A report prepared for

USKH
2515 A Street
Anchorage, AK 99503

GEOTECHNICAL REPORT
Kenai Spur Highway - MP 0.0 to 10.7
DOTPF Central Region
Kenai-Soldotna, Alaska

DOTPF Nos. F-022-1(6) / 59039 and F-022-1(6)/58709

by

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November 16, 1992

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INTRODUCTION

This report presents the results of the geotechnical investigation of the proposed improvements to the Kenai Spur Highway. The project starts at the intersection with the Sterling Highway in Soldotna (Station 10+00) and extends to the intersection with Main Street in the City of Kenai (Station 566+80), a total of 10.55 miles. The planned improvements will upgrade the two lane section of the roadway to four lanes and will include both horizontal and vertical grade changes. The general location of the project is shown on Plate 1, Location Map. Plates 2 and 3 show locations of general topography and geology, planned realignments, and locations of individual Plan and Profile sheets along the route.

The Kenai Spur Highway was first constructed in 1955 as a two lane road. In 1973, the Soldotna portion of the road was widened to a four lane urban arterial with center turn lane from the Sterling Highway to Knight Drive (Sunset Drive) at Station 64+00. At about the same time, the section from the Kenai High School (about Station 500+00) to Main Street was widened to a 40-foot wide section. In 1976 the portion from Knight Drive to the Kenai High School was upgraded to a 40-foot section.

A centerline and materials site investigation was performed by the Engineering Geology Section of the Materials Division of the Alaska Department of Highways in June and July 1972. The investigation extended from Station 72+00 to Station 518+90.

INVESTIGATION

The investigation of centerline conditions was divided between Duane Miller & Associates (DM&A) and the State of Alaska Department of Transportation and Public Facilities (DOTPF). DM&A explored the conditions between Stations 10+00 and 428+00. DOTPF performed the investigation from Stations 428+00 to 573+00. The results of the DOTPF investigation were summarized in a memorandum report by Mr. Thomas Ottley, Engineering Geologist II, dated July 16, 1991. The memorandum and attachments are the primary source of the DOTPF data included in this report.

DOTPF Investigation

DOTPF explored the conditions on the Kenai end of the project by drilling 115 borings during the period of February 6 to March 7, 1991. The work was performed

under the supervision of Mr. Ottley, and the field crew consisted of Roy Briggs, Les Lee and Clark Abbott, drillers.

The borings were drilled using a C.M.E. 850 track mounted drill rig. Both six-inch diameter solid flight augers and eight-inch diameter hollow stem augers were used to drill and sample the soils. Solid flight auger "grab" samples were obtained either directly off the auger flight or as the soil was spun to the surface. With the hollow stem auger, the soils were sampled using a standard split spoon sampler driven into the soils using a 140-pound automatic hammer free-falling 30 inches. Thin-walled Shelby samples were also obtained of organic soils. In addition to the drilled and sampled borings, vane shear tests were made at several locations in peat deposits.

The samples were tested in the DOTPF Central Region Materials Laboratory. Testing of most samples included gradation, classification and moisture content.

DOTPF also performed consolidation tests of four different samples of peat. The consolidation tests of the peat were performed using the standard ASTM Method D 2435-80 but by only applying single loads on subsamples cut from each sample. The technique is similar to that recommended in *Muskeg Engineering Handbook* edited by Ivan C. MacFarlane (1969).

DM&A Investigation

DM&A explored the subsurface conditions on the southerly portion of route during the period August 24 through September 14, 1991. A total of 126 test borings were drilled to depths of 10 to 41 feet. During the drilling Randolph Ross, P.E., was on site full time to log the soils and ground water conditions encountered and to obtain representative samples of the soils encountered. The drilling was performed by Denali Drilling of Anchorage.

Ninety three test borings were drilled within existing traffic lanes, on the road shoulders or at truck accessible off-road locations with a truck-mounted Mobile Drill Model B-61 hydraulic rotary rig. Borings 94 through 126 were drilled at off-road locations with a C.M.E. Model 55 hydraulic rotary rig mounted on a Nodwell tracked carrier. All borings were drilled using 8" outside diameter by 3-1/2" inside diameter hollow stem continuous flight augers.

Samples of the soils were obtained at five-foot intervals or at changes in strata. In the paved areas, grab samples of the soils immediately beneath the pavement were obtained as was a shallow sample at about the two-foot depth. Grab samples near the pavement surface were obtained by hand excavating from the boring. Deeper samples were obtained by driving a standard split spoon sampler into the soils beneath the drill bit. The sampler was driven into the soil with a cat head and rope driven drop hammer weighing 140 pounds and free-falling 30 inches. The number of blows required to drive the sampler the final 12 inches of each 18-inch sample drive is the Standard Penetration Test (SPT) N-Value. Samples of fine grained soils also were obtained by pushing thin walled Shelby Tube samplers. Drive and grab samples of the soils were sealed in moisture proof plastic bags. The Shelby samples were sealed in their tubes by capping and taping.

At some of the borings, 1/2" inside diameter slotted plastic pipe was installed to allow for the subsequent measurement of water levels. Water level readings were made in these wells on October 18 and 19, 1991.

Peat probes were made in muskeg areas by hand pushing a rod until refusal was encountered. The probing was checked adjacent to previously drilled borings and showed peat depths within one foot of the depth determined in the boring.

In addition to the probes, vane shear tests were made to provide an estimate of the strength of the peat. The vane shear probes were made using a hand operated Terratest Inspection Vane CL-120.

All DM&A samples were tested in EBA Engineering's Anchorage laboratory. The laboratory testing included moisture contents, sieve and hydrometer analysis, Atterberg Limits, percentage passing the #200 sieve, specific gravity, compaction tests, triaxial shear strength and consolidation tests.

Results

A tabular summary by station of all the borings from both investigations is presented at the end of the report. The summary includes the station and offset for each boring based on the proposed centerline, elevation, total depth and date drilled. The summary also includes the thickness of asphalt pavement (A/C), fill depth and thickness of organic material, where appropriate. Water level depths are also shown.

The results of the exploration are summarized on the plan and profile sheets presented on Plates 4 through 34. Boring logs along with summary plots of SPT N-values and moisture contents for the samples from those borings are shown on each of the particular plan and profile sheets. The peat probe locations and measured depths also are shown on the plan and profile sheets.

The soils have been classified in accordance with the DOTPF system for textural classification of soils which is described on Plate 35. Symbols from the Unified Soil Classification System (USCS) were used as abbreviators for the DOTPF system as shown on Plate 36.

Data by station for all of the samples is summarized on Plates 37 through 50. The sample summary includes sample depth, moisture content, sampling N-value, the abbreviator for the textural classification, and classification data. Detailed data from the sieve and hydrometer tests are presented on Plates 51 through 56. The gradation test data is presented by station, and the samples have been divided into fill material and natural soils.

