOT&PF has marked these zones with carsonite posts.

Work Pads

There is currently a work pad with stockpiles in the southwest corner of the site. As necessary, future construction projects may develop a new work pad. From this work pad, individual cells of material will be mined. The work pad can also be used for processing and stockpiling material. As the mining area moves during future projects, the work pad location will move to stay close to the active location. Old pads shall be mined to fully utilize the available material at the site.

Mining Guidelines

The following guidelines shall to be used:

- 1. The contractor or user shall locate the material site boundaries to verify work areas are within the site.
- 2. Clearly mark buffer lines on the ground in work areas and leave buffers undisturbed.
- 3. Mine one cell thoroughly to a depth of 35 feet before starting a new cell. Maintain access and a work pad for mining operations and stockpiles.
- 4. Fully utilize available material by mining areas between cells while allowing for final safe slopes (see Reclamation section).
- 5. Prior to any new site clearing contact the DNR Division of Forestry to obtain instructions for treatment of any merchantable timber, firewood, brush or slash produced.
- 6. Do not disturb/destroy bird nests when clearing; consult DOT&PF Environmental staff for guidance. Migratory bird nesting typically occurs from May 1 to July 15.
- Place vegetation and overburden along the perimeter of the material site, adjacent to buffers. Vegetation and overburden shall be placed in smooth berms and allowed to revegetate naturally. Do not place vegetation/overburden in future minable areas. Do not place vegetation/overburden into ponds.

- 8. Standard excavating methods can be used above the water table. For mining below the water table, dragline/bailing is required.
- 9. Final (reclaimed) slopes adjacent site buffers or where no future mining is expected shall be 3H:1V or flatter above the water table. Below water table slopes shall be no deeper than 3 feet within 20 feet of the shoreline.
- 10. All mining and stockpiling activities shall be in accordance with applicable Construction General Permits and Storm Water Pollution Prevention Plans.
- 11. After each use, remove all equipment and non-native debris or waste from the site. No damaged culverts or any other construction debris may be placed, stored, or abandoned in the site.
- 12. Disposal of unusable excavation material from off-site construction projects is discouraged at this site due to limited space. It should only be allowed on areas that will not be mined in the future. DNR permission is required, in consultation with DOT&PF Materials Section.

Reclamation Objectives and Guidelines

The reclamation plan has several objectives:

- 1. To close out and reclaim a cell as soon as it is depleted.
- 2. To not preclude or hinder future development of un-mined areas.
- 3. To blend with previous reclamation and surrounding topography.
- 4. To prevent erosion and sediment transport to surrounding, undisturbed areas.
- 5. To allow reestablishment of native vegetation and wildlife habitat.
- 6. To leave the site in a safe condition that does not endanger people or wildlife.

Reclamation activities will include:

- 1. Regrading slopes. Final reclaimed slopes will be as follows:
 - Above water slopes shall be 3H:1V or flatter. Grade work pads to slope gently.
 - Underwater slopes shall be no deeper than 3 feet within 20 feet of the shoreline.
- 2. Smooth and compress vegetation / overburden berms and allow to revegetate.

Project Mining and Reclamation Plan

Prior to use of the site for any project, the contractor or user shall submit a Project Mining and Reclamation Plan, in accordance with AS 27.19 and 11 AAC 97, to DNR for approval, subject to DOT&PF review. The Plan describes the proposed plan of operation and shall be in compliance with guidelines listed here. Upon approval, the Plan will be followed by the contractor or user and if applicable, the DOT&PF Project Engineer. The plan should include the following:

Sketch Map

The sketch map shall include:

- 1. Site boundaries and access
- 2. Proposed working limits and buffers, to be marked on the ground
- 3. Organic debris and overburden placement areas
- 4. Work pad, stockpile locations, crusher site
- 5. Scale of drawing, north arrow, and specific dimensions as appropriate

