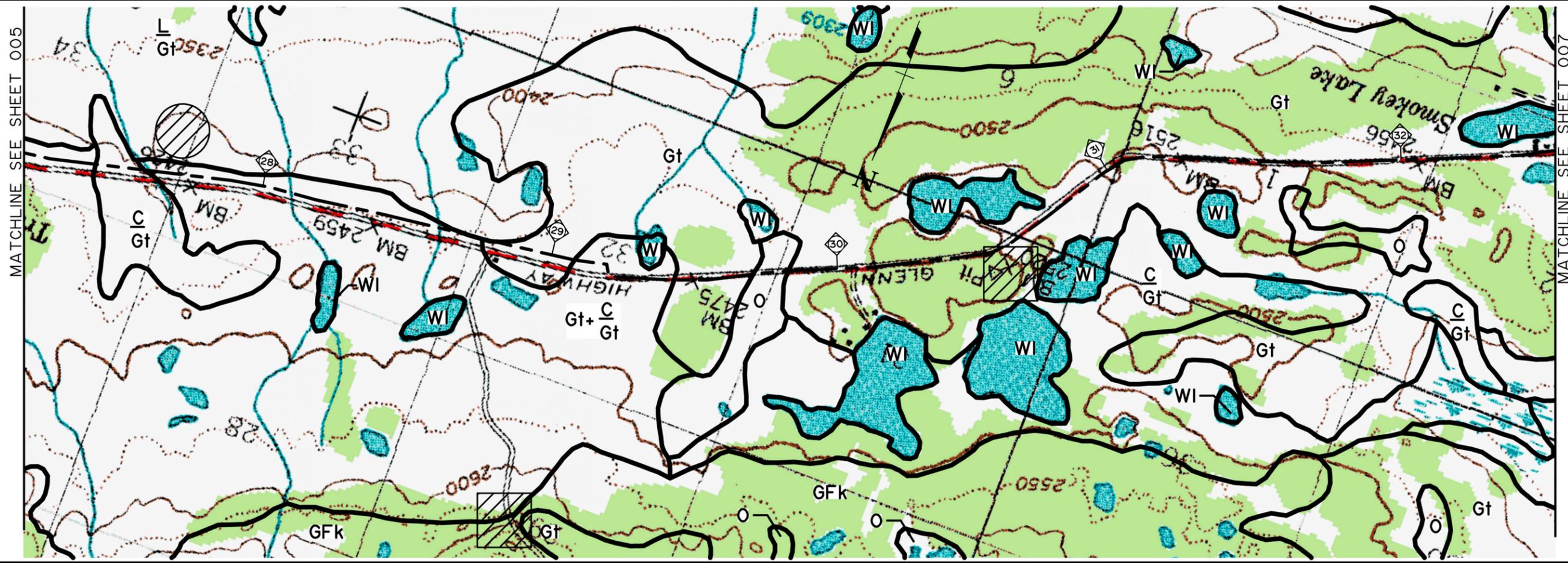


SPECIFICATIONS DESIGNED BY CHECKED BY DRAFTED BY
 STANDARDS PROJECT 1291-01-Geo 1291-overall, 1=1000, 10/17/05 at 16:25 by cdb
 XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID



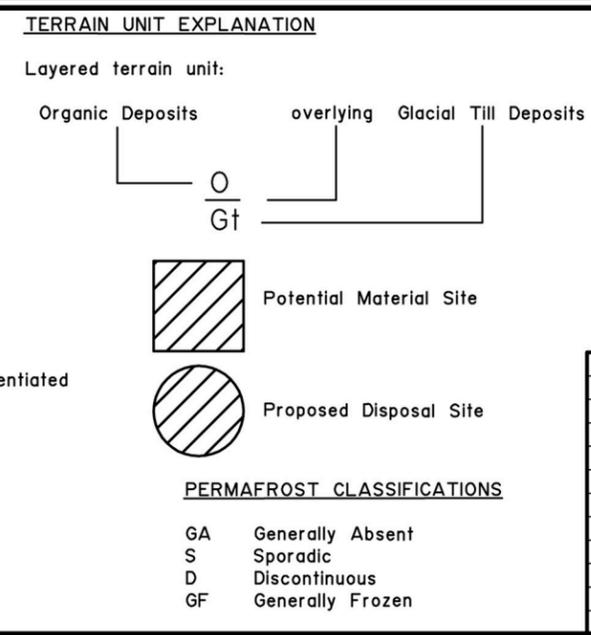
MATCHLINE SEE SHEET 005

MATCHLINE SEE SHEET 007

| | | | | | | | | |
|--------------------------|----------------------------------|------------------------------|----------------------------------|----|----------------------------------|----|---------|----|
| TERRAIN UNIT | Gt+ ^C / _{Gt} | ^C / _{Gt} | Gt+ ^C / _{Gt} | Gt | Gt+ ^C / _{Gt} | Gt | O | Gt |
| BEDROCK | | | | | | | Qu | |
| HAZARDS | | | | | | | | |
| PERMAFROST | | | | | | | GF | |
| COMMENTS | | | LAKE LOUISE ROAD | | GLENN HWY XING | | | |
| POTENTIAL MATERIAL SITES | | | MP 29.0 | | | | MP 30.6 | |
| PROPOSED DISPOSAL SITES | | | MP 27.7 | | | | | |

TERRAIN UNIT SYMBOLS/NAMES

| | |
|-----|---|
| Bx | Bedrock |
| C | Colluvium |
| Cf | Colluvial Fan Deposits |
| Cl | Landslide |
| Cs | Solifluction Deposits |
| Ct | Talus |
| El | Loess |
| Es | Eolian Sand |
| Ffg | Alluvial Fan (Granular) |
| Ffs | Alluvial Fan (Fine-Grained) |
| Fp | Floodplain (Granular) |
| Fpf | Floodplain (Fine-Grained) |
| Fpt | Terrace |
| GL | Glacial Lacustrine (glacial lake) Deposits |
| Gt | Glacial Till |
| GF | Glacio Fluvial (meltwater) Deposits, Undifferentiated |
| GFo | Outwash Deposits |
| GFe | Esker Deposits |
| GFk | Kame Deposits |
| GFl | Lowland Glacio Fluvial (meltwater) Deposits |
| Ht | Mine Tailings |
| L | Lacustrine Deposit |
| Lt | Lacustrine Thaw Basin/Lake Deposits |
| Me | Marine Estuarine Deposits |
| O | Organic Deposits |
| Vm | Mud Volcano |
| WI | Water (Lake) |



Mosaic terrain unit, dominant component listed first:

Note: The alignment and mileposts shown are based on the March, 2005 alignment.

LIMITATIONS

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| I | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| O | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

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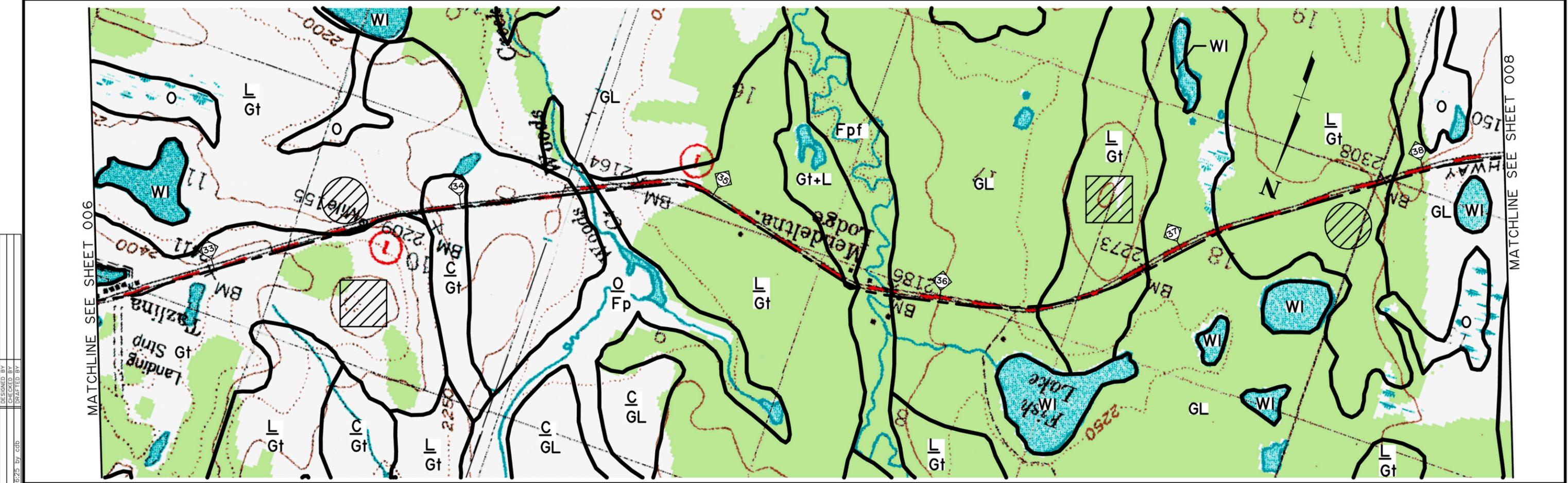
NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **006** REV. **I**