Detailed logs of DM&A borings are presented on Plates A-1 through A-75 in the appendix. The detailed logs of the DOTPF borings are presented on the five pages that follow A-75. The sample and gradation summaries are again presented but sorted by boring number at the end of the appendix.

GEOLOGIC and SOIL CONDITIONS

Geology and Topography

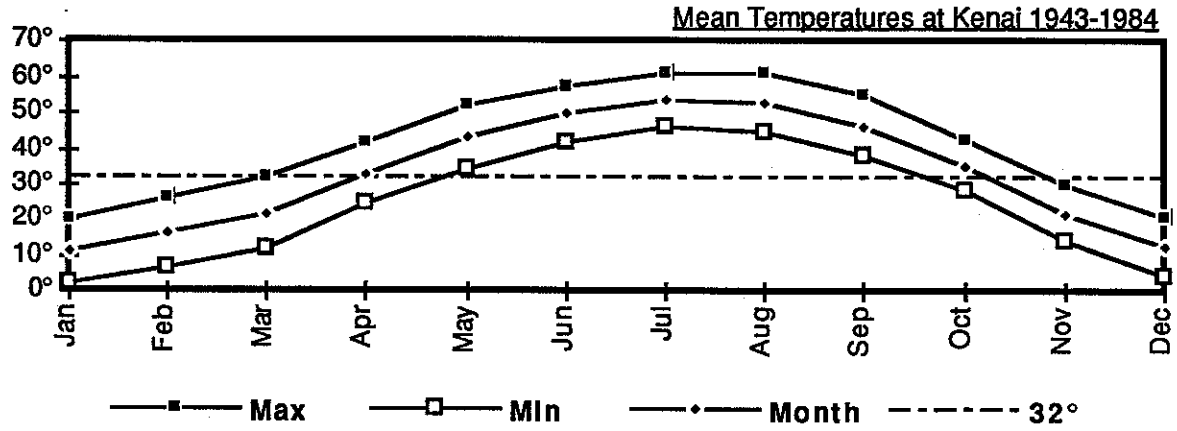
This project is located in the Kenai Lowland in an area predominantly underlain by gravel, sand and silt. These soils originated from lacustrine, terraced moraine, eolian, deltaic and fluvial processes during past glacial activity. Wind blown silt blanketed much of the area. Organic swamp deposits developed in lower lying poorly drained areas. Large erratic boulders are exposed on the ground surface throughout much of the route.

The ground surface is gently rolling to flat with some steeper slopes along the bluffs above the Kenai River. Surface drainage is towards the west and south with small streams flowing towards the Kenai River. Beaver Creek is the largest drainage stream. Vegetation consists of mixed spruce and birch forests where the organic soils

are relatively thin. Stunted spruce trees and open grass covered terrain occurs where thicker organic material is present.

Climate

The Kenai-Soldotna area is located in the Transitional to Maritime climate zone typical of the Cook Inlet area. The following chart shows mean temperatures for Kenai as reported in *Alaska Climate Summaries* by AEIDC, 1986.



The following climate summary is from the maps in the *Environmental Atlas of Alaska* by Johnson and Phillips, 1978.

Climatic Data for Kenai-Soldotna

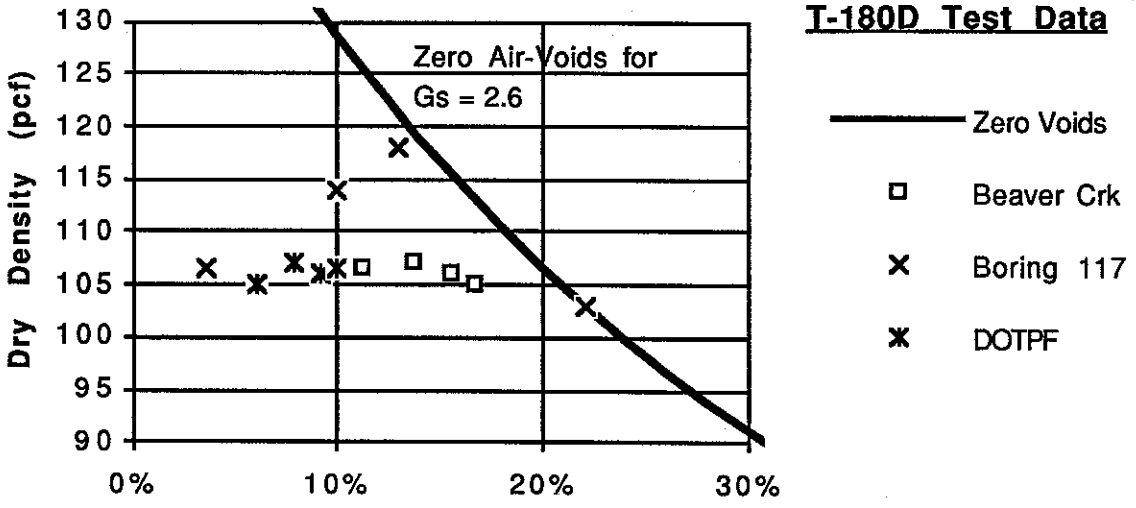
Mean Annual Precipitation	20 inches
Mean Annual Snowfall	70 inches
Mean Annual Temperature	34° F.
Average Thawing Index	2900° F - days
Average Freezing Index	2000° F. - days
Design Thawing Index	3700° F. - days
Design Freezing Index	2500° F. - days

Soil Types and Properties

The soil types along the route can be divided into four general categories: organic deposits, sand and gravel mixtures, silty sand and sandy silt, and fine sand. Compaction characteristics, consolidation properties and strength values for the silt and sand and organic soils are presented in the following paragraphs.

The following table and chart shows the results of the compaction test data for three different samples of soil.

Sample	Source	Description	Maximum Density	Optimum Moisture
Beaver Crk	Exposure on hill 200' left of 325+00	Silty Sand (SM), P200 = 14%	108 pcf	14.6%
Boring 117	Boring 117 at 1.0' to 10.0'	Sandy Silt (ML), P200 = 71%	119 pcf	13.5%
DOTPF	Combined from Test Holes 48 to 79	Fine Sand (SP), P200 = 4%	107 pcf	7.9%



The results of the peat consolidation tests are summarized in the following table. The initial peat consolidation under the load is ΔH/Ho. A range of values is shown for those tests that included two samples at the same load. Cs is the time rate coefficient of settlement and shows the magnitude of secondary compression to be expected. For each ten time increase in time, the settlement will increase by Cs.