Narrative

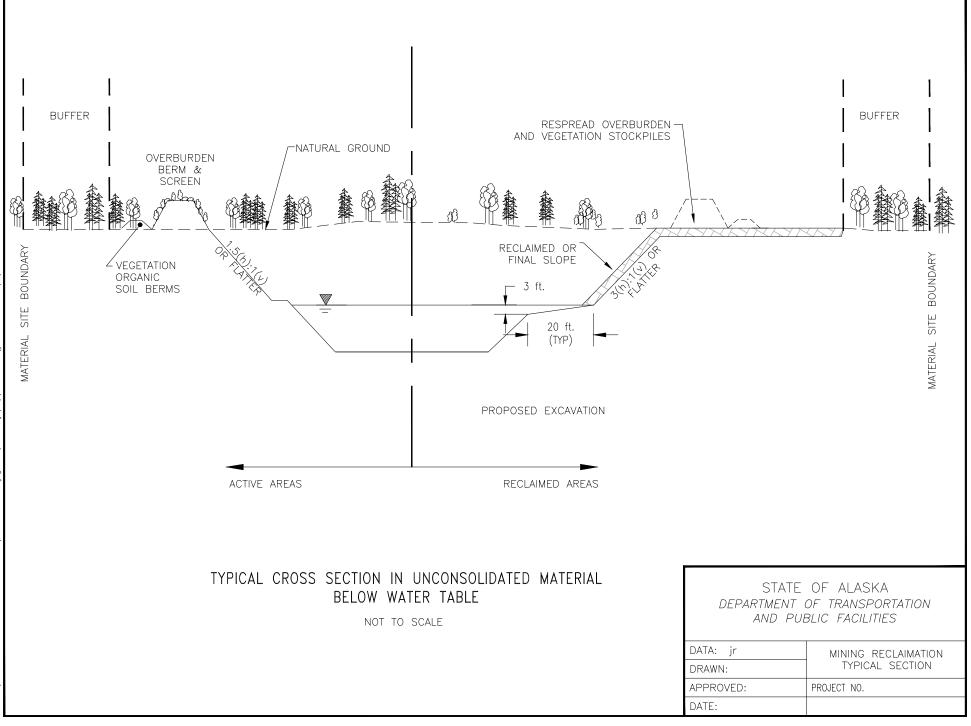
The narrative shall include:

- 1. Methods of extraction and processing
- 2. Estimated quantities for removal
- 3. Estimated areal extents (acreage)
- 4. Length and times of operation (day, month and year and working hours) users shall make reasonable efforts to reduce noise impacts (such as crushing) to nearby campground
- 5. Air and water pollution control measures
- 6. Reclamation measures

Supplements and amendments

Supplements and amendments to an approved mining and reclamation plan may be initiated by the contractor, user or the DOT&PF Project Engineer, when conditions warrant such action. Supplements and amendments must be mutually agreed upon and proper approval obtained prior to commencement of work of a changed nature.

- 1. Minor changes are those that affect details of the operation, but remain in compliance with the development guidelines. These changes can be authorized by the DOT&PF Project Engineer.
- 2. Major changes are those that cause the final outcome of the site to be significantly different from the approved mining and reclamation plan or are not in compliance with the development guidelines. These require approval by DNR and the DOT&PF Project Engineer.