DESIGNED BY: [] CHECKED BY: [] DRAFTED BY: []
 STANDARDS: []
 COMPUTER DESIGNATION: []
 SPECIFICATIONS: []
 XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USCS-IMAGE, SID

MATCHLINE SEE SHEET 006

MATCHLINE SEE SHEET 008

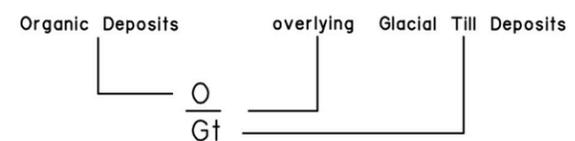
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|--------------------------|---|------|----|------|------|------|------|------|-----|----|------|----|------|----|--|
| TERRAIN UNIT | Gt | L Gt | Gt | L Gt | C Gt | L Gt | O Fp | L Gt | Fpf | GL | L Gt | GL | L Gt | GL | |
| BEDROCK | Qu Gt + L | | | | | | | | | | | | | | |
| HAZARDS | | | | | | | | | | | | | | | |
| PERMAFROST | GF | | | | | | | | | | | | | | |
| COMMENTS | WOODS CREEK XING MENDELTONA LODGE MENDELTONA CREEK XING | | | | | | | | | | | | | | |
| POTENTIAL MATERIAL SITES | MP 33.7 MP 36.8 | | | | | | | | | | | | | | |
| PROPOSED DISPOSAL SITES | MP 33.6 MP 37.7 | | | | | | | | | | | | | | |

TERRAIN UNIT SYMBOLS/NAMES

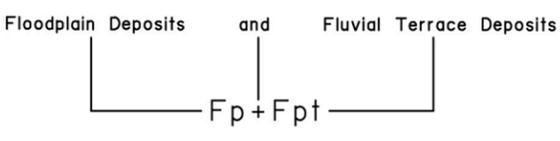
- Bx Bedrock
- C Colluvium
- Cf Colluvial Fan Deposits
- Cl Landslide
- Cs Solifluction Deposits
- Ct Talus
- Ei Loess
- Es Eolian Sand
- Ffg Alluvial Fan (Granular)
- Ffs Alluvial Fan (Fine-Grained)
- Fp Floodplain (Granular)
- Fpf Floodplain (Fine-Grained)
- Fpt Terrace
- GL Glacial Lacustrine (glacial lake) Deposits
- Gt Glacial Till
- GF Glacio Fluvial (meltwater) Deposits, Undifferentiated
- Gfo Outwash Deposits
- Gfe Esker Deposits
- Gfk Kame Deposits
- Gfl Lowland Glacio Fluvial (meltwater) Deposits
- Ht Mine Tailings
- L Lacustrine Deposit
- Lt Lacustrine Thaw Basin/Lake Deposits
- Me Marine Estuarine Deposits
- O Organic Deposits
- Vm Mud Volcano
- WI Water (Lake)

TERRAIN UNIT EXPLANATION

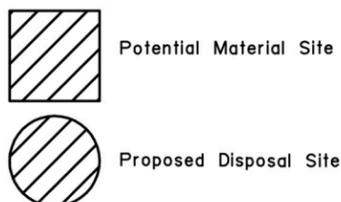
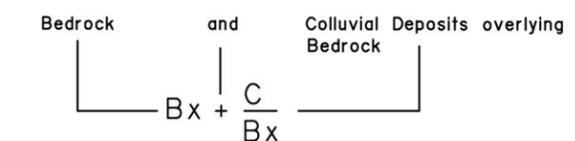
Layered terrain unit:



Mosaic terrain unit, dominant component listed first:



Complex terrain units:



PERMAFROST CLASSIFICATIONS

- GA Generally Absent
- S Sporadic
- D Discontinuous
- GF Generally Frozen



Note: The alignment and mileposts shown are based on the March, 2005 alignment.

LIMITATIONS

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| I | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| O | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

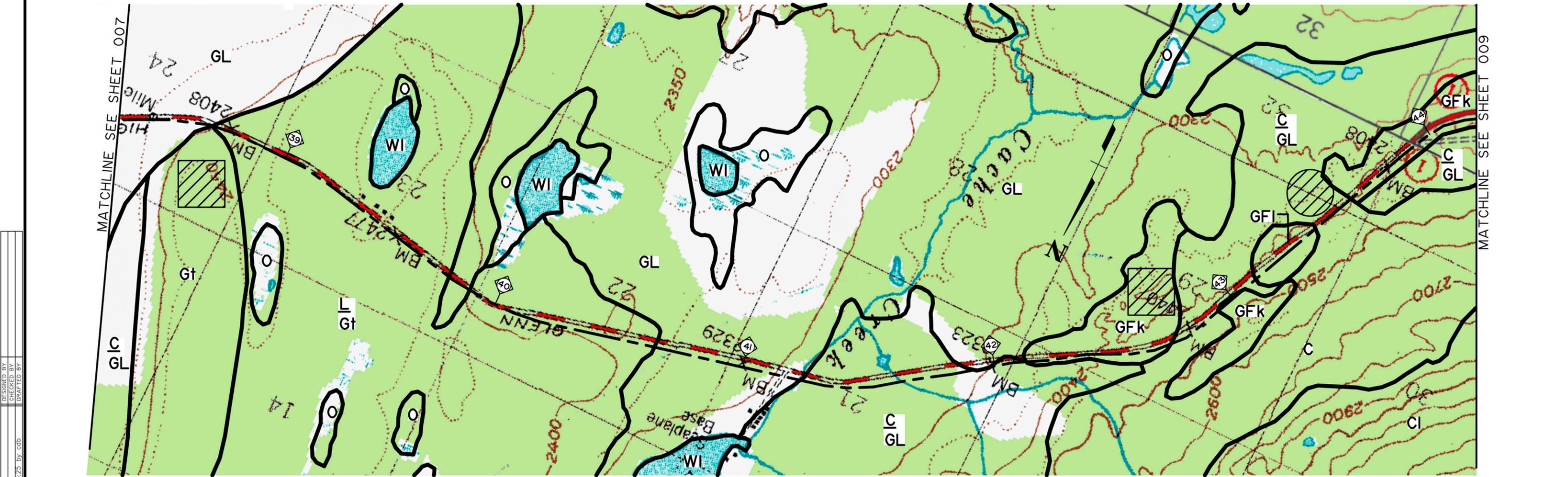
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NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

| | |
|---------------------------------------|---------------------------|
| SCALE IN FEET 0 500 1000 2000 3000 | DRAWING NO. 007 |
| | REV. I |

