NOTE: NEW EXPANDED AREA MAY INCLUDE OLD 680-089-2, SO ALSO LOOK IN THAT FILE

NOTICE

The Materials Source data and information included in this file has been gathered and compiled for the express purpose of assisting in The Alaska Department of Transportation and Public Facilities during the design process of various projects. It does not signify that the source is available or suitable for use during the construction of any specific current or future project. The included data and information does not determine that this Materials Source will provide suitable materials in the required quantities for any construction project.

The included data and information is suitable for use *by experienced and qualified experts in the fields of geology, geological engineering, and geotechnical engineering* to make reasonable estimates regarding the quantity, quality, and suitability for construction purposes of material that can be produced from the source.

Sources intended for use for any specific construction project will be referenced in the appropriate section of the Plans and Specifications of the Contract Documents for that construction project.

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**
☐	**Southeast Region** **400 Willoughby, #400** **Juneau, AK 99801** **(907) 465-3400**		

MATERIAL SALE CONTRACT
AS 38.05.550 – 38.05.565

Issuance Date: June 12, 2014 **Expiration Date: June 11, 2024**

ADL 420189

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** (DOTPF), 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.

That portion of the SW¼SW¼ lying east of the Elliott Highway right-of-way within Section 33, Township 4 North, Range 13 West, Fairbanks Meridian, located at MP 134.5 Elliott Highway within Kentucky Creek Subdivision.

(a) The material sale area covered by this contract consists of approximately **38.80** 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:

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

Type of Material	No. of Units	Unit Price **	Total Price **
Sand and gravel	**500,000 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 contractor 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) Boundary Lines and Survey Monuments. 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) Location. 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) Survey. An as built survey of the material site is not required at this time.

(d) Extraction Area. 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) Potential Processing Activities and Other Authorizations. 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) Standard of Operations. 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) Erosion Control and Protection of Waters. 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) Roads. 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) Water Quality. 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) Other Authorizations. The issuance of this authorization does not alleviate the necessity of the purchaser to obtain authorizations required by other agencies for this activity.

(k) Fire Protection. 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.

(l) Supervision. 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) Agents. 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) Access. 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) Alaska Historic Preservation Act. 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) Vehicle Maintenance. Vehicle maintenance will be performed only over an effective impermeable barrier.

(q) Fuel and hazardous substances. 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) Notification. 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 is less than 10 gallons it may be reported in writing on a monthly basis. If an unauthorized 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) Reclamation. 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) SWPP and APDES. 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) Use of Material. 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) A 100-foot undisturbed buffer along the Elliott Highway right-of-way and a 50-foot buffer around the remaining perimeter of the material site will be maintained.

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 Department of Natural Resources
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 420189 Material Sale Contract

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
DOT/PF

for Kevin L. Smith

SELLER: State of Alaska
Department of Natural Resources

Jeanne Proulx
Director, Division of Mining, Land and Water

Address:

2301 Peger Road, Fairbanks, AK 99709

STATE OF ALASKA)
) ss.
4TH Judicial District)

THIS IS TO CERTIFY that on June 12, 2014, before me appeared Martin Shurr, 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
VERONICA GARRISON
NOTARY PUBLIC
STATE OF ALASKA

Veronica L Garrison
Notary Public in and for the State of Alaska
My commission expires: with office

Please do not write below this line. This space reserved for Department of Natural Resources.

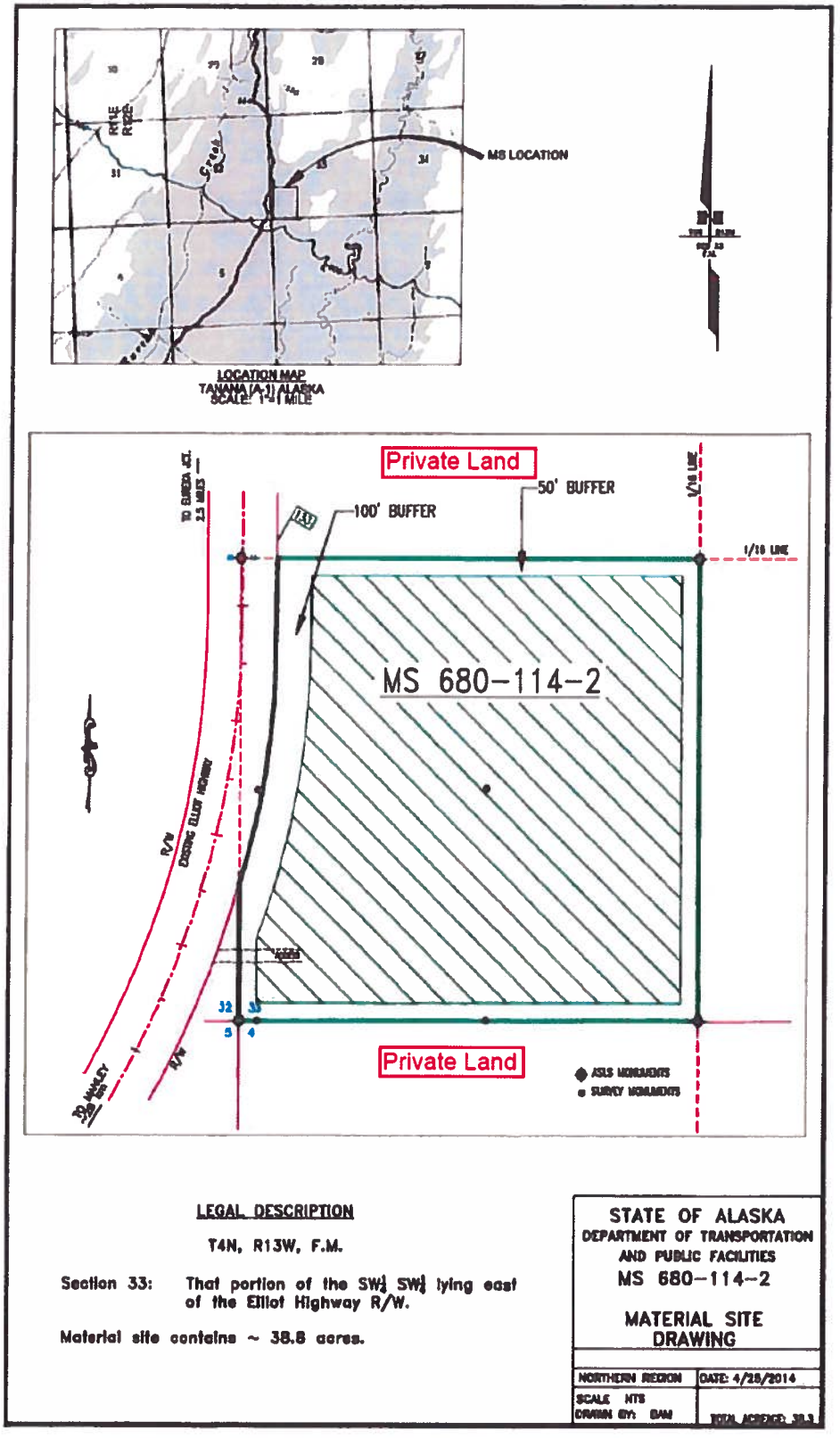
STATE OF ALASKA)
) ss.
4TH Judicial District)

THIS IS TO CERTIFY that on June 12, 2014, before me appeared Jeanne Proulx 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 fully authorized by the State to do so.

SUSAN L. MALEN
My Commission Expires
NOTARY PUBLIC
with office
STATE OF ALASKA

Notary Public in and for the State of Alaska
My commission expires: with office

Attachment A



LEGAL DESCRIPTION

T4N, R13W, F.M.

Section 33: That portion of the SW¼ SW¼ lying east of the Elliot Highway R/W.

Material site contains ~ 38.8 acres.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
MS 680-114-2

MATERIAL SITE DRAWING

NORTHERN REGION	DATE: 4/25/2014
SCALE: NTS DRAWN BY: SAM	TOTAL ACREAGE: 38.8

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

☒ **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

☐ **Southeast Region**
400 Willoughby, #400
Juneau, AK 99801
(907) 465-3400

MATERIAL SITE RECLAMATION PLAN OR LETTER OF INTENT/ANNUAL RECLAMATION STATEMENT AS 27.19.030 – 27.19.050

Non-refundable filing fee for reclamation plan: $100

In accordance with Alaska Statute 27.10, reclamation is required of all mining operations, including sand and gravel extraction. Completion of this form will meet the law's requirements for a reclamation plan (see below for filing requirements; due date: at least 45 days before mining is proposed to begin; requires approval by the Division of Mining, Land and Water). Completion of this form will also serve as a letter of intent for operations exempt from the plan requirement (due date: before mining begins.) No approval is required for a letter of intent, but a miner who files a letter of intent must, before December 31, file an annual reclamation statement (Statement 8 of this form).

Check applicable box:

☒ A. RECLAMATION PLAN (REQUIRED if the operation will disturb five or more acres this year, OR 50,000 cubic yards, OR if the operation has a cumulative disturbed area of five or more acres)

☐ B. RECLAMATION PLAN – VOLUNTARY (for an operation below limits shown in Box A but wanting to qualify for the statewide bonding pool)

☐ C. LETTER OF INTENT (less than five acres to be disturbed AND less than 50,000 cubic yards AND less than five acres unreclaimed area)
NOTE: A miner who files a letter of intent is also required to file an annual reclamation statement at the end of the year.

THIS RECLAMATION PLAN/LETTER OF INTENT IS FOR CALENDAR YEAR(S) **2014-2024** .
(IF YOU CHECKED EITHER BOX A OR B ABOVE AND PROPOSE A MULT-YEAR PLAN, STATE ALL YEARS COVERED.)

MINER INFORMATION (IF THERE IS MORE THAN ONE MINER, ATTACH A LIST OF THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF ALL OTHER OWNERS, OPERATORS, OR LEASEHOLDERS OF THE MINING OPERATION)

NAME OF MINER WHO WILL SERVE AS AGENT FOR NOTICE PURPOSES: **Department of Transportation and Public Facilities.**

ADDRESS (NOTIFY THE DEPARTMENT OF ANY LATER CHANGE OF ADDRESS): **2301 Peger Road**

CITY: **Fairbanks** STATE: **Ak** ZIP CODE: **99709** TELEPHONE: **451-5425**

NAME OF LANDOWNER (IF OTHER THAN MINER) OR PUBLIC LAND MANAGEMENT AGENCY: **State of Alaska**

FEDERAL OR STATE CASEFILE NUMBER (IF ANY) ASSIGNED TO THE SITE: **ADL 415977 (material sale contract, expires 4/17/15). MMS ADL 419274.**

2. **LEGAL DESCRIPTION OF PROPOSED MINING SITE**

LEGAL SUBDIVISION/SECTION/QUARTER-SECTION: **See P 1** TOWNSHIP: _____ RANGE: _____ MERIDIAN: **F**

3. **DESCRIPTION OF THE MINING OPERATION** (IF YOU CHECKED BOX A OR B ON P.1 OF THIS FORMA AND ARE PROPOSING A MULTI-YEAR RECLAMANTION PLAN, ATTACH SEPARATE SHEETS AS NEEDED SHOWING ACREAGE TO BE MINED, VOLUME TO BE MINED, AND EXISTING ACREAGE OF MINED AREA FOR EACH YEAR COVERED BY THE PLAN)

a. **5 acres** Total acreage to be mined or disturbed during the year.

b. **350,000 cu. yds.** Estimated total volume to be mined or disturbed, including overburden.

c. **See P 2** Type of material (sand, gravel, peat, etc.).

d. **0.** Existing acreage of mined area (disturbed area that has not yet been reclaimed, but counting only acreage disturbed after October 15, 1991)

4. **DESCRIPTION OF THE RECLAMATION OPERATION**

a. The total acreage that will be reclaimed during the year (or each year, if for a muli-year reclamation plan) is: **~5**
b. Provide a list of equipment (type and quantity) to be used during the reclamation operation.
c. A time schedule of reclamation measures shall be included as part of the plan.

The following measures must be considered in preparing and implementing the reclamation plan. Please mark those measures appropriate to your reclamation activity:

☒ Topsoil that is not promptly redistributed to an area being reclaimed will be separated and stockpiled for future use. This material will be protected from erosion and contamination by acidic or toxic materials and preserved in a condition suitable for later use.

☒ The area will be backfilled, graded, and recontoured using strippings, overburden, and topsoil to a condition that allows for the reestablishment of renewable resources on the site within a reasonable period of time. It will be stabilized to a condition that will allow sufficient moisture to be retained for natural revegitation.

☒ Stockpiled topsoil will be spread over the reclaimed area to promote natural plant growth that can reasonably be expected to revegetate the area within five years.

☐ Stream channel diversions will be relocated to a stable location in the flood plain.

☒ Exploration trenches or pits will be backfilled. Brush piles, vegetation, topsoil, and other organics will be spread on the backfilled surface to inhibit erosion and promote natural revegetation.

☐ All buildings and structures constructed, used, or improved on land owned by the State of Alaska will be removed, dismantled, or otherwise disposed of at the completion of the mining operation.

☒ Any roads, airstrips, or other facilities constructed to provide access to the mining operation shall be reclaimed (unless otherwise authorized) and included in the reclamation plan.

☐ Peat and topsoil mine operations shall ensure a minimum of two inches of suitable growing medium is left or replaced on the site upon completion of the reclamation activity.

☐ If extraction occurs within a flood plain, the reclamation activity shall reestablish a stable bed and bank profile such that river currents will not be altered and erosion and deposition patterns will not change.

NOTE: If you propose to use reclamation measures other than those shown above, or if the private landowner or public land manager of the site requires you to use stricter reclamation measures than those shown above, attach a list of those measures to this plan.

5. **ALTERNATE POST-MINING LAND USE**

☐ The mining site is public land. The land management agency's land use plan (if any) for post-mining land use is: _____.

☒ The mining site is public land. As allowed by AS 27.19.030(b), I propose to reclaim it to the following post-mining land use: multiple use.

☐ The mining site is private property. The private landowner plans to use it for the following post-mining land use: _____.

6.. **ATTACHMENTS**

☐ If the mining operation has additional owners, operators, or leaseholders not shown on p. 1 of this form, attach a list of their names, addresses, and telephone numbers.

☒ Attach a USGS map at a scale no smaller than 1:63,360 (inch to the mile) showing the general vicinity of the mining operation and the specific property to be mined. Option: if you checked Box C on the first page of this form and the mining site is adjacent to an airport or public highway, state the name of the airport or the name and milepost of the public highway.

☐ Attach a diagram of the mined area (this terms includes the extraction site, stockpile sites, overburden disposal sites, stream diversions, settling ponds, etc.) and the mining operation as a whole (this term includes the roads you plan to build, your power lines, support facilities, etc.). Show and state the number of acres to be mined during the year. (If you checked Box A or B on the first page of this form and your plan covers more than one year, show each year's work.) Show the location corners or property boundaries of the site in relation to the reclamation work and any other areas affected by the operation.

☐ Attach a list of the equipment (type and quantity) to be used during the reclamation activity.

☐ A time schedule of events must be attached that includes dates and activities related to this reclamation plan.

☐ If the site is private land not owned by the miner, attach a signed, notarized statement from the landowner indicating the landowner's consent to the operation. The landowner may also use the consent statement to notify the department that the landowner plans a post-mining land use incompatible with natural revegetation and therefore believes that reclamation to the standard of AS 27.19.020 is not feasible.

☐ For those miners that are required to file an annual reclamation statement, attach photographs and/or videotapes dated and described as to location of the reclamation activity that was completed.

☐ If you propose to use reclamation measures other than those listed on this form, or if the private landowner or public land manager of the site requires you to use stricter reclamation measures, attach a list of those measure.

7. **RECLAMATION BONDING** (REQUIRED ONLY IF YOU CHECKED BOX A OR B ON THE FIRST PAGE OF THIS FORM)

The total acreage of my mining operation that is subject to the bonding requirement for the current year is _____ acres (add acreages stated in section 3(a) and 3(d) of this form).

The per-acre bond amount is $750/acre or a total bond amount of $ _____.

Please check the appropriate bonding method that you will apply toward this reclamation plan:

☐ Participation in the statewide bonding pool.

☐ Posting a corporate surety bond.

☐ Posting a personal bond accompanied by a letter of credit, certificate of deposit, or a deposit of cash or gold.

☐ Posting a bond or financial guarantee with another government agency that has jurisdiction over the mining operation, as allowed by a cooperative management agreement between that agency and the Division of Mining, Land and Water.

☐ Posting a general performance bond with a state agency that meets the requirements of 11 AAC 97.400(4).

The above reclamation plan/letter of intent and all attachments are correct and complete to the best of my knowledge.

Signature of Miner _____ Date 5/13/14

AS 27.19.030 and AS 27.19.050 require a miner either to file a reclamation plan for approval or to file a letter of intent followed by an annual reclamation statement. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(9) and confidentiality is requested). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.999.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.

8. **ANNUAL RECLAMATION STATEMENT** – REQUIRED IF YOU FILED A LETTER OF INTENT (CHECKED BOX C ON THE FIRST PAGE) FOR THIS OPERATION. DUE DATE: DECEMBER 31, _____. YOU MUST FILE EVEN IF THE MINING DESCRIBE IN YOUR LETTER OF INTENT DID NOT TAKE PLACE.

This _____ (year) annual reclamation statement is for:

a. _____ **acres** Total acreage mined.

b. _____ **cu. yds.** Total volume mined or disturbed, including overburden.

c. _____ **acres** Total acreage reclaimed.

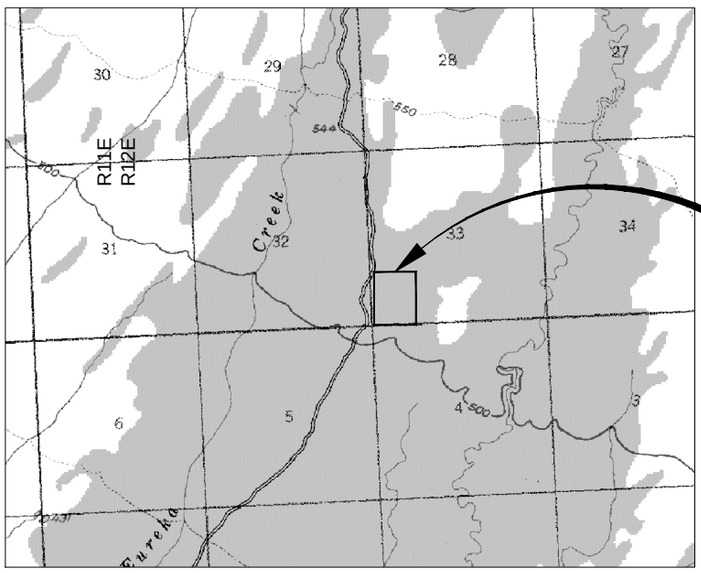
d. _____ **acres**. Cumulative total of unreclaimed acreage.

e. Reclamation measures that were used (check appropriate measures from Section 4, DESCRIPTION OF THE RECLAMATION OPERATION, and attach list of additional or stricter measures if applicable.)

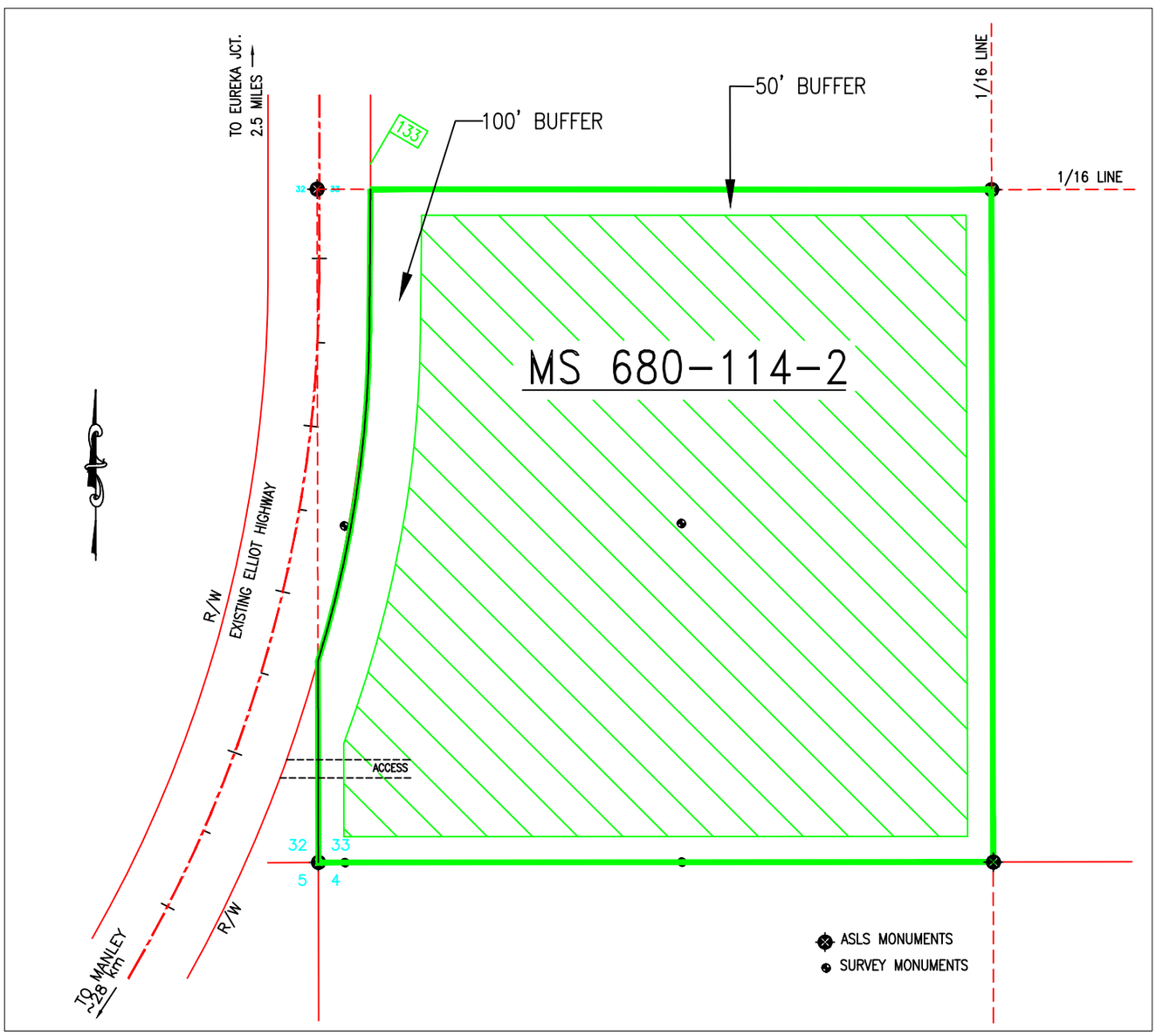
The above annual reclamation statement and all attachments are correct and complete to the best of my knowledge.

Signature of Miner _____ Date _____

AS 27.19.030 and AS 27.19.050 require a miner either to file a reclamation plan for approval or to file a letter of intent followed by an annual reclamation statement. This information is made a part of the state public land records and becomes public information under AS 40.25.110 and 40.25.120 (unless the information qualifies for confidentiality under AS 38.05.035(a)(9) and confidentiality is requested). Public information is open to inspection by you or any member of the public. A person who is the subject of the information may challenge its accuracy or completeness under AS 44.999.310, by giving a written description of the challenged information, the changes needed to correct it, and a name and address where the person can be reached. False statements made in an application for a benefit are punishable under AS 11.56.210.



LOCATION MAP
TANANA (A-1) ALASKA
SCALE: 1"=1 MILE



LEGAL DESCRIPTION

T4N, R13W, F.M.

Section 33: That portion of the $SW\frac{1}{4}$ $SW\frac{1}{4}$ lying east of the Elliot Highway R/W.

Material site contains ~ 38.8 acres.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
MS 680-114-2

MATERIAL SITE
DRAWING

NORTHERN REGION	DATE: 4/25/2014
SCALE NTS DRAWN BY: BAM	TOTAL ACREAGE: 38.3

State of Alaska
Department of Transportation & Public Facilities

Mining and Reclamation Guidelines
Material Site 680-114-2
Elliott Highway MP 134

These guidelines are subject to the Alaska Department of Natural Resources Material Sale Contract, ADL ____, 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.

This is a designated material site, Master Material Site ADL 419274, under AS 38.05.550 (b).

Legal Description

T4N, R13W, FM: Section 33: That portion of the SW¼ SW¼ lying east of the Elliott Highway R/W. This site contains approximately 38.8 acres.

General Information

This developed site is located east of the Elliott Highway near MP 133. A 300 foot access road leads into the site. Material consists of alluvial sand and gravel with silt, cobbles and boulders. DOT&PF conducted exploratory drilling in 2005 within the pit and also undisturbed areas. Overburden was up to 9 feet thick. Site information is available at the DOT&PF Materials office, 2301 Peger Road, Fairbanks, Alaska 99709.

Mining Guidelines

Continue mining the site in cells. When the current cell is depleted, reclaim it concurrently with the development of the next cell. Perimeter slopes adjacent to buffers shall not exceed 3H:1V. Maintain a 100-foot-wide undisturbed buffer along the highway right-of-way and 50 foot buffer around the remaining perimeter.

The Project Mining and Reclamation Plan will adhere to the following guidelines.

1. The contractor or user shall locate the material site boundaries to verify work areas are within the site.
2. Establish and clearly mark buffer lines on the ground in work areas.
3. Keep the floor of the pit at least 2 feet above the water table.
4. Pit perimeter slopes (i.e. adjacent to buffers) and all final reclaimed slopes shall not exceed 3H:1V.
5. Prior to any new site clearing contact the DNR Division of Forestry to get instructions for treatment of any merchantable timber, firewood, brush or slash produced.

6. For any new clearing, stockpile surface vegetation and organic soils adjacent to buffers or use directly for reclamation of depleted areas.
7. Stockpile overburden separately from vegetation/organics for future reclamation or use directly for reclamation.
8. Do not place organics or overburden in future mining area, where it would need to be moved again.
9. After each use, grade pit floor level or slope gently to blend with earlier depth limits. Do not allow runoff to exit the site.
10. After each use, remove all equipment and man-made debris or waste from the site.
11. All mining and stockpiling activities shall be in accordance with applicable Construction General Permits (CGP) and Storm Water Pollution Prevention Plans (SWPPP).

Reclamation Objectives and Guidelines

The reclamation plan has several objectives:

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

Reclamation activities will include:

1. Grading slopes adjacent to perimeter buffers or where future development is not anticipated at 3H: 1V.
2. Spread available overburden and then organic material on reclaimed slopes. Allow to revegetate naturally.
3. Re-establishment of buffers in previously-disturbed areas may include placement of overburden and strippings: place in smooth compacted 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 A.S. 27.19 and 11 AAC 97 to DNR for 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 buffers
2. Proposed working limits, to be marked on the ground

3. Organic debris and overburden stockpile areas
4. Access road, work pad, stockpiles, processing facilities
5. Scale of drawing, north arrow, and specific dimensions as appropriate

Narrative

The narrative shall include:

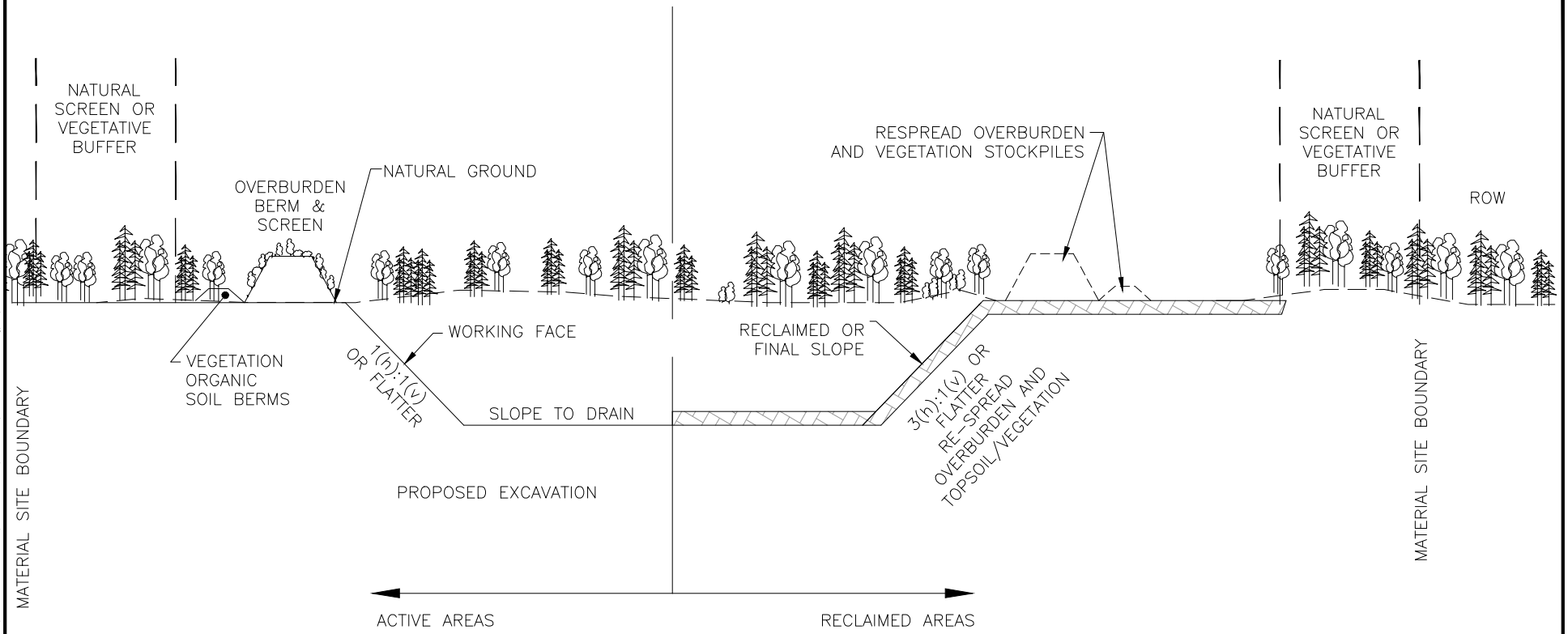
1. Methods of operation
2. Estimated quantities for removal
3. Length and times of operation
4. Air and water pollution control measures
5. Reclamation measures

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 may be authorized by the DOT&PF Project Engineer.

2. Major changes are those which 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 prior to approval by the DOT&PF Project Engineer.



TYPICAL CROSS SECTION IN UNCONSOLIDATED MATERIAL ABOVE WATER TABLE

NOT TO SCALE

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DATA:	MINING RECLAIMATION TYPICAL SECTION
DRAWN:	
APPROVED:	PROJECT NO.
DATE: **AUGUST 2010**	

Acquisition date: July 13, 2013

MS 680-114-2

2013 MATERIAL USE REPORT

Agency: DOT&PF | **By:** Joe Sullivan, R/W Ag

PRODUCER (needed to avoid duplication)	LOCATION - place name, lat./long., Region (I - VII) other.	PRODUCTION DATA - enter material as rock, sand & gravel, &/or peat. Volume in appropriate Units (Cu.yds or tons), and total value of product				MAN-DAYS of production, if known	COMMENTS
		MAT'L	VOLUME	UNITS	VALUE		
DOT&PF	MP 305 Richardson Hwy		700cy				DNR, ADL 415482 MS 62-4-100-2
DOT&PF	MP 294 Richardson Hwy		960cy				DNR, ADL 419021 MS 62-4-105-2
DOT&PF	MP 39 Dalton Hwy		400cy				DNR, ADL 413805 MS 65-3-018-2
DOT&PF	MP 412 Dalton Hwy		69,926cy				DNR, ADL 416891 MS 65-9-102-2
DOT&PF	MP 129 Steese Hwy		18,010cy				DNR, ADL 419036 MS 670-089-2
DOT&PF	MP 4 Portage Creek		214.48cy				DNR, ADL 418077 MS 670-114-2
DOT&PF	MP 73 Elliott Hwy		800cy				DNR, ADL 416019 MS 680-105-2
DOT&PF	MP 134 Elliott Hwy		8,000cy				DNR, ADL 415977 MS 680-114-2

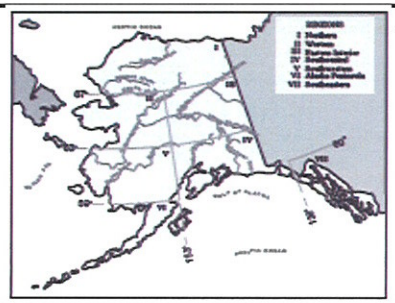
Your contribution is greatly appreciated

2010 MATERIAL PRODUCTION REPORT

Agency: DOT&PF | **By:** Joe Sullivan, R/W Agent

PRODUCER (needed to avoid duplication)	LOCATION - place name, lat./long., Region (I - VII) other.	PRODUCTION DATA - enter material as rock, sand & gravel, &/or peat. Volume in appropriate Units (Cu yds or tons), and total value of product				MAN-DAYS of production, if known	COMMENTS
		MAT'L	VOLUME	UNITS	VALUE		
DOT&PF	MS 680-114-2, MP 134.2 Elliot Hwy		800 cy				DNR, ADL 415977
DOT&PF	MS 680-119-2, MP 3.2 Tofty Road		2,500 cy				DNR, ADL 415740
DOT&PF	MS 71-0-027-2, MP 265.3 Richardson Hwy		50 cy				DNR, ADL 39725 (Town Pit)
DOT&PF	MS 71-0-040-2, MP 12 Richardson Hwy		4,400 cy				DNR, ADL 201005 (12 Mile Pit)
DOT&PF	MS 785-035-2, MP 10 Boundary Spur		910 cy				DNR, ADL 411679
DOT&PF	MS 785-053-2, MP 70 Taylor Hwy		1,110 cy				DNR, ADL 416030
DOT&PF	MS 809-010-5, MP 19 Lake Louise Road		64,496 cy				DNR, ADL 226906
DOT&PF							

Your contribution is greatly appreciated.



Region		Description
I	Northern	North of 67° latitude
II	Western	Between 63° and 67° degrees north and west of 153° longitude
III	Eastern Interior	Between 63° and 67° degrees north and east of 153° longitude
IV	Southcentral	Between 138° and 153° longitude and south of 63° latitude
V	Southwestern	Between 59° and 63° latitude and west of 153° longitude
VI	Peninusla	South of 59° latitude and west of 153° longitude
VII	Southeastern	South of 60° latitude and east of 138° longitude

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**
☐	**Southeast Region** **400 Willoughby, #400** **Juneau, AK 99801** **(907) 465-3400**		

MATERIAL SALE CONTRACT
AS 38.05.110 – 38.05.120

Effective Date: April 18, 2005 Expiration Date: April 17, 2015

ADL 415977 Federal Tax I.D. or (optional) SSN #: _____

Under AS 38.05.110-38.05.120 (Disposal of Timber and Materials) and AS 38.05.810(a) and the regulations implementing these statutes, the **State of Alaska, Department of Natural Resources, Division of Mining, Land and Water,** the seller, agrees to sell and the **State of Alaska, Department of Transportation and Public Facilities**, the buyer, whose address is shown in paragraph 17 of this Material Sale Contract, 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 an approximately **39.0 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:

The SW¼,SW¼, Section 33, Township 4 North, Range 13 West, Fairbanks Meridian. The site includes Tract H (29 acres), Alaska State Cadastral Survey Fairbanks 004 North 013 West (Kentucky Creek Subdivision) and the original 10 acre material site (SW¼,SW¼,SW¼, Section 33). Site identified by ADOT as MS 680-114-2.