STATEWIDE MATERIAL SITE INVENTORY

MATERIAL SITE INSPECTION REPORT

Federal Project No. STP-000S(530) AKSAS Project No. 76174

ELLIOTT HIGHWAY

MS 680-001-2 Chatanika Pit

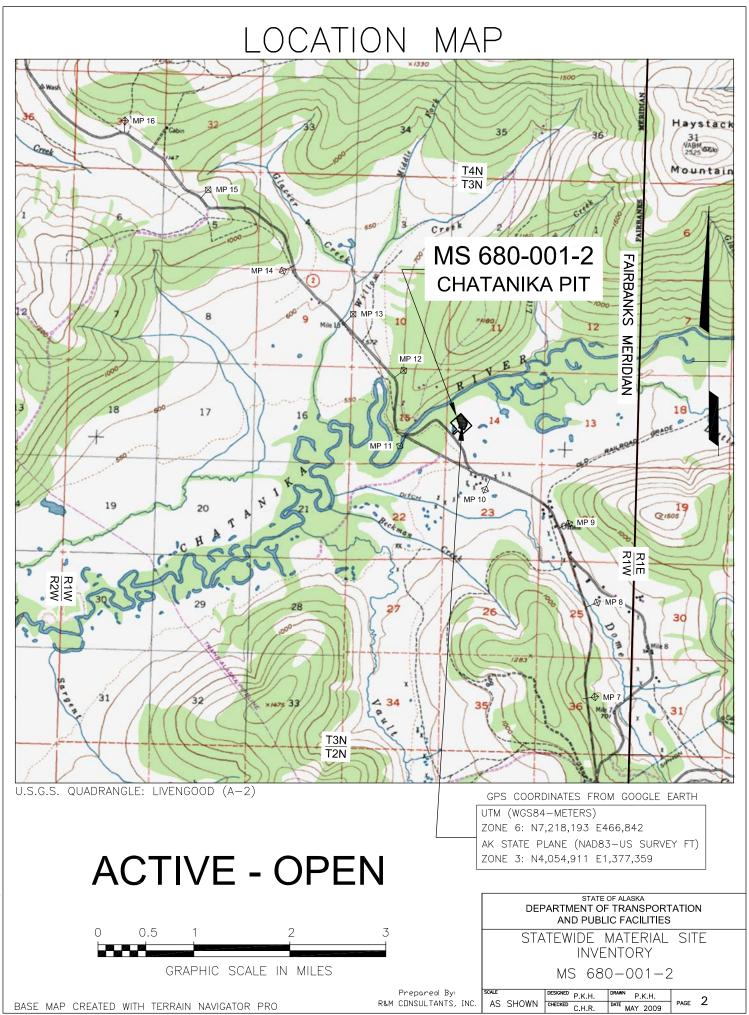
December 11, 2009

CONTENTS	PAGE
COVER SHEET	1
LOCATION MAP	2
SITE MAP	3A & 3B
INSPECTION FORM	4 thru 10

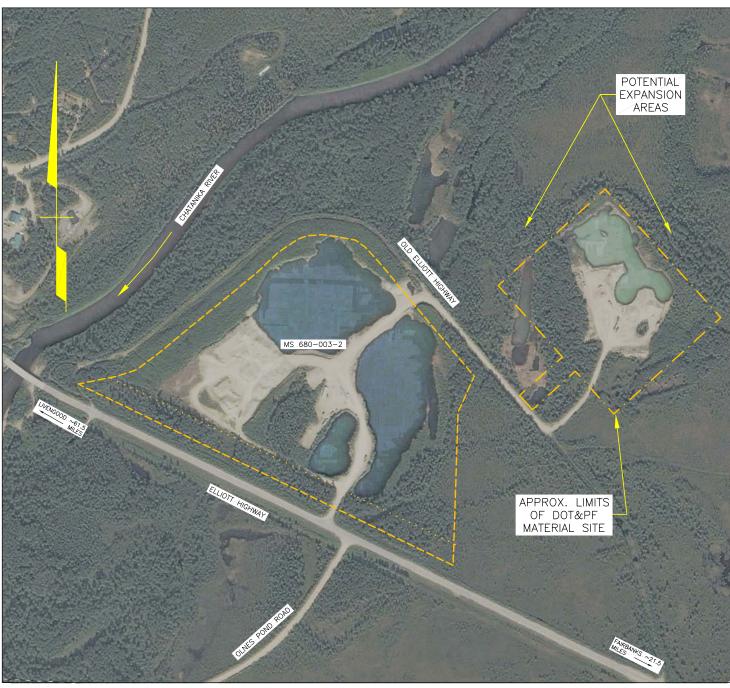
CATEGORY:

ACTIVE – OPEN

According to information found in the DOT&PF EDMS system in January 2009 and DNR case file abstracts, this site lies on State of Alaska lands managed by DNR. The site was first developed in the 1960's. DOT&PF is currently operating under a negotiated material sales contract (ADL 416465) which expires April 30, 2010. Alyeska (OMS 63-DOT) had a material sales contract (ADL 417722) in part of the pit, which appeared to have expired December 31, 2007. Other users also appear to have, or have had, agreements with DNR to remove gravel from this pit. There were several other small, old pits surrounding the site that appear to have been abandoned. The site is connected to the Old Elliott Highway by an existing access road. The access road right-of-way is included in the contract but the existing access road may not lie within the right-of-way. The Old Elliott Highway which is presently used for part of the access may also have right-of-way issues. The site appeared to contain significant quantities of sand and gravel should be retained by DOT&PF for future use.



SITE MAP



BASE MAP IS 2006 AERIAL PHOTOGRAPHY. 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				
0 250 500	1000	1500	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES	
GRAPHI	C SCALE IN FEET		STATEWIDE MATERIAL SITE INVENTORY MS 680-001-2	
MAP FROM AERIAL PHOTO DATED 8/2	24/2006	Prepared By: R&M CONSULTANTS, 1	INC. AS SHOWN CHECKED P.K.H. DRAWN P.K.H. PAGE 3A	

BASE

SITE MAP



2/2/2010

Plotted

BASE MAP FROM AERIAL PHOTO DATED 8/24/2006

100

	Prepared	

800

Bу R&M CEINSULTANTS, INC. AS SHOWN CHECKED C.H.R.

400

ACTIVE - OPEN

GRAPHIC SCALE IN FEET

200

SCALE

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

AND PUBLIC FACILITIES

STATEWIDE MATERIAL SITE

INVENTORY

MS 680-001-2

DRAWN P.K.H.

DATE JUNE 2009

page 3B

DESIGNED P.K.H.

DATA CONTAINED HE	D ON A REVIEW OF EXIS' REIN SHOULD BE CONSII RS OF THIS DATA SHOUL CTION PURPOSES.	DERED PREL	IMINARY AND USED FO	OR PLANNING
	<u>R</u> IS SELECTED FOR A SE ANSWER IS UNKNOWN S			
1. MS_ID		-001-2		
	site number e.g 65-9-04	5-2		
2. DATE_INSPECT	.		8/15/200	9
Date of field inspection	n			
3. FLD INSPEC_ORG Name of inspector / Organi	ization or Company		WILL RHODES / R&N	I CONSULIANIS
4. REGION	NORT	HERN		
5. LOCATION	ELLIOTT HIG	HWAY		
	Name of Highway			y or Secondary Route Name rport, Nash Road, etc.)
6. MILEPOST		11		
List the closest main highw	vay milepost			
7. NAME	C	HATANIKA	PIT	
Enter commonly used name	e (s), e.g. Hess pit, Gobblers K	nob, Midway. I	ist all that apply separated b	by commas.
8. MAINT_DIST/STAT	District INTERIC	OR/FAIRBA	NKS Station	FAIRBANKS
Highway Maintenance Dis	trict and Station, for locations	not on highway	s select other.	
9. QUAD	LIVENO	GOOD	A-2	
U.S.G.S. Quad. Map				
10. TOWNSHIP	T#S R#E 7	'3N R1W	М	eridian FM
/RANGE	Section	14		
11. COOR_UTM]	2. COOR_STATE_PI	LANE
ZONI	E <u>6</u>		ZONE	3
NORTHINC	, ,		NORTHING	4,054,911
EASTINC	6 466,842		EASTING	1,377,359
	UTM WGS84 - Meters		Alaska State Pl	ane NAD83 - Survey Feet
13. BOROUGH	FAIRBANKS NORT	H STAR	TAX ID NO.	
14. DNR_LAND_USE_P	LAN	EASTERN	TANANA AREA PLAN	1
15. CATEGORY	(To be filled in the office)			
5a. CLASSIFICATION		ACTIVE		
5b. STATUS		OPEN		