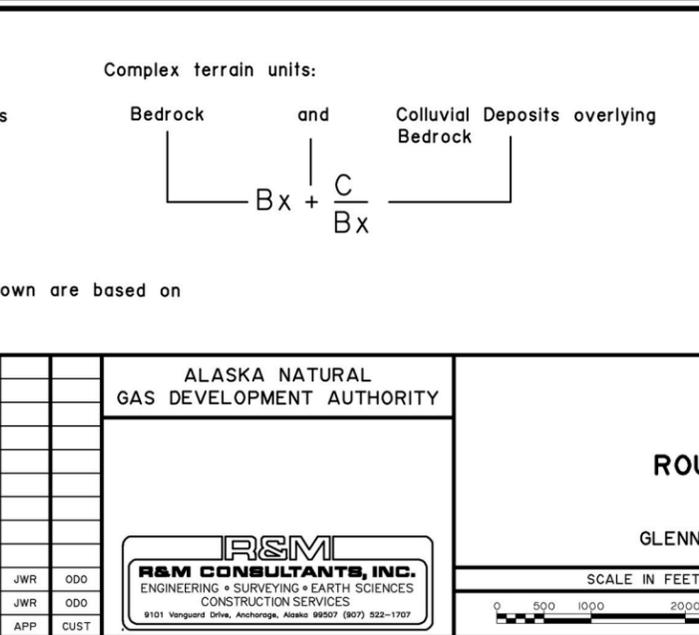
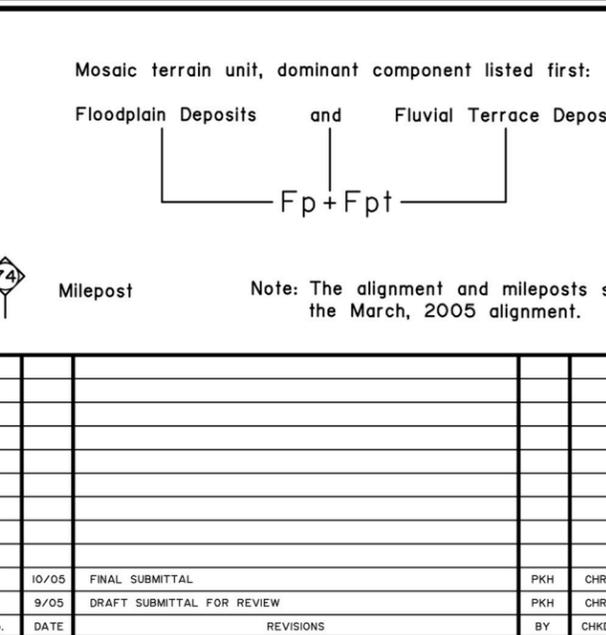
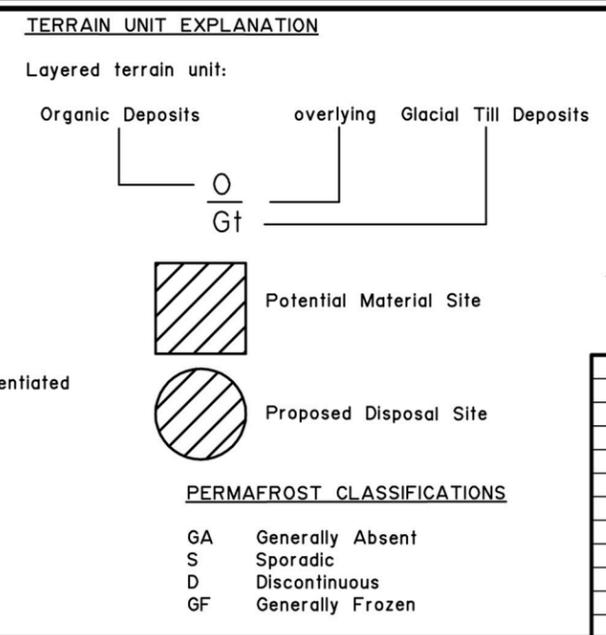


SPECIFICATIONS: DESIGNED BY: CHECKED BY: DRAFTED BY: XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID
 STANDARDS: COMPUTER DESIGNATION: Project\1291\Geo\1291-overall.dwg, 10/17/05 at 16:25 by cab

| | | | | | | | | | | | | | | |
|--------------------------|---------|---------|----|---------|----|------------------|-----|---------|-----|----------------------------|-----|-----|---------|-----|
| TERRAIN UNIT | GL | L Gt | GL | L Gt | GL | C GL | GFk | C GL | GFk | C GL | GFk | GFk | C GL | GFk |
| BEDROCK | | | | | | Qu | | | | | | | | |
| HAZARDS | | | | | | | | | | | | | | |
| PERMAFROST | | | | | | GF | | | | | | | | |
| COMMENTS | | | | | | CACHE CREEK XING | | | | SOUTH SLOPE SLIDE MOUNTAIN | | | | |
| POTENTIAL MATERIAL SITES | MP 38.6 | | | | | | | | | MP 42.7 | | | | |
| PROPOSED DISPOSAL SITES | | | | | | | | | | | | | MP 43.5 | |

TERRAIN UNIT SYMBOLS/NAMES

| | |
|-----|---|
| Bx | Bedrock |
| C | Colluvium |
| Cf | Colluvial Fan Deposits |
| Cl | Landslide |
| Cs | Solifluction Deposits |
| Ct | Talus |
| El | Loess |
| Es | Eolian Sand |
| Ffg | Alluvial Fan (Granular) |
| Ffs | Alluvial Fan (Fine-Grained) |
| Fp | Floodplain (Granular) |
| Fpf | Floodplain (Fine-Grained) |
| Fpt | Terrace |
| GL | Glacial Lacustrine (glacial lake) Deposits |
| Gt | Glacial Till |
| GF | Glacio Fluvial (meltwater) Deposits, Undifferentiated |
| Gfo | Outwash Deposits |
| Gfe | Esker Deposits |
| GFk | Kame Deposits |
| GFl | Lowland Glacio Fluvial (meltwater) Deposits |
| Ht | Mine Tailings |
| L | Lacustrine Deposit |
| Lt | Lacustrine Thaw Basin/Lake Deposits |
| Me | Marine Estuarine Deposits |
| O | Organic Deposits |
| Vm | Mud Volcano |
| WI | Water (Lake) |



LIMITATIONS

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| 1 | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| 0 | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

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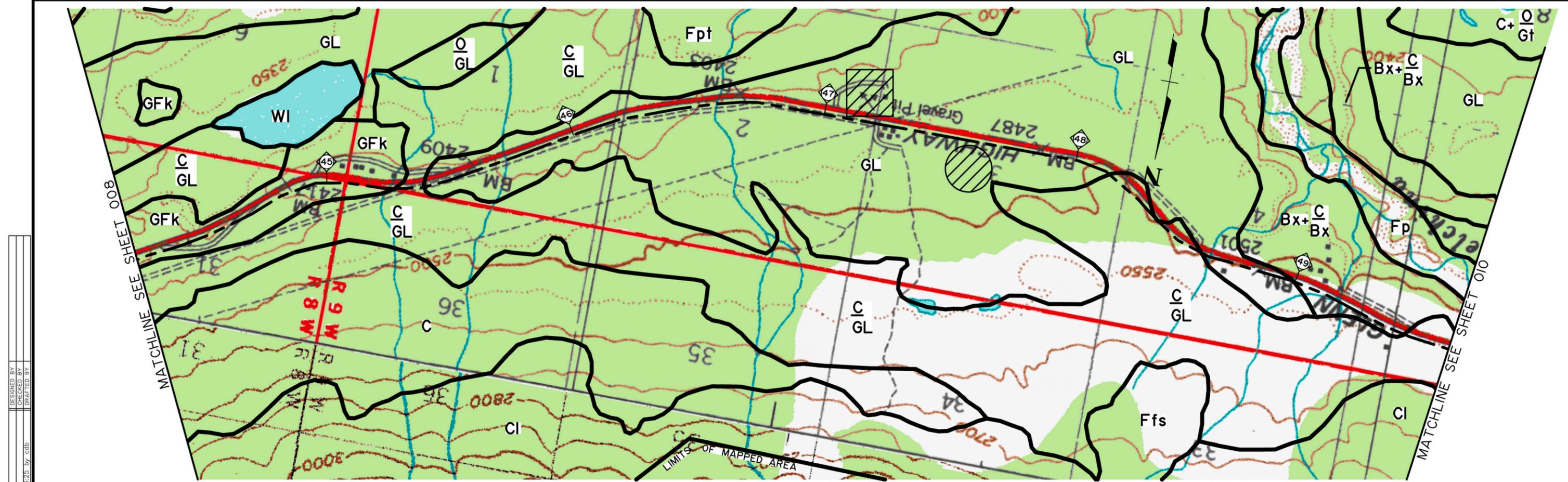
NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **008** REV. **1**