Summary of Peat Consolidation Tests

Sample	Load	Initial Moisture	ΔH/Ho	Cs
TH-88 @ 4' to 6.5'	500 psf	507%	11%	1.0%
TH-88 @ 4' to 6.5'	1000 psf	567%	22%	2.1%
TH-88 @ 4' to 6.5'	1500 psf	512%	29%	2.0%
TH-88 @ 4' to 6.5'	2000 psf	420%	31%	1.9%
TH-89 @ 0 to 3.5'	500 psf	292% - 307%	13% - 14%	1.2% - 1.4%
TH-89 @ 0 to 3.5'	1000 psf	262% - 266%	19% - 19%	1.3% - 1.4%
TH-89 @ 0 to 3.5'	1500 psf	257% - 268%	24% - 25%	1.0% - 1.5%
TH-89 @ 0 to 3.5'	2000 psf	222% - 261%	26% - 30%	1.4% - 1.5%
TH-90 @ 2' to 4.5'	500 psf	251% - 284%	6% - 8%	0.7% - 0.7%
TH-90 @ 2' to 4.5'	1000 psf	229% - 265%	12% - 13%	0.8% - 1.0%
TH-90 @ 2' to 4.5'	1500 psf	157% - 180%	10% - 12%	0.6% - 0.8%
TH-90 @ 2' to 4.5'	2000 psf	169% - 173%	14% - 14%	0.7% - 0.9%
TH-92 @ 6.5 to 9'	500 psf	401% - 403%	5% - 6%	0.5% - 0.6%
TH-92 @ 6.5 to 9'	1000 psf	380% - 398%	8% - 9%	1.1% - 1.6%
TH-92 @ 6.5 to 9'	1500 psf	386% - 403%	12% - 13%	2.1% - 2.2%
TH-92 @ 6.5 to 9'	2000 psf	394% - 460%	25% - 27%	2.4% - 2.6%

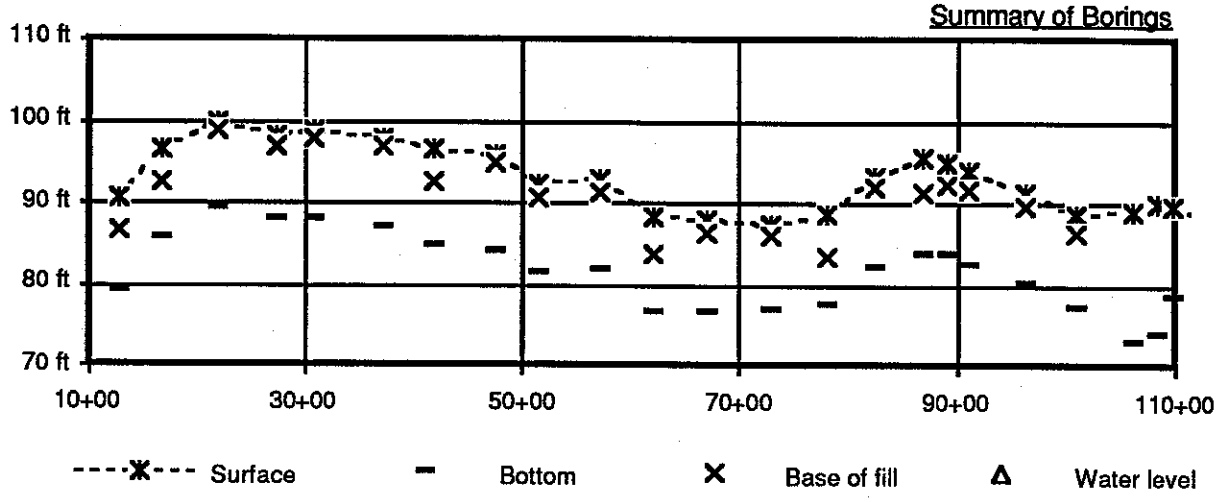
Unconsolidated, undrained triaxial shear strength tests were performed on six samples. The following table summarizes the data from the triaxial shear strength tests.

Triaxial (UU) Strength Data

Boring	Depth	Soil Type	Moisture content	Dry Density	1/2 Deviator Stress
101	0.0 ft.	Sandy Silt (ML)	63.9%	56 pcf	1230 psf
101	0.5 ft.	Organic Sandy Silt (OL)	112.5%	38 pcf	1090 psf
106	0.0 ft.	Organic Silt (OL)	169.0%	28 pcf	650 psf
106	0.5 ft.	Organic Silt (OL)	121.1%	37 pcf	830 psf
119	9.5 ft.	Silt (ML)	20.7%	109 pcf	5900 psf
119	10.0 ft.	Silt (ML)	21.7%	107 pcf	6900 psf

STATION to STATION SUMMARY

Station 10+00 (Beginning of Project) to Station 103+00



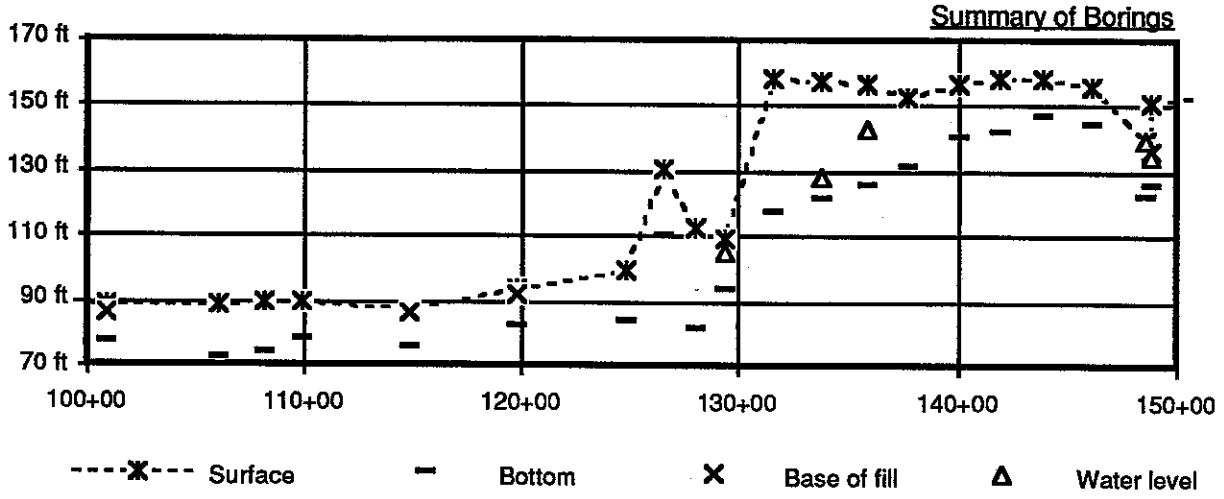
The project begins at Station 10+00 at the intersection with the Sterling Highway in Soldotna. The northern city limits of the City of Soldotna are at Knight Drive at Station 64+00. An existing five lane, urban roadway extends from the start of the project north to Station 73+00. At Station 73+00 the roadway narrows to two lanes.