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

Kind of Material	No. of Units (cy)	Unit Price	Total Price
Gravel	150,000	$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) 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 contractor 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, Division of Mining, Land and Water 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 Division of Mining, Land and Water only after the payments in arrears plus the penalty provided for in paragraph 2(f) have been paid.

(f) Late Payment Penalty: 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.

(g) All payments and deposits must be remitted to the Division of Mining, Land and Water and must be made payable to the Alaska Department of Revenue. **The payment shall reference ADL 415977 and be submitted to the Northern Region Office (see address in upper left hand corner on the face of this permit).**

(h) Special Provisions. None.

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) Boundary Lines and Survey Monuments. No boundary mark of the sale area nor 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) Standard of Operations. 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, and shall take all prudent precautions to prevent or suppress grass, brush, or forest fires, and to prevent erosion or destruction of the land.

(c) Erosion Control and Protection of Waters. Road construction or 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

(d) Fire Protection. 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.

(e) Roads. Before constructing any mainhaul, 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.

(f) Supervision. 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.

(g) Agents. 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.

(h) Location. 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.

(i) Access. 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.

(j) Mining Reclamation. See Attachment A, Provision 1.

(k) Special Provisions. The following special provisions also apply to operations under this contract: See Attachment A.

(1) Extraction Area. 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.

(2) Site Operations. The buyer is responsible for all aspects of material extraction and transport. Any survey stakes or markers that are removed must be replaced at the buyer's expense. The work area will be maintained in a neat, clean condition, free of any solid waste, debris or litter. The disposal of hazardous substances or hydrocarbons is prohibited. 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.

(3) Alaska Historic Preservation Act. 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.

(4) Vehicle Maintenance. Vehicle maintenance will be performed only over an effective impermeable barrier and outside of the floodplain.

(5) Fuel and hazardous substances. 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 stipulations and a change in the amount required for the performance guarantee.

(6) Notification. 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 is less than 10 gallons it may be reported in writing on a monthly basis. If an unauthorized 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.

(7) Timber salvage. Marketable timber (6" DBH and larger) will be salvaged. The timber will be hand felled or felled by other means acceptable to the State Area Forester. The timber will be limbed, topped at 4" diameter and stacked in an accessible area not susceptible to water flood. The stacked logs will remain with the state. Timber salvage operations are to be coordinated with the Area Forester. No salvage of timber is required if approved in writing by the Area Forester.

(8) Compliance. The ADOT/PF is the primary operator of the subject material site. All operations of the buyer, including completion, must comply with the Special Provisions of the contract and with the ADOT/PF's Mining and Reclamation Plan for the material site. The Special Provisions of the contract take precedence over the approved mining and reclamation plan should a contradiction exist. The buyer shall inform and ensure compliance with the provisions of this contract by its agents, employees, and contractors, including subcontractors, at any level. The buyer will not interfere with other operators in the material site. This contract authorizes the removal of pit-run material only. The buyer will contact the local ADOT/PF Maintenance and Operations Office prior to removal of material to find out where within the site the material should be extracted.

5. Indemnity of Seller and Bonding.

(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, if any, applicable to improvements and occupancy under this contract are listed in paragraph 4(j) 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 38.05.110 - 38.05.120, 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 Department of Natural Resources
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 Division of Mining, Land and Water.

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:

Department of Transportation & Public Facilities

SELLER: STATE OF ALASKA

for Director, Division of Mining, Land and Water

STATE OF ALASKA)
) **ss.**
4TH Judicial District)

THIS IS TO CERTIFY that on April 22, 2005, before me appeared Chris Millos, 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, and who is fully authorized by the State to do so.

MARY C. CLARK NOTARY PUBLIC My commission expires March 17, 2007 STATE OF ALASKA

Notary Public in and for the State of Alaska
My commission expires: March 17, 2007

STATE OF ALASKA)
) **ss.**
4th Judicial District)

THIS IS TO CERTIFY that on April 20, 2005, before me appeared JOHN F. BENNETT, known by me to be the person named in and who executed this Material Sale Contract and acknowledged voluntarily signing it as buyer.

SHARI K. HOWARD NOTARY PUBLIC STATE OF ALASKA

Notary Public in and for the State of Alaska
My commission expires: 8.1.05

Attachment A

Special Contract Provisions

1. Reclamation Plan.

a. **Mining.** During the term of the contract, mining shall be conducted in accordance with the approved mining plan.

b. **Reclamation.** Upon expiration, completion or other contract termination, the material site shall be reclaimed in accordance with the approved reclamation plan. The area will be backfilled, graded, and recontoured using strippings, overburden, and topsoil to a condition that allows for the reestablishment of renewable resources on the site within a reasonable period of time.

2. Site Operations. The buyer is responsible for all aspects of material extraction and transport. Any survey stakes or markers that are removed must be replaced at the buyer's expense. The work area will be maintained in a neat, clean condition, free of any solid waste, debris or litter. The disposal of hazardous substances or hydrocarbons is prohibited. After completion, expiration, or termination of the contract, the site will be left in a condition that is acceptable to the Division of Mining, Land & Water, and reclaimed in accordance with the approved reclamation plan.

3. Excess Extraction. Material extraction in excess of the contract amount will be considered taken in trespass and at the discretion of the Director, Division of Mining, Land & Water, charged to and paid for by the buyer at no less than triple the unit contract price or up to three times the pecuniary gain realized by the buyer as a result of the trespass. Said trespass penalties are in addition to any other administrative or legal proceedings imposed by state law.

4. Other Authorizations. The issuance of this authorization does not alleviate the necessity of the buyer to obtain authorizations required by other agencies for this activity.

5. Water Quality. The buyer will comply with State of Alaska water quality standards in 18AAC70, including discharge standards when conducting material washing operations.

6. Fuel and Hazardous Substances. Secondary containment shall be provided for fuel or hazardous substances.

a. **Container marking.** All independent fuel and hazardous substance containers shall be marked with the contents and the permittee's name using paint or a permanent label.

b. **Fuel or hazardous substance transfers.** Secondary containment or a surface liner must be placed under all containers or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers. Appropriate spill response equipment must e on hand during any transfer or handling of fuel or hazardous substances to respond to a spill of up to five gallons. Trained personnel shall attend transfer operations at all times.

Vehicle refueling shall not occur within the annual floodplain or tidelands. This restriction does not apply to water-borne vessels provided no more than 30 gallons of fuel are transferred at any given time.

c. **Storing containers within 100 feet of waterbodies.** Containers with a total capacity of larger than 55 gallons, which contain fuel or hazardous substances, shall not be stored within 100 feet of a waterbody.

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

[X] Northern Region
3700 Airport Way
Fairbanks, Alaska 99709
(907) 451-2740

[ ] Southcentral Region
550 W 7th, Suite 900C
Anchorage, Alaska 99510
(907) 269-8552

[ ] Southeast Region
400 Willoughby, #400
Juneau, Alaska 99801
(907) 465-3400

MATERIAL SITE RECLAMATION PLAN OR LETTER OF INTENT/ANNUAL RECLAMATION STATEMENT AS 27.19.030 - 27.19.050

Non-refundable filing fee for reclamation plan: $100.00

In accordance with Alaska Statute 27.19, reclamation is required of all mining operations, including sand and gravel extraction. Completion of this form will meet the law's requirements for a **reclamation plan** (see below for filing requirements; due date, at least 45 days before mining is proposed to begin; requires approval by the Division of Mining, Land, and Water). Completion of this form will also serve as a **letter of intent** for operations exempt from the plan requirement (due date, before mining begins). No approval is required for a letter of intent, but a miner who files a letter of intent must, before December 31, file an **annual reclamation statement** (Section 8 of this form).

Check applicable box:

[X] A. RECLAMATION PLAN (REQUIRED if the operation will disturb five or more acres this year, OR if the operation has a cumulative disturbed area of five or more acres).

[ ] B. RECLAMATION PLAN - VOLUNTARY (for an operation below limits shown in Box A, but wanting to qualify for the statewide bonding pool.

[ ] C. LETTER OF INTENT (less than five acres to be disturbed AND less than 50,000 cubic yards AND less than five acres unreclaimed area). NOTE: A miner who files a letter of intent is also required to file an annual reclamation statement at the end of the year.

THIS RECLAMATION PLAN/LETTER OF INTENT IS FOR CALENDAR YEAR: **2004 - 2014**
(IF YOU CHECKED EITHER BOX A OR B ABOVE AND PROPOSE A MULTI-YEAR PLAN, STATE ALL YEARS COVERED).

1. MINER INFORMATION (IF THERE IS MORE THAN ONE MINER, ATTACH A LIST OF THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF ALL OTHER OWNERS, OPERATORS, OR LEASEHOLDERS OF THE MINING OPERATION).

Department opf Transportation and Public Facilities
Name of Miner who will serve as Agent for notice purposes

2301 Peger Road
Address (notify the Department of any later change of address)

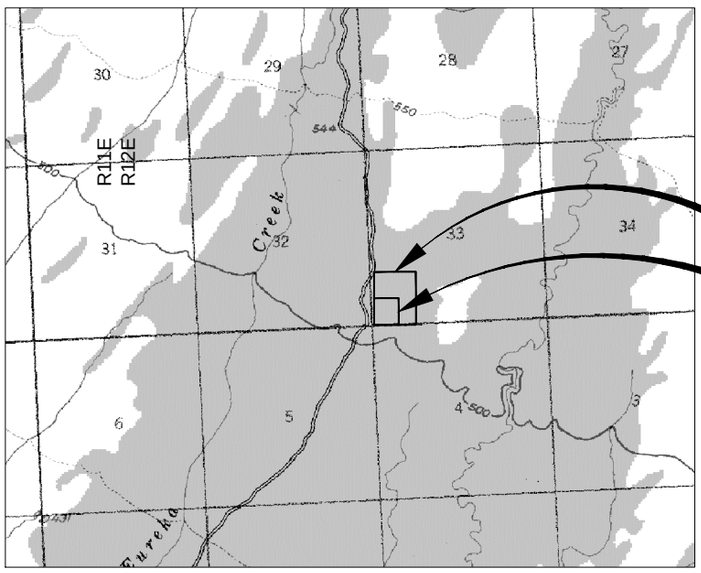
Fairbanks, AK 99709 **451-5425**
City State Zip Code Telephone Number

State of Alaska
Name of Landowner (if other than Miner) or Public Land Management Agency

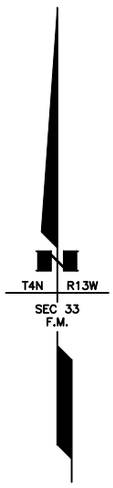
ADL 415977
Federal or State casefile number (if any) assigned to the site

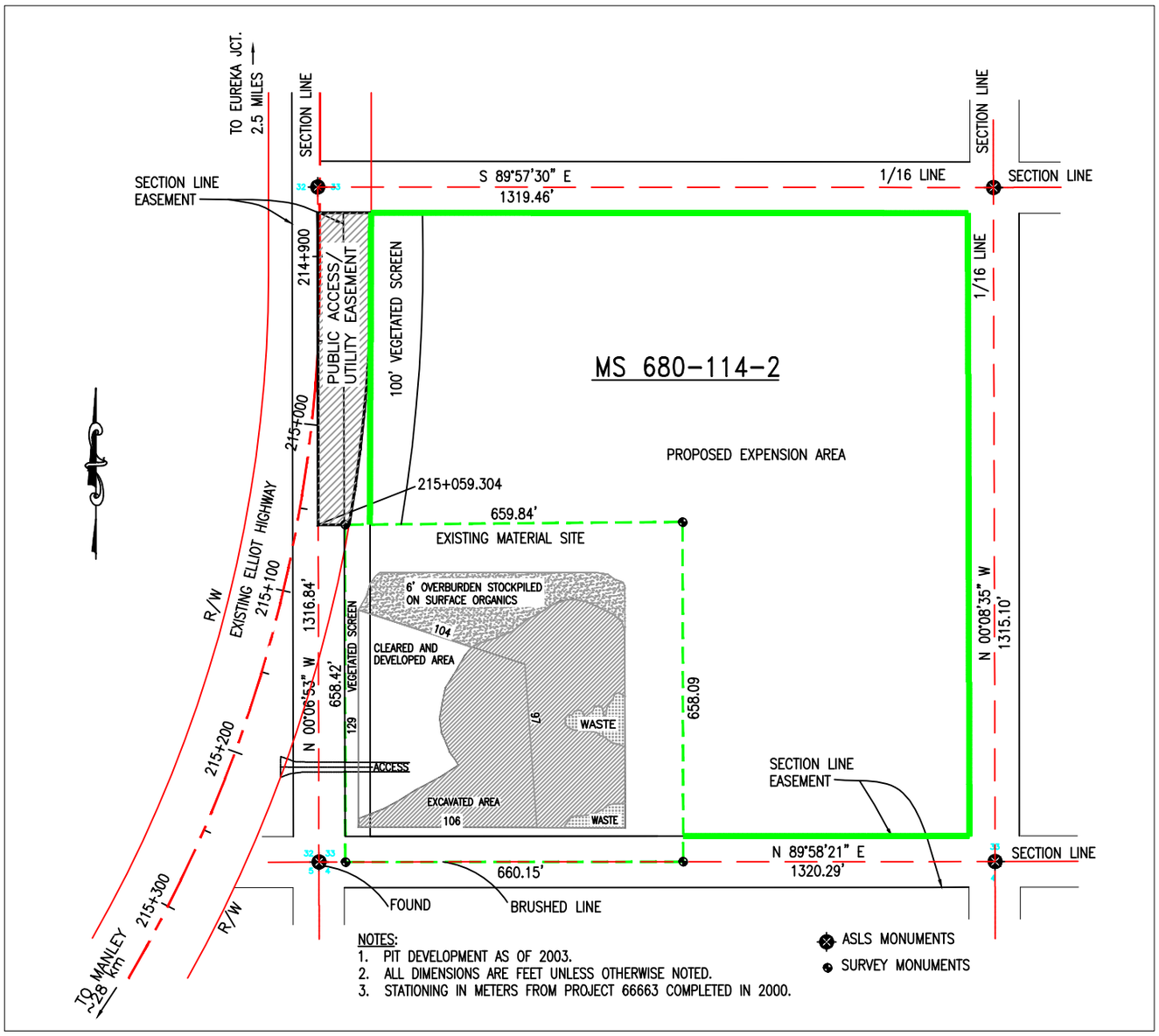
LEGAL DESCRIPTION OF PROPOSED MINING SITE

MS 680-114-2 is located in SW1/4 SW1/4 Section 33, T4N, R13W, FM
Legal Subdivision - Section - Quarter Section Township Range Meridian



LOCATION MAP
TANANA (A-1) ALASKA
SCALE: 1"=1 MILE



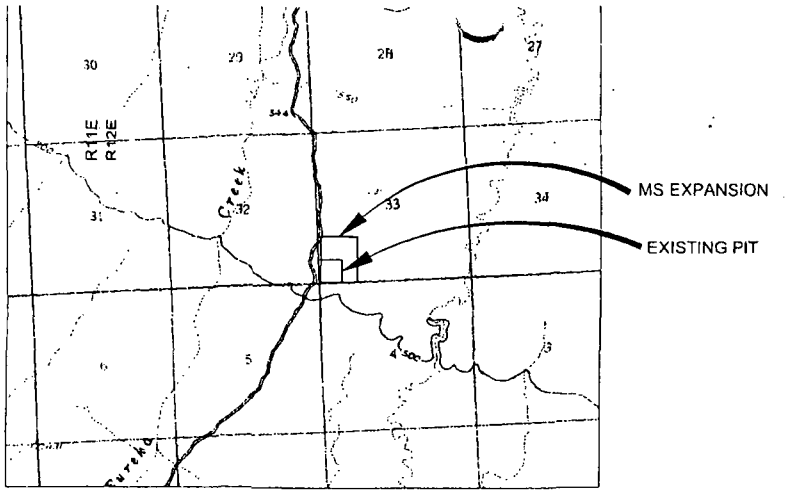


MS 680-114-2

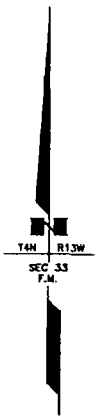
SW¼ SW¼
SEC. 33, T4N R13W, FM

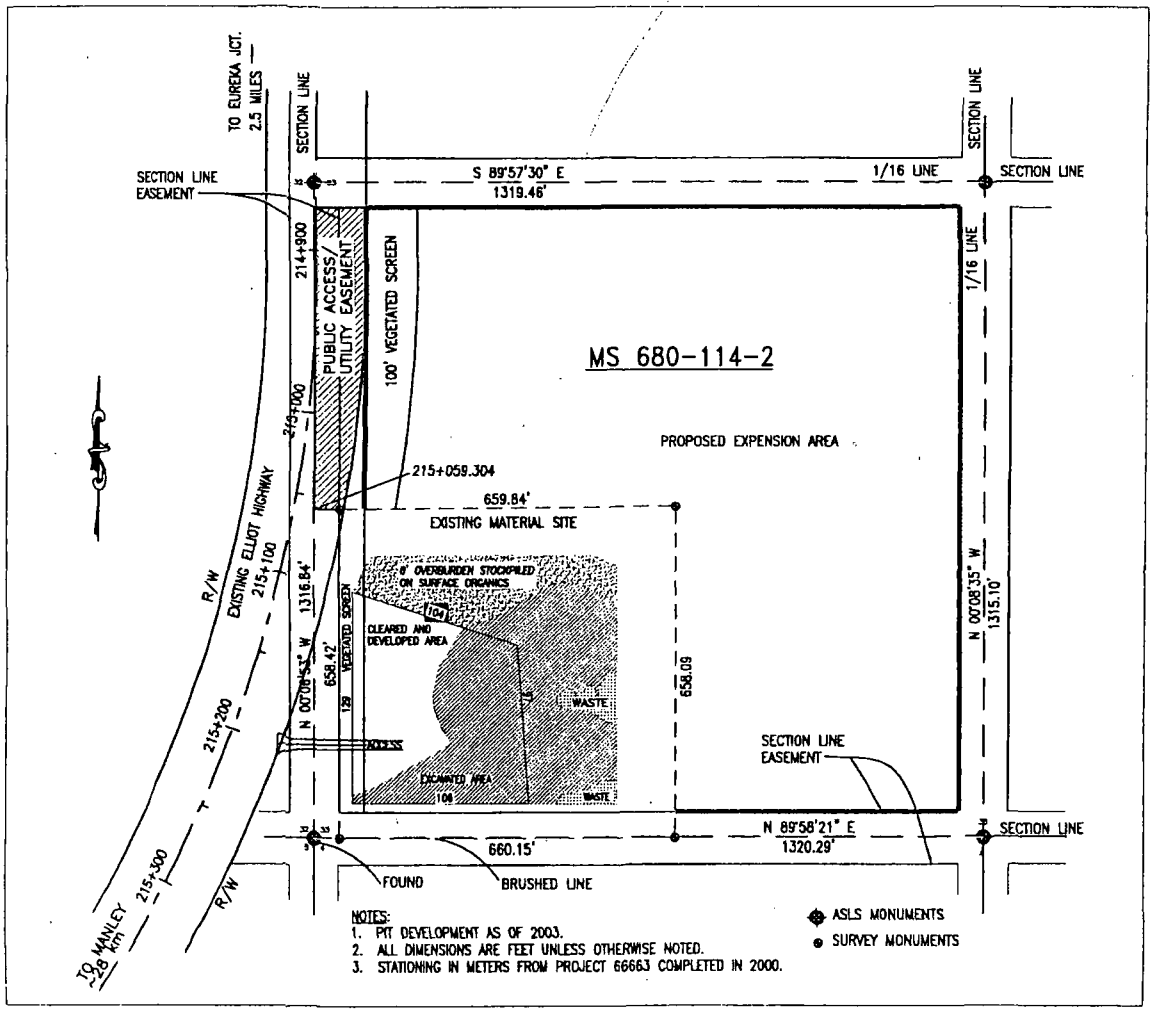
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES PLAT SHOWING MATERIAL SOURCE REQUIRED FOR FAP 680

PARCEL NO. 680-114-2	
NORTHERN REGION	DATE 09-29-03
SCALE 1"=300'	EXISTING ACREAGE: 10.0
DRAWN BY RDP	EXPANSION ACREAGE: 28.3
	TOTAL ACREAGE: 38.3



LOCATION MAP
TANANA (A-1) ALASKA
SCALE: 1"=1 MILE





MS 680-114-2

SW¼ SW¼
SEC. 33, T4N R13W, FM

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES PLAT SHOWING MATERIAL SOURCE REQUIRED FOR FAP 680

PARCEL NO. 680-114-2	
NORTHERN REGION	DATE 09-29-03
SCALE 1"=300'	EXISTING ACREAGE: 10.0
DRAWN BY RDP	EXPANSION ACREAGE: 28.3
	TOTAL ACREAGE: 38.3

MINING & RECLAMATION PLAN
GUIDELINES
MS 680-114-2

A. General Information

This material source is located east of Mile 134.5 Elliott Highway. The legal description is: The SW1/4 SW1/4 Section 33, Township 4 North, Range 13 West, Fairbanks Meridian. The material source was originally permitted in 1987 for 10 acres. This amendment will expand the pit to 38 acres.

A single access is established to the site.

Silty, sandy gravel is available in this material source.

B. Mining Plan

The site will be mined in 5-acre increments, which is intended to avoid having large areas of disturbed ground.

A good deal of the existing material source (10 ac.) has been developed. Development will continue, first in an easterly direction, then northerly. Future development along the west side of the pit will be done behind a 100-foot vegetative screen, which begins at the pit boundary/highway right of way line, thereby screening the material source behind the highway right of way line.

There was high ground water in the excavated portion of the material source in 2003 because of the very wet summer season; previously, water had not been encountered. The material source has been developed to a depth of about 20 feet. Standard excavation techniques were used and will continue to be used as the source is expanded.

When appropriate, land will be cleared by pushing trees and surface growth into a berm where it will not interfere with the continued and best development of the material source. The surface layer of organic silts will be windrowed separately and stockpiled next to the surface vegetation berm. If overburden, which is comprised mainly of silts and sands, exists below the organics layer, the overburden will be pushed off and stored as a separate pile or berm of material. The exposed gravel will then be excavated for fill or processing.

The working face of an active cell and side slopes to be expanded into the next cell should not be steeper than 1:1. Side slopes that are contiguous with the pit boundary will be finished at 3H:1V and reclaimed as the each cell is used.

Post-it® Fax Note 7671	Date	# of pages ▶ 3
To JESSE REINIKAINEN	From JOHN PFEFFER	
Co./Dept. NR MAT'LS	Co. CONST.	
Phone #	Phone # 451-5477	
Fax # 451-2353	Fax # 451-5487	

(1)

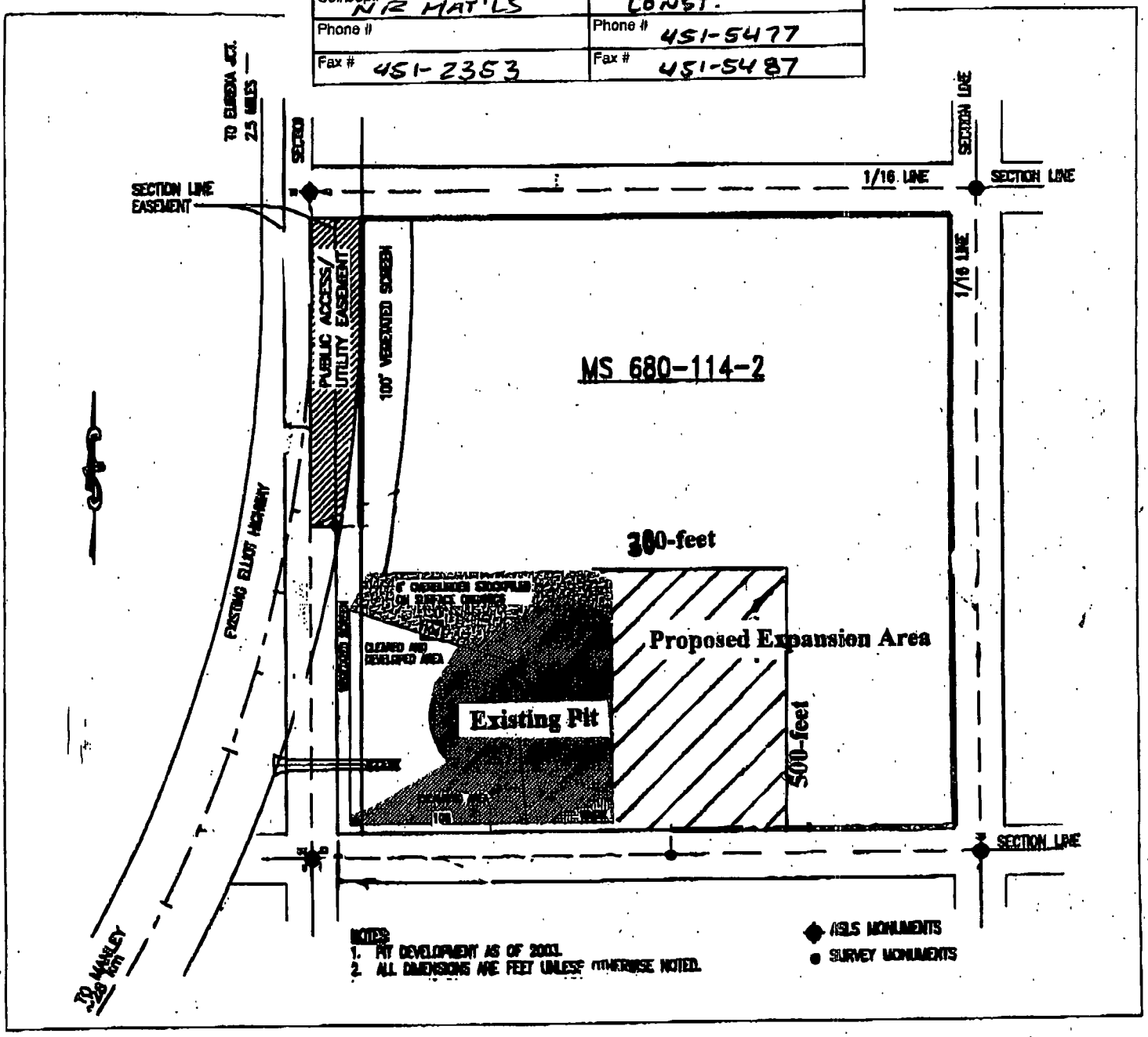


Figure 4 – Developed & Proposed Expansion Area	
Elliott Highway Material Site 680-114-2	
ADOT&PF	Sheet 4 of 5

4. ALTERNATE POST-MINING LAND USE

[X] The mining site is public land. The land management agency's land use plan (if any) for post-mining land use is:

_____

[ ] The mining site is public land. As allowed by AS 27.19.030(b), I propose to reclaim it to the following post-mining land use:

_____

[ ] The mining site is private property. The private landowner plans to use it for the following post-mining land use:

_____

5 ATTACHMENTS

[ ] If the mining operation has additional owners, operators, or leaseholders not shown on page 1 of this form, attach a list of their names, addresses, and telephone numbers.

[X] Attach a USGS map at a scale no smaller than 1:63,360 (inch to the mile) showing the general vicinity of the mining operaton and the specific property to be mined. Option: If you checked Box C on the first page of this form and the mining site is adjacent to an airport or public highway, state the name of the airport or the name and milepost of the public highway.

[ ] Attach a diagram of the mined area (this term includes the extraction site, stockpile sites, overburden disposal sites, stream diversions, settling ponds, etc.) and the mining operation as a whole (this term includes the roads you plan to build, your power lines, support facilities, etc.). Show and state the number of acres to be mined during the year. (If you checked Box A or B on the first page of this form and your plan covers more than one year, show each year's work.) Show the location corners or property boundaries of the site in relation to the reclamation work and any other areas affected by the operation. **To be submitted after the project is completed.**

[ ] Attach a list of the equipment (type and quantity) to be used during the reclamation activity. **See 3 b.**

[ ] A time schedule of events must be attached that includes dates and activities related to this reclamation plan. See 3 c.

[ ] If the site is private land, not owned by the miner, attach a signed, notarized statement from the landowner indicating the landowner's consent to the operation. The landowner may also use the consent statement to notify the Department that the landowner plans a post-mining land use incompatible with natural revegetation and therefore believes that reclamation to the standard of AS 27.19.020 is not feasible.

[ ] For those miners that are required to file an annual reclamation statement, attach photographs and/or videotapes dated and described as to location of the reclamation activity that was completed.

[ ] If you propose to use reclamation measures other than those listed on this form, or if the private landowner or public land manager of the site requires you to use stricter reclamation measures, attach a list of said measures.

6. RECLAMATION BONDING-REQUIRED ONLY IF YOU CHECKED BOX A ON THE FIRST PAGE OF THIS FORM:

The total acreage of my mining operation that is subject to the bonding requirement for the current year is _____ acres (add acreages stated in Section 3(a) and 3(d) of this form).

The per-acre bond amount is $750.00/acre or a total bond amount of: $ _____

Please check the appropriate bonding method that you will apply toward this reclamation plan:

[ ] Participation in the statewide bonding pool.

[ ] Posting a corporate surety bond.

From: Tony Johansen / DOT

Tofty Road Pit (MS 680-119-2; ADL 415740)

Borrow
22,063 mg = 24,313.43 ton
2 ton/cubic yard = 12,156.72 cy

Ditch Lining
326.48 cm = 427.02 cy

Total Yardage from MS 680-119-2 12,584 cy

134 Mile Elliott Pit (MS 680-114-2; ADL 415977)

D-1
4636.745 mg=5109.69 ton
2 ton/cubic yard= 2,554.85 cy

Cover Aggregate Original Contract
14,424.9 sm=17,252.04 sy
75 lb/sy=646.95 ton
2 ton/cy= 323.48 cy

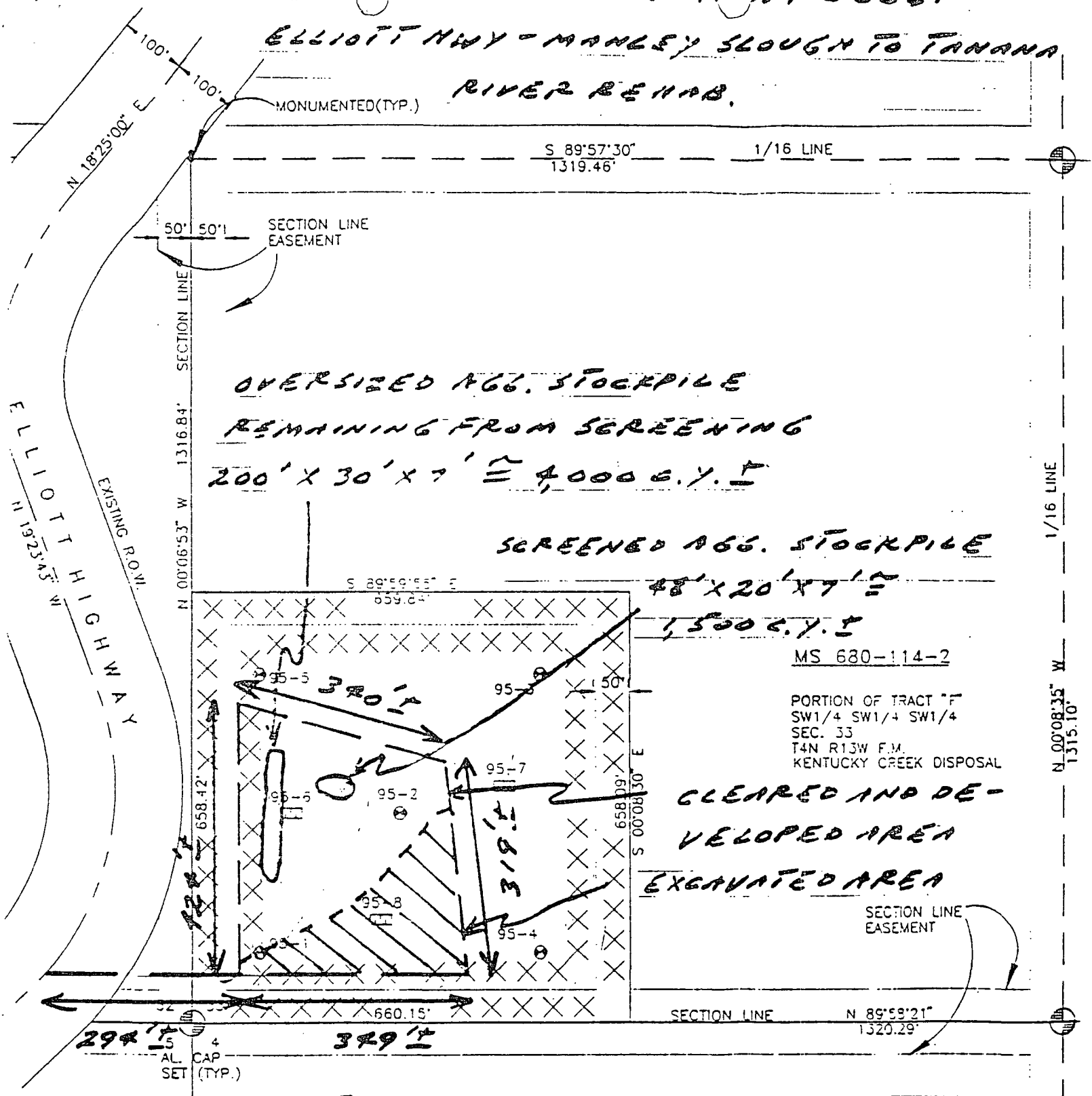
Cover Aggregate Supplemental Agreement
188,179 sf=20,908.78 sy
75 lb/sy=784.08 ton
2 ton/cy= 392.04 cy

Total Yardage from MS 680-114-2 3,270 cy

Total Yardage from DNR Sources= 15,854 cy

PROJ. NO. STP-0680(-8)/66661

ELLIOTT HWY - MANLEY SLOUGH TO TANANA RIVER REHAB.



QUANTITY REMOVED:

203 (6A) - BORROW TYPE "A" -	210 C.Y.±
401 (2) - SURF. AGG. -	7,080 C.Y.±
TOTAL -	7,290 C.Y.±

E. SMITH - 8/23/97

Project No. STP-0680(28)/66661
Elliott Highway Manley Slough to Tanana River
1997 Construction Season

CONTRACTOR: M-B Contracting, Inc.
PROJECT ENGINEER: Ihler Smith

This project consisted of restoration and resurfacing of the Elliott Highway from MP 149.5 to the Tanana River(MP 153.5) and seismic, structural, and guardrail upgrades to the bridge crossing Manley Slough. The project also included high float emulsion surfacing from the BOP to the Manley Village Council and Clinic (MP 151.2) and construction of a parking area at the Tanana River. A small item of additional work which arose was the reconstruction of an existing wood fence in the area of the Manley Trading Post store and airport. The project was probably prompted mostly due to safety considerations and a mud and dust problem affecting Manley for quite some time. Improving the maintenance situation was probably also a consideration.