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 Area within site permit or 1	R.O.W. boundaries, from permit application or property plat.				
19. DEVELOPED_ACREAGE	6				
Area within an existing pit, e	xcluding spoil berms lying outside the pit, access roads etc. Explain below.				
Included existing pit.					
20. ACREAGE_COMP_METH Method used to determine d					
21. EST_QUAN_AVAIL	450,000 ROUGH ESTIMATE				
Estimated quantity available (b.c.y.), may be based on acreage computed above plus expansion area.					
Explain computation assumptions and calculations below.					
material left in the existing site (10	verburden and a 30-foot working depth (with drag line) there was approx. 245,000 c.y. of 0.2 acres x 24 feet x 1,000 c.y. per acre-foot). Assuming that the site can be expanded to the north 0 c.y. of additional material (9.1 acres x 24 feet x 1,000 c.y. per acre-foot).				

EXISTING ROAD / OPEN

NONE	N	11 1 1 1.	
NONE		access road has been built.	
EXISTING ROAD / OPEN		able. May have gate.	
EXISTING ROAD / REVEG EXISTING ROAD / CLOSED		be reopened with little effort. be reopened with little effort.	
EXISTING ACCESS / REMOV		be reopened with much effort.	
SNOW ROAD		only be accessed during winter.	
ICE ROAD		uires crossing river or lake ice in the	winter
BARGE		erial can only be moved by barge.	winter.
OTHER		site does not fit any of the categorie	s above Describe in Section
0 millio		Notes.	s ubove. Deserve in Section
ACCESS_LENGTH		900	
Approx. length from edge of pit	,		
A. VEGETATION			
ft. centers.			
5. TYPE_1 Dominant type General Types of Materials Ava	BAILING	26. TYPE_2 Subordinate type	available
Dominant type General Types of Materials Ava	ilable Enter data in Type_	Subordinate type _2 only if two types of material site	available
Dominant type General Types of Materials Ava QUARRY	uilable Enter data in Type_ Bedrock sources requiring	Subordinate type _2 only if two types of material site a g blasting	available
Dominant type General Types of Materials Ava	ilable Enter data in Type_	Subordinate type _2 only if two types of material site a g blasting	available
Dominant type General Types of Materials Ava QUARRY	uilable Enter data in Type_ Bedrock sources requiring	Subordinate type _2 only if two types of material site : g blasting pable), above water table	available
Dominant type General Types of Materials Ava QUARRY BORROW PIT	uilable Enter data in Type_ Bedrock sources requiring Soils or soft bedrock (ripp	Subordinate type _2 only if two types of material site g blasting pable), above water table w the water table	available
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below	Subordinate type _2 only if two types of material site g blasting pable), above water table w the water table	available OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active	Subordinate type _2 only if two types of material site : g blasting pable), above water table w the water table e channels	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active 3 TO 6 FT.	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil)	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data show	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active <u>3 TO 6 FT.</u>	Subordinate type _2 only if two types of material site a g blasting pable), above water table w the water table e channels 28. OB_CLASS_2	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR C. OB_CLASS_1 New Site or expansion Area A site may have both. Data show Estimated average depth over the	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active <u>3 TO 6 FT.</u> ald be based on actual subsurface area.	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data shou Estimated average depth over th NONE	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active <u>3 TO 6 FT.</u> ald be based on actual subsurfate area. <u>3 TO 6 FT.</u>	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil) ace exploration, otherwise unknown UNKNOWN	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data show Estimated average depth over th	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active <u>3 TO 6 FT.</u> ald be based on actual subsurface area.	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data show Estimated average depth over th NONE <3 FT.	ailableEnter data in Type_Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active $3 \text{ TO } 6 \text{ FT.}$ ald be based on actual subsurface area. $3 \text{ TO } 6 \text{ FT.}$ >6 FT.	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table = channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown UNKNOWN OTHER	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data show Estimated average depth over th NONE <3 FT.	ailable Enter data in Type Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active <u>3 TO 6 FT.</u> ald be based on actual subsurfate area. <u>3 TO 6 FT.</u>	Subordinate type _2 only if two types of material site = g blasting bable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown UNKNOWN OTHER 30. OB_TYPE_2	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data show Estimated average depth over th NONE <3 FT.	ailableEnter data in Type_Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active $3 \text{ TO } 6 \text{ FT.}$ ald be based on actual subsurface area. $3 \text{ TO } 6 \text{ FT.}$ >6 FT.	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table = channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown UNKNOWN OTHER	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data shou Estimated average depth over th NONE <3 FT.	ailable Enter data in Type_ Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active 3 TO 6 FT. ald be based on actual subsurface a TO 6 FT. >6 FT. SILT	Subordinate type _2 only if two types of material site = g blasting pable), above water table w the water table = channels 28. OB_CLASS_2 Existing Pit (Spoil) ace exploration, otherwise unknown UNKNOWN OTHER 30. OB_TYPE_2 Existing Pit (Spoil)	OTHER
Dominant type General Types of Materials Ava QUARRY BORROW PIT BAILING RIVER BAR 7. OB_CLASS_1 New Site or expansion Area A site may have both. Data shou Estimated average depth over th NONE <3 FT.	ailableEnter data in Type_Bedrock sources requiring Soils or soft bedrock (ripp Requires production below Sand/gravel bars in active $3 \text{ TO } 6 \text{ FT.}$ ald be based on actual subsurface area. $3 \text{ TO } 6 \text{ FT.}$ >6 FT.	Subordinate type _2 only if two types of material site = g blasting bable), above water table w the water table e channels 28. OB_CLASS_2 Existing Pit (Spoil) face exploration, otherwise unknown UNKNOWN OTHER 30. OB_TYPE_2	OTHER