The ground surface varies from elevation 87 to 100 feet with little cross slope. Surface drainage along the relatively flat five-lane segment is controlled by a concrete curb and gutter system with drop inlets to a storm drain that runs under the north bound lanes. Surface drainage along the two-lane segment is handled by ditches. The roadway is bordered by light commercial and residential development. Undeveloped vacant lots also are present and increase in number toward the north.

This segment of roadway is underlain by coarse grained fluvial terrace deposits. The soils in the borings consist primarily of dense to very dense sandy gravel and gravelly sand. Silt and silty sand were observed in several of the borings at the northerly end of the segment. The silty soil was between the gravel roadway fill and the underlying clean, coarse grained soils and ranged from 1 to 6.5 feet thick. Data from the 1972 DOTPF investigation which started at Station 72+00 show that before construction of the existing roadway, the ground surface was blanketed by organic silt to depths of 1 to 2 feet with silt and silty gravel to depths of 2 to 5 feet. The silty soil is loose to dense and moist to wet.

No ground water or seasonal frost was encountered in the 1991 borings which ranged in depth from 10 to 11 feet.

Station 103+00.00 to Station 147+00.00



At Station 103+00 the road enters rolling terraced moraine deposits and begins the transition to the realignment across Pickel Hill. The new alignment starts with sidehill cuts and fills between Stations 103+00 and 125+00. The climb to the plateau at Sport Lake Road requires a cut as deep as 35 feet near Station 131+00. Surface elevations along this segment vary from 88 to 150 feet. Cross slopes drop from east to west with moderate to steep slopes to about Station 132+00 where the terrain becomes flatter. The natural ground is forested with trees to about 40 feet tall. An hay field occupies the area between Stations 136+00 and 146+00.

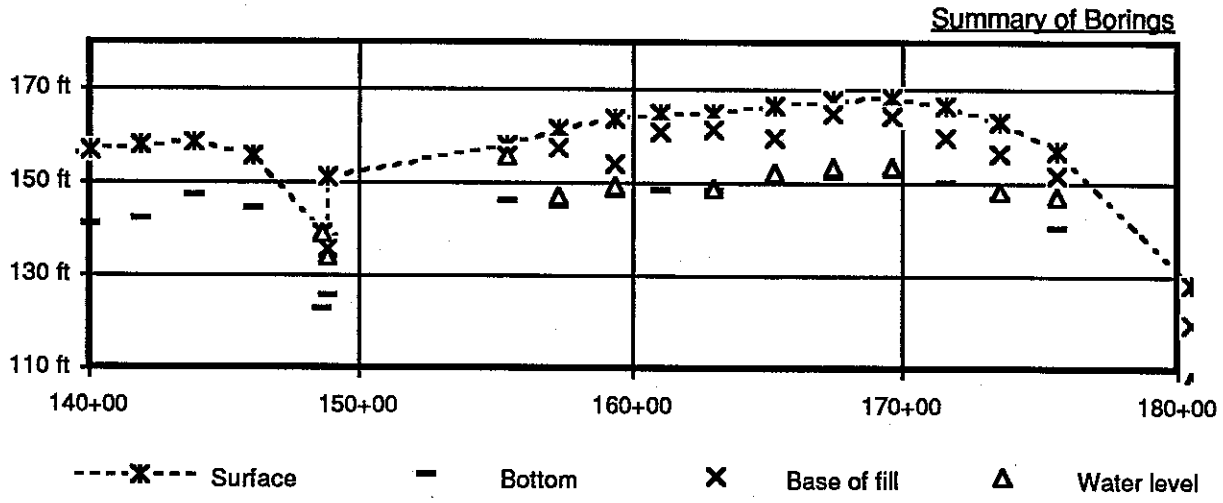
Surface drainage in the area is by ditches along Sport Lake Road and the existing Kenai Spur Road. A small drainage crosses the proposed alignment at Station 130+00.

The alignment is predominantly underlain by silt. The silt is loose and wet near the surface and becomes medium dense to dense with increasing depth. The compaction test of the silt shows an optimum moisture content of about 15%. As shown on the moisture summaries on Plates 8 and 9, the moisture content of the silt is generally much greater than its optimum moisture content.

The silt is underlain by sand and silty sand with occasional rounded gravel. The sand is medium dense to very dense and moist to wet. In the deeper cut area, the sand and silty sand was sometimes near the proposed road elevation.

Ground water was encountered in several of the borings and is quite variable. The water level in Boring 118 at Station 135+83 was stabilized at a level about 5 feet above the design centerline grade. Water levels measured at other borings were deeper than the proposed roadway grade.

Station 147+00 to Station 172+00



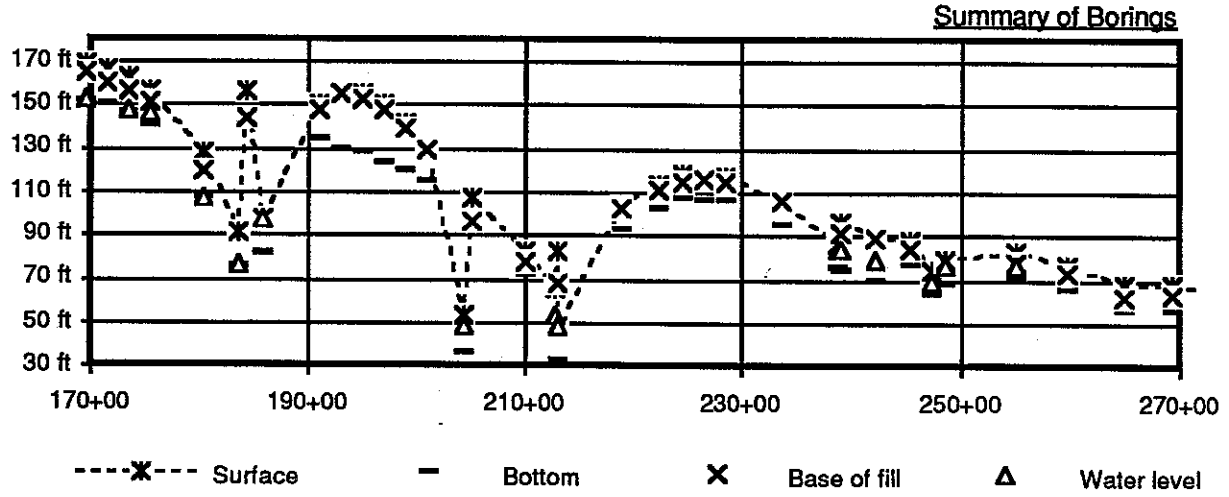
At Station 142+00 the proposed alignment enters a muskeg swamp area before rejoining the existing roadway at Station 152+00. Elevations vary from about 130 feet in the muskeg area to about 170 feet at the top of the hill at Station 170+00, the highest point on the alignment. Adjoining land use is residential, and the forested land consists of mixed spruce and deciduous trees to about 30 feet tall. A small drainage from the muskeg area crosses the alignment at Station 148+50. Drainage along the balance of this segment is with roadside ditches. Cross slopes are gentle to the west towards the Kenai River.