The contract was advertized 3/25/97, award was made to M-B Contracting, Inc. 5/19/97, and the effective date of the Notice to Proceed was 5/23/97. Actual work began about 6/5/97 consisting mainly of screening in M.S. 680-114-2 and was completed 8/22/97 with the last items being mainly bridge approach guardrail and signs. A final inspection was held 8/22/97 at which contract time was stopped and the project was accepted for traffic and maintenance. The contract completion date was 8/31/97.

The bidders with their corresponding bids and the Engineer's Estimate are as follows:

M-B Contracting, Inc.	$ 1,025,705.00
H & H Contractors	$ 1,039,036.00
Ace General	$ 1,099,952.50
Engineer's Estimate	$ 770,845.00

The considerable discrepancy between the Engineer's Estimate and the three main bidders appeared to be mostly the difference in the bridge items including the bridge and roadway approach guardrail item. The borrow prices on this project were also somewhat higher than the Engineer's Estimate probably due to the uncertainties of the quality of the material and haul circumstances.

The contractor utilized seven subcontractors to perform the following items of work:

Denali Steel Erection	Structural Steel - Furn., Fab. & Erect.
	Structural Steel - Str. or Repl. Member
	Treated & Untreated Timber
	Bridge Guardrail
Dimond Fence	Roadway Approach Guardrail
Alaska Reclamation, Inc.	Seeding
Arctic Surveys	Constr. Surveying & 3 Person Survey Party
Advance Signs & Striping, Inc.	Culvert Marker Posts
	Standard Signs
Becker Trucking	Borrow, Type A, Borrow, Type B, & Cover Coat Mat'l. (hauling)
Proact Alaska, Inc.	Clearing & Grubbing

The first work on the project was screening and this was performed mainly during the period 6/6/97-6/22/97 to produce about 16,000 T - 17,000 T of surface course. The screened product exhibited relatively satisfactory results on the road, although the Contractor did have somewhat of a problem keeping the material within specifications on the coarse sieve series. The Contractor preferred to screen and haul from M.S. 680-114-2, about 16 miles away, rather than M.S. 680-119-2, a much closer site. Apparently, the closer

pit represented more development and hauling problems than the more distant one. Although the pit run material in the closer pit probably would have met the surface course requirement without screening, it is felt a better product was probably obtained using the more remote pit. Typical examples of the aggregate surface course before and after screening are as follows:

Spec. ("BB")	Before	After
1" - 100 %	74 %	97 %
3/4" - 75-100 %	66 %	91 %
3/8" - 50-80 %	47 %	70 %
No. 4 - 35-65 %	34 %	53 %
No. 8 - 25-50 %	24 %	40 %
No. 40 - 10-25 %	6 %	19 %
No. 200 - 8-12 %	1 %	8 %

MS 680-104-2

Another main item of work concentrated on about the same time as the screening was the construction surveying. This was mainly performed during the period 6/5/97-6/19/97. There is not much meriting comment on this aspect of the work other than it was beneficial having a surveyor willing to make the most of a largely "field build" situation. It was also fortunate the surveyor was willing to spend some time deciphering recently developed R.O.W. information not yet finallized by the Department.

The next stage of the project to mostly take place was the upgrade work on the Manley Slough bridge. This was mainly performed during two time periods. The first was 6/10/97-6/24/97 and the second was 7/14/97-7/22/97. The reason the bridge work was performed during two time periods was that the Contractor was unable to obtain the bridge rail in time to perform all the bridge work during the first time period.

The first time period mostly involved replacing pile cap bolts with high strength galvanized bolts, structural steel replacement and straightening, additional support stringer installation, earthquake restrainer installation, running plank replacement, and new bull rail joint fabrication. The second time period consisted mainly of installing the bridge and bull rail, and some vertical backwall support timbers at the south abutment. Two 3-man crews were mainly used for the structural steel work and the treated timber work, while 4-6 workers were mainly used for re-decking. The structural steel work was mainly performed during the period 6/11/97-6/16/97 and the bridge re-decking was mainly performed during the period 6/19/97-6/24/97. The structural steel work and the bridge re-decking were the only items that required bridge closures to speak of, with both of these items of work being performed mostly at night. The Contractor accommodated the public to a large degree by allowing traffic to cross the bridge at relatively frequent intervals even during scheduled bridge closure periods.

In general, it is felt a particularly quality job was performed on the Manley Slough bridge. Specific examples illustrating this were the effort spent and the end product concerning the installation of the new timber support stringers, the installation of the new running planks, the fit and installation of the new treated timber curb, and the installation of the two new treated timber vertical supports at the south abutment. Also appreciated, was the effort made by the bridge contractor to co-ordinate virtually all significant variations in materials and construction methods with the project engineer and bridge design section.

A couple items concerning bridge spikes are regarded worthwhile mentioning related to bridge re-decking projects lately. The Yukon River Bridge re-decking project recently used "Dekfast" screws for the wood deck after experimenting with various fasteners. Since these seemed to work best, it is questioned whether these should possibly be specified on most bridge re-decking jobs in the near future. Also, the Manley Slough Bridge called for some 8" galvanized spiral spikes. These turned out to be virtually unobtainable as well as a "double-grip" spike of any size. This is mentioned in the interest of foreseeing this problem on future

bridge re-decking projects.

The next main portion of the work to take place was the borrow and surface course. The main borrow source (M.S. 680-075-2) was not of very high quality, tending to degrade rather quickly under the influence of moisture and traffic. However, since the design fully took this into account by planning to cover this material with a surface course, and the fact that it was a fairly dry season, the quality of this borrow material was not a great factor. The borrow haul was mainly performed from 6/25/97- 7/22/97. This was mostly accomplished using 6 belly dumps. Up to 12 belly dumps were used for the long haul for the surface course from M.S. 680-114-2. It should probably be noted that future borrow needs from M.S. 680-075-2 will necessitate obtaining material from the native owned portion of the pit, since the better borrow material has mostly been depleted from the remainder of the pit.

Although only 3" of aggregate surface course was placed on a substantial portion of the project, it was noteworthy how well this material held up, exhibiting almost no washboarding or potholing. The surface course haul took place mainly between 7/8/97- 7/11/97 and 8/5/97- 8/8/97. This was mainly done in two stages since the contractor chose to finish and get the area of sta. 86+00 – E.O.P. covered before concentrating on the remainder of the project.

An associated problem with the surface course haul was the maintenance of the road between the project and the materials source. Since the contractor was required to haul legal loads, it was regarded logical to expect the Department to maintain it for the haul. Although the local maintenance foreman was willing to do what he could to maintain the road, he was severely hampered, since M & O was apparently unwilling (due to priorities) or unable to provide him the resources to adequately do this. This was all the more unfortunate, since it would not have required a lot in the way of men and equipment to do this. This is simply being mentioned in the interest of being aware of a potential basis for a claim with similar situations in the future.

A different clearing machine than the customary hydroaxe was used on the project. A "Brontosaurus" was used which resembled a track-mounted backhoe with a rotary cutting attachment. This seemed to aid access to clearing areas and the clearing went fairly smoothly during the period 6/14/97- 6/16/97.

There is probably not much to say concerning the drainage items on this project. It is believed that the contractor performed a particularly good job on the installation of the fin drain. This is stated on the basis that a considerable amount of care went into the installation of the fin drain itself as well as the quantity and quality of the borrow backfill. A noteworthy job of shaping up the ditch following the installation was also done. It is generally suggested that the contractor would experience less dissatisfaction and a better job would be obtained if the borrow for the backfill was handled as a pay item rather than being subsidiary. The fin drain was installed during the period 7/30/97- 7/31/97.

One other drainage item to be addressed is that of the 6 In. Corrugated Polyethylene Pipe. Both the Contractor and the Department personnel felt that almost any kind of metal pipe would have been preferable to the polyethylene pipe installed on this job. This pipe involved considerable trouble to install to line and grade and the ends appeared easily damaged following installation. This work was performed 8/2/97 and 8/4/97.

Seeding was performed rather quickly on the project. Hydroseeding was performed 7/28/97 with generally satisfactory results. Enough seed and fertilizer were held back to hand seed remaining areas yet to be disturbed by construction and this seemed to work rather well. As is often the case, it was somewhat of a struggle to get the contractor to reasonably shape up areas prior to seeding. This also seemed to be aggravated by the seeding subcontractor's schedule.

The sign and guardrail items were also performed relatively expeditiously on the project. Separate subcontractors performed the sign and culvert marker post work and guardrail work. The signs and culvert marker posts were installed during the time period 8/20/97-8/22/97 and the guardrail work was performed during the period 8/18/97-8/20/97.

All in all, the Plans and Specifications for this job were regarded well written and the effort spent by Design as well as the input welcomed from Construction were greatly appreciated. The greatest oversight on this project was by the project engineer concerning a special ditch. The intent of the special ditch was not adequately appreciated until seeding, slopes, and pipes were mostly finished in this area. As a result, it was difficult to remedy this situation. Probably the only saving factors related to this are the likelihood the drainage situation has not been worsened and the flattened slopes in this area will help keep water from penetrating the roadway prism.

A couple minor recommendations for projects in the future are one concerning clearing and one related to special features on the project. It would be helpful if all clearing on the plans is referred to in the summary for the quantity for this item. This would help avoid missing areas that are referred to in out of the way places. Also, special features, such as maintaining a drainage ditch in the Manley Slough campground, would be helpful to have mentioned on the plans. However, it is not intended to discount the value of the designer verbally pointing out the importance to the project engineer of trying to ensure certain design features as was done on this project.

Paving History

This project involved "high floating" approximately 1.6 mi. of road in the community of Manley Hot Springs using HFMS-2S emulsified asphalt for surface treatment and a cover coat material meeting the requirements of grading "E-1" for aggregate for base. Examples of the specifications for this material and a typical gradation for the same are as follows:

Spec.	Typical Sample
5/8" - 100 %	100 %
3/8" - 60-90 %	75 %
No. 4 - 40-70 %	46 %
No. 8 - 25-55 %	30 %
No. 40 - 8-30 %	15 %
No. 200 - 3-6 %	4 %

Recommended application rate for HFMS-2S Asphalt - 0.75 gal./s.y. ±0.04 gal./s.y.

Recommended application rate for the cover coat aggregate - 75 lbs./s.y. ±2.5 lbs./s.y.

Actual application rates were about 0.77 gal./s.y. and 76 lbs./s.y. respectively. The contractor used an almost new Bear Cat CRC computer controlled chip spreader. Asphalt and cover coat material were applied one lane at a time to each 11 ft. lane. The temperature of the asphalt material was in the neighborhood of 150 deg. F. A pilot car and 2 flaggers were employed. This work was mainly performed 8/13/97 and 8/14/97. Although it had rained fairly heavily the day before beginning high floating, it is felt the high float

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF LAND

RECEIVED R/W
AUG 19 1997

[X]	Northern Region 3700 Airport Way Fairbanks, AK 99709 (907) 451-2700	[ ]	Southcentral Region PO Box 107005 Anchorage, AK 99510-7005 (907) 762-2270	[ ] Southeast Region 400 Willoughby, #400 Juneau, AK 99801 (907) 465-3400

NEGOTIATED MATERIAL SALE CONTRACT

Effective Date: 09/04/1997

ADL #: 415977

Under AS 38.05.110-38.05.120 (Disposal of Timber and Materials), AS 38.05.125, as 38.05.810(a) and the regulations implementing these statutes, the **State of Alaska**, the SELLER, agrees to sell, and , the BUYER, **Department of Transportation and Public Facilities,** whose address is 2301 Peger Road, Fairbanks, AK 99701, Telephone: 907-451-5425, agrees to buy the material designated in this contract, subject to the provisions which follow:

M.S. 680-114-2

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

(a) The material sale area covered by this contract consists of approximately 9.9 *acres.* This area is designated by the boundaries shown on the attached sale area map, which is made part of this contract, or as designated on the ground by the seller, and described as follows:

> ***Within SW1/4SW1/4SW1/4 Section 33, Township 4 North, Range 13 West, Fairbanks Meridian. MS 680-114-2 @ MP 134.5 Elliot Highway.***

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

Kind of Material	No. of Units	Unit Price	Total Price
sand & gravel	*277,000**	*$0.50***	*NA***

> * *maintenance and construction of public roads.*
> ** *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 for 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) Initial Payment. The buyer shall remit an initial payment in the amount of *$NOT APPLICABLE* (consistent with 11 AAC 71.045) at the time the contract is signed.

(b) Application of Initial Payment. *NOT APPLICABLE* The seller shall retain on deposit the initial payment required by paragraph 2(a), to be applied in whole or in part to the final payment which becomes due under this contract. Additional periodic installment payments as required in paragraph 2(c) of this section must be made for material extracted as of the date payment becomes due but may not exceed the total purchase price.

(c) Annual Payments. In addition to the initial payment, annual accounting and installment payments for material extracted must be made by the ADOT/PF *no later than thirty days (30) following December 31 of each year as long as the contract is in force. If accounting and payment are made by a contractor of the ADOT/PF, it must be received no later than thirty (30) days following job completion in any one year.* These payments are to be based on records required by Section 3 of this contract, and must be submitted to the seller no later than the fifth working day following the date the installment payment is due.

(d) Final Payment. A final accounting and payment for material removed, and a completion statement must be submitted by the ADOT/PF *no later than thirty (30) days following contract completion, expiration, or termination of the contract by the seller, or by operation of law. Final accounting and payment are made by a contractor of the ADOT/PF must be received no later than thirty days (30) following job completion.* Whether completion is satisfactory will be decided by the Director of the Division of Land within ninety (90) days after receiving the final accounting report and completion statement.

(e) Reappraisal. The unit price is subject to reappraisal under 11 AAC 71.090(f) by the seller every two years for the period that this contract is in force.

(f) Suspension for Non-Payment. If the buyer fails to make a payment provided for in this contract, the seller may, under Section 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 or at triple the reappraised price if a reappraisal has been made under Section 2(e) of this contract. Resumption of the lawful taking of materials may be authorized, in writing, by the Division of Land only after the payments in arrears plus the penalty provided for in Section 2(g) have been made.

(g) Late Payment Penalty. 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 made by the ADOT/PF, or their subcontractors, will be remitted to the Department of Natural Resources, Division of Land, Northern Regional Office, 3700 Airport Way, Fairbanks, AK 99709 (ph# 907-451-2705), payable to the Alaska Department of Revenue.*

(i) If the total amount of materials covered by this contract is not extracted, the money on deposit may become forfeited in the seller's discretion as liquidated damages in an amount not to exceed the seller's total entitlement under this contract, or the seller shall receive the measure of actual damages to the seller, at the seller's election.

(j) Special Provisions. The following special provisions also apply to payments and deposits under this contract:

NONE

3. Method of Volume Determination.

(a) The method of volume determination for purposes of payment under this contract is either:

(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) Special Provisions. The following special provisions also apply to volume determinations under this contract:

(1) *Submission of Accounting Records.* The ADOT/PF shall submit ***annual accounting records, along with payments required by Section 2(c) and 2(d) of the contract, no later than December 31 each year as long as the contract is in force. If annual/final accounting records and payment are made by a contractor of the ADOT/PF, it must be received no later than 30 days following job completion in any one year.*** The buyer, and/or the buyer's agent, employee, contractor, or sub-contractor must be identified, cubic yard quantity used, designated by location, type of use, and date used.

(2) *Quantity Conversion. Material quantity measured on a ton basis must be converted to cubic yards (CY). The conversion factor is 1.6 tons/CY, unless another figure is supplied by an Engineer which is based upon tests performed at the material source. The test will consist of an average of 5 density measures to be taken during use of the material site.*

(3) *All accounting and payments are remitted to the agency address listed in 2(h) above.*

4. Operating Requirements.

(a) Boundary Lines and Survey Monuments. No boundary mark of the sale area nor 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) Standard of Operations. The buyer shall comply with all laws, regulations, ordinances, and orders, the buyer shall maintain the land in a reasonably neat and clean condition, and shall take all prudent precautions to prevent or suppress grass, brush, or forest fires, and to prevent erosion or destruction of the land.

(c) Erosion Control and Protection of Waters. Road construction or operations in connection with this contract must be conducted so as to avoid damage to streams, lakes, or other water areas and land adjacent to them. Vegetation and Materials may not be deposited into any stream or other water area. 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. This includes waters defined in 5 AAC 95.010, Protection of Fish and Game Habitat.

(d) Fire Protection. The buyer shall take all necessary precautions for the prevention of wild fires 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.

(e) Roads. Before constructing any mainhaul, secondary or spur road across state land, the buyer shall obtain written authorization from the seller.

(f) Supervision. 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 contractor or agent authorized by the buyer to assume the responsibilities imposed by this contract, shall be present on the sale area.

(g) Agents. 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.

(h) Location. 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.

(i) Access. 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.

(j) Special Provisions. The following special provisions also apply to operations under this contract:

NONE

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

(2) Reclamation. Upon expiration, completion, or other contract termination, the work site area shall be reclaimed. Reclamation shall include recontouring slopes, backfilling holes, restructuring drainage, repairing access roads to and within the site, disposing of remaining stockpiles, replacing of overburden, revegetation and other procedures that will be used to stabilize and reclaim the area, removing any equipment and/or materials used in the operation, and any other site specific measures that may be necessary.

(3) Vegetation Screen. A vegetation screen no less than 50ft. wide on the west boundary of the site (within the sectionline easement) shall be retained such that the material site is not visible from the

highway. Since this is an existing site, this stipulation may not apply. However, if a 50ft. screen of willows or trees is present, it shall be maintained.

(5) **Mining.** Mining activities shall occur as described in ADOT/PF's mining and reclamation plan.

(6) **Site Operations**. The ADOT/PF is responsible for all aspects of material extraction and transport. Any survey stakes or markers that are removed must be replaced at the buyer's expense. The work area shall be maintained in a neat, clean condition, free of any solid waste, debris or litter. The disposal of hazardous substances or hydrocarbons is prohibited. After completion, expiration, or termination of the contract, the site shall be left in a condition that is acceptable to the Division of Land, and reclaimed in accordance with the approved reclamation plan.

(7) **Other Authorizations**. The issuance of this authorization does not alleviate the necessity of the ADOT/PF to obtain authorizations required by other agencies for this activity.

(8) **Alaska Historic Preservation Act.** The ADOT/PF shall consult the Alaska Heritage Resources Survey (907) 269-8718 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) 269-8720 and shall be notified immediately.

(9) **Water Quality**. The ADOT/PF shall comply with State of Alaska water quality standards under 18 AAC 70, including discharge standards when conducting material washing operations.

(10) **Vehicle Maintenance.** Vehicle maintenance shall be performed only over an effective impermeable barrier.

(11) **Fuel and hazardous substances.**

(a) The use and storage of hazardous substances by the ADOT/PF must be done in accordance with existing federal, state, and local laws, regulations and ordinances. Hazardous substances must be removed from the site and managed in accordance with state and federal law. Debris (such as soil) contaminated with used motor oil, solvents, or other chemicals may be classified as a hazardous substance and must be removed from the site and managed and disposed of in accordance with state and federal law.

(b) Fuel storage containers with a total combined capacity greater than 55 gallons shall not be placed within 100 feet of the ordinary high water marks of waterbodies. Containers which exceed a total combined capacity of 110 gallons must be stored within an impermeable diked area or portable containment structure capable of containing 110 percent of the capacity of the largest independent container. All fuel storage containers must be clearly marked with the contents and the buyer's name. Drip pans and absorbent pads must be available to contain and clean up spills from any transfer or handling of fuel. All fuel storage containers and associated materials must be removed by the expiration date of this contract.

(12) Notification. The ADOT/PF shall 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 is less than 10 gallons it may be reported in writing on a monthly basis. If an unauthorized 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 shall be supplied with all follow-up incident reports.

5. Indemnity of Seller and Bonding.

(a) Indemnification. 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 his successors, or at his invitation;

(2) any accident or fire on the land;

(3) any nuisance on the land;

(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 which 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 sole risk, and will hold the seller harmless from any claim of loss or damage to them by any cause.

(b) Performance Guaranty. 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. A bond acceptable to the seller in the amount of ***$NOT APPLICABLE*** (11 AAC 71.095) 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 equipment and other personal property from the sale area. After removal, the

buyer must leave the land in a safe and clean condition which 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, which 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. The following special provisions also apply to improvements and occupancy under this contract:

NONE

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, his 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 is served upon the buyer.

(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, which 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; and

(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.

(e) generally all rights to and control of the land, which are reasonably necessary or convenient to make beneficial and efficient the complete enjoyment of the property and rights which 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 Alaska Fire Control Act, the provisions of AS 38.05.110 - 38.05.120, material sale regulations 11 AAC Chapter 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 which 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 09/03/2007 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 Land**
3700 Airport Way
Fairbanks, Alaska 99709

To the Buyer: **Alaska Department of Transportation and Public Facilities**
2301 Peger Road
Fairbanks, Alaska 99701

18. Integration and Modification. This contract, including all laws and documents which 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 which 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 Division of Land.

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: ADOT/PF

John F Bennett 8/8/97

for CHIEF, RIGHT OF WAY

Address:

State of Alaska
Department of Transportation &
Public Facilities
Right of Way Section, MS 2553
2301 Peger Road
Fairbanks, AK 99709-5399

SELLER: STATE OF ALASKA

By:

Nancy J Welch

for Director, Division of Land

Approved:

Commissioner,
Department of Natural Resources

STATE OF ALASKA)
)ss.
4th Judicial District)

This is to certify that on Aug. 13, 1997, before me appeared Nancy J. Welch known by me to be the Regional Manager of the Division of Land, Department of Natural Resources, and who executed this Negotiated Material Sale Contract voluntarily signing it on behalf of the State of Alaska as seller.

Leigh Carlson

Notary Public in and for the State of Alaska
My commission expires: 10-5-99

STATE OF ALASKA)
)ss.
4th Judicial District)

This is to certify that on August 8, 1997, before me appeared JOHN F. BENNETT known by me to be the person named in and who executed this Negotiated Material Sale Contract and acknowledged voluntarily signing it as buyer.

Shari K Howard

Notary Public in and for the State of Alaska
My commission expires: 6·

SHARI K. HOWARD NOTARY PUBLIC STATE OF ALASKA

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF LAND

[X] Northern Region
3700 Airport Way
Fairbanks, AK 99709
(907) 451-2705

[ ] Southcentral Region
PO Box 107005
Anchorage, AK 99510-7005
(907) 762-2284

[ ] Southeast Region
400 Willoughby, #400
Juneau, AK 99801
(907) 465-3400

MATERIAL SITE RECLAMATION PLAN

In accordance with Alaska Statute 27.19, reclamation is required of all mining operations, including material extraction. Completion of this form will meet the law's requirements for a material site reclamation plan. The plan requires approval by the Division of Land.

1. **MINER/OPERATOR INFORMATION**

STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES — SHARI HOWARD
Name of Miner/Operator — Contact person

2301 PEGER ROAD
Address

FAIRBANKS	AK	99709-5399	(907)451-5425	( )
City	State	Zip	Phone (W)	Phone (H)

2. **DESCRIPTION OF MATERIAL SITE**

SW1/4 SW1/4 SW1/4 Section 33,	T4N,	R13W,	Fairbanks Meridian
Section(s)/ 1/4 Section(s)	Township	Range	Meridian

MS 680-114 2 - Off MP 134.5 Elliott Highway on the east side of the highway
Geographic Location (name town, highway/road, mile post, prominent drainage, airport, etc.)

State of Alaska, Department of Natural Resources
Name of Landowner (Federal, State, Municipal, or Private)

ADL 410576
Federal or State casefile # assigned to the Material Site, if known

3. **DESCRIPTION OF MINING OPERATION**

If you are proposing a multi-year reclamation plan, or you plan to work in a specific area within a portion of a larger existing material site:

Total acreage of the material site: 9.97 acres

#Acres comprising the worksite area within the material site: Unknown

Total volume of material to be extracted ***(#cubic yards)***: Up to 277,000 cy

Type of material (sand, gravel, peat, weathered rock, etc.): Sand and gravel

continued

Describe method of material extraction (include type of equipment to be used): **Material will be removed by dozer or scraper.**

4. **DESCRIPTION OF RECLAMATION PLAN**

Describe your reclamation plan, including reclamation measures to be used, time schedule for reclamation operation, equipment to be used: **Stockpiled overburden will be spread over depleted area where appropriate. The floor of the pit will be left smooth and sloped to drain, being countoured to blend with the surrounding terrain.**

The following measures must be considered in preparing and implementing the reclamation plan. Check applicable boxes:

☒ Topsoil that is not promptly redistributed to an area being reclaimed, will be separated and stockpiled for future use. This material will be protected from erosion and contamination by acidic or toxic materials and preserved in a condition suitable for later use.

☐ The area will be backfilled, graded and recontoured using strippings, overburden, and topsoil to a condition that allows for the reestablishment of renewable resources on the site within a reasonable period of time. It will be stabilized to a condition that will allow sufficient moisture to be retained for natural revegetation.

☒ Stockpiled topsoil will be spread over the reclaimed area to promote natural plant growth that can reasonably be expected to revegetate the area within five years.

☐ Stream channel diversions will be relocated to a stable location in the flood plain.

☐ Exploration trenches or pits will be backfilled. Brush piles, vegetation, topsoil, and other organics will be spread on the backfilled surface to inhibit erosion and promote natural revegetation.

☐ All buildings and structures constructed, used, or improved on land owned by the State of Alaska will be removed, dismantled, or otherwise properly disposed of at the completion of the mining operation.

☐ Any roads, airstrips or other facilities constructed to provide access to the mining operation shall be reclaimed (unless otherwise authorized) and included in the reclamation plan.

☐ Peat and topsoil mine operations shall ensure a minimum of two inches of suitable growing medium is left or replaced on the site upon completion of the reclamation activity.

☐ If extraction occurs within a flood plain, the reclamation activity shall reestablish a stable bed and bank profile such that river currents will not be altered and erosion and deposition patterns will not change.

5. REQUIRED ATTACHMENTS

a. *If the operation has additional owners, operators, or leaseholders not shown on p. 1 of this form, attach a list of their names, addresses, and telephone numbers.*

b. *Attach a USGS map at a scale no smaller than 1:63,360 (inch to the mile) showing the general vicinity of the material site.*

c. *Attach a scaled diagram and x-sections of the material site area. Include mining plan diagrams and reclamation plan diagrams. Show material site boundary, extraction area, stockpile site, overburden disposal site(s), acreages, staging area, access road(s), berms, dikes, drainage ditches, stream diversion(s), pond area, breaches to natural drainage, etc.*

d. *If the site is private land, not owned by the operrator, attach a signed, notarized statement from the landowner indicating the landowner's consent to the operation. The landowner may also use the consent statement to notify the department that the landowner plans a post-mining land use incompatible with natural revegetation and therefore believes that reclamation to the standard of AS 27.19.020 is not feasible.*

e. *If you propose to use reclamation measures other than those listed on this form, or if the private landowner or public land manager of the site requires you to use stricter reclamation measures, attach a list of those measures.*

6. POST-MINING LAND USE (check applicable box):

☐ The material site is public land. The land management agency's land use plan (if any) for post-mining land use is: _____

☐ The material site is public land. As allowed by AS 27.19.030(b), I propose to reclaim it to the following post-mining land use: Public land

☐ The material site is private property. The private landowner plans to use it for the following post-mining land use: _____

8. SIGNATURE

The above reclamation plan and all attachments are correct and complete to the best of my knowledge.

for _____ 6/13/97

Signature of Miner/Operator — Date

John A. Miller, Chief, Right of Way

GENERAL
MINING & RECLAMATION PLAN
GUIDELINES
MS 680-114-2

A. General Information

This material source is located east of the Elliott Highway, at approximately Milepost 134.5 in Tract F of Section 33, Township 4 North, Range 13 West, Fairbanks Meridian.

Frozen sand and gravel covered by overburden ranging in thickness from 1 to 13 feet is available at this site. The site was cleared and partially stripped after test holes were drilled in 1995.

B. Mining Plan

Boundaries of the site shall be located by survey prior to any excavation.

Since the site is only 9+acres in size and is fully developed, no provisions will be made for cell development.

Water table was noted at 36 feet.

Overburden will be stockpiled separately for reclamation purposes where it will not affect the development of the material site.

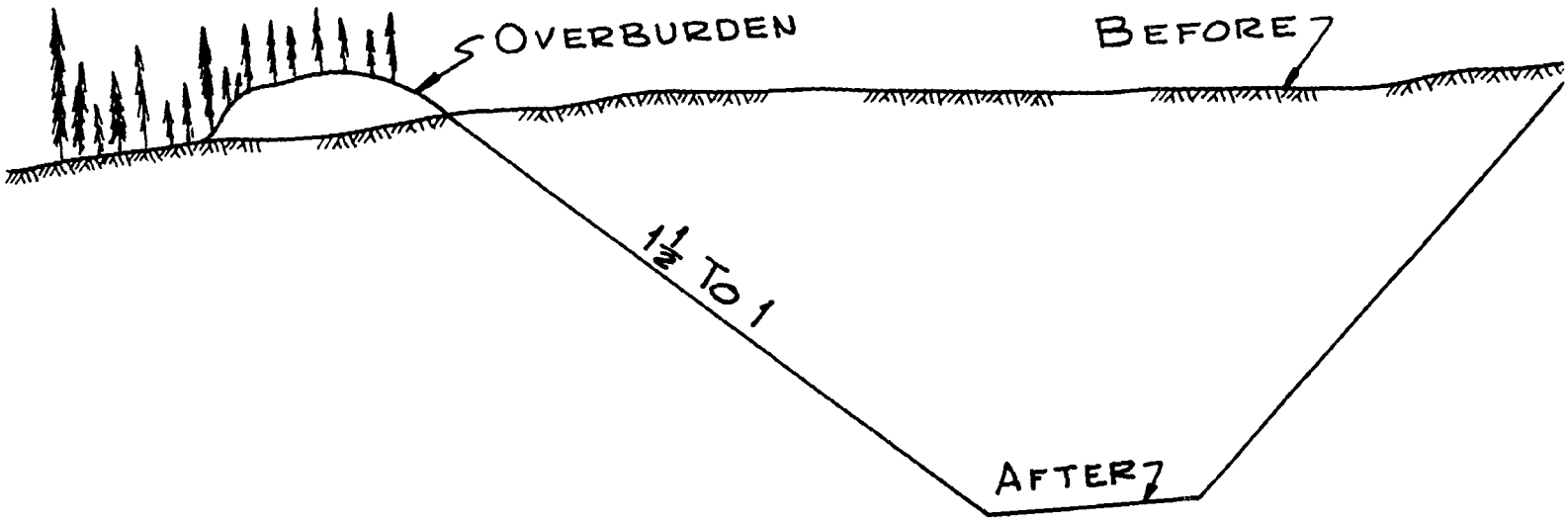
Dozer or scraper operation will perform excavation.

C. General Reclamation Plan

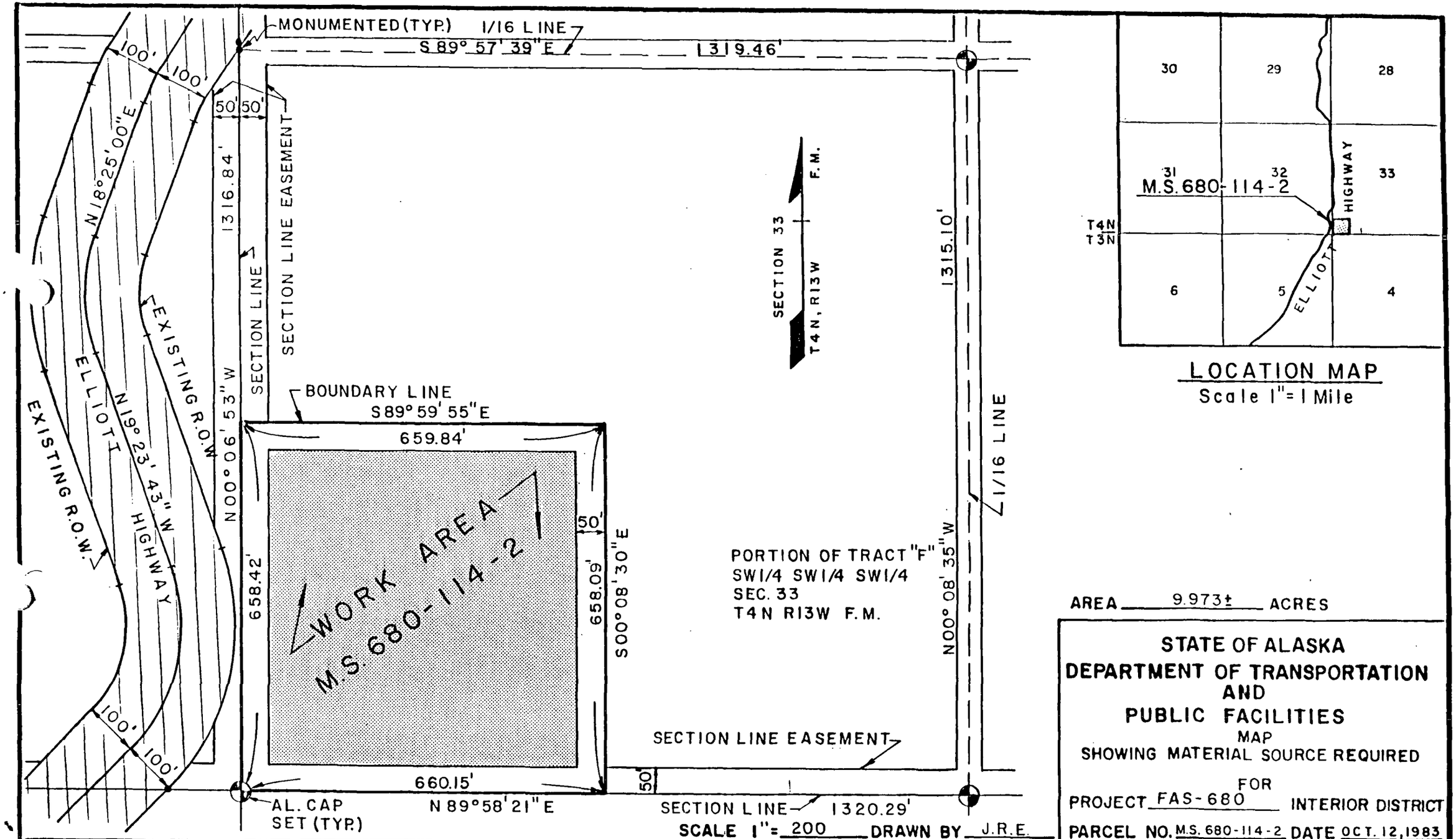
As the site is depleted, it will be smoothed, any available stockpiled overburden will be spread over the depleted area and will be contoured to blend with the surrounding terrain. The pit will then be allowed to revegetate naturally.