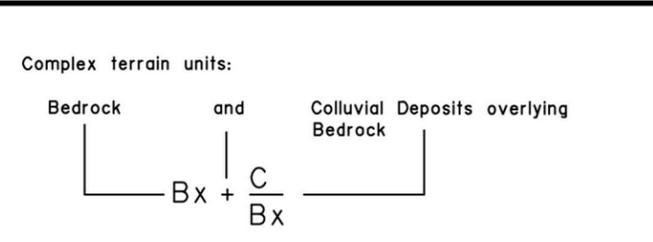
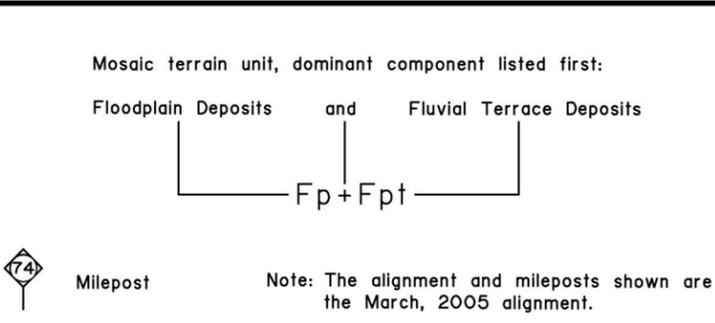
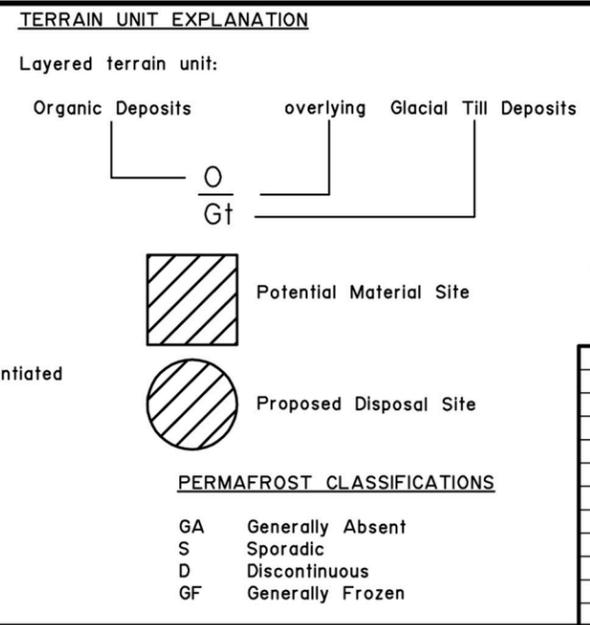


DESIGNED BY: [blank]
 CHECKED BY: [blank]
 DRAFTED BY: [blank]

| | | | | | | | |
|--------------------------|-------------------------------|---------|----|---------------------|----|--------------|---------|
| TERRAIN UNIT | GFk | C GL | GL | C GL | GL | Bx + C Bx | C GL |
| BEDROCK | SHALE/SILTSTONE | | Qu | Kms SHALE/SILTSTONE | | | |
| HAZARDS | SLOPE STABILITY | | | | | | |
| PERMAFROST | GF | | | | | | |
| COMMENTS | SOUTH SLOPE OF SLIDE MOUNTAIN | | | | | | |
| POTENTIAL MATERIAL SITES | MP 47.2 | | | | | | |
| PROPOSED DISPOSAL SITES | MP 47.6 | | | | | | |

TERRAIN UNIT SYMBOLS/NAMES

| | |
|-----|---|
| Bx | Bedrock |
| C | Colluvium |
| Cf | Colluvial Fan Deposits |
| Cl | Landslide |
| Cs | Solifluction Deposits |
| Ct | Talus |
| El | Loess |
| Es | Eolian Sand |
| Ffg | Alluvial Fan (Granular) |
| Ffs | Alluvial Fan (Fine-Grained) |
| Fp | Floodplain (Granular) |
| Fpf | Floodplain (Fine-Grained) |
| Fpt | Terrace |
| GL | Glacial Lacustrine (glacial lake) Deposits |
| Gt | Glacial Till |
| GF | Glacio Fluvial (meltwater) Deposits, Undifferentiated |
| Gfo | Outwash Deposits |
| GFe | Esker Deposits |
| GFk | Kame Deposits |
| GFI | Lowland Glacio Fluvial (meltwater) Deposits |
| Ht | Mine Tailings |
| L | Lacustrine Deposit |
| Lt | Lacustrine Thaw Basin/Lake Deposits |
| Me | Marine Estuarine Deposits |
| O | Organic Deposits |
| Vm | Mud Volcano |
| WI | Water (Lake) |



LIMITATIONS

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| 1 | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| 0 | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

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 CONSTRUCTION SERVICES
 9101 Vanguard Drive, Anchorage, Alaska 99507 (907) 522-1707

NATURAL GAS PIPELINE

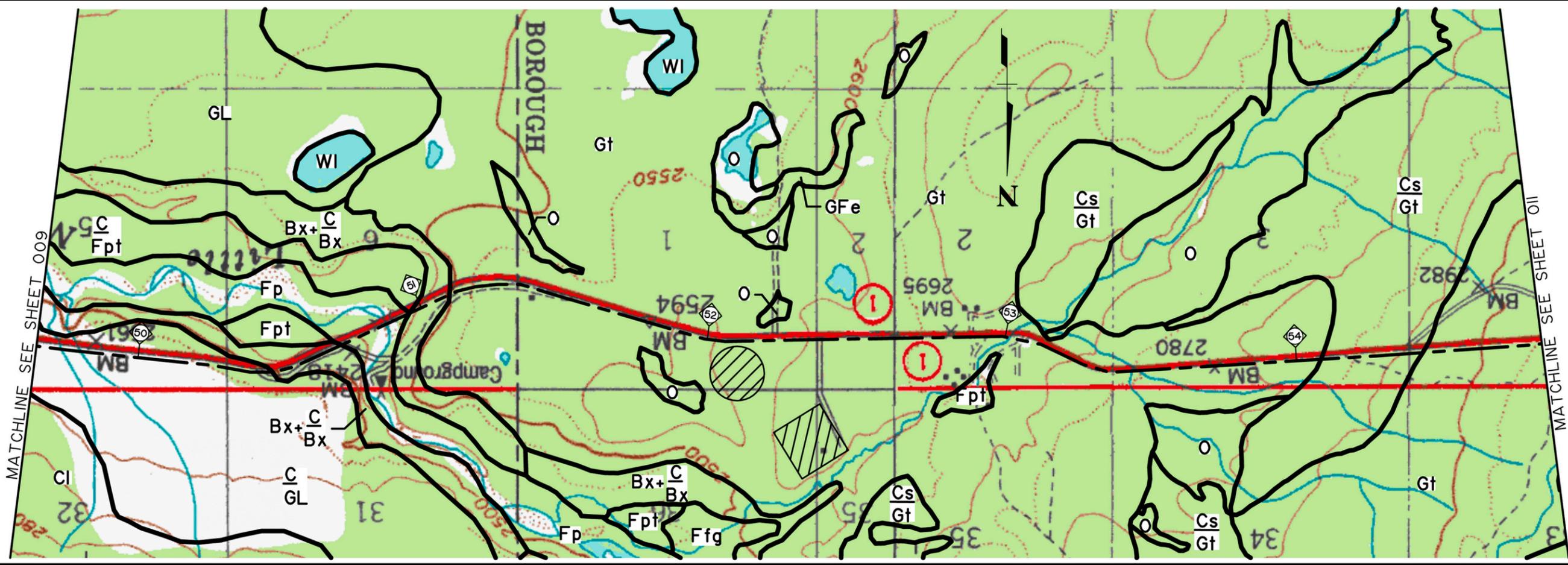
ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **009** REV. **1**