22. ACCESS_TYPE

31. MAT_TYPE_1	FLUVIAL	32. MAT_TYPE_2	
BEDROCK WEATHER. BEDROCK FLUVIAL	Bedrock sources requiring b Bedrock sources requiring r Water deposited sand and g	plasting	
GLACIAL COLLUVIAL EOLIAN SILT	Glacial till Talus slopes, etc. Sand Dunes, etc. Silt deposits, loess, fluvial,		
33. PERMAFROST_1 New Site or Expansion Area	DETECTED IN S	OME TEST HOLES OR PITS	
34. PERMAFROST_2 Existing Site	DETECTED IN	NO TEST HOLES OR PITS	
DETECTED IN MOST TEST F DETECTED IN SOME TEST F DETECTED IN IMMEDIATE DETECTED IN NO TEST HOI DATA OUTDATED UNKNOWN OTHER	IOLES VICINITY		
35. GROUNDWATER Groundwater was noted between	n 4 and 12 feet below the groun	d surface in test holes drilled during March, 2000).

5. LITHOLOGY_1	FLUVIAL	37. LITHOLOGY_2
Dominant type		Subordinate type
IGNEOUS ROC	CK	Undifferentiated Igneous Rocks
GRANITIC		Granite/Monzonite/Granodiorite
DIORITE/GAB	BRO	Diorite/Gabbro
BASALT		Dark colored fine-grained Igneous Rocks
GREENSTONE		Altered Volcanic Rocks w/green tint
METAMORPH	IC ROCK	Undifferentiated Metamorphic Rocks
SCHIST/PHYL	LITE	Includes rocks ranging from slate to schist
GNEISS		Includes hard schistose rocks
MARBLE		
CATACLASTIC	2	Incl. Valdez Formation Rocks, Kenai Penn.
MÉLANGE		Incl. McHugh Formation Rocks, Kenai Penn.
SEDIMENTAR	Y ROCK	Undifferentiated Sedimentary Rocks
CONGLOMER	ATE	
SANDSTONE		Includes greywacke, etc.
SHALE/MUDS'	TONE	
LIMESTONE		
FLUVIAL		River and stream deposits (floodplain), includes outwash.
ALLUVIAL		Alluvial / Debris Fan deposits
GLACIOFLUV	IAL	Eskers, kames, etc.
GLACIAL		Till
COLLUVIAL		Talus, etc.
EOLIAN		Sand Dunes, etc.
SILT		Loess, fluvial silts, etc.
OTHER		Explain in Section 44.
ASTM Classification, general		om coarse to fine.
38a. GW	38c. GW-GM	1 38e. SP-SM 38g. SM