MINING PLAN
CROSS SECTION

(GRAVEL WITH OUT WATER)



MS 680-114-2



LOCATION MAP
Scale 1" = 1 Mile

AREA 9.973± ACRES

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
MAP
SHOWING MATERIAL SOURCE REQUIRED
FOR
PROJECT FAS-680 INTERIOR DISTRICT
PARCEL NO. M.S. 680-114-2 DATE OCT. 12, 1983

SCALE 1" = 200 DRAWN BY J.R.E.

MEMORANDUM
Department of Transportation and Public Facilities

TO: Department of Natural Resources
4420 Airport Way
Fairbanks, Alaska 99701

Jack Kerin

DATE: November 16, 1983

FILE NO:

TELEPHONE NO: 452-1911, ext. 299

FROM: Harold A. Cameron
Regional Chief
Right of Way Agent

SUBJECT: Applications for
MS 680-113-2
MS 680-114-2
MS 680-115-2

The Department of Transportation and Public Facilities is applying for the three material sources listed above. These material sources are replacement sources for those four BLM granted material sources previously relinquished to facilitate the Kentucky Creek Disposal on the Elliott Highway.

The department has applied for 10-year permits for the sources. The life of these sources is 20+ years, as is the life of the majority of DOT/PF sources. We presently submit an annual use report and are subject to a review at 3-year intervals for each DNR pit. Since the number of material sources permitted by DNR is rapidly increasing with conveyance of land to the State, it would facilitate administration of materials systems for both agencies to extend the life of permits for as long as possible.

We would appreciate you taking these facts into consideration and request that you notify us of the longest possible term for permits for DOT/PF sources.

If you have any questions, please contact Shari Howard at 452-1911, extension 299.

Attachments: applications (3)

SKH/sg

02-001A(Rev. 10/79)

MEMORANDUM (Brief Communications) **State of Alaska**

TO:	Name: Shari Howard	Dept./Div./Sect.: R. O. W.	Mail Stop:
FROM:	Name: Mike Grahek	Dept./Div./Sect.: Geology	Telephone: 237
SUBJ.:	Elliott Hwy M. S. Applications		Date: 3 Oct 83

Please make applications for the following new sites on the Elliott Highway:

680-113-2
680-114-2
680-115-2

02-001C(12/80)

MINING PLAN

Gravel with Water Table

Material in this source consists of sand and gravel covered by overburden ranging in thickness from 1 to 6 feet. The water table is at about 10 feet below the surface.

Overburden will be moved to the periphry, smoothed, and allowed to revegetate naturally in order to screen the pit operations from view and reduce sounds of operation. Material will be removed to a depth of at least 20 feet below the water table to fully utilize state resources. Slopes, both above and below water, will be left in a stable and relatively smooth condition, sloping to drain to the remaining water body.

The site will be used until it is impratical to remove additional material; at which time it will be left in a smooth condition and relinquished to the ADL for further utilization as a recreationsl site, land fill use, or sale to a private owner for other uses.

Description M.S. 680-114-2 (DOT&PF) _____ (ADL) _____ (BLM)

Located in A portion of Tract F SW1/4,SW1/4,SW1/4, Sec. 33 T 4N R 13W Fbks Meridian
(Aliquot Parts Description)

Further Described as _____
(Metes and Bounds Description)

FUTURE USE

This site will be used for reconstruction of the Elliott Highway in the vicinity of the site and will be used for maintenance after reconstruction.

It may also be used as a source of material for the construction of local roads in any state land disposals in the area.

MEMORANDUM (Brief Communications) **State of Alaska**

TO:	Name: Harold Cameron	Dept./Div./Sect.: R.O.W.	Mail Stop:
FROM:	Name: Hal Livingston	Dept./Div./Sect.: GEOLOGY (MATERIALS)	Telephone: 246
SUBJ.:	Relinquishment of M.S. on Manley Road	Date: 9-22-83	

Please insert this note in the appropriate files.

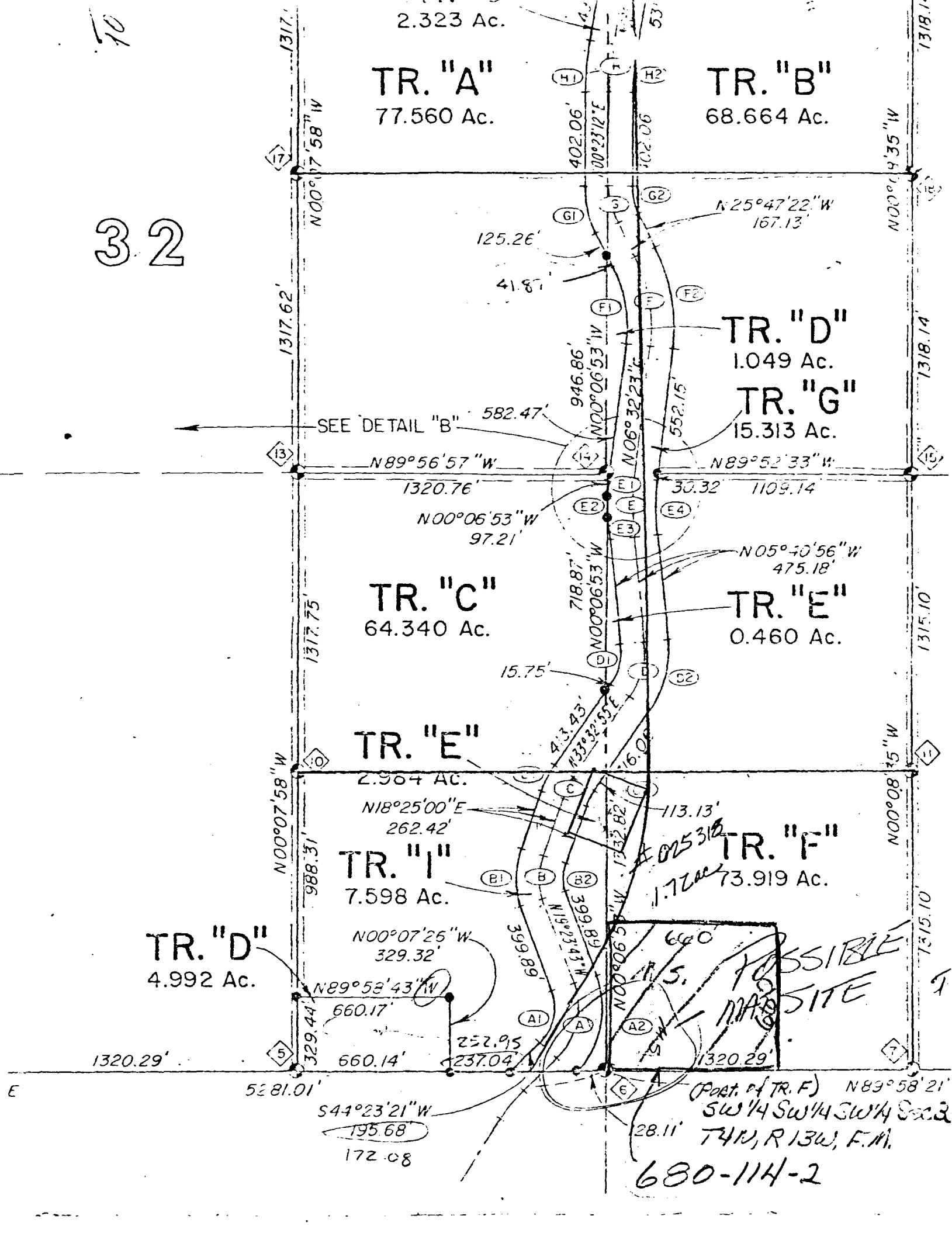
Thank you for relinquishing the following four small M.S. permits. 680-087-2, 088, 089, 090.

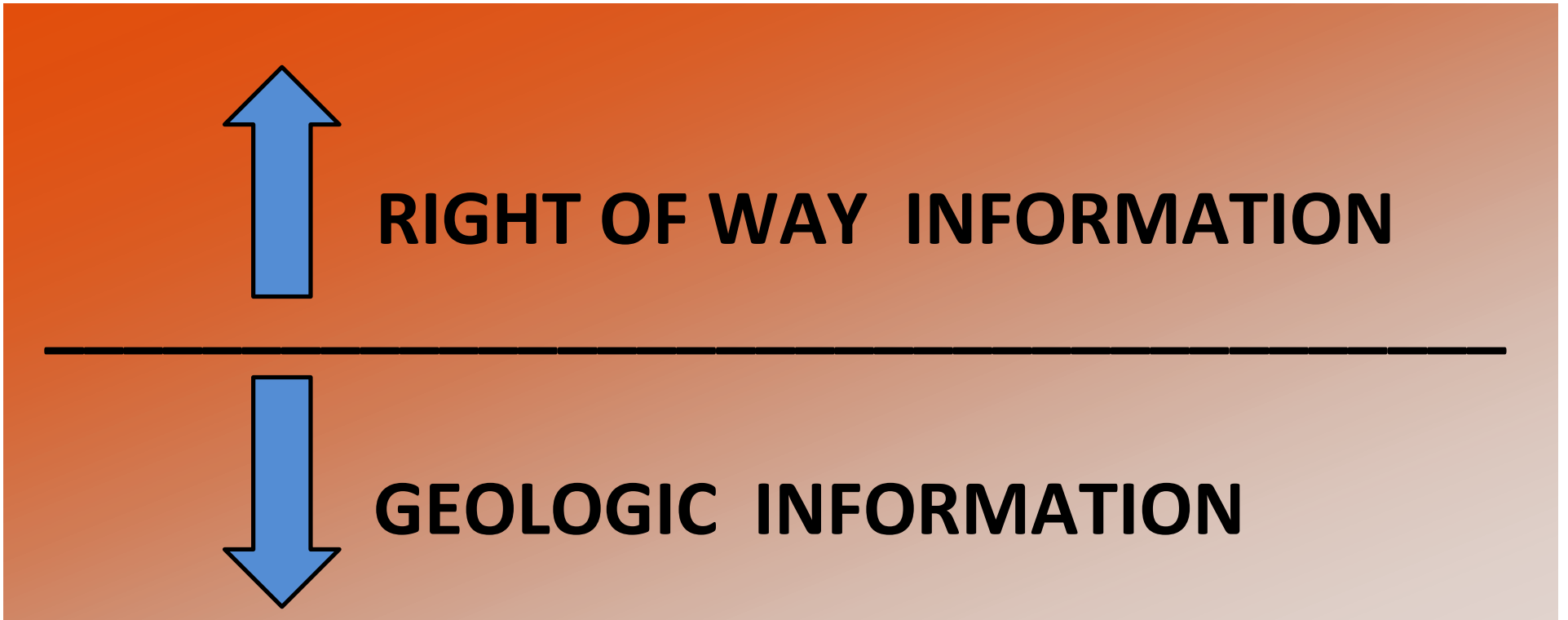
We will be preparing applications for the three larger M.S. in the same area soon.

Hal

680-113-2
680-114-2
680-115-2

02-001C(12/80)


32
2.323 Ac.
TR. "A"
77.560 Ac.
TR. "B"
68.664 Ac.
TR. "D"
1.049 Ac.
TR. "G"
15.313 Ac.
TR. "C"
64.340 Ac.
TR. "E"
0.460 Ac.
TR. "E"
2.964 Ac.
TR. "I"
7.598 Ac.
TR. "F"
73.919 Ac.
TR. "D"
4.992 Ac.
SEE DETAIL "B"
1.72 ac
POSSIBLE MARSH SITE
(Post. of TR. F)
SW 1/4 SW 1/4 SW 1/4 Sec 3
T4N, R13W, F.M.
680-114-2


RIGHT OF WAY INFORMATION
GEOLOGIC INFORMATION

MS 680-114-2 materials site

Location and access

The 40-acre site is accessible from a 300-ft long haul road near Milepost 134 Elliott Highway (see Figure 18). The site is located within Fairbanks Meridian, SW 1/4 of Section 33, Township 4 North, and Range 13 West.

Description

The developed 14-acre site contains material storage, processing, and working areas. In September 2005, the working floor held a small pond. The site corners are marked with standard survey monuments.

This site contains alluvial sand and gravel mixtures beneath peat and silt and sand overburden. Soils typically consist of 0.5- to 1.0-ft thick peat and 2.0- to 6.0-ft thick silt, silt with sand, sandy silt with gravel, or gravelly silt over silty gravel with sand. Bedrock was not encountered within the 39-ft depth of testing.

The silty gravel with sand contains layers of well-graded gravel with silt and sand with hard, coarse, rounded gravel of mixed siliceous metasedimentary and igneous composition. In some areas, soft, flattened finer gravel particles are prevalent, comprised mostly of argillite and graywacke. This site is near the confluence of two streams. Gravels are intermixed, suggesting the two drainages contributed different gravels.

Cobbles and boulders are present. In the locations of test trenches TT05-85 and TT05-87, cobble counts found the material contained 11- to 18-percent cobbles.

Tables 9 and 10 summarize laboratory data for samples obtained during the 1995 and 2005 NRMS investigations.

Table 9: MS 680-114-2 sample particle grain-size distributions.

USCS Classification Group Symbol and Name	Average sampled interval depth (ft)	Range Percent Passing #200 screen	Range Percent Retained on #4 screen	Range Percent Retained on 1-inch screen	LL/PI	Range Percent natural moisture content
SM Silty sand	5.0	14.5	20.0	1.0(1)	NV/NP(1)	8.2(1)
GM Silty gravel	9.3	12.4-31.3	44-66	2-20(5)	NV-22 /NP(5)	
GW Well-graded gravel	11.6	2.1-3.9	59-84	10-25(5)	NV/NP(5)	
GP Poorly-graded gravel	12.1	2.0-3.6	59-93	19-31(2)	NV/NP(2)	
GP-GM Poorly-graded gravel with silt	12.4	8.0-12.0	53-79	5-28(5)	NV/NP(5)	14.5(1)
GW-GM Well-graded gravel with silt	15.0	5.1-11.7	53-63	9-23(3)	NV-NP(3)	

Note: number of samples tested in parenthesis.

Table 10: MS 680-114-2 moisture-density relations (modified Proctor) summary.

Test Trench (TT), Sample Number	USCS Classification Group Symbol and Name	Optimum Moisture (percent)	Maximum Density (Pounds per cubic ft)	Specific Gravel (fine/coarse)
TT95-6	GW-GM	6.7	137.6	2.66/2.58
05-3775	GP-GM	6.0	137.0	2.70/2.64
05-3779	GW	6.4	132.1	2.65/2.64
05-3783	GP-GM	6.7	137.0	2.70/2.64

Typically, the few natural moisture values obtained are above optimum moisture, indicating the sand and gravel requires draining and drying prior to use. Additionally, NRML testing reports indicate 2- to 5-percent moisture difference between optimum moisture-density relations and saturation (zero air voids). This data supports contractor's reports of difficulties placing materials from this site on previous highway construction projects after normal precipitation due to a liquid limit (LL). The materials required thawing, draining, and drying before use in construction, and especially during wet weather, the moisture conditions moisture had to be strictly controlled. Construction records show this material when dry is compactable and stable, but if over-wetted it becomes spongy and unstable.

Gravel was present in all test holes and trenches to the depths tested. No test holes or trenches encountered bedrock.

Land and permit status

The State of Alaska owns, and the Department of Natural Resources manages the land. ADOT&PF maintains Material Sale Contract ADL 415977 to access and obtain materials from the site. The contract expires 17 April 2015 and allows removal of 150,000 bank cubic yards. Verify the remaining quantities allowed under the contract before requesting ADOT&PF and agency approval for use.

Clearing and stripping

Vegetation consists of short black spruce and willow stands on upland tundra bog, and tall aspen trees on slightly higher terrain. Stockpiled 12- to 15-ft thick overburden and fill generally covers the north half of the developed area. In undisturbed areas, overburden includes 1-ft of peat and up to 9 ft of silt.

Water table

At the time of the investigations, we intercepted groundwater at 21 to 36 ft. Groundwater was not intercepted in all test holes and trenches.

Frozen ground

The site is in a discontinuous permafrost zone. All drill holes and trenches in the site encountered frozen layers except TH05-82 and backhoe trench TT05-87. The September 2005 drill holes measured the top of frozen soils at a depth of 2 to 10 ft, and the bottom at

7 to 31 ft or beyond the maximum drilled depth. The frozen soils contain segregated ice, though massive ice was not encountered in test holes and trenches.

Some test holes intercepted unfrozen soil layers, between frozen soil layers. Although these were dry at the times of drill interception, they can contain groundwater. Expect intermittent ground water seepage, flows, and icing problems in excavations.

Quality of materials

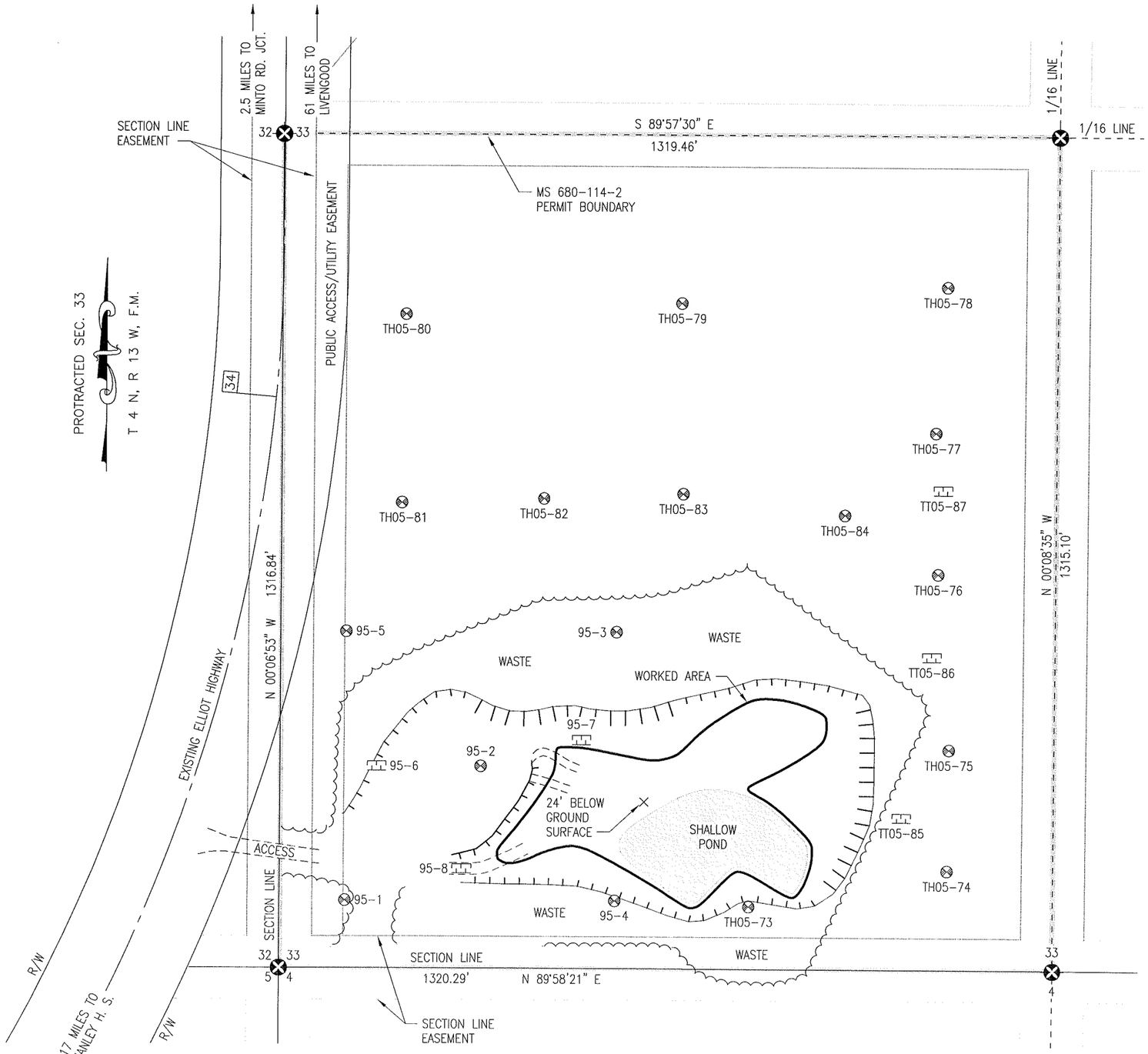
Table 11 summarizes the NRML quality testing data available. Highway construction projects have produced crushed aggregates from this site. However, not all the material from this site meets Degradation and gradation specifications for highway and airport materials. Selective mining will be required to produce some products. This may prove difficult, requiring lowering specifications to allow materials to meet specification.

Table 11: MS 680-114-2 quality testing summary.

Sample	Test hole	L.A.	DEG.	SSc	SSf
95-1041	TH95-1		44		
95-1043	TH95-2	22			
95-1057	TT95-6	24	27	1.6	2.3
05-3774	TH05-73	19	65	0.4	1.3
05-3776	TH05-74	20	53	0.4	1.9
05-3777	TH05-75			0.6	1.7
05-3782	TH05-81			0.4	1.3
05-3787	TT05-87	26	39	3.2	5.0

Mining plan guidelines

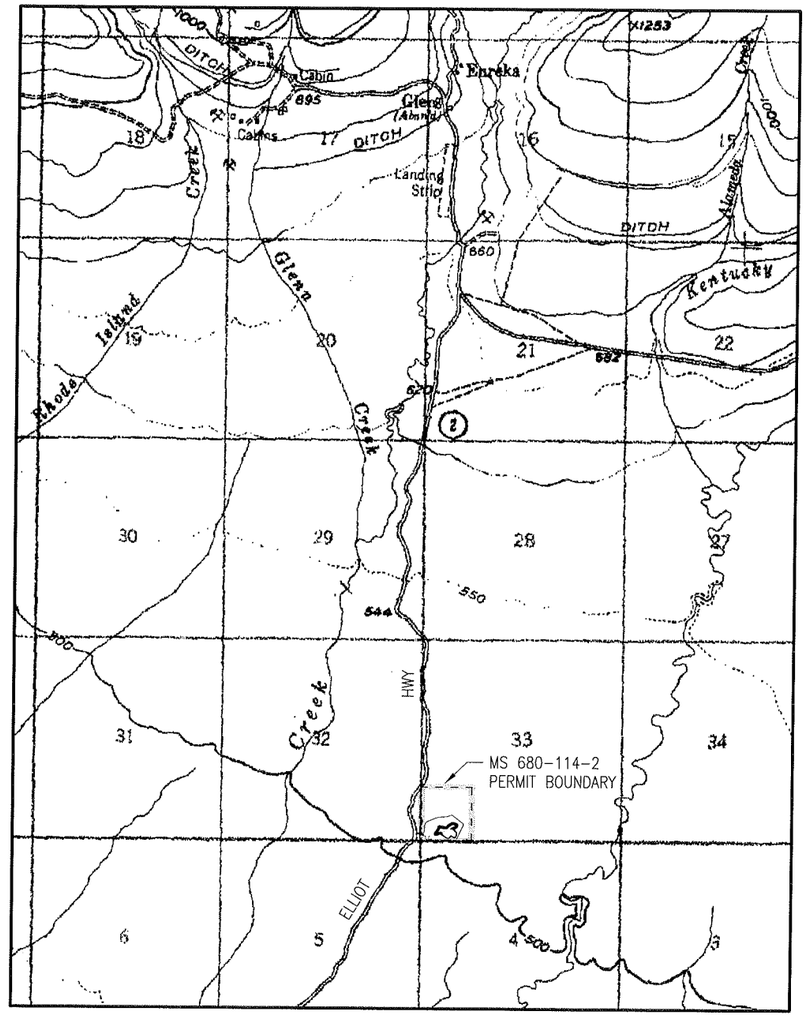
1. Selective mining methods will be required to obtain crusher feed that meets quality standards from this site.
2. Contractors proposing to use the site must explore the areas chosen for mining to assure sufficient quantities of the necessary materials are present.
3. Submit a site-specific mining plan to the Regional Materials Engineer, the Project Engineer, and then the interagency permit authorities for approval for development.
4. Comply with the National Pollutant Discharge Elimination System requirements, and all Federal, State and local regulations.
5. Upon completion of excavation work, rehabilitate in accordance with an approved plan.



SITE MAP

0 feet 200

NOTES:
THIS DRAWING MADE FROM FIELD SKETCH DATED 2005, AND OLDER PROJECT DRAWINGS. THE TRUE LOCATIONS OF FEATURES SHOWN MAY VARY FROM THE APPROXIMATE LOCATIONS SHOWN.



LOCATION MAP
(MAP FROM USGS TANANA A-1 1952)

0 feet 4000

SYMBOL/LINETYPE LEGEND

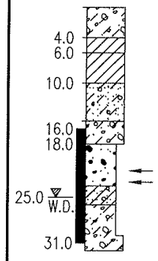
- TREELINE
- PIT SLOPE
- BACKHOE TRENCH
- SOLID-STEM AUGER DRILL HOLE
- SURVEY MONUMENT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: GF	MANLEY AIRPORT RELOCATION MATERIAL SITE MS 680-114-2
DRAWN: SLC	
APPROVED: SM	PROJECT NO. 61564
DATE: NOV 2008	V:\Geo\61564Manley\Drafting\MS680-114-2

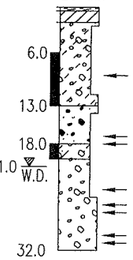
Nov 04, 2008 - 10:45am - Tab: Plan

TH05-73
N65.12347, W150.21863
26 SEP



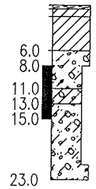
TH05-73	
0.0– 4.0	Bn Silty GRAVEL (overburden waste) w/ Sand (fill) w/ Cobbles
4.0– 6.0	Bn SILT (overburden waste?) (fill?) moist, sl Org
6.0–10.0	Bn SILT moist
10.0–15.0	Bn Silty SAND w/ Gravel moist
15.0–18.0	Bn Silty GRAVEL w/ Sand moist
18.0–23.5	Bn Well-graded GRAVEL w/ Sand w/ Cobbles SAMPLE 05-3774 18.0–30.0 SSc 0.4, SSf 1.3 LA 19, DEG 65
23.5–26.0	Bn Sandy SILT w/ Gravel wet
26.0–32.0	Bn Silty GRAVEL w/ Sand w/ Cobbles wet

TH05-74
N65.12366, W150.21614
26 SEP



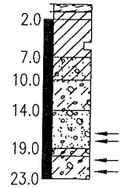
TH05-74	
0.0– 0.5	Bn ORG MAT
0.5– 2.0	Bn SILT wet, Org
2.0–13.0	Bn Poorly-graded GRAVEL w/ Silt w/ Cobbles wet SAMPLE 05-3775 2.5–11.5 GP-GM NV, NP
13.0–18.0	Bn Well-graded GRAVEL w/ Sand w/ Cobbles loose SAMPLE 05-3776: 14.0–25.0 GW-GM SSc 0.4, SSf 1.9 LA 20, DEG 53 NV, NP
18.0–20.0	Bn Silty GRAVEL w/ Sand w/ Cobbles
20.0–32.0	Bn Poorly-graded GRAVEL w/ Cobbles

TH05-75
N65.12417, W150.21640
26 SEP



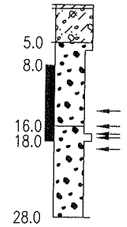
TH05-75	
0.0– 0.5	Bn ORG MAT
0.5– 1.5	Bn SILT wet, hi Org
1.5– 6.0	Bn SILT wet
6.0–11.0	Bn Silty GRAVEL w/ Sand SAMPLE 05-3777 8.0–21.0 GM SSc 0.6, SSf 1.7 NV, NP
11.0–13.0	Bn Gravelly SILT
13.0–23.0	Bn Silty GRAVEL w/ Sand

TH05-76
N65.12506, W150.21623
26 SEP



TH05-76	
0.0– 1.0	Bn ORG MAT
1.0– 2.0	Bn SILT wet, sl Org
2.0– 7.0	Bn SILT SAMPLE 05-3778 5.0–6.0 NM 42.4%, ORG 3.6%
7.0–10.0	Bn Sandy SILT w/ Gravel
10.0–14.0	Bn Silty GRAVEL w/ Sand
14.0–19.0	Bn Silty GRAVEL w/ Sand w/ Cobbles
19.0–20.0	Bn Gravelly SILT Org
20.0–23.0	Bn Silty GRAVEL w/ Sand w/ Cobbles

TH05-77
N65.12578, W150.21673
26 SEP



TH05-77	
0.0– 0.5	Bn Gravelly SILT dry, sl Org
0.5– 5.0	Bn Silty GRAVEL (fine) w/ Sand
5.0–16.0	Bn Well-graded GRAVEL (flat part.) w/ Sand w/ Cobbles SAMPLE 05-3779 6.0–17.0 GW NV, NP
16.0–28.0	Bn Well-graded GRAVEL (abund cobs) w/ Cobbles loose SAMPLE 05-3780 18.0–28.0 GW NV, NP

TH05-78
N65.12649, W150.21640
26 SEP

TH05-78	
0.0– 0.5	Bn ORG MAT moist
0.5– 1.5	Bn Gravelly SILT moist, sl Org
1.5–14.0	Bn Silty GRAVEL (coarse) w/ Sand w/ Cobbles
14.0–19.0	Bn Well-graded GRAVEL (coarse, well rndd) w/ Cobbles loose

TH05-79
N65.12717, W150.21954
27 SEP

TH05-79	
0.0– 1.0	Bn ORG MAT
1.0– 6.0	Bn Gravelly SILT w/ Sand wet
6.0– 9.0	Bn Poorly-graded GRAVEL w/ Sand SAMPLE 05-3781 6.0–8.0 NM 11.9%, ORG 1.3%
9.0–12.0	Bn Poorly-graded GRAVEL w/ Sand w/ Cobbles
12.0–14.0	Bn Gravelly SILT
14.0–15.0	Bn Poorly-graded GRAVEL w/ Cobbles and Boulders

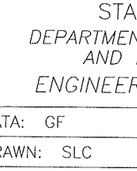
TH05-80
N65.12631, W150.22226
27 SEP

TH05-80	
0.0– 0.5	Bn ORG MAT
0.5– 7.0	Bn SILT w/ Sand wet, sl Org
7.0–16.0	Bn Silty GRAVEL w/ Sand slurry return
16.0–18.5	Bn Silty SAND w/ Gravel slurry return
18.5–23.0	Bn Poorly-graded GRAVEL (fine) w/ Sand slurry return

TH05-81
N65.12528, W150.22241
27 SEP

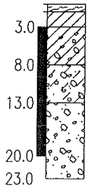
TH05-81	
0.0– 1.0	Bn ORG MAT
1.0– 3.0	Bn SILT sl Org
3.0–15.0	Bn Silty GRAVEL w/ Sand SAMPLE 05-3782 4.0–11.0 GM SSc 0.4, SSf 1.3 NV, NP
15.0–23.0	Bn Silty GRAVEL w/ Sand w/ Cobbles

TH05-82
N65.12541, W150.22090
27 SEP



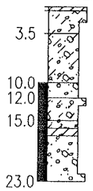
TH05-82	
0.0– 1.0	Bn ORG MAT
1.0– 4.0	Bn SILT sl Org
4.0– 6.0	Bn Gravelly SILT (fine) w/ Gravel slurry return
6.0– 9.0	Bn Silty GRAVEL (fine) w/ Sand w/ Cobbles slurry return
9.0–17.0	Bn Silty GRAVEL (fine) w/ Sand slurry return
17.0–21.0	Bn Poorly-graded GRAVEL w/ Sand w/ Cobbles loose, slurry return
21.0–23.0	Bn Silty GRAVEL (fine) w/ Sand loose, slurry return

TH05-83
N65.12536, W150.21913
27 SEP



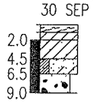
TH05-83	
0.0– 1.0	Bn ORG MAT
1.0– 3.0	Bn SILT wet, sl Org
3.0– 8.0	Bn Gravelly SILT w/ Gravel
8.0–13.0	Bn Silty GRAVEL (fine) w/ Sand
13.0–23.0	Bn Poorly-graded GRAVEL w/ Sand w/ Cobbles slurry return

TH05-84
N65.12519, W150.21731
27 SEP



TH05-84	
0.0– 0.5	Bn SILT dry, Org
0.5– 3.5	Bn Poorly-graded GRAVEL w/ Silt & Sand dry, sl Org SAMPLE 05-3783 2.0–12.0 GP-GM NV, NP
3.5–10.0	Bn Silty GRAVEL w/ Sand w/ Cobbles dry
10.0–12.0	Bn Poorly-graded GRAVEL w/ Sand
12.0–15.0	Bn Poorly-graded GRAVEL (fine) w/ Silt & Sand SAMPLE 05-3784 13.0–22.0 GP-GM NV, NP
15.0–16.0	Bn Silty GRAVEL w/ Sand w/ Cobbles
16.0–17.0	Bn Gravelly SILT
17.0–23.0	Bn Poorly-graded GRAVEL w/ Sand w/ Cobbles

TT05-85
N65.12383, W150.21661
30 SEP

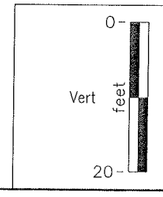


TT05-85	
0.0– 1.0	Bn ORG MAT
1.0– 2.0	Bn SILT wet, sl Org
2.0– 4.5	Bn SILT w/ Sand
4.5– 6.5	Bn Silty SAND
6.5– 9.0	Bn Well-graded GRAVEL w/ Sand w/ Cobbles Cob. = 18% (wt.), 3"–7" SAMPLE 05-3785 6.5–9.0 GW NV, NP

WATER TABLE

▽ W.D. – WHILE DRILLING

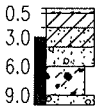
▽ A.D. – AFTER DRILLING



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: GF	MANLEY AIRPORT RELOCATION MS 680–114–2 2005 TEST HOLE LOG 1 of 2
DRAWN: SLC	
APPROVED: SM	PROJECT NO. 61564
DATE: NOV 2008	V:\Geo\61564Manley\Drafting\MS680-114-2

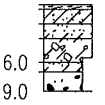
TT05-86
N65.12471, W150.21653
30 SEP



TT05-86

0.0- 0.5	Bn ORG MAT
0.5- 2.0	Bn SILT moist, sl Org
2.0- 4.0	Bn Sandy SILT
4.0- 6.0	Bn Poorly-graded SAND w/ Gravel
6.0- 9.0	Bn Well-graded GRAVEL w/ Silt & Sand SAMPLE 05-3786 6.0-9.0 GW-GM NV, NP
9.0-10.0	Bn Poorly-graded SAND w/ Gravel