Native soils along this segment consist of peat and organic silt overlying silt and silty sand and gravel. Peat thicknesses of up to seven feet were found in the muskeg area near Station 148+50. The silt is generally medium dense and moist to wet. The sand and gravel are generally medium dense to dense but some loose pockets were encountered.

Borings drilled along the existing highway encountered fill deposits ranging in thickness from 2 to 15 feet thick. The fill consists of clean to silty sand and gravel.

The ground water levels observed during drilling were near the ground surface in the muskeg area and generally more than 10 feet below finish grade at other locations.

Station 172+00 to Station 265+00



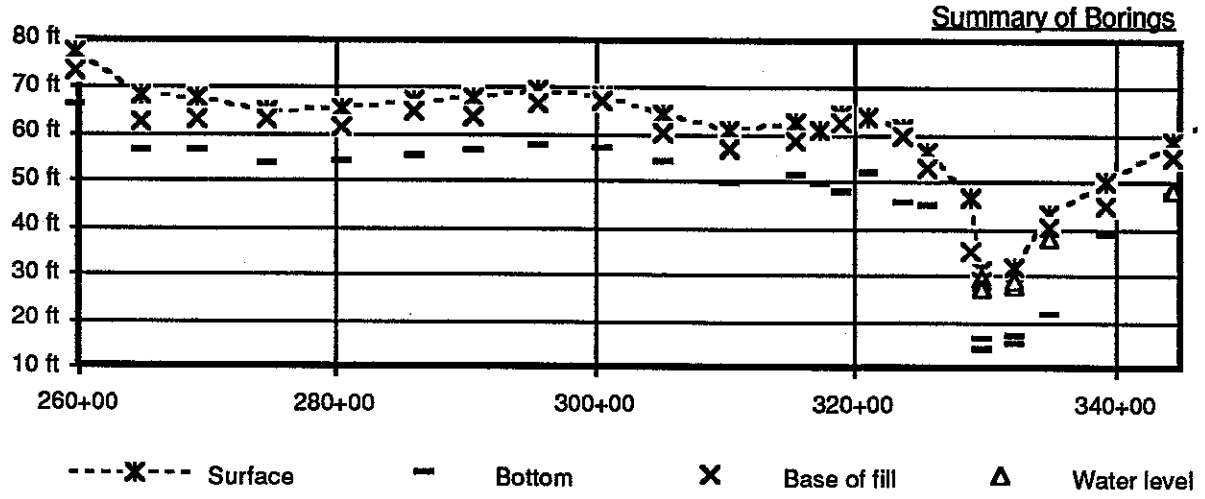
This segment crosses the dissected north edge of the terraced moraine deposits. Both large cuts and fills are needed for the new roadway. A cut up to 13 feet deep will be made between Stations 190+00 and 200+00 to reduce the vertical curve across the hill where the Alascom site is located. Widening the roadway and flattening the vertical curves across the gullies before and after the Alascom hill will require the placement of fills of up to 60 feet deep. Cross slopes are relatively gentle.

Natural soils along this segment consist of mixtures and interlayers of sand and silt. Some localized pockets of organic silt and peat were found to extend to depths of 3.5 feet in the gullies. The cut across the Alascom hill will be in silty sand and gravelly sand with some zones of silt. Clean sand with lenses of silty sand and silt is present from Stations 205+00 to 235+00. Layers and pockets of clean to slightly silty sand are present in the siltier soil. The soils are medium dense to very dense with occasional loose zones in the top five feet. The silt and sand vary from moist to wet.

The ground water was highly variable through this section. No water was observed in most of the borings in the proposed cut section but some of the samples

appeared to be saturated below the proposed depth of cut. Water was observed within a few feet of ground surface in Borings 108 and 110 drilled in the gullies of the fill sections. Water levels within 3 to 5 feet of the natural ground surface were frequently observed north of Station 238+00.

Station 265+00 to Station 342+00



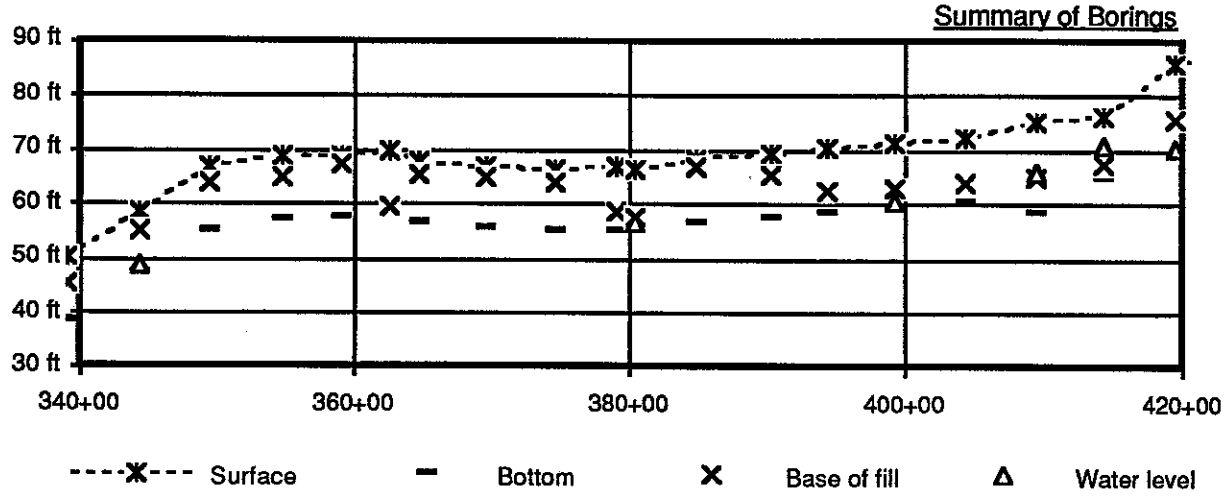
This segment includes the relatively flat flood plain deposits that border the south side of the Beaver Creek drainage and Beaver Creek itself. Elevations are between 60 and 70 feet until Station 320+00 where the route drops into the active Beaver Creek drainage area. Beaver Creek has an invert elevation between 25 feet and 30 feet.

The flat section south of Beaver Creek is predominantly underlain by natural soils consisting of interlayers of silty sand, silt and clean sand. The soils are medium dense to very dense and damp to moist.

The active flood plain of the meandering Beaver Creek (Stations 325+00 to 335+00) is underlain by clean sand and sandy gravel. A layer of silt one to five feet thick blankets the sand and gravel at some locations. Surface organic deposits are less than one foot thick. The near surface sand is loose to medium dense but below a couple of feet the sand and gravel is dense to very dense.