39. COBBLES_AND_BOULDERS		
Test Boring Callout / ASTM Classification, eithe 39a. CONTAINS	r a. or b. and c. (Can use ranges i.e. 0 to 20))
39b. Est. % by VOL.	5 to 10	(Est. From Visual Observations)
39c. MAX. SIZE (in.)	10	(Observed Size)
40. AGG_TEST_RESULTS Year of test or report- Test result / Year of test or	report- Test Results	
40a. SG APP COARSE	1962-2.57, 2.58, 2.59, 2	2.59
40b. SG APP FINE	1962-2.81, 2.73, 2.78, 2.80, 2	2.81, 2.70
40e. NORDIC ABRASION 40f. L.A. ABRASION	1962-40 / 2000-34, 32 / 20	005- 38
40g. DEGRADATION (T-13)	2000-46, 56 / 2005-7	
	2000- 0.5 / 2005- 1.7	
	2000- 1.4 / 2005- 2.4	
41. POTENTIAL_USABILITY	PAVING AGGREGATE PR	ODUCED
Best known potential use of the material, based o	n records, exploration and laboratory data	
CONCRETE AGGREGATE PRODUCED	The site has produced concrete ag	gregate
PAVING AGGREGATE PRODUCED	The site has produced paving aggr	
CRUSHED PRODUCTS PRODUCED	Base, Surface Coarse, Subbase, et	c. has been produced.
TYPE A AND B MATERIAL AVAILABLE	0 to 10 percent passing 200	
TYPE C AVAILABLE	Compactable material	Variation and Valery Discourses
TYPE C NOT AVAILABLE UNKNOWN	Uncompactable material (Lower F	Kuskokwim and Yukon River, etc.)
OTHER	Explain in Section 44.	
42. SPECIAL_PROBLEMS		
Special problems encountered or anticipated with	use of the material, based on records, exp	ploration and laboratory data.
ORGANIC CONTENT	The material is very difficult to co	mpact.
HIGHLY WEATHERED GRAVEL	The gravel is highly weathered an	-
BREAKS DOWN UNDER USE	Material breaks down on grade.	-
SENSITIVE TO WATER CONTENT		ent, i.e some glacial tills, soft bedrock.
VARIABLE MATERIAL	Deposit contains mixture of suitab	
POSSIBLE CONTAMINATION	• • • •	bleum products or hazardous materials.
CONTAINS ASBESTOS	Site contains naturally occurring a	
POTENTIAL ASBESTOS ACID ROCK DRAINAGE	Site in area where naturally occurr Site contains rock susceptible to p	0 11
OTHER	Explain in Section 44, Notes.	actu fock uraillage.

43. **RIPRAP**

NOT POSSIBLE

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

PREVIOUS PRODUCTION POSSIBLE FURTHER INVESTIGATION NEEDED NOT POSSIBLE UNKNOWN OTHER There is a record of production. The site is a bedrock quarry containing hard rock The site has soft rock or soil.

Explain in Section 44, Notes.

44. **NOTES**

Note number of item being discussed.

28. Vegetated spoil berms 10 to 20 ft. tall were present along the southern margin of the existing pit.