SPECIFICATIONS DESIGNED BY CHECKED BY DRAFTED BY
 STANDARDS PROJECT DESIGNATION: Project 1291-01 Geo 1291-Overall, 1000, 10/17/05 at 16:25 by ccb
 XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID



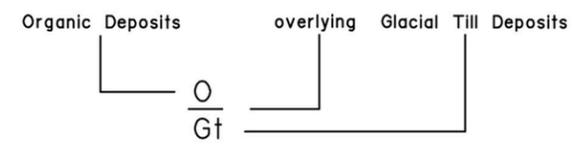
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|--------------------------|------------------------------|------------|----|------------|---------|----------|----|
| TERRAIN UNIT | C GL | Bx+C Bx | Fp | Bx+C Bx | Gt | Cs Gt | Gt |
| BEDROCK | Kms SHALE/SILTSTONE | | | | Qu | | |
| HAZARDS | SLOPE STABILITY | | | | | | |
| PERMAFROST | | | | | GF | | |
| COMMENTS | ● LITTLE NELCHINA RIVER XING | | | | | | |
| POTENTIAL MATERIAL SITES | | | | | MP 52.4 | | |
| PROPOSED DISPOSAL SITES | | | | | MP 52.1 | | |

TERRAIN UNIT SYMBOLS/NAMES

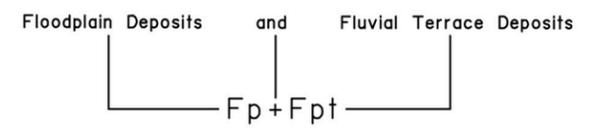
- Bx Bedrock
- C Colluvium
- Cf Colluvial Fan Deposits
- Cl Landslide
- Cs Solifluction Deposits
- Ct Talus
- El Loess
- Es Eolian Sand
- Ffg Alluvial Fan (Granular)
- Ffs Alluvial Fan (Fine-Grained)
- Fp Floodplain (Granular)
- Fpt Floodplain (Fine-Grained)
- Ft Terrace
- GL Glacial Lacustrine (glacial lake) Deposits
- Gt Glacial Till
- GF Glacio Fluvial (meltwater) Deposits, Undifferentiated
- Gfo Outwash Deposits
- GFe Esker Deposits
- GFk Kame Deposits
- GFf Lowland Glacio Fluvial (meltwater) Deposits
- Ht Mine Tailings
- L Lacustrine Deposit
- Lt Lacustrine Thaw Basin/Lake Deposits
- Me Marine Estuarine Deposits
- O Organic Deposits
- Vm Mud Volcano
- WI Water (Lake)

TERRAIN UNIT EXPLANATION

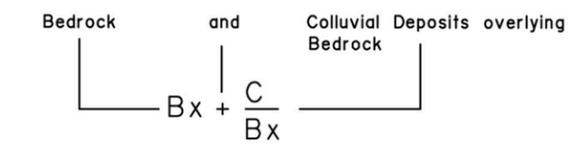
Layered terrain unit:



Mosaic terrain unit, dominant component listed first:



Complex terrain units:



PERMAFROST CLASSIFICATIONS

- GA Generally Absent
- S Sporadic
- D Discontinuous
- GF Generally Frozen



Note: The alignment and mileposts shown are based on the March, 2005 alignment.

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| I | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| O | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

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 CONSTRUCTION SERVICES
 9101 Vanguard Drive, Anchorage, Alaska 99507 (907) 522-1707

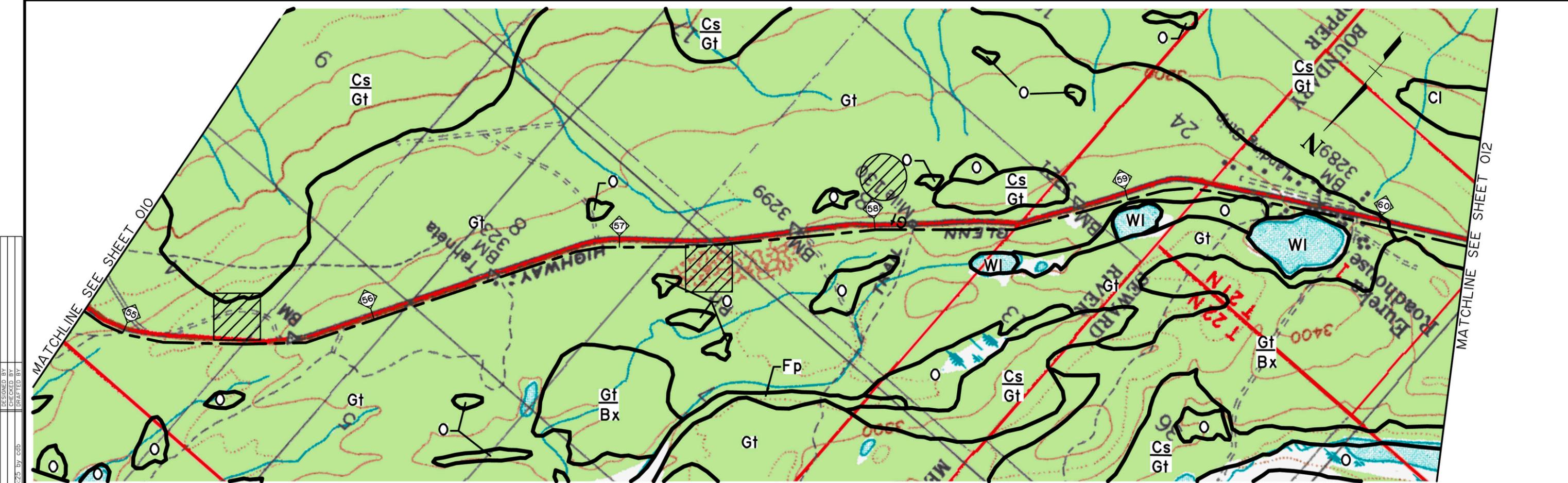
NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **O10** REV. **I**



DESIGNED BY: [blank]
 CHECKED BY: [blank]
 DRAFTED BY: [blank]