TT05-87
N65.12539, W150.21676
30 SEP



TT05-87

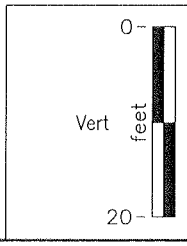
0.0- 0.5	Bn ORG MAT
0.5- 2.0	Bn Sandy SILT moist, sl Org
2.0- 3.5	Bn Silty SAND
3.5- 6.0	Bn Silty GRAVEL w/ Sand SAMPLE 05-3787 5.5-9.0 GW-GM SSc 3.2, SSf 5.0 LA 26, DEG 39 NV, NP
6.0- 7.0	Bn Silty SAND
7.0- 9.0	Bn Well-graded GRAVEL w/ Sand w/ Cobbles Cob. = 11% (wt.), 3"-7"

Fig. 20

WATER TABLE

▽ W.D. - WHILE DRILLING

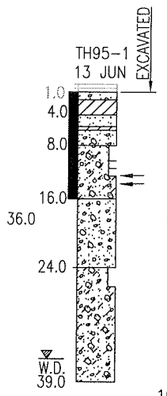
▽ A.D. - AFTER DRILLING



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: JDB	MANLEY AIRPORT RELOCATION MS 680-114-2 2005 TEST HOLE LOG 2 of 2
DRAWN: SLC	
APPROVED: DNS	PROJECT NO. 61564
DATE: NOV 2008	V:\Geo\61564Manley\Drafting\MS680-114-2

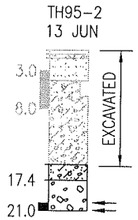
TH95-1
13 JUN



95-1

0.0– 0.7	ORG MAT(cleared)
0.7– 1.0	Bn SILT(stripped)
1.0– 2.0	Bn Sa GRAVEL
2.0– 4.0	Bn SILT
4.0– 5.5	Bn SAND
5.5– 6.0	Bn SILT
6.0– 8.0	Bn Gr SAND
8.0–16.0	Bn Si Sa GRAVEL w/Cobbles SAMPLE 95-1039 (8.0–12.0) A-1-a, 12.4%-200 SAMPLE 95-1040 (9.8–11.0) N.M 3.6%
16.0–24.0	Bn Gr SAND moist, 20 mm minus
24.0–39.0	Bn sl Si Sa GRAVEL moist, Basalt or Diabase Gr SAMPLE 95-1041 (24.0–26.5) A-1-a, 11.7%-200 DEG.:44 wet 36.0–39.0

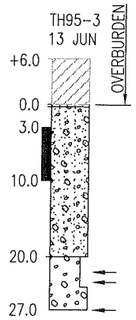
TH95-2
13 JUN



95-2

0.0– 0.5	ORG MAT(cleared)
0.5– 1.0	Gy Sa GRAVEL, moist
1.0– 4.0	Gy SAND, wet to 3.0
4.0–15.0	Gy Si Gr SAND SAMPLE 95-1042 (4.0–6.0) A-1-b, 14.5%-200 N.M. 8.2 wet 8.0–17.4
	*Pit floor @ 15.0, 2002
15.0–17.0	Gy Si Gr SAND
17.0–21.0	Gy GRAVEL, wet w/ Cobbles

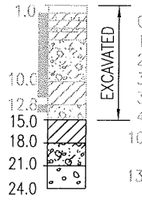
TH95-3
13 JUN



95-3

+6.0– 0.0	SILT Overburden Stockpile
0.0– 0.3	ORG MAT(cleared)
0.3–20.0	Gy Sa GRAVEL, -3/4" moist to 3.0 moist 10.0–20.0
20.0–27.0	Gy GRAVEL, moist w/Cobbles SAMPLE 95-1043 (20.0–24.0) A-1-a, 2.0% -200 L.A.:22 REFUSAL, Cobble or Boulder

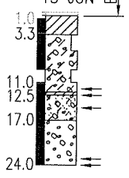
TH95-4
13 JUN



95-4

0.0– 1.0	ORG MAT(cleared)
1.0– 2.0	Bn Org SILT
2.0– 3.0	Gy SILT
3.0– 3.5	Gy Gr SILT
3.5– 4.5	Gy SILT
4.5–10.0	Gy Si Sa GRAVEL
10.0–13.0	Bn\Gy SILT wet 12.5–12.8
13.0–15.0	Gy Sa GRAVEL
	* Pit floor @ 15', 2002
15.0–18.0	Bn SILT, wet
18.0–21.0	Bn Si Sa GRAVEL wet
21.0–24.0	Bn GRAVEL, wet

TH95-5
13 JUN



95-5

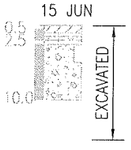
0.0– 0.7	ORG MAT(cleared)
0.7– 3.3	Bn SILT, wet to 1.0
3.3–12.0	Bn Si GRAVEL SAMPLE 95-1044 (3.0–6.0) A-1-b, 17.8 %-200 N.M. 4.9 % wet 8.9–9.8 SAMPLE 95-1045 (9.0–11.0) A-1-a, 13.7% -200 N.M. 9.1 %
12.0–13.0	Gy SILT
13.0–17.0	Gy Si Sa GRAVEL
17.0–24.0	Gy GRAVEL REFUSAL, Cobbles or Boulders

TT95-6
15 JUN

95-6

0.0– 5.0	Bn SILT w/scattered ice lenses difficult digging
5.0– 5.5	Gy SAND
5.5– 8.5	Gy sl Si Sa GRAVEL SAMPLE 95-1056 (6.0–6.9) A-1-a, 8.0%-200 N.M. 14.5% * 1–2% Cobbles SAMPLE 95-1057 (6.9–7.9) A-1-a, 2.9%-200 L.A.:24, DEG.:27

TT95-7
15 JUN



95-7

0.0– 1.0	Bn SILT
1.0– 1.5	Gy SAND
1.5– 2.0	Gy Sa GRAVEL
2.0– 2.6	Gy SAND, wet
2.6–10.0	Gy Sa GRAVEL * 1–2% Cobbles SAMPLE 95-1058 (0.8–1.5) A-1-a, 3.6%-200 DEG.:30 * Pit floor @ 15', 2002

TT95-8
15 JUN

95-8

0.0– 1.0	Bn SILT
1.0–10.0	Gy GRAVEL 1–2% Cobbles SAMPLE 95-1059 (7.8–9.8) A-1-a, 2.1%-200 * Ramp excavated to 10'

NOTE:
LABRATORY TESTING AND MATERIAL DESCRIPTIONS ARE BASED UPON ADOT TEXTURAL SOIL CLASSIFICATION SYSTEM. (SEE APPENDIX B).

WATER TABLE

W.D. – WHILE DRILLING

A.D. – AFTER DRILLING

Vert 0 – 20 feet

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: GF	MANLEY AIRPORT RELOCATION MS 680-114-2 1995 TEST HOLE LOG
DRAWN: SLC	
APPROVED: SM	PROJECT NO. 61564
DATE: NOV 2008	V:\Geo\61564Manley\Drafting\MS680-114-2

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
NORTHERN REGION
LABORATORY TESTING REPORT

PROJECT NAME: Elliot Hwy MP 108-120 Reconstruction
PROJECT NUMBER: 62227/MGS-680(32)
AKSAS NUMBER: 62227
SAMPLED BY: G. FITCH
MATERIAL SOURCE: MS 680-114-2

TEST HOLE NUMBER		TH05-73	TH05-74	TH05-74	TH05-75	TH05-76	TH05-77	TH05-77
DEPTH (feet)		18.0-30.0	2.5-11.5	14.0-25.0	8.0-21.0	5.0-6.0	6.0-17.0	18.0-28.0
LATITUDE		N65.12347°	N65.12366°	N65.12366°	N65.12417°	N65.12506°	N65.12578°	N65.12578°
LONGITUDE		W150.21863°	W150.21614°	W150.21614°	W150.2164°	W150.21623°	W150.21673°	W150.21673°
LAB NUMBER		**05-3774**	**05-3775**	**05-3776**	**05-3777**	**05-3778**	**05-3779**	**05-3780**
DATE SAMPLED		26-Sep-05	26-Sep-05	26-Sep-05	26-Sep-05	26-Sep-05	26-Sep-05	26-Sep-05
% Passing	**3"**			100			100	
	2"		100	95	100		98	100
	1.5"		97	89	99		95	99
Gravel	**1.0"**		82	74	95		86	90
	0.75"		66	63	90		76	78
	0.5"		44	44	81		55	56
	0.375"		33	34	73		43	42
	#4		21	16	56		21	16
	#8		19	11	49		14	9
	#10		19	10	49		13	8
	#16		18	9	46		10	7
	#30		17	8	44		8	5
Sand	**#40**		16	7	43		7	5
	#50		15	7	41		6	4
	#60		15	7	40		5	4
	#80		14	6	37		5	4
	#100		14	6	36		5	4
Silt/Clay	**#200**		12.0	5.1	31.3		3.6	2.9
Hydro	**0.02**							
	0.005							
	0.002							
	0.001							
LIQUID LIMIT			NV	NV	NV		NV	NV
PLASTIC INDEX			NP	NP	NP		NP	NP
USCS CLASSIFICATION			GP-GM	GW-GM	GM		GW	GW
USCS SOIL DESCRIPTION		(WGGr w/Sa)	PGGr w/Si	WGSa w/Si	SiGr w/Sa	(Si)	WGGr w/Sa	WGGr
NATURAL MOISTURE						42.4		
ORGANICS						3.6		
SP. GR. (FINE)			2.70				2.65	
SP. GR. (COARSE)			2.65				2.64	
MAX. DRY DENSITY			137.0				132.1	
OPTIMUM MOISTURE			6.0				5.4	
L.A. ABRASION		19		20				
DEGRAD. FACTOR		65		53				
SODIUM SULF. (CRSE)		0		0	1			
SODIUM SULF. (FINE)		1		2	2			
NORDIC ABRASION								
REMARKS						sl Org[1]		

GENERAL COMMENTS

Gradation is based on material passing the 3" sieve, according to Alaska Test Method T-7.

[1] Organic content determination is based on the results of the ATM T-6 test method.

(Soil descriptions shown in parentheses are based on field determinations.)

USCS Soil Description Abbreviations: WG = Well-graded; PG = Poorly-graded; E = Elastic; L = Lean; F = Fat

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION
NORTHERN REGION
LABORATORY TESTING REPORT

PROJECT NAME: Elliot Hwy MP 108-120 Reconstruction
PROJECT NUMBER: 62227/MGS-680(32)
AKSAS NUMBER: 62227
SAMPLED BY: G. FITCH
MATERIAL SOURCE: MS 680-114-2

TEST HOLE NUMBER		TH05-79	TH05-81	TH05-84	TH05-84	TT05-85	TT05-86	TT05-87
DEPTH (feet)		6.0-8.0	4.0-11.0	2.0-12.0	13.0-22.0	6.5-9.0	6.0-9.0	5.5-9.0
LATITUDE		N65.12717°	N65.12528°	N65.12519°	N65.12519°	N65.12383°	N65.12471°	N65.12539°
LONGITUDE		W150.21954°	W150.22241°	W150.21731°	W150.21731°	W150.21661°	W150.21653°	W150.21676°
LAB NUMBER		**05-3781**	**05-3782**	**05-3783**	**05-3784**	**05-3785**	**05-3786**	**05-3787**
DATE SAMPLED		27-Sep-05	27-Sep-05	27-Sep-05	27-Sep-05	30-Sep-05	30-Sep-05	30-Sep-05
% Passing	**3"**			100		100	100	100
	2"			99		93	97	89
	1.5"		100	95	100	89	92	88
Gravel	**1.0"**		98	80	95	81	77	80
	0.75"		94	69	87	73	70	74
	0.5"		85	54	70	62	57	64
	0.375"		77	46	57	54	50	58
	#4		56	33	32	38	37	46
	#8		44	27	23	29	31	36
	#10		42	26	22	28	30	35
	#16		38	22	18	22	27	28
	#30		34	19	15	14	24	20
Sand	**#40**		33	17	14	11	21	16
	#50		31	15	13	8	17	14
	#60		30	14	12	7	15	12
	#80		28	12	11	6	13	11
	#100		27	12	11	5	11	10
Silt/Clay	**#200**		23.2	9.2	8.8	3.9	8.7	7.4
	0.02							
Hydro	**0.005**							
	0.002							
	0.001							
LIQUID LIMIT			NV	NV	NV	NV	NV	NV
PLASTIC INDEX			NP	NP	NP	NP	NP	NP
USCS CLASSIFICATION			GM	GP-GM	GP-GM	GW	GW-GM	GW-GM
USCS SOIL DESCRIPTION		(PGGr w/Sa)	SiGr w/Sa	PGGr w/Si&Sa	PGGr w/Si&Sa	WGGr w/Sa	WGGr w/Si&Sa	WGGr w/Si&Sa
NATURAL MOISTURE		11.9						
ORGANICS		1.3						
SP. GR. (FINE)				2.70				
SP. GR. (COARSE)				2.64				
MAX. DRY DENSITY				137.0				
OPTIMUM MOISTURE				5.7				
L.A. ABRASION								26
DEGRAD. FACTOR								39
SODIUM SULF. (CRSE)			0					3
SODIUM SULF. (FINE)			1					5
NORDIC ABRASION								
REMARKS								

GENERAL COMMENTS

Gradation is based on material passing the 3" sieve, according to Alaska Test Method T-7.

[1] Organic content determination is based on the results of the ATM T-6 test method.

(Soil descriptions shown in parentheses are based on field determinations.)

USCS Soil Description Abbreviations: WG = Well-graded; PG = Poorly-graded; E = Elastic; L = Lean; F = Fat

State of Alaska Dept. of Transportation Northern Region Materials Lab.

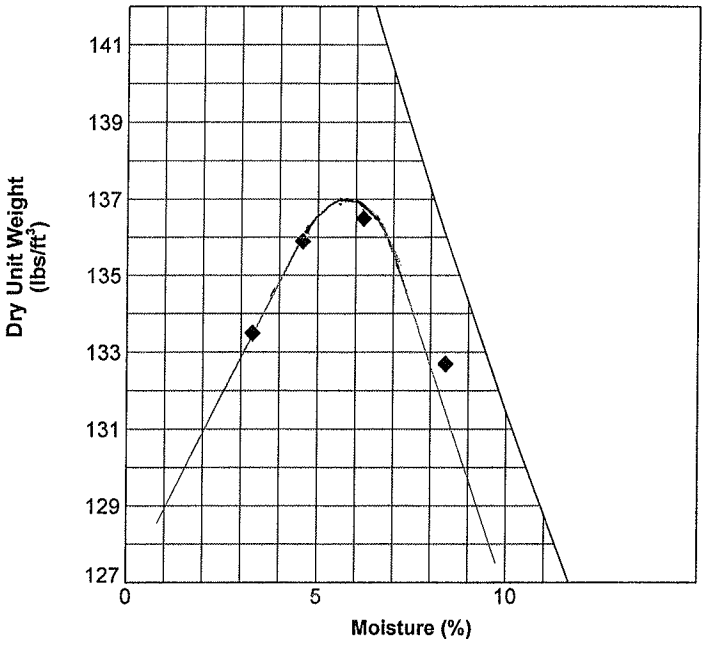
COMPACTION REPORT

Lab Number: **05-3783**

Project: Elliott Hwy 108-120 *Field Number:*

Source:

MOISTURE / DENSITY RELATIONSHIP



NOTE: The upper right portion of the graph may be clipped at the ZAV.

Dry Unit Wt	1	2	3	4	5	6
lbs/ft³	133.5	135.9	136.5	132.7		
kg/m³	2138	2177	2187	2126		
% Moisture	3.3	4.6	6.2	8.4		

REMARKS:

ASTM D-1557 AASHTO T-180D	*Regional Lab.*		*Field*
	lbs/ft³	*kg/m³*	
Max. Density	137.0		
Opt. Moisture	5.7		

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance
Date: _____

Signature: [signature]
~~Steve Meierotto~~ Tonya Knopke
Regional Lab Supervisor
Date: 1/24/06

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

NORTHERN REGION

LABORATORY TESTING REPORT

PROJECT NAME:		ELLIOTT HWY120 - 131						
PROJECT NUMBER:		STP-0680(26)						
AKSAS NUMBER:		66493						
MATERIAL SOURCE:		MS 680-114-2						
SAMPLED BY:		G. Brazo						
TESTHOLE		95-1	95-1	95-1	95-2	95-3	95-5	95-5
DEPTH (feet)		2.4-3.6	3.0-3.3	7.3-8.1	1.2-1.8	6.2-7.3	1.0-1.8	2.7-3.3
STATION		See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch
OFFSET								
LAB NO.		95-1039	95-1040	95-1041	95-1042	95-1043	95-1044	95-1045
DATE SAMPLED		13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95
% Passing	3"					100		
	2"	100		100	100	98	100	100
	1.0"	80		91	99	69	82	95
	0.75"	69		84	97	46	69	90
	0.5"	55		70	92	22	53	71
	0.375"	48		62	89	14	46	59
	#4	38		47	80	7	34	41
	#10	34		37	68	5	30	31
	#40	27		23	39	4	26	22
	#50	23		19	30	3	25	20
	#100	17		14	19	3	22	17
	#200	12.4		11.7	14.5	2.0	17.8	13.7
	0.02							
Hydro	0.005							
	0.002							
LIQUID LIMIT		NV		NV	NV	NV	22	19
PLASTIC INDEX		NP		NP	NP	NP	NP	NP
UNIFIED CLASS.		A-1-a		A-1-a	A-1-b	A-1-a	A-1-b	A-1-a
SOIL DESCRIPTION		SiSaGr	SiSaGr	sl.SiSaGr	SiSaGr	Gr	SiGr	SiGr
NATURAL MOISTURE			3.6		8.2		4.9	9.1
ORGANIC								
SP.GR. (FINE)								
SP.GR. (COARSE)								
MAX DRY DENSITY								
OPTIMUM MOISTURE								
L.A. ABRASION						22		
DEGRAD. FACTOR				44				
SODIUM SULF. (CRSE)								
SODIUM SULF. (FINE)								

REMARKS:

Gradation is percent of material passing the 3 in. sieve, Alaska Test Method T-7.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

NORTHERN REGION

LABORATORY TESTING REPORT

PROJECT NAME:		ELLIOTT HWY120 - 131						
PROJECT NUMBER:		STP-0680(26)						
AKSAS NUMBER:		66493						
MATERIAL SOURCE:		MS 680-114-2						
SAMPLED BY:		G. Brazo						
TESTHOLE		95-6	95-6	95-7	95-8			
DEPTH (feet)		2.4-3.6	3.0-3.3	7.3-8.1	1.2-1.8			
STATION		See Sketch	See Sketch	See Sketch	See Sketch			
OFFSET								
LAB NO.		95-1056	95-1057	95-1058	95-1059			
DATE SAMPLED		15-Jun-95	15-Jun-95	15-Jun-95	15-Jun-95			
% Passing	3"	100	100	100	100			
	2"	88	97	96	95			
	1.0"	72	84	81	75			
	0.75"	66	75	73	66			
	0.5"	58	63	61	53			
	0.375"	54	56	54	46			
	#4	45	41	41	30			
	#10	38	29	33	14			
	#40	22	12	15	5			
	#50	17	8	10	4			
	#100	11	4	5	3			
	#200	8.0	2.9	3.6	2.1			
	0.02							
Hydro	0.005							
	0.002							
LIQUID LIMIT		NV	NV	NV	NV			
PLASTIC INDEX		NP	NP	NP	NP			
UNIFIED CLASS.		A-1-a	A-1-a	A-1-a	A-1-b			
SOIL DESCRIPTION		sl.SiSaGr	SaGr	SaGr	Gr			
NATURAL MOISTURE		14.5	3.6		8.2			
ORGANIC								
SP.GR. (FINE)		2.58						
SP.GR. (COARSE)		2.66						
MAX DRY DENSITY		136.6						
OPTIMUM MOISTURE		6.7						
L.A. ABRASION			24					
DEGRAD. FACTOR			27	30				
SODIUM SULF. (CRSE)			1.6					
SODIUM SULF. (FINE)			2.3					

REMARKS:

Gradation is percent of material passing the 3 in. sieve, Alaska Test Method T-7.

State of Alaska Department of Transportation

Northern Region Materials Lab

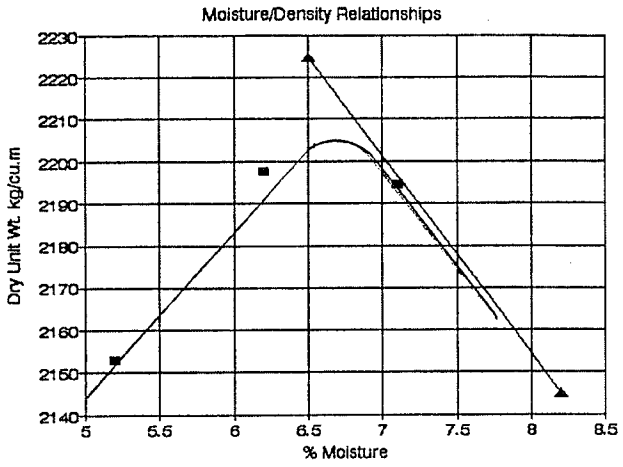
SOIL and AGGREGATE REPORT

Project Name:	ELLIOTT HWY 4, EUREKA-BAKER CK	***Lab Number:***	**95-1056**
Ledger Code:	30849922		
Project Number:	STP-O68(29)/66661		
Sampled By:	G BRAZO		
Source:	M.S. 680-114-2	***Test Hole:*** 95-6	***Depth:*** 1.8-2.1
Date Sampled:	6-15-95	***Offset:***	***Station:***

ATM T-7 SIEVES	% PASS
mm	
75	
50	88
37.5	84
25	72
19.0	66
12.5	58
9.5	54
4.75	45
2.36	40
2.00	38
1.18	34
0.850	
0.600	27
0.425	22
0.300	17
0.250	15
0.180	12
0.150	11
0.075	8.0
ATM T-1	
.02mm	
.005mm	
.002mm	

TEST No.	TEST	RESULTS
AASHTO T-89	LL	NV
AASHTO T-90	PI	NP
	SpG's	
AASHTO T-85	Coarse	2.66
ATM T-2	Fine	2.58
ATM T-6	ORGANIC	
AASHTO T-21	ORG PPM	
ATM T-5	MOISTURE	
	1.8-2.1	14.5
AASHTO T-104	SODIUM	
	Coarse	
	Fine	
AASHTO T-96	LA	
ATM T-13	DEG	

MOISTURE / DENSITY PLOT AASHTO T-180-D



Opt. Moisture: 6.7 %

Max. Density: 2204

Sample	*Dry Unit Wt.*	*% Moist.*	*Free Moist*
1 134.4	2152.9	5.2	Dry
2 137.2	2197.7	6.2	
3 137.0	2194.5	7.1	
4	2194.5	7.1	
5			

ZAV	2144.9	@	8.2
ZAV	2224.9	@	6.5

AASHTO CLASS: A-1-a

SOIL DESCRIPTION: sl.SiSaGr

UNIFIED CLASS:

Signature: Maureen Lee

Maureen E. Lee

REGIONAL LAB SUPERVISOR

PRECONSTUCTION ROUTING: Geologists, Regional Lab

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 08-042

Project: (M&O) Elliott Hwy MP 134 Crushing
Aksas:
Ledger: 30079322
Submitted by: H.C.
Date Sampled: 7-May-08
Sample Type: Acceptance
Station: Stockpile
Offset:
Depth:

Field Number: 134-D-1
Date Rec: 7-May-08
Material Site: Elliott Hwy MP 134
Site Location: 680-114-2
Item #: 1
Sample of: HFSA/D-1

TEST METHOD	DESCRIPTION	NRML	FIELD	SPECS
WAQTC FOP for T-89	Liquid Limit			
WAQTC FOP for T-90	Plastic Index			
Coarse Agg Specific Gravity	Bulk			
WAQTC FOP for T-85	SSD			
	Apparent			
	Absorption			
Fine Agg Specific Gravity	Bulk			
AASHTO T-84 / T-100	SSD			
ASTM C128 / D854	Apparent			
	Absorption			
Sodium Sulfate Soundness	Coarse			
ASTM C88 AASHTO T-104	Fine			
ASTM C131 AASHTO T-96	LA Abrasion			
ATM 213	Degradation			
ATM 212	Nordic Abrasion			
ATM 203	Organic by Ignition			
ASTM C40 AASHTO T-21	Organic PPM			
WAQTC FOP for T-255 / 265	Moisture Content			
ATM 306	Flat & Elongated			
WAQTC FOP for T-176	Sand Equivalent			
	pH of Soil			
Fracture	Single Face	73		
WAQTC FOP for TP-61	Double Face	63		
	Fineness Modulus			
	% Deleterious			

WAQTC FOP for T-27/T-11				
mm	inches	NRML	FIELD	SPECS
100	4"			
75	3"			
50.0	2"			
37.5	1 1/2"			
25.0	1"			
19.0	3/4"	100		100
12.5	1/2"	90		63-89
9.50	3/8"	74		36-56
4.75	#4	38		18-38
2.36	#8	25		12-30
2.00	#10	23		
1.180	#16	19		
0.600	#30	16		
0.425	#40	14		
0.300	#50	12		4-18
0.250	#60	11		
0.180	#80	9		
0.150	#100	9		
0.075	#200	6.7		3-8
Hydro. AASHTO T-88	.020mm			
	.005mm			
	.002mm			
	.001mm			

Acceptance/Assurance Comparison

Acceptable	Unacceptable

Materials Engineer/Designee

Date:

Remarks:

QA Review *Signature:*

Comments: *Date:*

Tonya Burritt 5/12/08

Tonya Burritt *Date:*

Regional Lab Supervisor

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 04-359

Project: ELLIOTT HWY MP 120-131
Aksas: 66493
Ledger: 30849942
Sampled by: M. LEE CONSTR.
Date Sampled: 29-Jul-04
Test Hole:
Station: COLD FEED BELT
Offset:
Depth:

Field Number: A-EHR-EATB-G-1
Material Site: 0680-114-2
Other Source:
Item #: 307 (1)
Sample of: EMULSIFIED ASPHALT TREATED BASE
Date Rec: 4-Aug-04
Sample Type ASSURANCE

ASTM	AASHTO	Tests	Reg Lab	Field Lab	Specs
D-4318	T-89	Liquid Limit			
	T-90	Plastic Index			
C127	Coarse Agg SpG	APP			
	T-85	SSD			
		BULK			
		Absorption			
C128 / D854	T-84 / T-100	Fine Agg SpG APP			
	Sodium Sulfate Soundness	Coarse			
9	T-104	Fine			
31	T-96	LA Abrasion			
	ATM T-13	Degradation			
	T-267	Organic by Ignition			
C40	T-21	ORGANIC PPM			
C566	T-255 / 265	Moisture Content			
	FRACTURE	Single Face	74	75	70-100
	WAQTC TM-1	Double Face			
D-4791		Flat or Elongated			
D-2419		Sand Equivalent			
		FINENESS MODULUS			
		% Deleterious			

AASHTO T-27 /11 ASTM C-136/117

mm	inches	% Passing	Field	Specs
75	3"			
50	2"			
37.5	1 1/2"			
25.0	1"	100	100	100
19.0	3/4"	97	97	70-100
12.5	1/2"	76	78	
9.5	3/8"	65	66	50-80
4.75	#4	44	44	35-65
2.36	#8	31	30	20-50
2.00	#10	28		
1.18	#16	22		
0.850	#20			
0.600	#30	17		
0.425	#40	14		
0.300	#50	12	12	8-30
0.250	#60	11		
0.180	#80	10		
0.150	#100	9		
0.075	#200	(7.1)	(7.4)	0-6
Hydro.	.02mm			
AASHTO	.005mm			
T-88	.002mm			
	.001mm			

REMARKS:

AASHTO Class: A-1-a
DOT & PF Soil Descrip: sl.SiSaGr
UNIFIED Class:

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance Insp *Date:*

Signature: Stephen T Meierotto
Steve Meierotto *Date:* 9-28-04
Regional Lab Supervisor

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 04-338

Project: ELLIOTT HWY MP 120-131
Aksas: 66493
Ledger: 30849942
Sampled by: A. GAVIN CONSTR.
Date Sampled: 22-Jul-04
Test Hole:
Station: CRUSHER BELT
Offset:
Depth:

Field Number: A-EHR-BC-SD-1
Material Site: 0680-114-2
Other Source:
Item #: 301 (1)
Sample of: BASE COURSE D-1
Date Rec: 28-Jul-04
Sample Type ASSURANCE

ASTM	AASHTO	Tests	Reg Lab	Field Lab	Specs
D-4318	T-89	Liquid Limit	NV		
	T-90	Plastic Index	NP		
	Coarse Agg SpG	APP		2.661	
C127	T-85	SSD		2.600	
		BULK		2.563	
		Absorption			
C128 / D854	T-84 / T-100	Fine Agg SpG APP			
	Sodium Sulfate Soundness	Coarse			
8	T-104	Fine			
31	T-96	LA Abrasion			
	ATM T-13	Degradation			
	T-267	Organic by Ignition			
C40	T-21	ORGANIC PPM			
C566	T-255 / 265	Moisture Content			
	FRACTURE	Single Face		68	
	WAQTC TM-1	Double Face			
D-4791		Flat or Elongated			
D-2419		Sand Equivalent			
		FINENESS MODULUS			
		% Deleterious			

AASHTO T-27 /11			ASTM C-136/117	
mm	Inches	% Passing	Field	Specs
75	3"			
50	2"			
37.5	1 1/2"			
25.0	1"	100	100	
19.0	3/4"	97	98	
12.5	1/2"	81	81	
9.5	3/8"	71	68	
4.75	#4	49	45	
2.36	#8	42	31	
2.00	#10	40		
1.18	#16	33	23	
0.850	#20			
0.600	#30	25	17	
0.425	#40	19		
0.300	#50	17	12	
0.250	#60	14		
0.180	#80	11		
0.150	#100	10		
0.075	#200	7.1	6.6	
Hydro	.02mm			
AASHTO	.005mm			
T-88	.002mm			
	.001mm			

REMARKS: ;

AASHTO Class: A-1-a

DOT & PF Soil Descrip: sl.SiSaGr

UNIFIED Class:

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance Insp *Date:*

Signature: Stephen T Meierotto
Steve Meierotto *Date:* 8-5-04
Regional Lab Supervisor

State of Alaska Department of Transportation Northern Region Materials

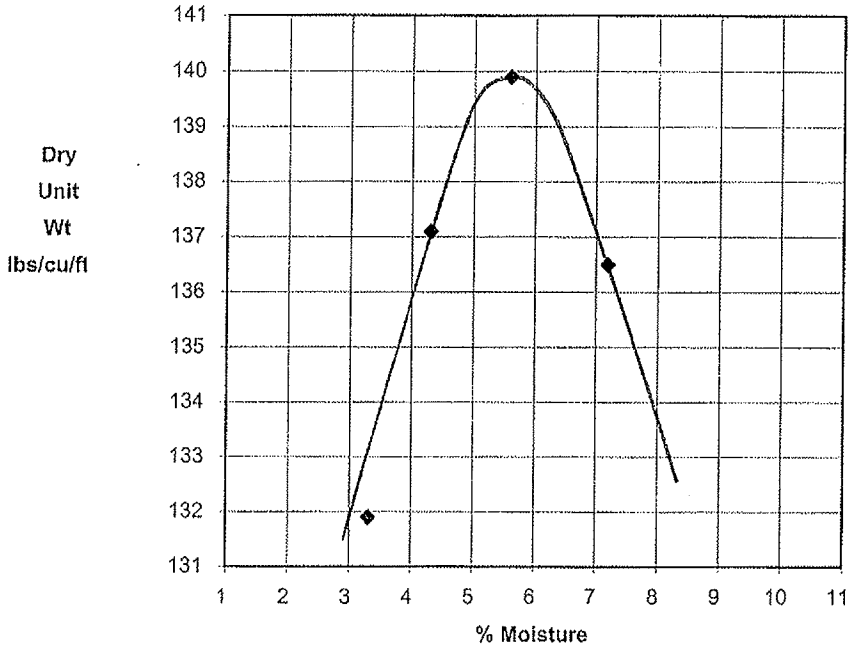
COMPACTION REPORT

Lab Number: **04-338**

Project: ELLIOTT HWY MP 120-131

Source: 0680-114-2 *Field #:* A-EHR-BC-SD-1

MOISTURE / DENSITY RELATIONS



Dry Unit Wt	1	2	3	4	5	ZAV	ZAV
lbs/cu/ft	131.9	137.1	139.9	136.5		132.4	140.4
kg/cu/m	2113	2196	2241	2187		2121	2249
% Moisture	3.3	4.3	5.6	7.2			
Free Moist:							

ASTM D-1557	Reg Lab		
AASHTO T-180D*	lbs/cu/ft	kg/cu/m	Field
**Max. Density	139.9		136.6
Opt. Moist	5.6		5.2

Signature Stephen T Meierotto

Steve Meierotto 8-5-04

Regional Laboratory Supervisor

Accept.	Unaccept

*Sector face rammer used

**Without 3/4" Correction

Accept/Assur Comparison

Conforms to Specs

Signature:

Quality Assurance Inspector

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 04-~~083~~ 085

Project: ELLIOTTT HWY DALTON HWY TO TANANA RV

Aksas: 66493

Ledger: 30849942

Sampled by: D K F CONSTR.