Ground water was only encountered along this segment in the borings drilled in the active Beaver Creek drainage area. Ground water in the Beaver Creek drainage is at or near the natural ground surface.

Station 342+00 to Station 420+00



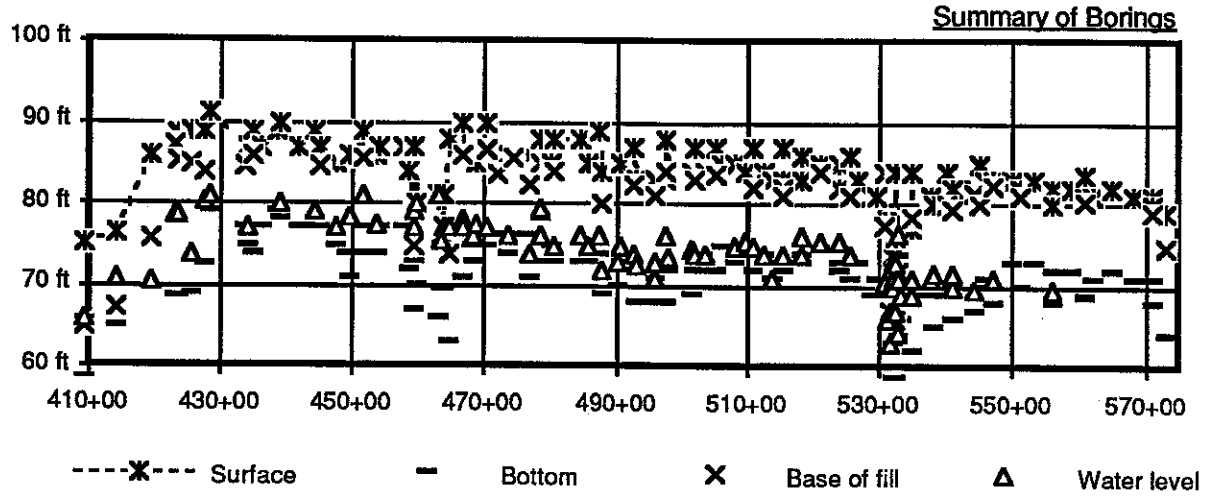
This segment ascends out of the active Beaver Creek drainage and crosses the flat ground that comprises the geologically Recent flood plain deposits. Elevations between Stations 350+00 to 410+00 vary from only 65 to 75 feet. The area is sparsely vegetated with stunted Spruce trees and is only lightly developed.

The natural soils over most of this segment consist of sand, gravelly sand and silty sand over sandy silt. The near surface sand and gravel varies in thickness from less than 2 feet to more than 10 feet. These granular soils are medium dense to dense. The underlying sandy silt is loose to medium dense and moist to saturated. The existing roadway fill consists of sandy gravel that is 1.5 to 7.5 feet thick.

The sand is blanketed by peat from about Station 400+00 to Station 420+00. The probes found peat as thick as 11.7 feet. The investigation in 1972 found peat as thick as 12.5 feet along this segment.

Ground water level was encountered near Station 345+00 and at the end of the section where the peat deposits are present. Ground water was not observed in the intervening segment underlain by the cleaner sand and gravel.

Station 420+00 to Station 573+00



The last 13,000 feet of the route crosses the low terraces that lead into and underlie the City of Kenai. The terrain is gently rolling to flat with elevations between 70 and 90 feet. Small drainages are crossed at about Stations 460+00, 464 +00 and 532+00. Development ranges from moderate to dense residential to light commercial and elementary and high schools. Drainage is provided by roadside ditches.

Relatively uniform subsurface conditions occur over this segment. The natural soils in most locations consist of a relatively thin surface layer of silt over sand. The silt generally is between 2 and 4 feet thick and occasionally contains localized pockets of organic silt or peat. The underlying sand is fine-grained and generally clean. The principle exception is between Stations 420+00 and 475+00 where the sand is siltier. The sand is generally medium dense, but loose zones are occasionally present in the deposit.

Peat deposits were found between Stations 459+00 and 466+00 and Stations 531+00 and 533+00, both associated with small drainages. The peat deposit between Stations 459+00 and 466+00 is as deep as 6.5 feet. The peat in the drainage at Station 532+00 was found to be as deep as 11 feet.

Ground water was encountered in most of the borings along this segment. Generally the water table is a depth of 8 to 10 feet below the natural ground surface except in the drainages where the water table is near the ground surface.

ILLUSTRATIONS

Location Map	Plate 1
Geologic Setting and Key to Plan/Profile Sheets	Plates 2 and 3
Plan and Profile Sheets 1 through 22	Plates 4 through 34
Textural Soil Descriptions	Plates 35 and 36
Sample Data by Stationing	Plates 37 through 50
Sieve Data by Stationing	Plates 51 through 55

Appendix

Logs of DM&A Borings	Plates A-1 through A-75
Logs of DOTPF Logs	5 sheets
Sample Data by Boring Number	14 pages
Sieve Data by Boring Number	5 pages