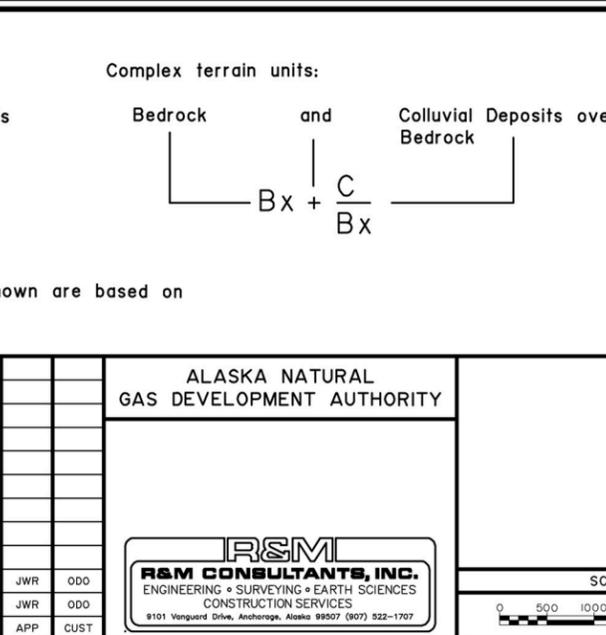
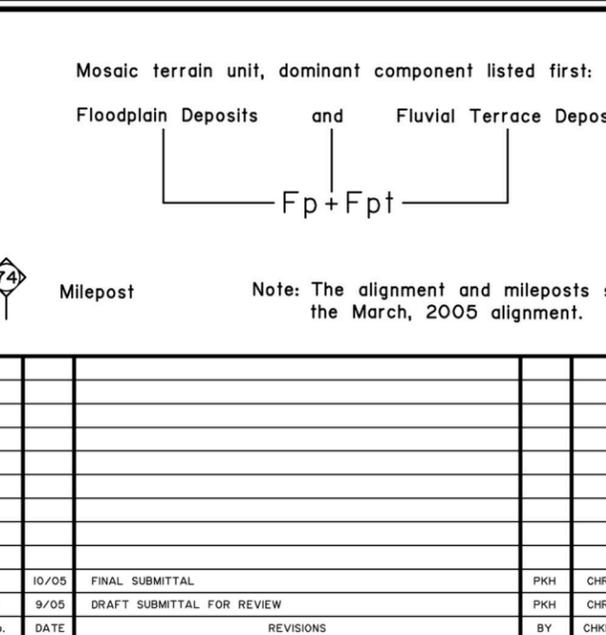
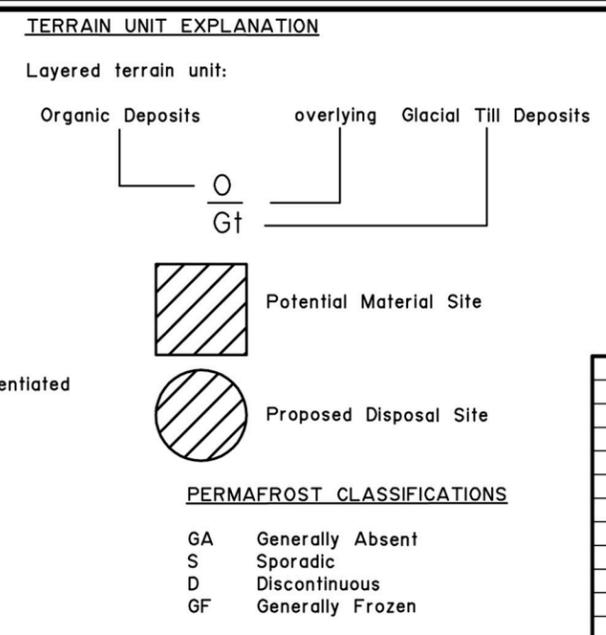
MATCHLINE SEE SHEET 010

MATCHLINE SEE SHEET 012

| | | | | |
|--------------------------|---------------|-----------------------------|------------------|-------|
| TERRAIN UNIT | Gt | O | Gt | Cs/Gt |
| BEDROCK | Qu | Kms-CLAYSTONE AND SILTSTONE | | |
| HAZARDS | | | | |
| PERMAFROST | GF | | | |
| COMMENTS | EUREKA SUMMIT | | EUREKA ROADHOUSE | |
| POTENTIAL MATERIAL SITES | MP 55.4 | MP 57.4 | | |
| PROPOSED DISPOSAL SITES | | MP 58.0 | | |

TERRAIN UNIT SYMBOLS/NAMES

| | |
|-----|---|
| Bx | Bedrock |
| C | Colluvium |
| Cf | Colluvial Fan Deposits |
| Cl | Landslide |
| Cs | Solifluction Deposits |
| Ct | Talus |
| El | Loess |
| Es | Eolian Sand |
| Ffg | Alluvial Fan (Granular) |
| Ffs | Alluvial Fan (Fine-Grained) |
| Fp | Floodplain (Granular) |
| Fpf | Floodplain (Fine-Grained) |
| Fpt | Terrace |
| GL | Glacial Lacustrine (glacial lake) Deposits |
| Gt | Glacial Till |
| GF | Glacio Fluvial (meltwater) Deposits, Undifferentiated |
| Gfo | Outwash Deposits |
| GFe | Esker Deposits |
| GFk | Kame Deposits |
| GFl | Lowland Glacio Fluvial (meltwater) Deposits |
| Ht | Mine Tailings |
| L | Lacustrine Deposit |
| Lt | Lacustrine Thaw Basin/Lake Deposits |
| Me | Marine Estuarine Deposits |
| O | Organic Deposits |
| Vm | Mud Volcano |
| WI | Water (Lake) |



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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| 1 | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODD |
| 0 | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODD |

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

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NATURAL GAS PIPELINE

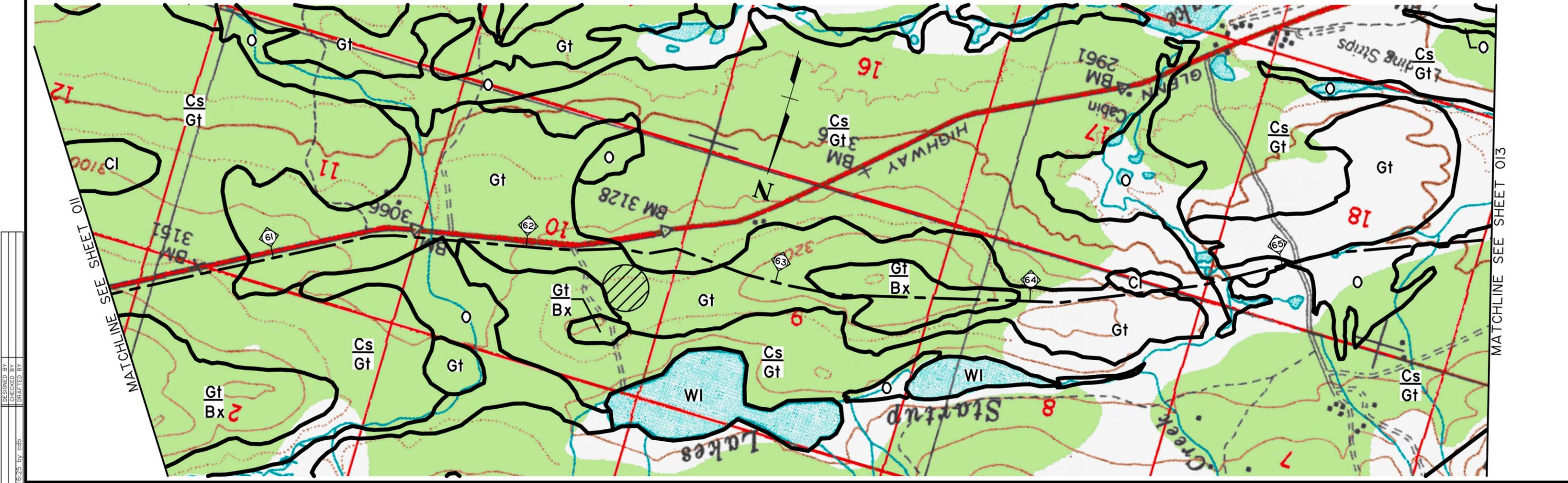
ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **011** REV. **1**

SPECIFICATIONS: [blank]
 STANDARDS: [blank]
 COMPUTER DESIGNATION: [blank]
 XREF: 1291-ARPHOTOS, 1291-BD02, 1291-USOS-IMAGE, SID



SPECIFICATIONS DESIGNED BY CHECKED BY DRAFTED BY
 STANDARDS COMPUTER DESIGNATION Project: V1291-01 Geo V1291-overall, I=1000, 10/14/05 at 16:25 by ccb
 XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID

| | | | | | | | | | | | |
|--------------------------|-----------------------------|----|----------|----|----------|----|----|--|---|----------------------|----------------------------------|
| TERRAIN UNIT | Cs Gt | Gt | Cs Gt | Gt | Gt Bx | Gt | Cl | Cs Gt | O | Cs Gt | |
| BEDROCK | Kms-CLAYSTONE AND SILTSTONE | | | | | | | | | | |
| HAZARDS | | | | | | | | SLOPE STABILITY | | | |
| PERMAFROST | GF | | | | | | | | | | |
| COMMENTS | ● OLD MAN CREEK XING | | | | | | | ● COPPER RIVER LOWLAND (LAKE LOUISE PLATEAU) | | ● STARTUP CREEK XING | SOUTHEASTERN TALKEETNA FOOTHILLS |
| POTENTIAL MATERIAL SITES | | | | | | | | | | | |
| PROPOSED DISPOSAL SITES | ● MP 62.4 | | | | | | | | | | |