Date Sampled: 13-May-04

Test Hole:

Station:

Offset:

Depth:

Field Number: A-BXC-SD-1

Material Site: 0680-114 -2

Other Source: 680-114-2

Item #: 203 (7)

Sample of: BORROW

Date Rec: 25-May-04

Sample Type ASSURANCE

ASTM	AASHTO	Tests	Reg Lab	Field Lab	Specs
D-4318	T-89	Liquid Limit			
	T-90	Plastic Index			
C127	Coarse Agg SpG T-85	APP SSD BULK Absorption			
C128 / D854	T-84 / T-100	Fine Agg SpG APP			
'8	Sodium Sulfate Soundness T-104	Coarse Fine			
131	T-96	LA Abrasion			
	ATM T-13	Degradation			
	T-267	Organic by Ignition			
C40	T-21	ORGANIC PPM			
C566	T-255 / 265	Moisture Content			
	FRACTURE WAQTC TM-1	+4.75mm/+#4 Sgl Face +2.00mm/+#10 Dbl Face +4.75mm/+#4 Dbl Face +2.00mm/+#10 Sgl Face			
	ATM T-9	THIN & ELONGATED			
		FINENESS MODULUS			
		PROCTOR			
		% Deleterious			

REMARKS:

AASHTO T-27 /11			ASTM C-136/117	
mm	inches	% Passing	Field	Specs
75	3"	100	100	
50	2"	98	94	
37.5	1 1/2"	94	90	
25.0	1"	81	80	
19.0	3/4"	74	73	
12.5	1/2"	61	62	
9.5	3/8"	53	53	
4.75	#4	34	36	
2.36	#8	23	24	
2.00	#10	21		
1.18	#16	16	19	
0.850	#20			
0.600	#30	12	15	
0.425	#40	10		
0.300	#50	8	10	
0.250	#60	7		
0.180	#80	6		
0.150	#100	5		
0.075	#200	4.2	5.0	
Hydro. AASHTO T-88	.02mm .005mm .002mm .001mm			

AASHTO Class: A-1-a

DOT & PF Soil Descrip: Gr

UNIFIED Class:

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____

Quality Assurance Insp. *Date:*

Signature: Steven T Meierotto

Steve Meierotto *Date:* 6-4-04

Regional Lab Supervisor

State of Alaska Department of Transportation Northern Region Materials

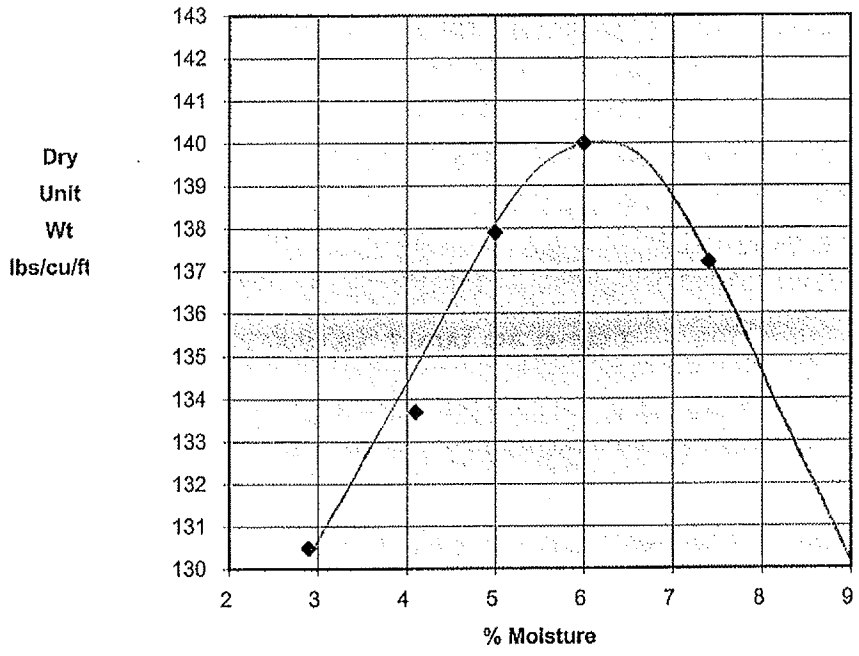
COMPACTION REPORT

Lab Number: 04-~~083~~ 085
KM

Project: ELLIOTTT HWY DALTON HWY TO TANANA RV

Source: 0680-114 *Field #:* A-BXC-SD-1

MOISTURE / DENSITY RELATIONS



Dry Unit Wt	1	2	3	4	5	ZAV	ZAV
lbs/cu/ft	130.5	133.7	137.9	140	137.2	131.5	139.5
kg/cu/m	2090	2142	2209	2243	2198	2106	2235
% Moisture	2.9	4.1	5	6	7.4		
Free Moist:							

ASTM D-1557	Reg Lab		
AASHTO T-180D*	lbs/cu/ft	kg/cu/m	Field
**Max. Density	140		136.6
Opt. Moist	6.0		5.0

*Sector face rammer used

**Without 3/4" Correction

Accept/Assur Comparison

Conforms to Specs

Signature:

Signature Steve Meierotto

Steve Meierotto

Regional Laboratory Supervisor

6-4-04

Accept.	Unaccept

Quality Assurance Inspector

ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

MATERIAL SITE DATA COLLECTION FORM

Collected by: GRAHEK Date:

I. GENERAL SITE DATA

1. Material Site No.: 680 - - /14 - 2
2. Site Name: CDS-ELLIOTT4-61.9
3. Community: LIVENGOOD-MANLEY
4. Owner/Agency: STATE OF ALASKA
5. Permit No.: NONE
6. Permit Type: 22A 7. Expiration Date: 00
8. Contact:
9. Lat/Long: ° ' " N ° ' " W
10. Quad Map: TANANA A1
11. Legal Description: SEC 33 T4N R13W FM
12. Acreage: 10 13. Reference Data: 00
14. Maps & Photos: 02030406
15. Special Considerations:
16. History:
17. Remarks: APPLN TO AOL

II. LAB DATA

18. Date:
19. Soil Class: SILTY SANDY GRAVEL
20. Test Values:
21. Remarks:

III. USE DATA

22. Present Status: INA 23. Recommended Use: BORMTWSTK
24. Quantities - Indicated: cubic yards Date:
Removed: cubic yards Date:
25. Remarks: BOR = TYPE A

CODES

6. PERMIT TYPE
00 None
Grants
01 Grant
02 Rt. of Way Grant
Deeds
11 Deed
12 Quit Claim Deed
Permits
21 Permit
22 PUP
23 FUP
24 SLUP
25 Prospect Permit
26 Mat'l Site Permit
27 Rt. of Entry Permit
28 Rt. of Way Permit
29 PTTB
Other
41 TLMT
42 TLMA
43 Lease
44 Agreement
45 Waste Area Agreemt.
46 Easement
47 Rt. of Way Easemt.
48 Court Award
49 Withdrawal
50 Release
51 Material Sales
A Applied for
B Issued

13. REFERENCE DATA
00 None available
01 Published M.S. rpt.
02 Lab analyses of mat'l
03 Design study/loc. rpt.
04 Construction use data
05 Environmental data
06 TH Loc. Map & Logs
07 Memo (ref. to file)
99 Other (Remarks)

14. MAPS & PHOTOS
00 None available
01 Sketch map
02 Location map
03 Site plat
04 Vert. air photos
05 Obl. air photos
06 Ground photos
99 Other (Remarks)

15. SPECIAL CONSIDERATIONS
00 None
01 Pit obligated
02 Royalty Payments
03 Proof of Use (incl. yr.)
04 3rd Party Encumbr.
05 Environmental Restr.
06 Historical Site
07 Archeological Site
08 Paleontological Site
09 Quantity Restr. (Remarks)
99 Other (Remarks)

20. TEST VALUES
LA Los Angeles Abrasion
DG Degradation
FV Frost Suscept. Value
P2 % passing #200 screen
SS Sulfate Soundness
SG Specific Gravity
LL Liquid Limit
PI Plastic Index
OR Organic Content
PH pH of Organics

22. PRESENT STATUS
ACT Active mining
INA Inactive site
DPL Depleted
STK Stockpile site
HWY Highway M & O Use
AVI Aviation M & O Use
STA Maintenance Station
PRV Private Pit
SQU Squatters
DMP Dump site
JNT Joint Use (Remarks)
ZZZ Other (Remarks)

23. RECOMMENDED USE
BOR Borrow
RRP Riprap
AGR Crushed Aggr.
SND Sand Source
BIN Binder Mat'l
TOP Topsoil
STK Stkp./Warehsing.
MTN Maintenance Use
STA Maintenance Station
TST Further Testing Req.
FTR Future Use
REL Relinquish Permits
WPA Waste Disposal Area
ZZZ Other

MATERIAL SITE DATA COLLECTION FORM

Material Site No.: 680 - [ ] - [ ] 114 - 2 Date: 190684

Collected by: SRAHER

I. SURFACE SITE DATA

26. Date: 190684 27. Investigation: FT01 28. Drainage: G

29. Geomorphic Description: ALLUVIAL FAN

30. Vegetation: ASP D 5 % SP D 0 % BIR D 0 %

31. Topography: FLT % 32. Debris: 00 %

33. Rock Outcrops: 0 % 34. Water Bodies: 00 35. Access: 02

36. Boundary Markers: 00 37. Utility Corridors: 00

38. Site Improvements: UNDEVELOPED

39. Remarks:

21, 22 FR PIT @ SW CORNER

CODES

27. & 41. INVESTIGATION
- BK Backhoe
- WA Wheel-mount Auger
- TA Track-mount Auger
- PD Portable Drill
- FT Foot Recon.
- AP Aerial Recon.
- SM Seismic Survey
- CD Conductivity Survey
- RV Resistivity Survey
- ZZ Other (Remarks)
- 01 Recon, sparse coverage
- 02 Part coverage, random
- 03 Part coverage, specific
- 04 High-density TH invest.
- 05 Special Survey

28. DRAINAGE
- P Poor - standing water
- F Fair
- G Good - establ. drainage

30. VEGETATION
- 000 None - bare soil
- BIR Birch
- COT Cottonwood
- ASP Aspen
- WIL Willow species
- ALD Alder species
- WSP White Spruce
- BSP Black Spruce
- SSP Sitka Spruce
- HEM Hemlock
- TAM Tamarack
- CED Cedar
- CON Misc coniferous
- DEC Misc deciduous
- GRD Low ground cover
- BOG Bog mosses, etc.
- ZZZ Other (unknown)
- 0 None
- 1 Scattered
- 2 Low (> 10' sep)
- 3 Moderate
- 4 High (< 3' sep)

30. VEGETATION (cont'd)
- SH Shrub
- ST Small Tree '(< 5" ø)
- MT Med Tree (5"-12" ø)
- LT Lg Tree (12"-30" ø)
- HT Huge Tree (> 30" ø)

% of site covered

31. TOPOGRAPHY
- FLT Flat and level
- ROL Rolling
- MOD Moderate hillside
- STP Steep hillside
- CLF Cliffside

% of site, each category

32. DEBRIS
- WO Woody debris
- CW Const. waste mat'ls
- TR Dump mat'l, trash
- HA Abnd. habitations
- ZZ Other (Remarks)

% of site, each category

33. ROCK OUTCROPS
- A 1'-10' height
- B 10'-25'
- C 25'-50'
- D 50'-100'
- E > 100'

% of site covered

34. WATER BODIES
- 00 None
- 01 River
- 02 Stream
- 03 Creek
- 04 Intermit. Stream
- 05 Lake
- 06 Pond
- 07 Impoundment
- 08 Bog/Swamp
- 09 Marine
- 99 Other

% of site covered

35. ACCESS
- 00 > 1 mile from nearest rd
- 01 Adj to unimproved rd
- 02 Adj to secondary grl rd
- 03 Adj to secondary pvd rd
- 04 Adj to primary pvd rd
- 05 Access by water
- 99 Other (Remarks)

36. BOUNDARY MARKERS
- 00 None found
- 01 One corner found
- xx Number corners found
- RB Rebar
- IP Iron Pipe
- WP Witness Post
- BZ Blaze Marks on trees
- BR Brush Line
- LM Landmark (Remarks)
- SM Survey Monument
- ZZ Other (Remarks)

37. UTILITY CORRIDORS
- EL Electric
- WA Water
- TL Telephone
- GS Gas
- PT Petroleum
- SW Sewer
- RR Railroad
- ZZ Other (Remarks)

38. SITE IMPROVEMENTS
- FNC Fencing
- SCR Screening
- BDG Bridge (Remarks)
- SCL Scales
- RMP Loading Ramps
- SWA Solid Waste Area
- GAT Locked Gate on access
- PIT Opened Pit
- TRL Trailhead
- EHR Existing Haul Road
- HAB Habitations
- BLD Buildings
- ZZZ Other (Remarks)

% of site occupied

II. SUBSURFACE SITE DATA

40. Date: 41. Investigation: 42. Drainage: G

43. Water Table: NO 44. Permafrost: P 45. Overburden: FCL 3 An

46. Soil Description: CBA An An An 47. %+3": 45 48. %+10": 11

49. Quantity Estimate: cubic yards An

50. Remarks:

CODES

42. DRAINAGE
- P Poor - fine-grn, saturated
- F Fair
- G Good - coarse-grn, well-drn

44. PERMAFROST
- Y Yes
- P Probable
- N Not likely

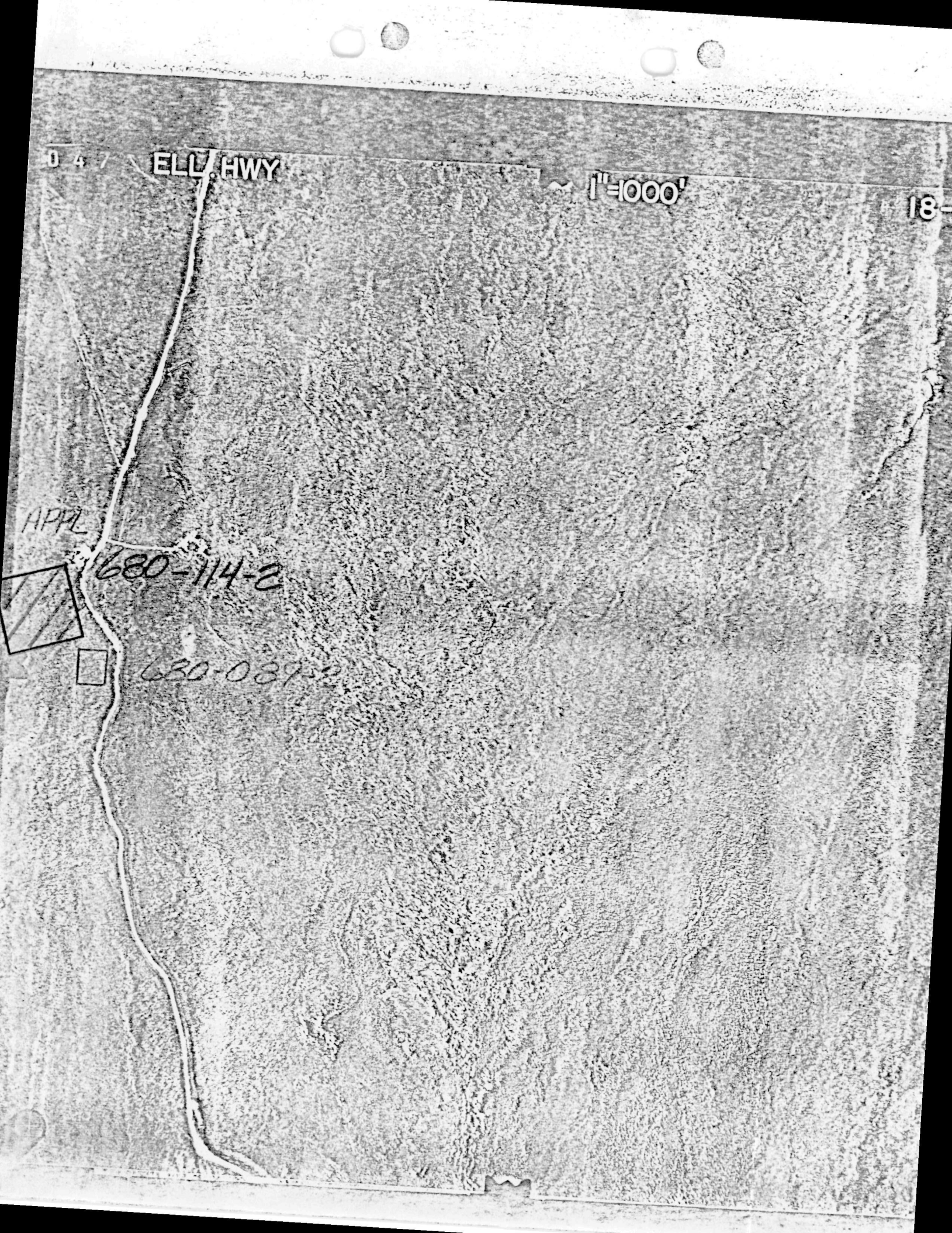
45. OVERBURDEN
- Soil Type (see Item 46)
- Thickness (ft.)
- Moisture (see Item 46)
- Method of Analysis

49. QUANTITY ESTIMATE
- Cubic Yards (Visual Est.)
- Soil Description, primary product
- Method of Analysis

46. SOIL DESCRIPTION
- A Gravel
- B Sand
- C Silt
- D Clay
- E Ash
- F Organic
- G bedrock
- Z Other
- 0 Undetermined
- 1 Dry
- 2 Damp
- 3 Free Moisture

Method of Analysis

METHOD OF ANALYSIS
- A Cutbank exposure
- B Shovel pit
- C Soil auger
- D Soil probe
- E Prev. rpts.
- Z Other


047
ELL. HWY
1"=1000'
18-
APPL.
680-114-2
680-037-2

STATE OF ALASKA
DOT & PF
Construction
OIL & AGGREGATE Method C
FIELD WORKSHEET

Method C (+)3" 2004

○ ☐ Acceptance ☑ Information ○

Project Name: Elliott Hwy MP 120-131 Sample No: EHR-I-BXA-G-4
Ledger Code: 30849942
Material: Borrow Source: MS 680-114 (2)
Item No: 203(7) Location:

Station: PIT Sampled By: D.F.F. WAQTC #
C/L Ref: Sampled: (Date): 5/6/04 (Time):
Grade Ref: Quant. Rep'd: 1/5000cy

MOISTURE CONTENT
FOP for T 265 / T 255

(Wet Mass + Tare) A =	
(Dry Mass + Tare) B =	
(Moisture Mass) A - B =	
(Tare) C =	
(Dry Mass) B - C =	
[(A-B) / (B-C)] x 100	

FOP for T 27 / T 11
Split and Wash Fine Only

Sieve Size	Indiv. Mass Retained	Split #1 Cum Mass Retained	Split #2 Cum Mass Retained	Cum. Mass Retained	Cum. % Retained	% Passing	Specs.
4" / 100mm				0	0	100	
*3" / 75mm				2890.0	13.2	*= 87.	
2" / 50mm				4013.6	18.4	82.	
*1½" / 37.5mm				5027.3	23.0	77.	
1" / 25.0mm				8115.4	37.2	63.	
*¾" / 19.0mm				10061.9	46.1	54.	
½" / 12.5mm				12585.1	57.7	42.	
*⅜" / 9.5mm				14196.8	65.0	35.	
¼" / 6.3mm				16071.5	73.4	27	
*#4 / 4.75mm				17101.0 C	78.3	*= 22	
Pan P	4714.5			#4 on (-)3" = (s/t) x 100	25	20-65	
				M_1=B - C ⇨	4739.9		M_1 grams
Dry Mass AFTER Sieving = (C + P) ⇒				21815.5 A	17101.0		C grams
Original Dry Mass Before Sieving ⇒				21840.9 B	21840.9		B grams
% Loss [(B - A) / B]x100 ≤ 0.3%			0.1.	KGX1000=GRAMS	7.554.		F = M_1 / M_2 (to .001)

Remarks:

Liquid Limits / Plastic Index FOP for T 89 / T90

	T 89	T 90
(B) No. of Blows =		
Wet Mass + Tare =		
Dry Mass + Tare =		
Moisture Mass =		
Tare =		
Dry Mass =		
(W) % Moisture =		
Specs 0 - 25 LL=W x (B/25) $^{.121}$	NV	PL
Specs 0 - 6 PI = LL - PL	NP	

Circle One : (Tactile) / Visual

Deleterious (visual)	< 1%

SIGNATURE: [signature]
DATE: 5-11-04 CHECKED BY: [signature]

Sieve Size	Cum. Mass Retained (G)	Adj. Cum. Mass Retained H = (G * F) = C	Cum. % Ret'd (H / B) x 100	% Pass (100 - % Retained)	Specs.
*#8/2.36mm	245.9				
#10/2.00mm	290.9				
*#16/1.18mm	393.4				
#20/.850mm	449.6				
*#30/.600mm	503.9				
#40/.425mm	547.9				
*#50/.300mm	574.1				
#60/.250mm	583.3				
#80/0.180mm	591.9				
*#100/.15mm	595.9				
#200/.075mm	601.8	21647.0	99.11	*= 0.9	
Cum. Pan P	605.2	– AP	(s/t) x 100	1.0	0-6
K	605.2	– AK	= Dry Mass AFTER Wash		
M_2	6227.5	= Dry Mass of Split			
Grad. Check [(AK - AP) / B] x 100			≤ 0.3%	0.0	

DATE RECEIVED

STATE OF ALASKA
DOT & PF
Construction
OIL & AGGREGATE Method C
FIELD WORKSHEET

☐ Acceptance ☑ Information

Method C (+)3" 2004

Project Name: Elliott Hwy MP 120-131 Sample No: EHR-I-BXA-G-3

Ledger Code: 30849942 (3)

Material: Borrow Source: MS 680-114

Item No: 203(7) Location:

Station: PIT Sampled By: D.F.F. WAQTC #

C/L Ref: Sampled: (Date): 5/6/04 (Time):

Grade Ref: Quant. Rep'd: 1/5000cy

MOISTURE CONTENT
FOP for T 265 / T 255

(Wet Mass + Tare) A =	
(Dry Mass + Tare) B =	
(Moisture Mass) A - B =	
(Tare) C =	
(Dry Mass) B - C =	
[(A-B) / (B-C)] x 100	

FOP for T 27 / T 11
Split and Wash Fine Only

Sieve Size	Indiv. Mass Retained	Split #1 Cum Mass Retained	Split #2 Cum Mass Retained	Cum. Mass Retained	Cum. % Retained	% Passing	Specs.
4" / 100mm				0	0	100	
3" / 75mm				3494.6	15.3	85	
2" / 50mm				5347.5	23.8	76	
1½" / 37.5mm				6656.4	29.7	70	
1" / 25.0mm				8816.7	39.5	61	
¾" / 19.0mm				10331.5	45.9	54	
½" / 12.5mm				12342.6	54.9	45	
3/8" / 9.5mm				13961.8	62.1	38	
¼" / 6.3mm				15901.4	70.7	29	
#4 / 4.75mm				17136.0 C	76.2	24	
Pan P	537.1			#4 on (-)3" = (s/t) x 100	28	20-65	
				M_1=B - C ⇨	5365.7		M_1 grams
Dry Mass AFTER Sieving = (C + P) ⇒				22495.1 A	17136.0		C grams
Original Dry Mass Before Sieving ⇒				22502.7 B	22502.7		B grams
% Loss [(B - A) / B]x100 ≤ 0.3%			0.0	KGX1000=GRAMS	9.752		F = M_1 / M_2 (to .001)

Remarks:

Liquid Limits / Plastic Index FOP for T 89 / T90

	T 89	T 90
(B) No. of Blows =		
Wet Mass + Tare =		
Dry Mass + Tare =		
Moisture Mass =		
Tare =		
Dry Mass =		
(W) % Moisture =		
Specs 0-25 LL=W x (B/25) .121	NV	PL
Specs 0-6 PI = LL - PL	NP	

Circle One : (Tactile) / Visual

Deleterious (visual)	<1%

Sieve Size	Cum. Mass Retained (G)	Adj. Cum. Mass Retained H = (G * F) + C	Cum. % Ret'd (H / B) x 100	% Pass (100 - % Retained)	Specs.
#8/2.36mm	248.0				
#10/2.00mm	285.8				
#16/1.18mm	382.0				
#20/.850mm	429.2				
#30/.600mm	473.5				
#40/.425mm	505.2				
#50/.300mm	520.6				
#60/.250mm	525.5				
#80/0.180mm	530.2				
#100/.15mm	532.3				
#200/.075mm	535.8	22363.1	99.38	s= 0.6	
Cum. Pan P	537.9	- AP	(s/t) x 100	0.7	0-6
K	539.9	- AK	⇐ Dry Mass AFTER Wash		
M_2	550.2	⇐ Dry Mass of Split			
Grad. Check [(AK - AP) / B] x 100			≤ 0.3%		

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 01-057

Project: NRRST-ELLIOTT
Aksas: 60901
Ledger: 30299942
Sampled by:
Date Sampled: 17-May-01
Test Hole:
Station: X-section stkpl
Offset:
Depth:

Field Number: Q-1
Material Site: 680-114-2
Other Source:
Item #: 301(1)
Sample of: PIT RUN
Date Rec: 5/21/01
Sample Type QUALITY

Specifications	Tests	Reg Lab	Field Lab	Specs
AASHTO T-89	Liquid Limit	NV		
AASHTO T-90	Plastic Index	NP		
Specific Gravity AASHTO T-85	APP			
	SSD			
	BULK			
	Absorption			
LeChatelier	Fine Agg.			
AASHTO T-104	Coarse	1.6		9 max
SODIUM	Fine	1.6		
AASHTO T-96	LA	24		50 max
ATM T-13	DEG	41		40 min
ATM T-6	Organic by Ignition			
AASHTO T-21	ORGANIC PPM			
ATM T-5	Moisture Content			
ATM T-4 FRACTURE	4.75mm/+#4 Sgl Face			
	00mm/+#10 Dbl Face			
	+4.75mm/+#4 Dbl Face			
	+2.00mm/+#10 Sgl Face			
ATM T-9	THIN & ELONGATED			
	FLAKINESS INDEX			
	PROCTOR			
	% Deleterious			

mm	inches	Reg Lab	Field	Specs
+75	+3"	4.0		
75	3"			
50	2"	91		
37.5	1 1/2"	86		
25.0	1"	74		
19.0	3/4"	66		
12.5	1/2"	55		
9.5	3/8"	49		
4.75	#4	35		
2.36	#8	24		
2.00	#10	23		
1.18	#16	18		
0.850	#20			
0.600	#30	14		
0.425	#40	12		
0.300	#50	10		
0.250	#60	10		
0.180	#80	8		
0.150	#100	8		
0.075	#200	6.4		
Hydro ATM T-1	.02mm			
	.005mm			
	.002mm			

REMARKS:

AASHTO Class: A-1-a
DOT & PF Soil Descrip: Gr
UNIFIED Class:

Acceptance/Assurance	Acceptable	Inacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance Inspector

Signature: Maureen Lee
Maureen Lee
Regional Lab Supervisor

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 01-263

Project: NRRST-ELLIOTT
Aksas: 60901
Ledger: 30299942
Sampled by: HS
Date Sampled: 18-Jul-01
Test Hole:
Station:
Offset:
Depth:

Field Number: A-BXB-G-1
Material Site: 680-114-2
Other Source:
Item #: 203(6)
Sample of: RECON. BX B
Date Rec:
Sample Type ASSURANCE

Specifications	Tests	Reg Lab	Field Lab	Specs
AASHTO T-89	Liquid Limit	NV		
AASHTO T-90	Plastic Index	NP		0-6
Specific Gravity AASHTO T-85	APP SSD BULK Absorption			
LeChatelier	Fine Agg.			
AASHTO T-104 SODIUM	Coarse Fine			
AASHTO T-96	LA			
ATM T-13	DEG			
ATM T-6	Organic by Ignition			
AASHTO T-21	ORGANIC PPM			
ATM T-5	Moisture Content			
ATM T-4 FRACTURE	+4.75mm/+#4 Sgl Face +2.00mm/+#10 Dbl Face +4.75mm/+#4 Dbl Face +2.00mm/+#10 Sgl Face			
ATM T-9	THIN & ELONGATED			
	FLAKINESS INDEX			
	PROCTOR			
	% Deleterious			

mm	inches	Reg Lab	Field	Specs
+75	+3"			
75	3"	100		
50	2"	95		
37.5	1 1/2"	91		
25.0	1"	83		
19.0	3/4"	77		
12.5	1/2"	66		
9.5	3/8"	59		
4.75	#4	44		
2.36	#8	35		
2.00	#10	32		
1.18	#16	27		
0.850	#20	20		
0.600	#30			
0.425	#40	15		
0.300	#50	12		
0.250	#60	11		
0.180	#80	9		
0.150	#100	8		
0.075	#200	6.0		0-10
Hydro. ATM T-1	.02mm .005mm .002mm			

REMARKS:

AASHTO Class: A-1-a
DOT & PF Soil Descrip: SaGr
UNIFIED Class:

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance Inspector

Signature: Maureen Lee
Maureen Lee
Regional Lab Supervisor

FIELD RESULTS?

State of Alaska Dept. of Transportation Northern Region Materials Lab

SOIL and AGGREGATE REPORT

Lab Number: 01-084

Project: NRRST-ELLIOTT
Aksas: 60901
Ledger: 30299942
Sampled by: TOM S
Date Sampled: 30-May-01
Test Hole:
Station: BELT
Offset:
Depth:

Field Number: A-AST-G-2
Material Site: 680-114-2
Other Source:
Item #: 405
Sample of: COVER AGG for AST
Date Rec: 6/4/01
Sample Type ASSURANCE

Specifications	Tests	Reg. Lab	Field Lab	Specs
AASHTO T-89	Liquid Limit	NV	NV	
AASHTO T-90	Plastic Index	NP	NP	3 max
Specific Gravity AASHTO T-85	APP SSD BULK Absorption			
LeChatelier	Fine Agg.			
AASHTO T-104 SODIUM	Coarse Fine			
AASHTO T-96	LA			
ATM T-13	DEG			
ATM T-6	Organic by Ignition			
AASHTO T-21	ORGANIC PPM			
ATM T-5	Moisture Content			
ATM T-4 FRACTURE	+4.75mm/+#4 Sgl Face +2.00mm/+#10 Dbl Face +4.75mm/+#4 Dbl Face +2.00mm/+#10 Sgl Face	63	70	50 min
ATM T-9	THIN & ELONGATED	16		8 max
	FLAKINESS INDEX			
	PROCTOR			
	% Deleterious			

mm	inches	Reg. Lab	Field	Specs
+75	+3"			
75	3"			
50	2"			
37.5	1 1/2"			
25.0	1"	100	100	100
19.0	3/4"	94	98	75-95
12.5	1/2"	71	83	
9.5	3/8"	60	73	50-80
4.75	#4	41	51	35-65
2.36	#8	29	38	20-50
2.00	#10	27		
1.18	#16	22		
0.850	#20			
0.600	#30	17		
0.425	#40	15	19	8-30
0.300	#50	12		
0.250	#60	11		
0.180	#80	10		
0.150	#100	9		
0.075	#200	7.0	10.1	3-6
Hydro ATM T-1	.02mm	4.6		
	.005mm	2.1		0-3
	.002mm	1.3		

REMARKS:

AASHTO Class: A-1-a

DOT & PF Soil Descrip: sl.SiSaGr

UNIFIED Class:

Acceptance/Assurance	Acceptable	Unacceptable
Comparison:		
Conforms to Specs:		

Signature: _____
Quality Assurance Inspector

Signature: Maureen Lee
Maureen Lee
Regional Lab Supervisor

MS 680-114-2

Location and access

This site is located at approximately mile 134 Elliott Highway.

Description

The alluvial soils in this 9.88 acre developed site range from silt to gravel and were probably deposited by Eureka Creek. The gravels are predominantly derived from graywacke and argillite. Drill reaction indicated cobbles and boulders are present in these soils. Interbedded silt layers were noted in Test hole (TH) 95-4 and 95-5. Silt was detected from 14.8 to 18.0 feet beneath the surface in TH 95-4. The site has been used extensively for base and crushed aggregate material, with approximately 12 to 15 feet of material removed from approximately two thirds of the site.

Clearing and stripping

The site was cleared and partially stripped in 1995. Before clearing, overburden included a 0.5 to one foot thick organic mat. The northern portion of the site contains a six foot waste berm.

Water table

Test hole TH 95-1 drilled in the southwest corner of the site hit ground water at 36 feet in June 1995. Observed 1" below the pit floor in 2003.

Frozen ground

Frozen soils were recorded in all of the test holes and test trenches generally beginning about one foot beneath the surface and persisting to as much as 21 feet beneath the surface in June 1995. Unfrozen soil layers were sandwiched between frozen layers in some test holes.

See the test hole and test trench logs for details of the frozen and unfrozen soil layers.

Land status

This site is State owned and permitted for DOT&PF use through a Negotiated Material Sale Contract (NMSC) number ADL 410576 which expires 3 September 2007.

Quality of material

Laboratory testing results of submitted samples indicate the silty gravelly sand, silty gravel, and silty sandy gravel generally had tested fines contents ranging from 11.7 to 28.5 percent minus 200 sieve. Results of quality tests indicated Degradation value of 44, L. A. Abrasion loss of 22. The proctor indicates the material may be sensitive to moisture content and may have handling problems.

Mining plan guidelines

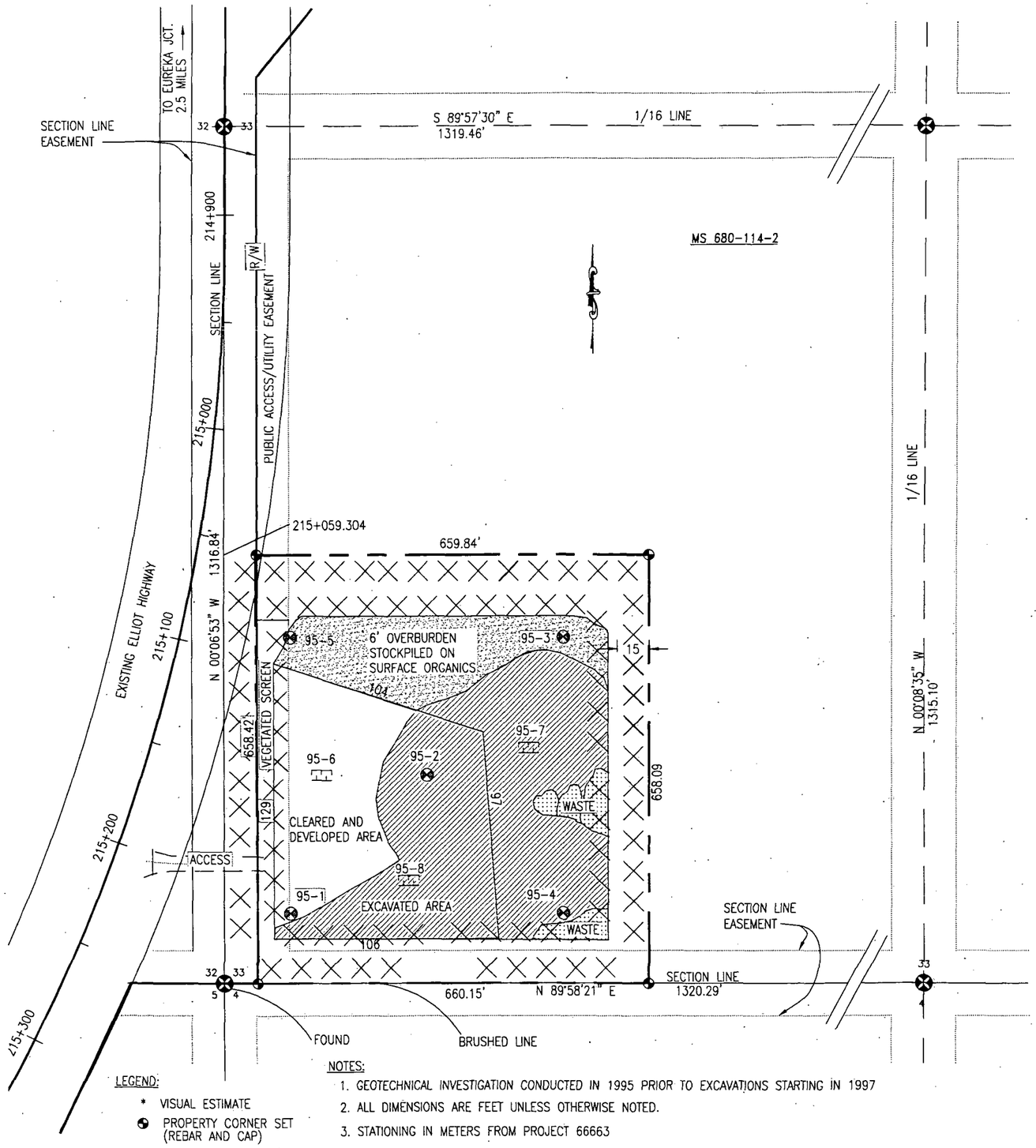
A contractor using this site will need to review permits for fees, royalties, and stipulations. Prior to extraction, present a mining plan for review and approval for the specific area to be mined. Locate, brush, and mark with flagging and/or stakes, the property boundaries prior to beginning of mining activities. The access road must be maintained and left in good condition upon completion of extraction activities.