Kenai Spur Highway
9/17/92

BORING SUMMARY by STATION

Duane Miller & Associates

P&P Sheet	by	Boring No.	Date Drilled	Station	Offset*	Surface Elev.	Total Depth	Setting	A/C	Fill depth	Organic thickness	Natural Soil	Water	Date
1	DM&A	87	9/7/91	12+95	-35	91	11.5	paved	2.50"	4.0 ft		GP		
1	DM&A	88	9/7/91	16+78	26	97	10.8	paved		4.0 ft		SP		
1	DM&A	86	9/7/91	22+00	-26	100	10.6	paved	3.00"	1.0 ft		SP		
1	DM&A	89	9/7/91	27+31	26	98	10.0	paved	2.00"	1.0 ft		GP		
1	DM&A	85	9/6/91	30+69	-25	99	10.8	paved	2.75"	1.0 ft		GP		
2	DM&A	90	9/7/91	37+13	27	98	11.0	paved	3.00"	1.0 ft		GP		
2	DM&A	84	9/6/91	41+97	-24	96	11.5	paved	3.00"	3.9 ft		SP		
2	DM&A	91	9/7/91	47+48	27	96	11.5	paved	3.25"	1.0 ft		SP		
2	DM&A	83	9/6/91	51+56	-26	92	10.6	paved	2.00"	1.5 ft		GP		
2	DM&A	92	9/7/91	57+10	3	93	11.0	paved	3.00"	1.5 ft		GP-GM		
3	DM&A	82	9/6/91	62+11	-25	88	11.5	paved	2.50"	4.5 ft		SP		
3	DM&A	93	9/7/91	66+93	27	88	11.5	paved	3.50"	1.5 ft		GP		
3	DM&A	75	9/5/91	72+85	-27	87	10.5	paved		1.3 ft		GP		
3	DM&A	76	9/5/91	78+03	16	89	11.0	paved	1.50"	5.0 ft		ML		
3	DM&A	74	9/5/91	82+39	-17	93	11.0	paved	1.13"	1.3 ft		SM		
4	DM&A	77	9/5/91	86+92	15	96	11.5	paved	1.75"	4.0 ft		SM		
4	DM&A	73	9/4/91	89+00	-26	95	11.0	paved	0.71"	2.7 ft		SM		
4	DM&A	78	9/5/91	91+00	26	94	11.5	paved	1.63"	2.3 ft		ML		
4	DM&A	72	9/4/91	96+18	-18	91	11.0	paved	1.38"	1.5 ft		GM		
4	DM&A	79	9/5/91	100+97	12	89	11.5	paved	1.50"	2.5 ft		SP		
5	DM&A	126	9/14/91	106+13	14	89	16.0	Off-road				ML		
5	DM&A	125	9/14/91	108+19	-22	90	16.0	Off-road				ML		
5	DM&A	124	9/14/91	109+88	-2	90	11.0	Off-road				ML		
5	DM&A	94	9/7/91	114+84	-4	88	11.5	Off-road		1.0 ft		ML		
5	DM&A	97	9/8/91	119+79	26	94	11.5	Off-road		1.1 ft		ML		
5	DM&A	123	9/14/91	124+75	-11	100	16.0	Off-road				ML		
5	DM&A	122	9/14/91	126+50	37	131	20.5	Off-road			0.4 ft	ML		
5	DM&A	121	9/14/91	128+00	-57	113	31.5	Off-road			0.2 ft	ML		
5	DM&A	120	9/14/91	129+31	26	109	15.5	Off-road				ML	4.0 ft	9/14/91
6	DM&A	98	9/8/91	131+60	128	159	41.0	Off-road				ML		
6	DM&A	119	9/12/91	133+72	-33	158	36.0	Off-road			0.3 ft	ML	29.5 ft	10/18/91
6	DM&A	118	9/12/91	135+83	51	157	30.5	Off-road				ML	13.7 ft	10/18/91
6	DM&A	117	9/12/91	137+65	-37	153	21.0	Off-road				ML		
6	DM&A	116	9/12/91	140+06	9	157	16.0	Off-road				ML		
6	DM&A	115	9/11/91	141+94	-48	159	16.5	Off-road				ML		
6	DM&A	114	9/11/91	143+90	16	159	11.5	Off-road				ML		
6	DM&A	99	9/8/91	146+08	-47	156	11.5	Off-road				ML		
6	DM&A	113	9/11/91	148+60	27	139	16.5	Off-road			7.0 ft	ML	0.0 ft	9/11/91
6	DM&A	112	9/11/91	148+76	-111	137	11.5	Off-road			1.8 ft	ML	2.5 ft	9/11/91
6	DM&A	71	9/4/91	148+80	-64	151	16.5	paved	1.63"	15.0 ft				
7	DM&A	80	9/5/91	155+40	16	158	11.5	paved	1.50"	2.3 ft		ML	2.0 ft	9/5/91
7	DM&A	70	9/4/91	157+30	-18	162	16.5	paved	1.25"	4.0 ft		ML	14.5 ft	9/4/91
7	DM&A	81	9/5/91	159+38	15	164	16.5	paved		9.7 ft	3.5 ft	SM	14.5 ft	9/5/91
7	DM&A	69	9/4/91	161+00	-18	165	16.5	paved	1.50"	4.0 ft		ML		
7	DM&A	1	8/24/91	163+00	22	165	16.5	paved	1.50"	3.6 ft		ML	16.0 ft	8/24/91
7	DM&A	68	9/4/91	165+25	-18	167	16.5	paved	1.50"	7.0 ft		SM	14.5 ft	9/4/91
7	DM&A	2	8/24/91	167+43	15	168	16.5	paved	1.50"	2.5 ft		ML	14.0 ft	8/24/91
7	DM&A	67	9/4/91	169+57	-18	169	16.5	paved	2.00"	3.8 ft		ML	15.0 ft	9/4/91
7	DM&A	3	8/24/91	171+56	16	167	16.5	paved	1.50"	6.7 ft		ML		
7	DM&A	66	9/4/91	173+56	-18	163	16.5	paved	1.75"	6.8 ft		ML	15.0 ft	9/4/91
7	DM&A	4	8/24/91	175+53	15	157	16.5	paved	1.50"	5.0 ft		SM	9.5 ft	8/24/91