TERRAIN UNIT SYMBOLS/NAMES

| | |
|-----|---|
| Bx | Bedrock |
| C | Colluvium |
| Cf | Colluvial Fan Deposits |
| Cl | Landslide |
| Cs | Solifluction Deposits |
| Ct | Talus |
| El | Loess |
| Es | Eolian Sand |
| Ffg | Alluvial Fan (Granular) |
| Ffs | Alluvial Fan (Fine-Grained) |
| Fp | Floodplain (Granular) |
| Fpf | Floodplain (Fine-Grained) |
| Fpt | Terrace |
| GL | Glacial Lacustrine (glacial lake) Deposits |
| Gt | Glacial Till |
| GF | Glacio Fluvial (meltwater) Deposits, Undifferentiated |
| Gfo | Outwash Deposits |
| Gfe | Esker Deposits |
| Gfk | Kame Deposits |
| Gfl | Lowland Glacio Fluvial (meltwater) Deposits |
| Ht | Mine Tailings |
| L | Lacustrine Deposit |
| Lt | Lacustrine Thaw Basin/Lake Deposits |
| Me | Marine Estuarine Deposits |
| O | Organic Deposits |
| Vm | Mud Volcano |
| WI | Water (Lake) |

TERRAIN UNIT EXPLANATION

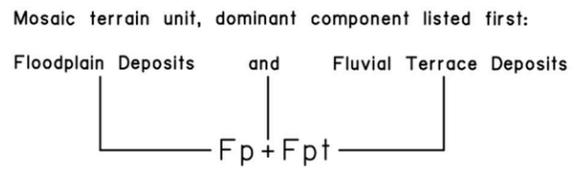
Layered terrain unit:

Organic Deposits overlying Glacial Till Deposits

Potential Material Site
 Proposed Disposal Site

PERMAFROST CLASSIFICATIONS

| | |
|----|------------------|
| GA | Generally Absent |
| S | Sporadic |
| D | Discontinuous |
| GF | Generally Frozen |



Note: The alignment and mileposts shown are based on the March, 2005 alignment.

LIMITATIONS
 This map is intended only for general planning purposes. There has been no field verification of the interpretation other than recourse to published and unpublished maps and reports. Detailed design will require site-specific data including additional on-site investigation to verify terrain units, their characteristics, and their geotechnical properties.

| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| 1 | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| 0 | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

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 CONSTRUCTION SERVICES
 9101 Vanguard Drive, Anchorage, Alaska 99507 (907) 522-1707

NATURAL GAS PIPELINE

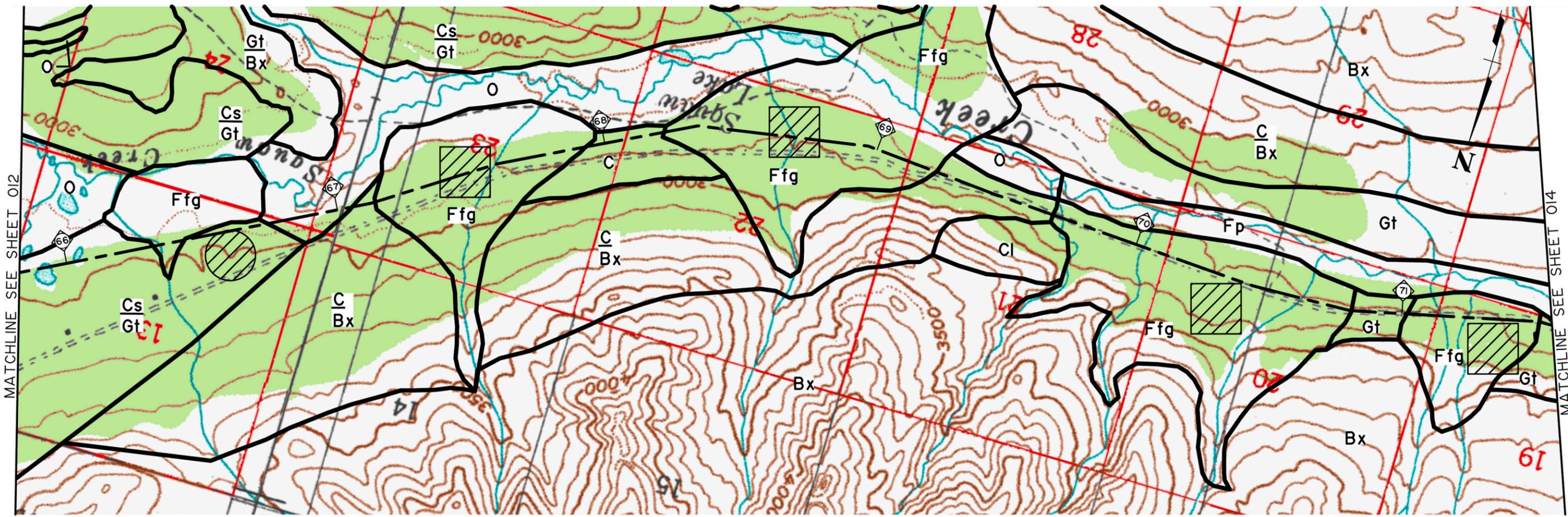
ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **012** REV. **1**

XREF: 1291-ARPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID
 STANDARDS
 COMPUTER DESIGNATION: D:\proj\1291\GIS\1291-overall_1=1000_10/14/05 at 16:25 by: cdb
 DESIGNED BY
 CHECKED BY
 DRAFTED BY



MATCHLINE SEE SHEET 012

MATCHLINE SEE SHEET 014

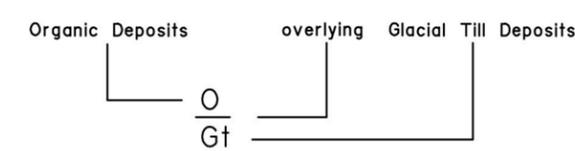
| | | | | | | | | | | | | | |
|--------------------------|-----------------------------|-----|----------|---|---------|---------|---|-----|---------|-----|----|---------|---------|
| TERRAIN UNIT | Cs Gt | Ffg | Cs Gt | O | C Bx | Ffg | C | Ffg | C Bx | Ffg | Gt | Ffg | Gt |
| BEDROCK | Kms-CLAYSTONE AND SILTSTONE | | | | | | | | | | | | |
| HAZARDS | SLOPE STABILITY | | | | | | | | | | | | |
| PERMAFROST | GF | | | | | | | | | | | | |
| COMMENTS | | | | | | | | | | | | | |
| POTENTIAL MATERIAL SITES | | | | | | MP 67.5 | | | | | | MP 70.4 | |
| PROPOSED DISPOSAL SITES | | | | | | | | | | | | | MP 71.3 |

TERRAIN UNIT SYMBOLS/NAMES

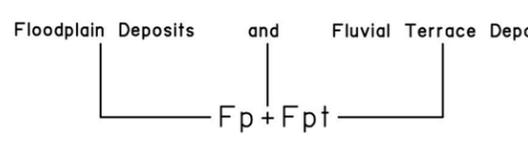
- Bx Bedrock
- C Colluvium
- Cf Colluvial Fan Deposits
- Cl Landslide
- Cs Solifluction Deposits
- Ct Talus
- El Loess
- Es Eolian Sand
- Ffg Alluvial Fan (Granular)
- Ffs Alluvial Fan (Fine-Grained)
- Fp Floodplain (Granular)
- Fpf Floodplain (Fine-Grained)
- Fpt Terrace
- GL Glacial Lacustrine (glacial lake) Deposits
- Gt Glacial Till
- GF Glacio Fluvial (meltwater) Deposits, Undifferentiated
- GFo Outwash Deposits
- GFs Esker Deposits
- GFk Kame Deposits
- GFl Lowland Glacio Fluvial (meltwater) Deposits
- Ht Mine Tailings
- L Lacustrine Deposit
- Lt Lacustrine Thaw Basin/Lake Deposits
- Me Marine Estuarine Deposits
- O Organic Deposits
- Vm Mud Volcano
- Wl Water (Lake)

TERRAIN UNIT EXPLANATION

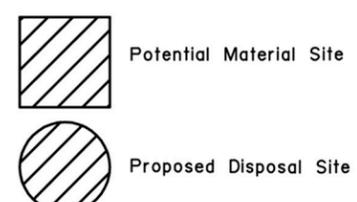
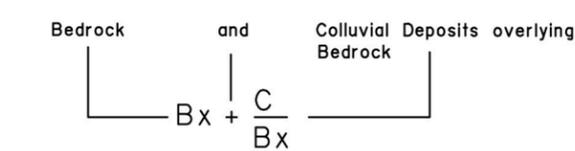
Layered terrain unit:



Mosaic terrain unit, dominant component listed first:



Complex terrain units:



PERMAFROST CLASSIFICATIONS

- GA Generally Absent
- S Sporadic
- D Discontinuous
- GF Generally Frozen



Milepost

Note: The alignment and mileposts shown are based on the March, 2005 alignment.