Place stripping debris over the clearing piles located on the periphery of the site. For stability, consider using backslopes no steeper than 1 vertical to 1.5 horizontal and slope the pit floor to drain to a common low point.

Rehabilitation plan guidelines

The contractor should formulate a reclamation plan for the area to be mined. The plan should conform to NPDS guidelines and be approved before beginning any mining activity. Upon completion of extraction operations supply the Materials Section with a detailed site sketch that includes the area excavated, locations of specific types of stockpiles, and waste areas. Include a written narration of quantities of each material produced, waste percentages, and a description of any problems experienced during excavation.

After the excavation has reached practical backslope and depth limits, spread stripped silt overburden on the pit backslopes and floor to promote natural revegetation of the site.



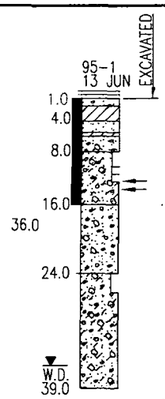
LEGEND:

* VISUAL ESTIMATE

PROPERTY CORNER SET (REBAR AND CAP)

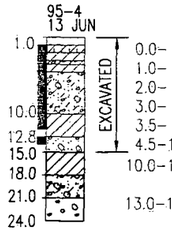
NOTES:

1. GEOTECHNICAL INVESTIGATION CONDUCTED IN 1995 PRIOR TO EXCAVATIONS STARTING IN 1997
2. ALL DIMENSIONS ARE FEET UNLESS OTHERWISE NOTED.
3. STATIONING IN METERS FROM PROJECT 66663



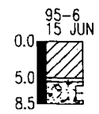
95-1

0.0– 0.7	ORG MAT(cleared)
0.7– 1.0	Bn SILT(stripped)
1.0– 2.0	Bn Sa GRAVEL
2.0– 4.0	Bn SILT
4.0– 5.5	Bn SAND
5.5– 6.0	Bn SILT
6.0– 8.0	Bn Gr SAND
8.0–16.0	Bn Si Sa GRAVEL w/Cobbles SAMPLE 95–1039 (8.0–12.0) A–1–a, 12.4%–200 SAMPLE 95–1040 (9.8–11.0) N.M 3.6%
16.0–24.0	Bn Gr SAND moist, 20 mm minus
24.0–39.0	Bn sl Si Sa GRAVEL moist, Basalt or Diabase Gr SAMPLE 95–1041 (24.0–26.5) A–1–a, 11.7%–200 DEG.:44 wet 36.0–39.0



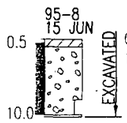
95-4

0.0– 1.0	ORG MAT(cleared)
1.0– 2.0	Bn Org SILT
2.0– 3.0	Gy SILT
3.0– 3.5	Gy Gr SILT
3.5– 4.5	Gy SILT
4.5–10.0	Gy Si Sa GRAVEL
10.0–13.0	Bn\Gy SILT wet 12.5–12.8
13.0–15.0	Gy Sa GRAVEL * Pit floor @ 15', 2002
15.0–18.0	Bn SILT, wet
18.0–21.0	Bn Si Sa GRAVEL wet
21.0–24.0	Bn GRAVEL, wet



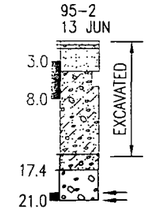
95-6

0.0– 5.0	Bn SILT w/scattered ice lenses difficult digging
5.0– 5.5	Gy SAND
5.5– 8.5	Gy sl Si Sa GRAVEL SAMPLE 95–1056 (6.0–6.9) A–1–a, 8.0%–200 N.M. 14.5% * 1–2% Cobbles SAMPLE 95–1057 (6.9–7.9) A–1–a, 2.9%–200 L.A.:24, DEG.:27



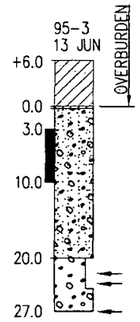
95-8

0.0– 1.0	Bn SILT
1.0–10.0	Gy GRAVEL *1–2% Cobbles SAMPLE 95–1059 (7.8–9.8) A–1–a, 2.1%–200 * Ramp excaveted to 10'



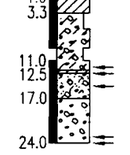
95-2

0.0– 0.5	ORG MAT(cleared)
0.5– 1.0	Gy Sa GRAVEL, moist
1.0– 4.0	Gy SAND, wet to 3.0
4.0–15.0	Gy Si Gr SAND SAMPLE 95–1042 (4.0–6.0) A–1–b, 14.5%–200 N.M. 8.2 wet 8.0–17.4 *Pit floor @ 15.0, 2002
15.0–17.0	Gy Si Gr SAND
17.0–21.0	Gy GRAVEL, wet w/ Cobbles



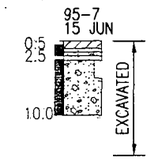
95-3

+6.0– 0.0	SILT Overburden Stockpile
0.0– 0.3	ORG MAT(cleared)
0.3–20.0	Gy Sa GRAVEL, -3/4" moist to 3.0 moist 10.0–20.0
20.0–27.0	Gy GRAVEL, moist w/Cobbles SAMPLE 95–1043 (20.0–24.0) A–1–a, 2.0% –200 L.A.:22 REFUSAL, Cobble or Boulder



95-5

0.0– 0.7	ORG MAT(cleared)
0.7– 3.3	Bn SILT, wet to 1.0
3.3–12.0	Bn Si GRAVEL SAMPLE 95–1044 (3.0–6.0) A–1–b, 17.8 %–200 N.M. 4.9 % wet 8.9–9.8 SAMPLE 95–1045 (9.0–11.0) A–1–a, 13.7% –200 N.M. 9.1 %
12.0–13.0	Gy SILT
13.0–17.0	Gy Si Sa GRAVEL
17.0–24.0	Gy GRAVEL REFUSAL, Cobbles or Boulders



95-7

0.0– 1.0	Bn SILT
1.0– 1.5	Gy SAND
1.5– 2.0	Gy Sa GRAVEL
2.0– 2.6	Gy SAND, wet
2.6–10.0	Gy Sa GRAVEL * 1–2% Cobbles SAMPLE 95–1058 (0.8–1.5) A–1–a, 3.6%–200 DEG.:30 * Pit floor @ 15',2002

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

ENGINEERING GEOLOGY UNIT

DATA: GB	1995 DRILLING WAS PRIOR TO EXCAVATIONS STARTING IN 1997
DRAWN: BW	
APPROVED: DNS	PROJ. NO.: 66493
DATE: Feb/03/03	U:\Geo\66493\66493701-Layout1

Vert. 10 feet 0

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

NORTHERN REGION

LABORATORY TESTING REPORT

PROJECT NAME:		ELLIOTT HWY120 - 131						
PROJECT NUMBER:		STP-0680(26)						
AKSAS NUMBER:		66493						
MATERIAL SOURCE:		MS 680-114-2						
SAMPLED BY:		G. Brazo						
TESTHOLE		95-1	95-1	95-1	95-2	95-3	95-5	95-5
DEPTH (feet)		2.4-3.6	3.0-3.3	7.3-8.1	1.2-1.8	6.2-7.3	1.0-1.8	2.7-3.3
STATION		See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch
OFFSET								
LAB NO.		95-1039	95-1040	95-1041	95-1042	95-1043	95-1044	95-1045
DATE SAMPLED		13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95	13-Jun-95
% Passing	3"					100		
	2"	100		100	100	98	100	100
	1.0"	80		91	99	69	82	95
	0.75"	69		84	97	46	69	90
	0.5"	55		70	92	22	53	71
	0.375"	48		62	89	14	46	59
	#4	38		47	80	7	34	41
	#10	34		37	68	5	30	31
	#40	27		23	39	4	26	22
	#50	23		19	30	3	25	20
	#100	17		14	19	3	22	17
	#200	12.4		11.7	14.5	2.0	17.8	13.7
	0.02							
Hydro	0.005							
	0.002							
LIQUID LIMIT		NV		NV	NV	NV	22	19
PLASTIC INDEX		NP		NP	NP	NP	NP	NP
UNIFIED CLASS.		A-1-a		A-1-a	A-1-b	A-1-a	A-1-b	A-1-a
SOIL DESCRIPTION		SiSaGr	SiSaGr	sl.SiSaGr	SiSaGr	Gr	SiGr	SiGr
NATURAL MOISTURE			3.6		8.2		4.9	9.1
ORGANIC								
SP.GR. (FINE)								
SP.GR. (COARSE)								
MAX DRY DENSITY								
OPTIMUM MOISTURE								
L.A. ABRASION						22		
DEGRAD. FACTOR				44				
SODIUM SULF. (CRSE)								
SODIUM SULF. (FINE)								

REMARKS:	
	Gradation is percent of material passing the 3 in. sieve, Alaska Test Method T-7.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION

NORTHERN REGION

LABORATORY TESTING REPORT

PROJECT NAME:		ELLIOTT HWY120 - 131						
PROJECT NUMBER:		STP-0680(26)						
AKSAS NUMBER:		66493						
MATERIAL SOURCE:		MS 680-114-2						
SAMPLED BY:		G. Brazo						
TESTHOLE		95-6	95-6	95-7	95-8			
DEPTH (feet)		2.4-3.6	3.0-3.3	7.3-8.1	1.2-1.8			
STATION		See Sketch	See Sketch	See Sketch	See Sketch			
OFFSET								
LAB NO.		95-1056	95-1057	95-1058	95-1059			
DATE SAMPLED		15-Jun-95	15-Jun-95	15-Jun-95	15-Jun-95			
% Passing	3"	100	100	100	100			
	2"	88	97	96	95			
	1.0"	72	84	81	75			
	0.75"	66	75	73	66			
	0.5"	58	63	61	53			
	0.375"	54	56	54	46			
	#4	45	41	41	30			
	#10	38	29	33	14			
	#40	22	12	15	5			
	#50	17	8	10	4			
	#100	11	4	5	3			
	#200	8.0	2.9	3.6	2.1			
	0.02							
Hydro	0.005							
	0.002							
LIQUID LIMIT		NV	NV	NV	NV			
PLASTIC INDEX		NP	NP	NP	NP			
UNIFIED CLASS.		A-1-a	A-1-a	A-1-a	A-1-b			
SOIL DESCRIPTION		sl.SiSaGr	SaGr	SaGr	Gr			
NATURAL MOISTURE		14.5	3.6		8.2			
ORGANIC								
SP.GR. (FINE)		2.58						
SP.GR. (COARSE)		2.66						
MAX DRY DENSITY		136.6						
OPTIMUM MOISTURE		6.7						
L.A. ABRASION			24					
DEGRAD. FACTOR			27	30				
SODIUM SULF. (CRSE)			1.6					
SODIUM SULF. (FINE)			2.3					

REMARKS:

Gradation is percent of material passing the 3 in. sieve, Alaska Test Method T-7.

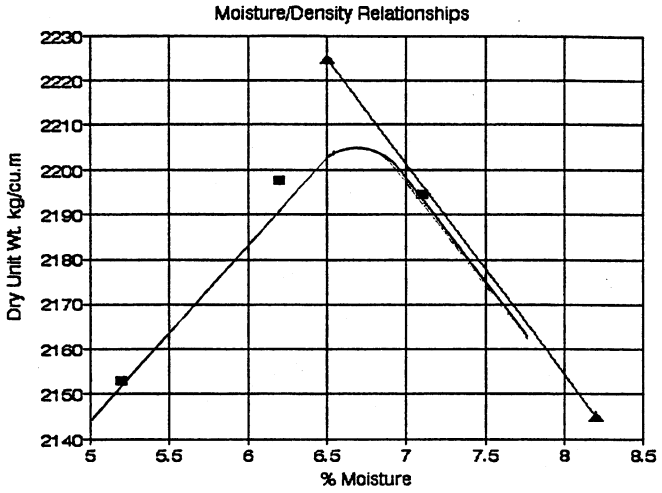
State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE REPORT

Project Name:	ELLIOTT HWY 4, EUREKA-BAKER CK	***Lab Number:***	**95-1056**
Ledger Code:	30849922		
Project Number:	STP-O68(29)/66661		
Sampled By:	G BRAZO		
Source:	M.S. 680-114-2	***Test Hole:*** 95-6	***Depth:*** 1.8-2.1
Date Sampled:	6-15-95	***Offset:***	***Station:***

ATM T-7 SIEVES	% PASS
mm	
75	
50	88
37.5	84
25	72
19.0	66
12.5	58
9.5	54
4.75	45
2.36	40
2.00	38
1.18	34
0.850	
0.600	27
0.425	22
0.300	17
0.250	15
0.180	12
0.150	11
0.075	8.0
ATM T-1	
.02mm	
.005mm	
.002mm	

TEST No.	TEST	RESULTS
AASHTO T-89	LL	NV
AASHTO T-90	PI	NP
	SpG's	
AASHTO T-85	Coarse	2.66
ATM T-2	Fine	2.58
ATM T-6	ORGANIC	
AASHTO T-21	ORG PPM	
ATM T-5	MOISTURE	
	1.8-2.1	14.5
AASHTO T-104	SODIUM	
	Coarse	
	Fine	
AASHTO T-96	LA	
ATM T-13	DEG	

MOISTURE / DENSITY PLOT ASSHTO T-180-D



Opt. Moisture: 6.7 %
Max. Density: 2204

Sample	*Dry Unit Wt.*	*% Moist.*	*Free Moist*
1 134.4	2152.9	5.2	Dry
2 137.2	2197.7	6.2	
3 137.0	2194.5	7.1	
4	2194.5	7.1	
5			

ZAV 2144.9 @ 8.2
ZAV 2224.9 @ 6.5

AASHTO CLASS: A-1-a
SOIL DESCRIPTION: sl.SiSaGr
UNIFIED CLASS:

Signature: Maureen Lee
Maureen E. Lee
REGIONAL LAB SUPERVISOR

PRECONSTUCTION ROUTING: Geologists, Regional Lab

MS 680-114-2

LOCATION AND ACCESS

This site is located 30 to 100 m left of the new highway ROW and roughly between Stations 215+050 and 215+275, east of Mile Post 134An existing access road leaves the highway at about Station 215+200.

DESCRIPTION

The alluvial soils in this 4.0 ha undeveloped site range from silt to gravel and were probably deposited by Eureka Creek. The gravels are predominately graywacke and argillite. Drill reaction indicated cobbles and boulders are present in these soils. Interbedded silt layers were noted in Test hole (TH) 95-4 and 95-5. Silt was noted from 4.5 to 5.5 m's beneath the surface in TH 95-4.

CLEARING AND STRIPPING

The site was cleared and partially stripped in 1995 after the geotechnical investigation was completed. Before clearing, overburden included a 150 to 300 mm thick organic mat over 0.3 to 1.5 m of layered organic silt, silt and gravelly silt. The thickness of overburden remaining is unknown. The waste berms were placed at the periphery of the site.

WATER TABLE

A water table was noted at 11 m beneath the ground surface in TH 95-1 drilled in the southwest corner of the site.

FROZEN GROUND

Frozen soils were recorded in all of the test holes and test trenches generally beginning about 0.3 m beneath the surface and persisting to as much as 6.4 m beneath the surface. Unfrozen soil layers were sandwiched between frozen layers in some test holes.

The reader is encouraged to examine the test hole and test trench logs for details of the frozen and unfrozen soil layers.

LAND STATUS

This site is State owned and permitted for DOT&PF use through a Negotiated Material Sale Contract (NMSC) number ADL 410576 which expires 3 September 2007.

QUALITY OF MATERIAL

Laboratory testing results of submitted samples indicate the silty gravelly sand, silty gravel, and silty sandy gravel generally meet the requirements for Selected material, type C, with the tested fines contents ranging from 11.7 to 28.5. The sandy gravel and gravel meet the requirements for Selected material, type A, with the tested fines contents ranging from 2.0 to 3.6. The materials in this site generally do not meet the Standard Specifications quality requirements for crushed products.

MINING PLAN GUIDELINES

A contractor electing to utilize this site shall review permits for fees, royalties, and stipulations. Prior to beginning extraction present a mining plan for review and approval for the specific area to be mined. Locate, brush, and mark with flagging and/or stakes, the property boundaries prior to beginning of mining activities. The access road must be maintained and left in good condition upon completion of extraction activities.

Place stripping debris over the clearing piles located on the periphery of the site. For stability use backslopes no steeper than 1 vertical to 1.5 horizontal and slope the pit floor to drain to a common low point.

REHABILITATION PLAN GUIDELINES

The Contractor should formulate a reclamation plan for the area to be mined. The plan should conform to NPDES guidelines and be approved before beginning any mining activity. Upon completion of extraction operations supply the Materials Section with a detailed site sketch that includes: area excavated, locations of specific types of stockpiles, and waste areas. Include a written narration of quantities of each material produced, waste percentages, and a description of any problems experienced during excavation.

At a minimum the pit floor should be sloped to drain and the site should be left in a neat and orderly condition with suitable access for future use.

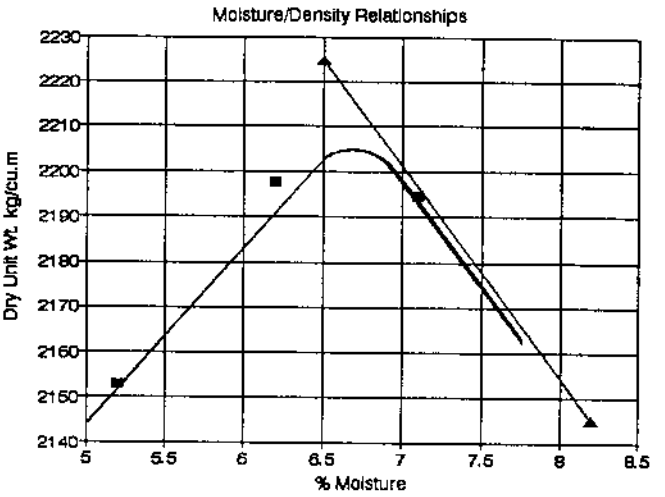
After the excavation has reached practical backslope and depth limits, spread stripped silt overburden on the pit backslopes and floor to promote natural revegetation of the site.

State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE REPORT

Project Name:	ELLIOTT HWY 4, EUREKA-BAKER CK	***Lab Number:***	**95-1056**
Ledger Code:	30849922		
Project Number:	STP-O68(29)/66661		
Sampled By:	G BRAZO		
Source:	M.S. 680-114-2	***Test Hole:*** 95-6	***Depth:*** 1.8-2.1
Date Sampled:	6-15-95	***Offset:***	***Station:***

ATM T-7 SIEVES	% PASS	TEST No.	TEST	RESULTS
mm				
75		AASHTO T-89	LL	NV
50	88	AASHTO T-90	PI	NP
37.5	84			
25	72		SpG's	
19.0	66	AASHTO T-85	Coarse	2.66
12.5	58	ATM T-2	Fine	2.58
9.5	54			
4.75	45	ATM T-6	ORGANIC	
2.36	40	AASHTO T-21	ORG PPM	
2.00	38			
1.18	34			
0.850		ATM T-5	MOISTURE	
0.600	27		1.8-2.1	14.5
0.425	22			
0.300	17			
0.250	15	AASHTO T-104	SODIUM	
0.180	12		Coarse	
0.150	11		Fine	
0.075	8.0	AASHTO T-96	LA	
ATM T-1		ATM T-13	DEG	
.02mm				
.005mm				
.002mm				

MOISTURE / DENSITY PLOT AASHTO T-180-D



Opt. Moisture: 6.7 %
Max. Density: 2204

Sample	*Dry Unit Wt.*	*% Moist.*	*Free Moist*
1 134.4	2152.9	5.2	Dry
2 137.2	2197.7	6.2	
3 137.0	2194.5	7.1	
4	2194.5	7.1	
5			

ZAV 2144.9 @ 8.2
ZAV 2224.9 @ 6.5

AASHTO CLASS: A-1-a
SOIL DESCRIPTION: sl.SiSaGr
UNIFIED CLASS:

Signature: Maureen Lee
Maureen E. Lee
REGIONAL LAB SUPERVISOR

PRECONSTUCTION ROUTING: Geologists, Regional Lab

STATE OF ALASKA-NORTHERN REGION
DEPARTMENT OF TRANSPORTATION
LABORATORY TESTING REPORT

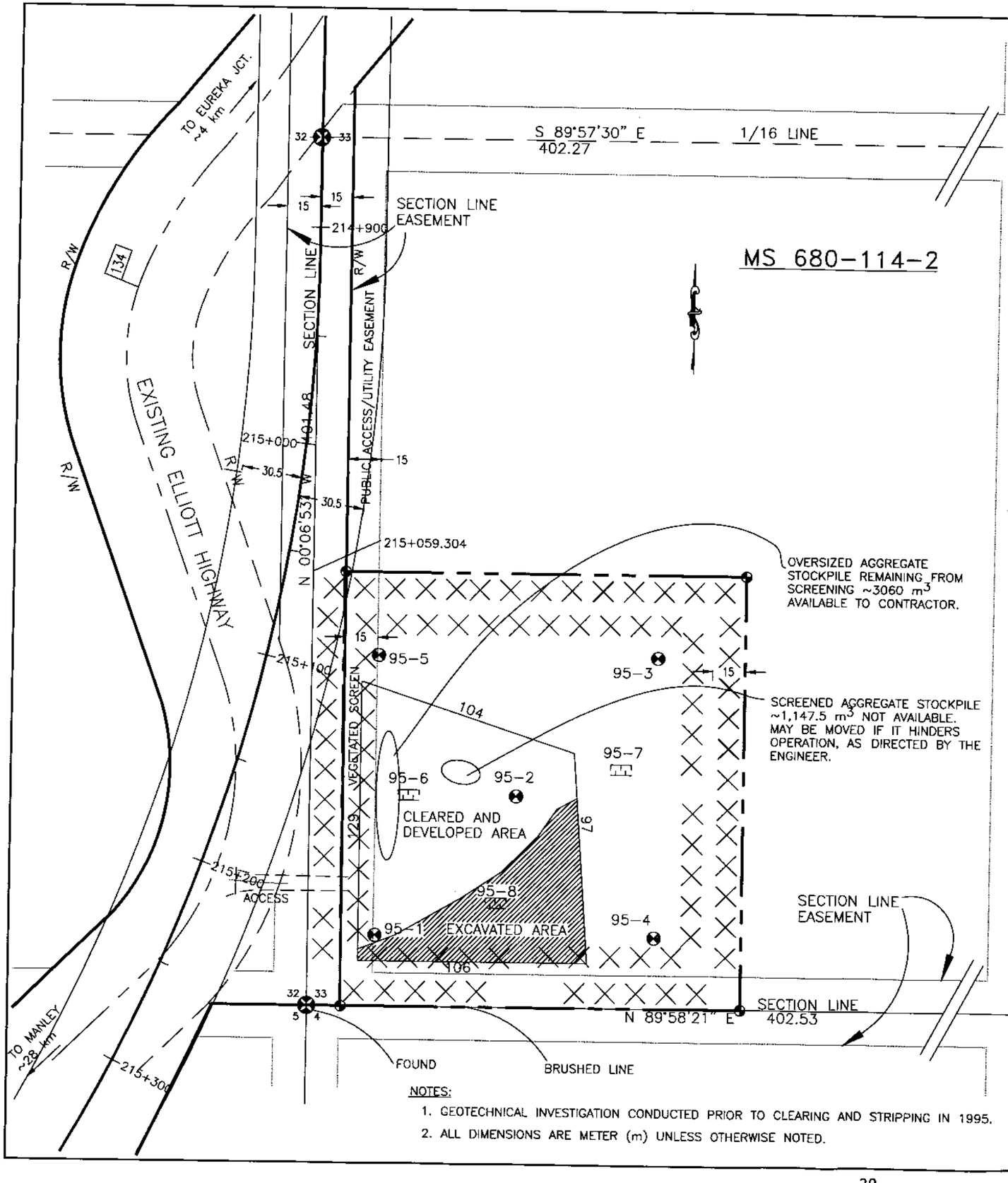
PROJECT NAME: ELLIOTT HWY 4, EUREKA-BAKER CREEK
PROJECT NUMBER: STP-0680(29)/6663
SOURCE: M.S. 680-114-2
SAMPLED BY: G. Brazo

TEST HOLE NO.		95-1	95-1	95-1	95-2	95-3	95-5	95-5
DEPTH (meters)		2.4-3.6	3.0-3.3	7.3-8.1	1.2-1.8	6.2-7.3	1.0-1.8	2.7-3.3
STATION (LOCATION)		See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch
OFFSET (meters)								
LAB NO.		95-1039	95-1040	95-1041	95-1042	95-1043	95-1044	95-1045
DATE SAMPLED		6-13-95	6-13-95	6-13-95	6-13-95	6-13-95	6-13-95	6-13-95
PERCENT PASSING-	mm							
	75					100		
	50	100		100	100	98	100	100
	25.0	80		91	99	69	82	95
Gravel	19.0	69		84	97	46	69	90
	12.5	55		70	92	22	53	71
	9.5	48		62	89	14	46	59
	4.75	38		47	80	7	34	41
	2.00	34		37	68	5	30	31
Sand	0.425	27		23	39	4	26	22
	0.30	23		19	30	3	25	20
	0.150	17		14	19	3	22	17
Silt\Clay	0.075	12.4		11.7	14.5	2.0	17.8	13.7
	0.02							
	0.005							
Clay	0.002							
LIQUID LIMIT		NV		NV	NV	NV	22	19
PLASTIC INDEX		NP		NP	NP	NP	NP	NP
CLASSIFICATION		A-1-a		A-1-a	A-1-b	A-1-a	A-1-b	A-1-a
SOIL DESCRIPTION		SiSaGr	SiSaGr	sl.SiSaGr	SiGrSa	Gr	SiGr	SiGr
NATURAL MOISTURE			3.6		8.2		4.9	9.1
SP.GR. (FINE)								
SP.GR. (COARSE)								
MAX DRY DENSITY								
OPTIMUM MOISTURE								
L.A. ABRASION						22		
DEGRADATION FACTOR				44				
SODIUM SULF. (CRSE)								
SODIUM SULF. (FINE)								
ORGANICS								

REMARKS

eur01

- Gradation is based on material passing the 75 mm sieve, according to Alaska Test Method T-7.
  See graphic logs for amount of +76.1mm material, if any.



95-1
13 JUN

0.0– 0.2	ORG MAT(cleared)	95-1
0.2– 0.3	Bn SILT(stripped) moist	
0.3– 0.6	Bn Sa GRAVEL	
0.6– 1.2	Bn SILT	
1.2– 1.7	Bn SAND	
1.7– 1.8	Bn SILT	
1.8– 2.4	Bn Gr SAND	
2.4– 4.8	Bn Si Sa GRAVEL w/Cobbles SAMPLE 95-1039 (2.4-3.6) A-1-a, 12.4%-.0.075 SAMPLE 95-1040 (3.0-3.3) N.M 3.6%	
4.8– 7.3	Bn Gr SAND moist, 20 mm minus	
7.3–11.9	Bn si Si Sa GRAVEL moist, Basalt or Diabase Gr SAMPLE 95-1041 (7.3-8.1) A-1-a, 11.7%-0.075 DEG.:44 wet 11.0-11.9	

95-2
13 JUN

0.0– 0.2	ORG MAT(cleared)	95-2
0.2– 0.3	Gy Sa GRAVEL, moist	
0.3– 1.2	Gy SAND, wet to 0.9	
1.2– 5.3	Gy Si Gr SAND SAMPLE 95-1042 (1.2-1.8) A-1-b, 14.5%-0.075 N.M. 8.2 wet 2.4-5.3	
5.3– 6.4	Gy GRAVEL, wet, w/Cobbles (Diabase and Greywacke Gravels)	

95-3
13 JUN

0.0– 0.1	ORG MAT(cleared)	95-3
0.1– 6.1	Gy Sa GRAVEL, 50 mm minus moist to 0.9 moist 3.0-6.1	
6.1– 8.2	Gy GRAVEL, moist w/Cobbles SAMPLE 95-1043 (6.2-7.3) A-1-a, 2.0%-0.075 L.A.:22 REFUSAL, Cobble or Boulder	

95-4
13 JUN

0.0– 0.3	ORG MAT(cleared)	95-4
0.3– 0.6	Bn Org SILT	
0.6– 0.9	Gy SILT	
0.9– 1.1	Gy Gr SILT	
1.1– 1.4	Gy SILT	
1.4– 3.0	Gy Si Sa GRAVEL	
3.0– 3.9	Bn\Gy SILT wet 3.8-3.9	
3.9– 4.5	Gy Sa GRAVEL moist 4.2-4.5	
4.5– 5.5	Bn SILT, wet	
5.5– 6.4	Bn Si Sa GRAVEL wet	
6.4– 7.3	Bn GRAVEL, wet	

95-5
13 JUN

0.0– 0.2	ORG MAT(cleared)	95-5
0.2– 1.0	Bn SILT, wet to 0.3	
1.0– 3.7	Bn Si GRAVEL SAMPLE 95-1044 (1.0-1.8) A-1-b, 17.8%-0.075 N.M. 4.9% wet 2.7-3.0 SAMPLE 95-1045 (2.7-3.3) A-1-a, 13.7%-0.075 N.M. 9.1%	
3.7– 3.9	Gy SILT	
3.9– 5.2	Gy Si Sa GRAVEL	
5.2– 6.4	Gy GRAVEL REFUSAL on Cobbles or Boulders	

95-6
15 JUN

0.0– 1.5	Bn SILT w/scattered ice lenses difficult digging	95-6
1.5– 1.7	Gy SAND	
1.7– 2.5	Gy sl Si Sa GRAVEL SAMPLE 95-1056 (1.8-2.1) A-1-a, 8.0%-0.075 N.M. 14.5% * 1-2% Cobbles SAMPLE 95-1057 (2.1-2.4) A-1-a, 2.9%-0.075 L.A.:24, DEG.:27	

95-7
15 JUN

0.0– 0.3	Bn SILT	95-7
0.3– 0.4	Gy SAND	
0.4– 0.6	Gy Sa GRAVEL	
0.6– 0.8	Gy SAND, wet	
0.8– 3.0	Gy Sa GRAVEL * 1-2% Cobbles SAMPLE 95-1058 (0.8-1.5) A-1-a, 3.6%-0.075 DEG.:30	

95-8
15 JUN

0.0– 0.3	Bn SILT wet to 0.2	95-8
0.3– 3.0	Gy GRAVEL 1-2% Cobbles SAMPLE 95-1059 (2.4-3.0) A-1-a, 2.1%-0.075	

NOTES:

1. GEOTECHNICAL INVESTIGATION CONDUCTED PRIOR TO CLEARING AND STRIPPING IN 1995.
2. ALL DIMENSIONS ARE METER (m) UNLESS OTHERWISE NOTED.

LEGEND:

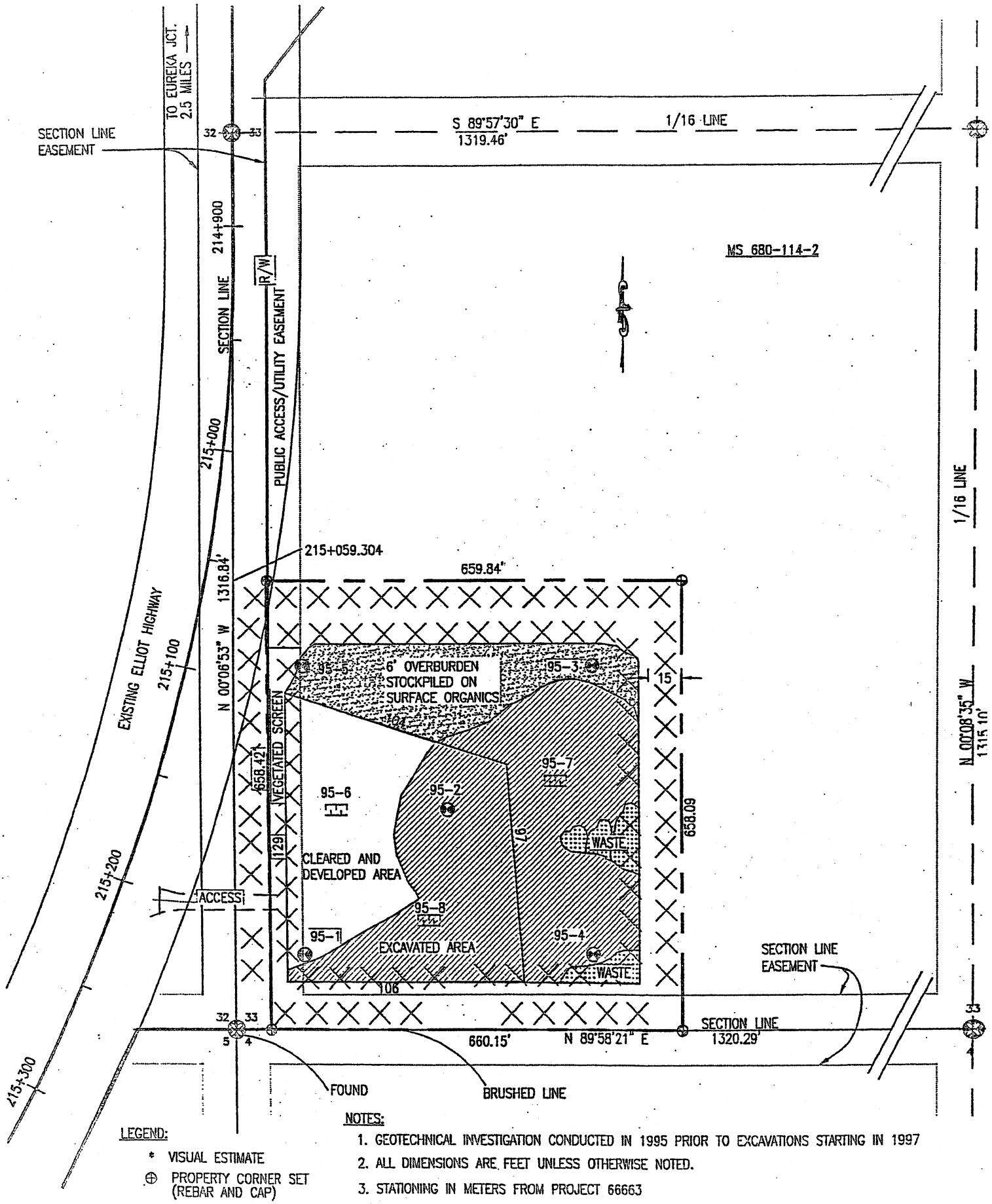
* VISUAL ESTIMATE

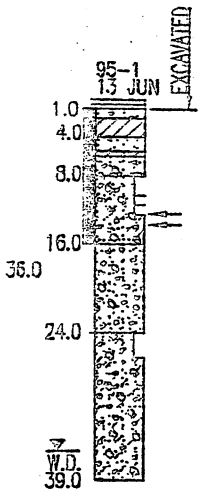
PROPERTY CORNER SET (REBAR AND CAP)

Vert. 2 meter 0 Horiz. 0 meter 25

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

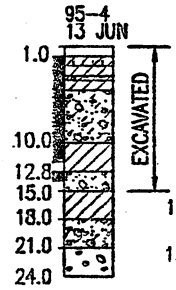
DATA: GMB	ELLIOTT HIGHWAY MS 680-114-2
DRAWN: RA	
APPROVED: TJW	PROJ. NO.: STP-0680(28)/66663
DATE: SEPT 96	PATH: GEO\66663\66663Z07


TO EUREKA JCT.
2.5 MILES
SECTION LINE
EASEMENT
32
33
S 89°57'30" E
1319.46'
1/16 LINE
MS 680-114-2
214+900
R/W
SECTION LINE
PUBLIC ACCESS/UTILITY EASEMENT
215+000
215+059.304
659.84'
1316.84'
N 00°06'53" W
EXISTING ELLIOT HIGHWAY
215+100
95-5
6' OVERBURDEN
STOCKPILED ON
SURFACE ORGANICS
95-3
15
VEGETATED SCREEN
658.42'
95-6
95-2
95-7
97
658.09
WASTE
CLEARED AND
DEVELOPED AREA
129
215+200
ACCESS
95-8
95-1
EXCAVATED AREA
95-4
WASTE
106
SECTION LINE
EASEMENT
1/16 LINE
N 00°08'35" W
1315.10'
32
33
5
4
660.15'
N 89°58'21" E
SECTION LINE
1320.29'
215+300
FOUND
BRUSHED LINE
LEGEND:
* VISUAL ESTIMATE
⊕ PROPERTY CORNER SET (REBAR AND CAP)
NOTES:
1. GEOTECHNICAL INVESTIGATION CONDUCTED IN 1995 PRIOR TO EXCAVATIONS STARTING IN 1997
2. ALL DIMENSIONS ARE FEET UNLESS OTHERWISE NOTED.
3. STATIONING IN METERS FROM PROJECT 66663



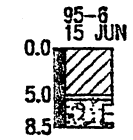
95-1

0.0– 0.7	ORG MAT(cleared)
0.7– 1.0	Bn SILT(stripped)
1.0– 2.0	Bn Sa GRAVEL
2.0– 4.0	Bn SILT
4.0– 5.5	Bn SAND
5.5– 6.0	Bn SILT
6.0– 8.0	Bn Gr SAND
8.0–16.0	Bn Si Sa GRAVEL w/Cobbles SAMPLE 95–1039 (8.0–12.0) A–1–a, 12.4%–200 SAMPLE 95–1040 (9.8–11.0) N.M 3.6%
16.0–24.0	Bn Gr SAND moist, 20 mm minus
24.0–39.0	Bn sl Si Sa GRAVEL moist, Basalt or Diabase Gr SAMPLE 95–1041 (24.0–26.5) A–1–a, 11.7%–200 DEG.:44 wet 36.0–39.0



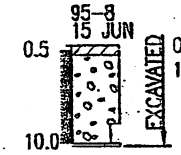
95-4

0.0– 1.0	ORG MAT(cleared)
1.0– 2.0	Bn Org SILT
2.0– 3.0	Gy SILT
3.0– 3.5	Gy Gr SILT
3.5– 4.5	Gy SILT
4.5–10.0	Gy Si Sa GRAVEL
10.0–13.0	Bn\Gy SILT wet 12.5–12.8
13.0–15.0	Gy Sa GRAVEL * Pit floor @ 15', 2002
15.0–18.0	Bn SILT, wet
18.0–21.0	Bn Si Sa GRAVEL wet
21.0–24.0	Bn GRAVEL, wet



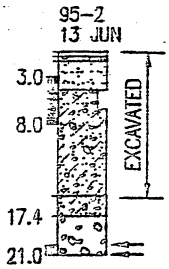
95-6

0.0– 5.0	Bn SILT w/scattered ice lenses difficult digging
5.0– 5.5	Gy SAND
5.5– 8.5	Gy sl Si Sa GRAVEL SAMPLE 95–1056 (6.0–6.9) A–1–a, 8.0%–200 N.M. 14.5% * 1–2% Cobbles SAMPLE 95–1057 (6.9–7.9) A–1–a, 2.9%–200 LA.:24, DEG.:27



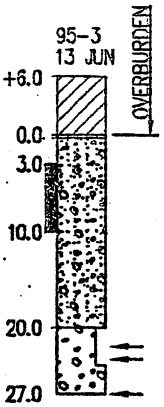
95-8

0.0– 1.0	Bn SILT
1.0–10.0	Gy GRAVEL *1–2% Cobbles SAMPLE 95–1059 (7.8–9.8) A–1–a, 2.1%–200 * Ramp excaveted to 10'



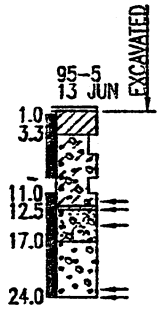
95-2

0.0– 0.5	ORG MAT(cleared)
0.5– 1.0	Gy Sa GRAVEL, moist
1.0– 4.0	Gy SAND, wet to 3.0
4.0–15.0	Gy Si Gr SAND SAMPLE 95–1042 (4.0–6.0) A–1–b, 14.5%–200 N.M. 8.2 wet 8.0–17.4 *Pit floor @ 15.0, 2002
15.0–17.0	Gy Si Gr SAND
17.0–21.0	Gy GRAVEL, wet w/ Cobbles



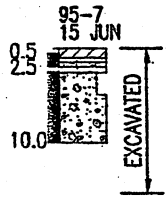
95-3

+6.0– 0.0	SILT Overburden Stockpile
0.0– 0.3	ORG MAT(cleared)
0.3–20.0	Gy Sa GRAVEL, –3/4" moist to 3.0 moist 10.0–20.0
20.0–27.0	Gy GRAVEL, moist w/Cobbles SAMPLE 95–1043 (20.0–24.0) A–1–a, 2.0% –200 LA.:22 REFUSAL, Cobble or Boulder



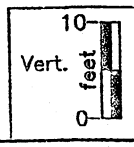
95-5

0.0– 0.7	ORG MAT(cleared)
0.7– 3.3	Bn SILT, wet to 1.0
3.3–12.0	Bn Si GRAVEL SAMPLE 95–1044 (3.0–6.0) A–1–b, 17.8 %–200 N.M. 4.9 % wet 8.9–9.8 SAMPLE 95–1045 (9.0–11.0) A–1–a, 13.7% –200 N.M. 9.1 %
12.0–13.0	Gy SILT
13.0–17.0	Gy Si Sa GRAVEL
17.0–24.0	Gy GRAVEL REFUSAL, Cobbles or Boulders



95-7

0.0– 1.0	Bn SILT
1.0– 1.5	Gy SAND
1.5– 2.0	Gy Sa GRAVEL
2.0– 2.6	Gy SAND, wet
2.6–10.0	Gy Sa GRAVEL * 1–2% Cobbles SAMPLE 95–1058 (0.8–1.5) A–1–a, 3.6%–200 DEG.:30 * Pit floor @ 15',2002



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: GB	1995 DRILLING WAS PRIOR TO EXCAVATIONS STARTING IN 1997
DRAWN: BW	
APPROVED: DNS	PROJ. NO.: 66493
DATE: Feb/03/03	U:\Geo\66493\66493Z01-1.prod

MS 680-114-2

LOCATION AND ACCESS

This site is located 100 to 300 feet left of Elliott Highway Mile Post 134. Access could be at a convenient location on the west side of the site which is screened by aspen, birch and spruce trees.

DESCRIPTION

The alluvial soils, ranging from silt thru silty gravelly sand to gravel, in this 10 acre undeveloped site, were probably deposited by Eureka Creek. The gravels are predominately greywacke and argillite. Drill reaction indicated cobbles are present in these interbedded soils; silt was noted from 10 to 13 feet and 15 to 18 feet beneath the surface in TH 95-4.

CLEARING AND STRIPPING

The site was cleared and partially stripped after the test holes were drilled and before the test trenches were dug in 1995.

WATER TABLE

A water table was noted at 36 feet beneath the ground surface in TH 95-1 drilled in the southwest corner of the site.

FROZEN GROUND

Frozen soils were recorded in all of the test holes and test trenches generally beginning about 1 foot beneath the surface and persisting to as much as 21 feet beneath the surface. Unfrozen soil layers were sandwiched between frozen layers in some test holes.

The reader is encouraged to examine the test hole and test trench logs for details of the frozen and unfrozen soil layers.

LAND STATUS

This site is State owned and permitted for DOT&PF use through a Negotiated Material Sale Contract (NMSC) number ADL 410576 which expires 3 September 1997.

QUALITY OF MATERIAL

Laboratory testing results of submitted samples indicate the silty gravelly sand, silty gravel, and silty sandy gravel generally meet the requirements for Selected material, type C. The sandy gravel and gravel meet the requirements for Selected material, type A. These two later soils and the slightly silty sandy gravel generally meet the quality requirements for crushed subbase.

MINING PLAN GUIDELINES

Place stripping debris over the clearing piles located on the periphery of the site. For stability use backslopes no steeper than 1.5 horizontal to 1 vertical and slope the pit floor to drain to a common low point.

REHABILITATION PLAN GUIDELINES

After excavation of the site has reached practical backslopes and depth limits, spread the stripped silt on the pit backslopes and floor to promote natural revegetation.

STATE OF ALASKA - NORTHERN REGION
DEPARTMENT OF TRANSPORTATION
LABORATORY TESTING REPORT

PROJECT NAME: ELLIOTT HWY 3, MANLEY SLOUGH - TANANA RIVER
PROJECT NUMBER: STP-0680(29)/66661
SOURCE: M.S. 680-114-2
SAMPLED BY: G. Brazo

TEST HOLE NO.		95-1	95-1	95-1	95-2	95-3	95-5	95-5
DEPTH (FEET)		8-12	10-11	24-27	4-6	20-24	3-6	9-11
STATION (LOCATION)		See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch	See Sketch
OFFSET (FEET)								
LAB NO.		95-1039	95-1040	95-1041	95-1042	95-1043	95-1044	95-1045
DATE SAMPLED		6-13-95	6-13-95	6-13-95	6-13-95	6-18-95	6-13-95	6-13-95
PERCENT PASSING-								
	3"					100		
	2"	100		100	100	98	100	100
	1"	80		91	99	69	82	95
Gravel	3/4"	69		84	97	46	69	90
	1/2"	55		70	92	22	53	71
	3/8"	48		62	89	14	46	59
	#4	38		47	80	7	34	41
	#10	34		37	68	5	30	31
Sand	#40	27		23	39	4	26	22
	#50	23		19	30	3	25	20
	#100	17		14	19	3	22	17
Silt\Clay	#200	12.4		11.7	14.5	2.0	17.8	13.7
	.02mm							
	.005mm							
Clay	.002mm							
LIQUID LIMIT		NV		NV	NV	NV	22	19
PLASTIC INDEX		NP		NP	NP	NP	NP	NP
CLASSIFICATION		A-1-a		A-1-a	A-1-b	A-1-a	A-1-b	A-1-a
SOIL DESCRIPTION		SiSaGr	SiSaGr	sl.SiSaGr	SiGrSa	Gr	SiGr	SiGr
NATURAL MOISTURE			3.6		8.2		4.9	9.1
SP.GR. (FINE)								
SP.GR. (COARSE)								
MAX DRY DENSITY								
OPTIMUM MOISTURE								
L.A. ABRASION						22		
DEGRADATION FACTOR				44				
SODIUM SULF. (CRSE)								
SODIUM SULF. (FINE)								
ORGANICS								

REMARKS

- Gradation is based on material passing the 3 inch sieve, according to Alaska Test Method T-7.
See graphic logs for amount of +3 inch material, if any.

STATE OF ALASKA - NORTHERN REGION
DEPARTMENT OF TRANSPORTATION
LABORATORY TESTING REPORT

PROJECT NAME: ELLIOTT HWY 3, MANLEY SLOUGH-TANANA RIVER
PROJECT NUMBER: STP-0680(29)/66661
SOURCE: M.S. 680-114-2
SAMPLED BY: G. Brazo

TEST HOLE NO.		95-6	95-6	95-7	95-8			
DEPTH (FEET)		6-7	7-8	2.5-5	8-10			
STATION (LOCATION)								
OFFSET (FEET)								
LAB NO.		95-1056	95-1057	95-1058	95-1059			
DATE SAMPLED		6-15-95	6-15-95	6-15-95	6-15-95			
PERCENT PASSING-								
	3"	100	100	100	100			
	2"	88	97	96	95			
	1"	72	84	81	75			
Gravel	3/4"	66	75	73	66			
	1/2"	58	63	61	53			
	3/8"	54	56	54	46			
	#4	45	41	41	30			
	#10	38	29	33	14			
Sand	#40	22	12	15	5			
	#50	17	8	10	4			
	#100	11	4	5	3			
Silt|Clay	#200	8.0	2.9	3.6	2.1			
	.02mm							
	.005mm							
Clay	.002mm							
LIQUID LIMIT		NV	NV	NV	NV			
PLASTIC INDEX		NP	NP	NP	NP			
CLASSIFICATION		A-1-a	A-1-a	A-1-a	A-1-a			
SOIL DESCRIPTION		sl.SiSaGr	SaGr	SaGr	Gr			
NATURAL MOISTURE		14.5						
SP.GR. (FINE)		2.58						
SP.GR. (COARSE)		2.66						
MAX DRY DENSITY		136.6						
OPTIMUM MOISTURE		6.7						
L.A. ABRASION			24					
DEGRADATION FACTOR			27	30				
SODIUM SULF. (CRSE)			1.6					
SODIUM SULF. (FINE)			2.3					
ORGANICS								

REMARKS

- Gradation is based on material passing the 3 inch sieve, according to Alaska Test Method T-7.
See graphic logs for amount of +3 inch material, if any.

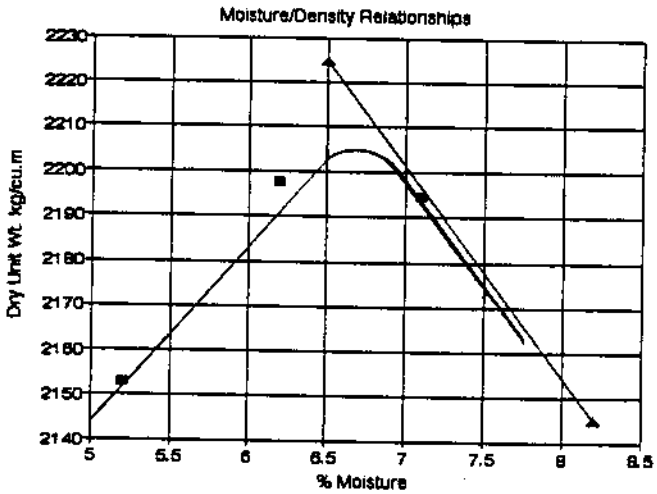
State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE REPORT

Project Name:	ELLIOTT HWY 4, EUREKA-BAKER CK	**Lab Number:**	95-1056
Ledger Code:	30849922		
Project Number:	STP-O68(29)/66661		
Sampled By:	G BRAZO		
Source:	M.S. 680-114-2	**Test Hole:** 95-6	**Depth:** 6-7 ft 1.8-2.1 m
Date Sampled:	6-15-95	**Offset:**	**Station:**

ATM T-7 SIEVES	% PASS
mm	
75	
50	88
37.5	84
25	72
19.0	66
12.5	58
9.5	54
4.75	45
2.36	40
2.00	38
1.18	34
0.850	
0.600	27
0.425	22
0.300	17
0.250	15
0.180	12
0.150	11
0.075	8.0
ATM T-1	
.02mm	
.005mm	
.002mm	

TEST No.	TEST	RESULTS
AASHTO T-89	LL	NV
AASHTO T-90	PI	NP
	SpG's	
AASHTO T-85	Coarse	2.66
ATM T-2	Fine	2.58
ATM T-6	ORGANIC	
AASHTO T-21	ORG PPM	
ATM T-5	MOISTURE	
	1.8-2.1	14.5
AASHTO T-104	SODIUM	
	Coarse	
	Fine	
AASHTO T-96	LA	
ATM T-13	DEG	

MOISTURE / DENSITY PLOT AASHTO T-180-D



Opt. Moisture: 6.7 %
Max. Density: 2204 kg/m³ ; 13766 lbs/ft³

Sample	Dry Unit Wt.	% Moist.	Free Moist
1 134.4	2152.9	5.2	Dry
2 137.2	2197.7	6.2	
3 137.0	2194.5	7.1	
4	2194.5	7.1	
5			

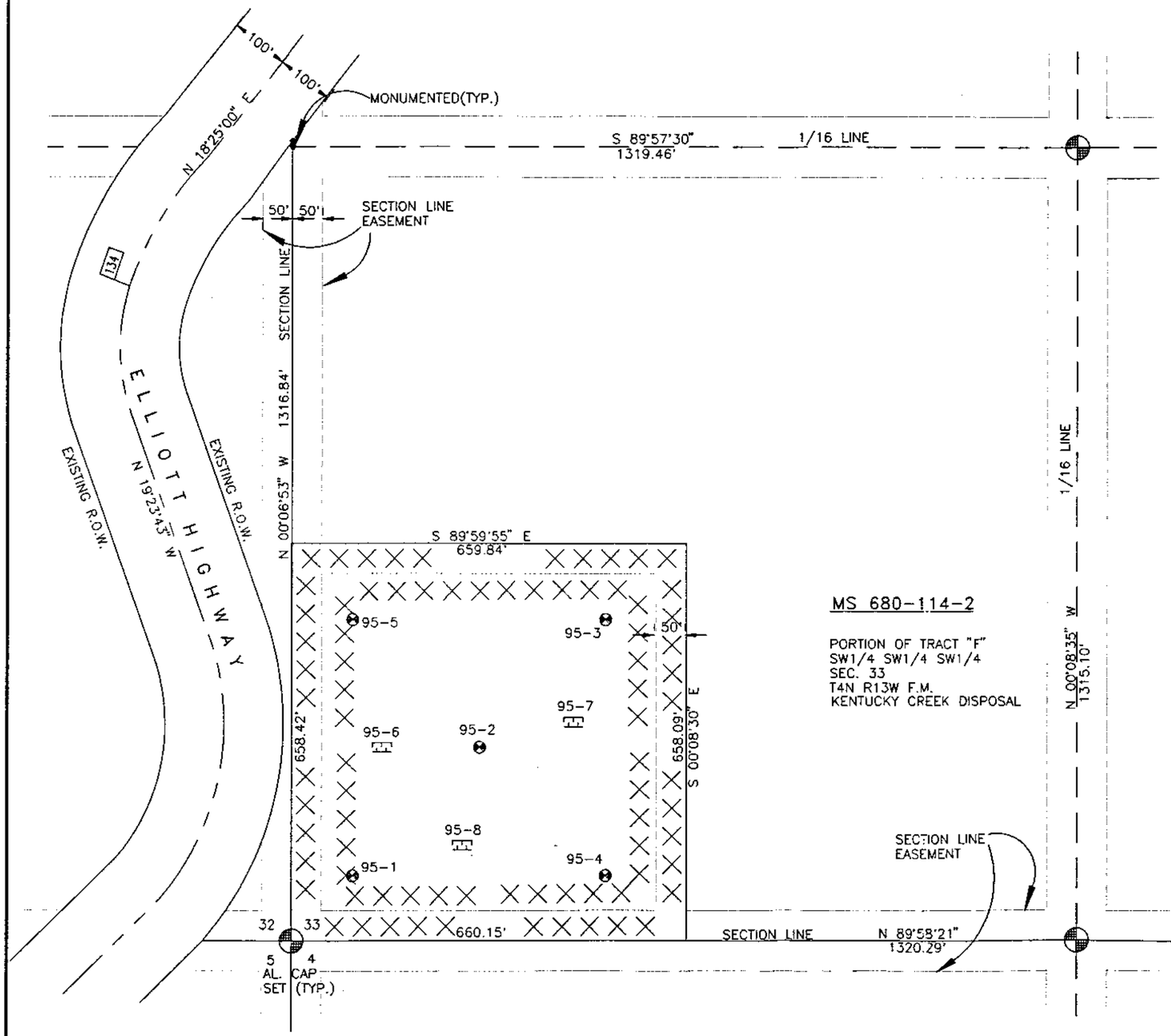
ZAV 2144.9 @ 8.2
ZAV 2224.9 @ 6.5

AASHTO CLASS: A-1-a
SOIL DESCRIPTION: sl.SiSaGr
UNIFIED CLASS:

Signature: Maureen Lee
Maureen E. Lee
REGIONAL LAB SUPERVISOR

PRECONSTUCTION ROUTING: Geologists, Regional Lab

EDL 16



95-1
13 JUN

1.0	0.0– 0.5	ORG MAT(cleared)
4.0	0.5– 1.0	Bn SILT(stripped) moist
8.0	1.0– 2.0	Bn Sa GRAVEL
	2.0– 4.0	Bn SILT
15.0	4.0– 5.5	Bn SAND
	5.5– 6.0	Bn SILT
24.0	6.0– 8.0	Bn Gr SAND
	8.0–15.0	Bn Si Sa GRAVEL SAMPLE 95–1039 (8.0–12.0) A–1–a, 12.4%–200 SAMPLE 95–1040 (10.0–11.0) N.M 3.6%
36.0 W.D. 39.0	15.0–24.0	Bn Gr SAND moist
	24.0–39.0	Bn sl. Si Sa GRAVEL moist SAMPLE 95–1041 (24.0–27.0) A–1–a, 11.7%–200 DEG.:44 wet 11.0–11.9

95-2
13 JUN

3.0	0.0– 0.5	ORG MAT(cleared)
	0.5– 1.0	Gy Sa GRAVEL, moist
10.0	1.0– 4.0	Gy SAND, wet to 3.0
	4.0–17.0	Gy Si Gr SAND SAMPLE 95–1042 (4.0–6.0) A–1–b, 14.5%–200 N.M. 8.2 wet 8.0–17.0
17.0		
21.0	17.0–21.0	Gy GRAVEL, wet (Diabase and Greywacke Gravels)

95-3
13 JUN

3.0	0.0– 0.3	ORG MAT(cleared)
	0.3–20.0	Gy Sa GRAVEL moist to 3.0 moist 3.0–20.0
10.0	20.0–27.0	Gy GRAVEL, moist SAMPLE 95–1043 (20.0–24.0) A–1–a, 2.0%–200 L.A.:22
20.0		
27.0		REFUSAL, Cobble or Boulder

95-4
13 JUN

1.0	0.0– 1.0	ORG MAT(cleared)
	1.0– 2.0	Bn Org SILT
10.0	2.0– 3.0	Gy SILT
13.0	3.0– 3.5	Gy Gr SILT
15.0	3.5– 4.5	Gy SILT
18.0	4.5–10.0	Gy Si Sa GRAVEL
21.0	10.0–13.0	Bn\Gy SILT
24.0	13.0–15.0	Gy Sa GRAVEL moist 4.2–4.5
	15.0–18.0	Bn SILT, wet
	18.0–21.0	Bn Si Sa GRAVEL wet
	21.0–24.0	Bn GRAVEL, wet

95-5
13 JUN

1.0	0.0– 0.5	ORG MAT(cleared)
3.0	0.5– 3.5	Bn SILT, wet to 0.3
	3.5–12.5	Bn Si GRAVEL SAMPLE 95–1044 (3.0–6.0) A–1–b, 17.8%–200 N.M. 4.9% wet 9.0–10.0 SAMPLE 95–1045 (9.0–11.0) A–1–a, 13.7%–200 N.M. 9.1%
11.0		
12.5		
17.0		
24.0	12.5–13.0	Gy SILT
	13.0–17.0	Gy Si Sa GRAVEL
	17.0–24.0	Gy GRAVEL

95-6
15 JUN

0.0	0.0– 5.0	Bn SILT w/scat ice lens
5.0	5.0– 5.5	Gy SAND
8.5	5.5– 8.5	Gy sl. Si Sa GRAVEL SAMPLE 95–1056 (6.0–7.0) A–1–a, 8.0%–200 N.M. 14.5% * 1–2% Cobbles SAMPLE 95–1057 (7.0–8.0) A–1–a, 2.9%–200 L.A.:24, DEG.:27

95-7
15 JUN

0.5	0.0– 1.0	Bn SILT
2.5	1.0– 1.5	Gy SAND
	1.5– 2.0	Gy Sa GRAVEL
	2.0– 2.6	Gy SAND, wet
10.0	2.6–10.0	Gy Sa GRAVEL * 1–2% Cobbles SAMPLE 95–1058 (2.5–5.0) A–1–a, 3.6%–200 DEG.:30

95-8
15 JUN

0.5	0.0– 1.0	Bn SILT wet to 1.5
10.0	1.0–10.0	Gy GRAVEL 1–2% Cobbles SAMPLE 95–1059 (8.0–10.0) A–1–a, 2.1%–200

* VISUAL ESTIMATE

Vert. 10– 0– feet
Horiz. 0 feet 100

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ENGINEERING GEOLOGY UNIT

DATA: GMB	ELLIOTT HIGHWAY 3 MS 680–114–2
DRAWN: RA	
APPROVED: RMC	PROJ. NO.: STP–0680(28)/66661
DATE: JUN 96	\GEO\66661\66661Z10

MS	MILE	SIZE(ha)	MATERIAL	REMARKS	USE
680-092-2	132	0.42	GrSiSand	Water at 2.1 m	Not recommended for use
680-091-2	132.3	0.86	SiSaGravel w/cobbles	Frozen with 1.5 m silt overburden	Not recommended for use
680-113-2	133.0	3.90	Si Gravel,	Frozen 06/95, SiSaGravel	Thick overburden, Selected Material, Cleared 7/95 Type C
680-114-2	134.2	4.00	SiGravel, SiSaGravel	Frozen w/ 0.5 to 2.4m silt overburden	Selected Material, Type A,B & C Deg 27, 30, & 44 L.A. 22-24
680-115-2	135.0	3.90	SiGravel	Frozen w/ 0.5 to 2.4m silt overburden	Selected Material, Type A,B&C Mostly C, Deg 29&41 L.A. 23
680-086-2	136.0	0.58	SiSaGravel	Frozen with 1.5 m silt overburden	Selected Material, Type C No Quality Tests
680-085-2	136.8	1.67	Sand, SaGravel, Gravel	Frozen with 1.0 m silt overburden	Selected Material, Type C, Deg 31
680-084-2	137.0	0.56	Chert Bedrock	Probably frozen	Type I & II Riprap, Not to be used as driving surface

State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE REPORT

07/24/97

Project Name:	ELLIOTT HWY, MANLEY SLGH-TAN RVR	**Lab Number:**	97-227
Ledger Code:	30070542	**Field Number:**	A-SA-G-2
Sampled From:	142+30	**Sample Of:** SURFACE AGG AA	**Sample Type:** ASSURANCE
C/L Ref:	Rt	**Item #:** 406(2)	**Source:** M.S. 680-114-2
Grade Ref:	0.25 FG	**Date Sample** 7-9-97	**Represents:**

TEST No.	TEST	REGIONAL LAB	FIELD LAB	SPECS
AASHTO T-89	LIQUID LIMIT	NV		
AASHTO T-90	PLASTIC INDEX	NP		0-9
	SPECIFIC GRAVITY			
AASHTO T-85	Coarse Agg. APP			
	SSD			
	BULK			
	Absorption			
LeChatelier	Fine Agg.			
AASHTO T-104	SODIUM SOUNDNESS			
	Coarse			
	Fine			
AASHTO T-96	LA			
ATM T-13	DEG			
ATM T-6	ORGANIC BY IGNITION			
AASHTO T-21	ORGANIC PPM			
	DELTERIOUS MAT'L.			
ATM T-5	MOISTURE CONTENT			
	Grade Ref:			
ATM T-4	FRACTURE			
	+#4 Single Face			
	+#10 Single Face			
	+#4 Double Face			
	+#10 Double Face			
ATM T-9	THIN & ELONGATED			
	FLAKINESS INDEX			
ATM T-12	VIBRATORY			

ATM T7 SIEVES	REG LAB	FIELD LAB	SPECS
+3"			
3"			GRADING AA
2"			
1 1/2"	100	100	100
1"	95	96	70-100
3/4"	89	89	60-90
1/2"	77	76	
3/8"	70	69	40-70
#4	55	52	30-55
#8	43	41	20-45
#10	40	38	
#16	34	32	
#20		28	
#30	26	24	
#40	20	19	10-25
#50	16	15	
#60	14	13	
#80	11	11	
#100	10	10	
#200	7.3	7.5	8-12
ATM T-1			
.02mm			
.005mm			

Tested in Accordance with Contract Specifications.

Signature: Maureen Lee

Maureen E. Lee
REGIONAL LAB SUPERVISOR

REMARKS:

ACCEPTANCE/ASSURANC	ACCEPTABLE	UNACCEPTABLE	N/A
COMPARISION:			
CONFORMS TO SPECS:			

Signature:

Quality Assurance Inspector

CONSTUCTION ROUTING: QA Inspectors, Project Files, Regional Lab

State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE COMPACTION REPORT

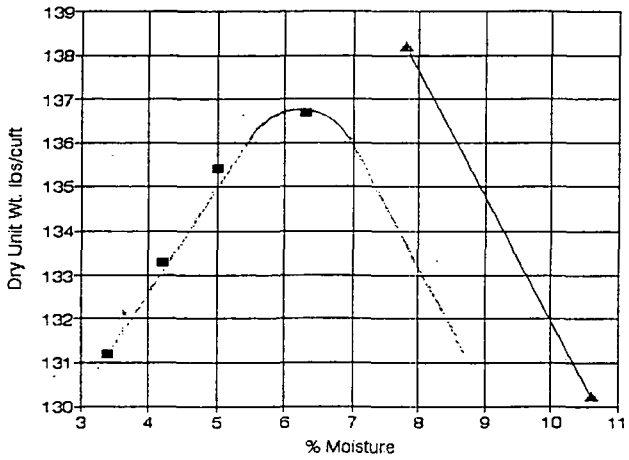
16-Jul-97

Project Name:	ELLIOTT HWY, MANLEY SLGH-TAN RVR	**Lab Number:**	97-203
Ledger Code:	30070542	**Field Number:**	SA-P-1
Station:	129+50	**Sample Of:**	SURFACE AGG	**Type:**	Assurance
C/L Ref:	Lt	**Item #:**	406(2)	**Source:**	M.S. 680-114-2
Grade:	0.25 FG	**Date Samp:**		**Represent:**	

	SIEVES	% PASS REG LAB	FIELD	SPECS
ATM T-7	+3"			
ATM T-7	3"			
	2"			
	1 1/2"	100		100
	1"	96		70-100
	3/4"	89		60-90
	1/2"	76		
	3/8"	68		40-70
	#4	50		30-55
	#8	38		20-45
	#10	36		
	#16	28		
	#20			
	#30	18		
	#40	14		10-25
	#50	10		
	#60	9		
	#80	8		
	#100	7		
	#200	5.2		8-12
AASHTO T-89	LL	NV		
AASHTO T-90	PI	NP		
AASHTO T-85	COARSE SpG			
	Bulk	2.54		
	SSD	2.59		
	APP	2.66		
	Absorption	1.68		
LeChatelier	FINE SpG	2.69		
ATM T-4	FRACTURE			
	+#4 Single			
	+#10 Single			
	+#4 Double			
	+#10 Double			

CONSTUCTION ROUTING: QA Inspectors, Project Files, Regional Lab

MOISTURE / DENSITY PLOT ASTM D-1557



Sample	Dry Unit Wt.	% Moist	Free Moist
1	131.2	3.4	
2	133.3	4.2	
3	135.4	5.0	
4	136.7	6.3	Lt Bleed
5			
ZAV	130.2	@	10.6
ZAV	138.2	@	7.8

ASTM D-1557	REG LAB	FIELD
Max. Density	136.8	
Opt. Moist.	6.7	

Signature: Maureen E. Lee
Maureen E. Lee
REGIONAL LAB SUPERVISOR

	ACCEPTABLE	UNACCEPTABLE	N/A
ACCEPT./ASSUR. COMPARISION			
CONFORMS TO SPECS			

Signature:
QUALITY ASSUR. INSPECTOR

State of Alaska Department of Transportation
Northern Region Materials Lab
SOIL and AGGREGATE REPORT

08/05/97

Project Name:	ELLIOTT HWY, MANLEY SLGH-TAN RVR	**Lab Number:**	97-275
Ledger Code:	30070542	**Field Number:**	BxA-G-2
Sampled From:	STOCKPILE	**Sample Of:**	BORROW A
Sample Type:	ASSURANCE
C/L Ref:		**Item #:**	203(6A)
Source:	M.S. 680-114-2
Grade Ref:		**Date Sample**	7-25-97
Represents:	

TEST No.	TEST	REGIONAL LAB	FIELD LAB	SPECS
AASHTO T-89	LIQUID LIMIT	NV	NV	
AASHTO T-90	PLASTIC INDEX	NP	NP	0-6
	SPECIFIC GRAVITY			
AASHTO T-85	Coarse Agg. APP			
	SSD			
	BULK			
	Absorption			
LeChatelier	Fine Agg.			
AASHTO T-104	SODIUM SOUNDNESS			
	Coarse			
	Fine			
AASHTO T-96	LA			
ATM T-13	DEG			
ATM T-6	ORGANIC BY IGNITION			
AASHTO T-21	ORGANIC PPM			
	DELTERIOUS MAT'L.			
ATM T-5	MOISTURE CONTENT			
	Grade Ref:			
ATM T-4	FRACTURE			
	+#4 Single Face			
	+#10 Single Face			
	Double Face			
	+#10 Double Face			
ATM T-9	THIN & ELONGATED			
	FLAKINESS INDEX			
ATM T-12	VIBRATORY			

ATM T7 SIEVES	REG LAB	FIELD LAB	SPECS
+3"		17	
3"			
2"	91	89	
1 1/2"	71	69	
1"	39	38	
3/4"	19	19	
1/2"	7	7	
3/8"	5	6	
#4	4	4	
#8	3	4	
#10	3	4	
#16	3	3	
#20		3	
#30	2	3	
#40	2	3	
#50	2	3	
#60	2	3	
#80	2	2	
#100	1	2	
#200	1.1	1.8	0-6
ATM T-1			
.02mm			
.005mm			

Tested in Accordance with Contract Specifications.

Signature: Maureen Lee

Maureen E. Lee
REGIONAL LAB SUPERVISOR

REMARKS:

ACCEPTANCE/ASSURANC	ACCEPTABLE	UNACCEPTABLE	N/A
COMPARISION:			
CONFORMS TO SPECS:			

Signature:

Quality Assurance Inspector

CONSTUCTION ROUTING: QA Inspectors, Project Files, Regional Lab