LIMITATIONS

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| No. | DATE | REVISIONS | BY | CHKD | APP | CUST |
|-----|-------|----------------------------|-----|------|-----|------|
| 1 | 10/05 | FINAL SUBMITTAL | PKH | CHR | JWR | ODO |
| 0 | 9/05 | DRAFT SUBMITTAL FOR REVIEW | PKH | CHR | JWR | ODO |

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NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

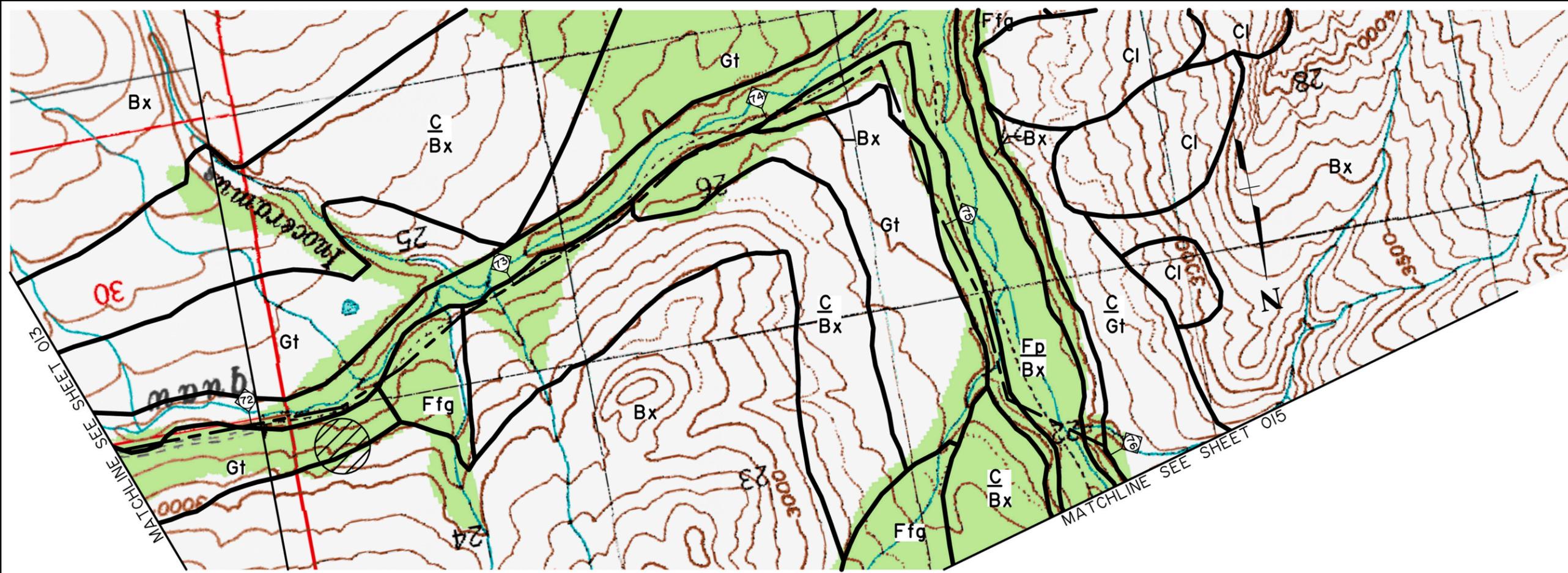
GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **013**

REV. **1**

DESIGNED BY: [blank] CHECKED BY: [blank] DRAFTED BY: gcb
 SPECIFICATIONS: [blank]
 STANDARDS: [blank]
 COMPUTER DESIGNATION: [blank]
 PROJECT: 1291-0101-001-0000-10714/05-01-0000-10714/05-01-18225 BY: gcb
 XREF: 1291-AIRPHOTOS, 1291-BD02, 1291-USGS-IMAGE, SID

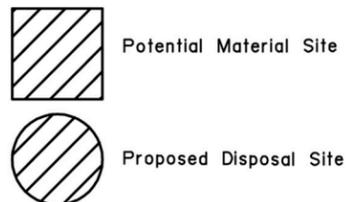
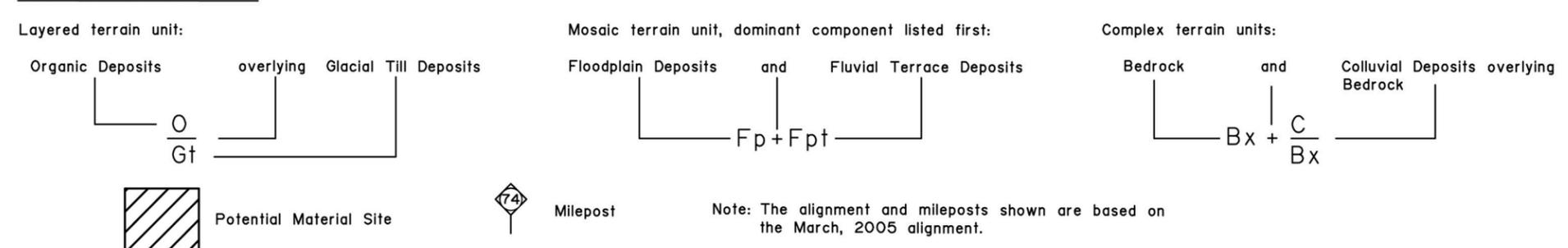


| | | | | | | | | | | | | | |
|--------------------------|-----------------------------|----|----------|-----|---------|----|----------|----|----|----|----------|----|---------|
| TERRAIN UNIT | Fp Bx | Gt | Fp Bx | Ffg | C Bx | Gt | Fp Bx | Bx | Gt | Bx | Fp Bx | Bx | C Gt |
| BEDROCK | Kms-CLAYSTONE AND SILTSTONE | | | | | | | | | | | | |
| HAZARDS | | | | | | | | | | | | | |
| PERMAFROST | GF | | | | | | D | | | | | | |
| COMMENTS | CARIBOU CREEK XING | | | | | | | | | | | | |
| POTENTIAL MATERIAL SITES | | | | | | | | | | | | | |
| PROPOSED DISPOSAL SITES | MP 72.3 | | | | | | | | | | | | |

TERRAIN UNIT SYMBOLS/NAMES

- Bx Bedrock
- C Colluvium
- Cf Colluvial Fan Deposits
- Cl Landslide
- Cs Solifluction Deposits
- Ct Talus
- El Loess
- Es Eolian Sand
- Ffg Alluvial Fan (Granular)
- Ffs Alluvial Fan (Fine-Grained)
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- GFk Kame Deposits
- GF1 Lowland Glacio Fluvial (meltwater) Deposits
- Ht Mine Tailings
- L Lacustrine Deposit
- Lt Lacustrine Thaw Basin/Lake Deposits
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- O Organic Deposits
- Vm Mud Volcano
- WI Water (Lake)

TERRAIN UNIT EXPLANATION



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NATURAL GAS PIPELINE

ROUTE SOIL CONDITIONS

GLENNALLEN TO PALMER SPUR LINE

SCALE IN FEET: 0 500 1000 2000 3000

DRAWING NO. **014**

REV. **1**