*- offset is left of centerline

P&P Sheet	by	Boring No.	Date Drilled	Station	Offset*	Surface Elev.	Total Depth	Setting	A/C	Fill depth	Organic thickness	Natural Soil	Water	Date
7	DM&A	65	9/4/91	180+48	-18	129	21.5	paved	1.50"	8.8 ft		ML	20.5 ft	9/4/91
8	DM&A	111	9/11/91	183+77	-98	92	16.5	Off-road				ML	15.0 ft	9/11/91
8	DM&A	5	8/24/91	184+50	17	156	11.5	paved	1.50"	11.5 ft		ML		
8	DM&A	110	9/11/91	185+82	133	97	15.0	Off-road			4.0 ft	ML	0.0 ft	9/11/91
8	DM&A	64	9/4/91	190+99	-18	151	16.5	paved		2.1 ft		SP		
8	DM&A	6	8/24/91	192+94	17	156	26.5	paved	1.50"	1.1 ft		SM		
8	DM&A	63	8/30/91	194+92	-17	155	26.5	paved	1.75"	1.5 ft		SP-SM		
8	DM&A	7	8/24/91	196+91	17	151	26.5	paved	1.25"	2.4 ft		SP-SM		
8	DM&A	62	8/29/91	198+84	-17	142	21.5	paved	1.63"	2.0 ft		GP-GM		
8	DM&A	8	8/24/91	200+80	16	131	16.5	paved	1.13"	1.7 ft		ML		
8	DM&A	108	9/10/91	204+39	-125	54	16.5	Off-road			3.0 ft	SM	4.5 ft	9/10/91
8	DM&A	61	8/29/91	205+00	-17	108	11.5	paved	1.50"	11.5 ft				
8	DM&A	9	8/24/91	209+99	16	84	11.5	paved	1.50"	5.0 ft		SM		
9	DM&A	109	9/11/91	212+64	132	66	16.5	Off-road				SM	12.0 ft	9/11/91
9	DM&A	60	8/29/91	212+85	-20	83	16.5	paved	1.50"	14.7 ft		SM		
9	DM&A	107	9/10/91	212+90	-120	48	15.0	Off-road				GP	0.0 ft	9/10/91
9	DM&A	10	8/24/91	218+93	16	104	11.5	paved	1.38"	1.7 ft		SP		
9	DM&A	59	8/29/91	222+27	-16	114	11.5	paved	1.50"	2.3 ft		SM		
9	DM&A	11	8/24/91	224+46	18	119	11.5	paved	1.25"	3.6 ft		ML		
9	DM&A	58	8/29/91	226+40	-17	118	11.5	paved	1.25"	1.4 ft		SM		
9	DM&A	12	8/25/91	228+37	19	118	11.5	paved	1.00"	2.6 ft		SP		
9	DM&A	57	8/29/91	233+69	-14	107	11.5	paved	1.38"	1.0 ft		GP-GM		
9	DM&A	106	9/10/91	238+74	-69	87	11.5	Off-road				ML	3.0 ft	9/10/91
9	DM&A	13	8/25/91	238+97	20	97	21.5	paved	1.25"	4.7 ft		GM	12.0 ft	8/25/91
10	DM&A	56	8/29/91	242+33	-14	91	21.0	paved	1.50"	1.5 ft		SM	11.0 ft	8/29/91
10	DM&A	14	8/25/91	245+44	19	89	11.5	paved	1.13"	4.0 ft		SM		
10	DM&A	104	9/10/91	247+42	-77	75	11.0	Off-road				SP	5.0 ft	9/10/91
10	DM&A	105	9/10/91	248+64	119	80	11.5	Off-road				SM	2.5 ft	9/10/91
10	DM&A	15	8/25/91	255+13	19	83	11.5	paved		4.0 ft		SM	6.0 ft	8/25/91
10	DM&A	55	8/29/91	259+59	-16	78	11.5	paved	1.25"	4.3 ft		ML		
10	DM&A	16	8/25/91	264+93	18	68	11.5	paved	1.13"	5.7 ft	0.5 ft	SM		
11	DM&A	54	8/29/91	269+25	-17	68	11.5	paved	1.25"	4.5 ft		ML		
11	DM&A	17	8/25/91	274+50	25	65	11.5	paved	1.50"	1.6 ft	1.0 ft	SP		
11	DM&A	53	8/29/91	280+42	-16	66	11.5	paved	1.38"	4.0 ft		SM		
11	DM&A	18	8/25/91	285+98	15	67	11.5	paved	1.25"	2.2 ft		SM		
11	DM&A	52	8/28/91	290+48	-18	68	11.5	paved	1.13"	4.0 ft		SP		
11	DM&A	19	8/25/91	295+37	15	69	11.5	paved	1.25"	2.5 ft		ML		
12	DM&A	51	8/28/91	300+35	-18	69	11.5	paved	1.25"	1.4 ft		SM		
12	DM&A	20	8/25/91	305+23	15	64	10.0	paved	1.00"	3.7 ft		SM		
12	DM&A	50	8/28/91	310+24	-19	61	11.5	paved	1.50"	4.0 ft		ML		
12	DM&A	21	8/25/91	315+53	19	63	11.5	paved	1.50"	4.1 ft		GM		
12	DM&A	95	9/7/91	317+32	-47	61	11.5	Off-road				SM		
12	DM&A	22	8/25/91	319+06	49	65	16.5	paved	1.25"	2.0 ft		SP		
12	DM&A	96	9/7/91	321+08	-25	64	11.5	Off-road				SM		
12	DM&A	23	8/26/91	323+70	36	62	16.5	paved	1.50"	2.0 ft		SM		
13	DM&A	49	8/28/91	325+65	-12	56	11.5	paved	1.75"	3.5 ft		SM		
13	DM&A	24	8/26/91	329+00	27	47	11.5	paved	1.13"	11.5 ft				
13	DM&A	103	9/9/91	329+68	144	31	15.0	Off-road				SP	1.5 ft	9/9/91
13	DM&A	101	9/9/91	329+76	-117	29	15.0	Off-road				ML	2.0 ft	9/9/91
13	DM&A	100	9/9/91	332+12	-109	28	11.0	Off-road				SP-SM	0.0 ft	9/9/91
13	DM&A	102	9/9/91	332+23	65	32	16.5	Off-road				SP	2.5 ft	9/9/91

*- offset is left of centerline

Kenai Spur Highway
9/17/92

BORING SUMMARY by STATION

Duane Miller & Associates

P&P Sheet	by	Boring No.	Date Drilled	Station	Offset*	Surface Elev.	Total Depth	Setting	A/C	Fill depth	Organic thickness	Natural Soil	Water	Date
13	DM&A	48	8/28/91	334+97	-15	43	21.5	paved	2.00"	2.9 ft		SM	5.0 ft	8/26/91
13	DM&A	25	8/26/91	339+20	19	50	11.5	paved	1.00"	4.8 ft		SM		
13	DM&A	47	8/28/91	344+30	-14	59	11.5	paved	1.50"	3.6 ft		SM	10.0 ft	8/28/91
13	DM&A	26	8/26/91	349+49	19	67	11.5	paved	1.00"	2.6 ft		SP		
14	DM&A	46	8/28/91	354+64	-11	69	11.5	paved	1.50"	4.0 ft		SP		
14	DM&A	27	8/26/91	359+00	28	69	11.5	paved	1.50"	1.5 ft		SP		
14	DM&A	28	8/26/91	362+52	37	70	11.5	paved	1.00"	10.0 ft	0.5 ft	ML		
14	DM&A	45	8/28/91	364+67	-1	68	11.5	paved	1.50"	2.7 ft		SP		
14	DM&A	29	8/26/91	369+52	22	67	11.5	paved	1.13"	2.0 ft		ML		
14	DM&A	44	8/28/91	374+56	-11	67	11.5	paved	1.13"	2.5 ft		SP		
15	DM&A	30	8/26/91	379+02	20	67	11.5	paved	1.25"	8.0 ft		ML		
15	DM&A	43	8/28/91	380+37	-10	67	11.5	paved	1.00"	9.0 ft		GP	10.0 ft	8/28/91
15	DM&A	31	8/26/91	384+83	20	68	11.5	paved	1.25"	1.5 ft		SP		
15	DM&A	42	8/28/91	390+19	-12	69	11.5	paved	1.38"	4.0 ft		SM		
15	DM&A	32	8/26/91	394+40	18	70	11.5	paved	1.00"	8.0 ft		ML		
15	DM&A	41	8/27/91	399+20	-13	71	11.5	paved	1.25"	8.0 ft		ML	10.5 ft	8/27/91
16	DM&A	33	8/26/91	404+33	0	72	11.5	paved	1.00"	8.2 ft		SM		
16	DM&A	40	8/27/91	409+24	-36	75	16.5	paved	1.13"	10.0 ft	4.0 ft	SM	9.0 ft	8/27/91
16	DM&A	34	8/27/91	414+27	16	76	11.5	paved	2.50"	9.0 ft	1.5 ft	SM	5.5 ft	8/27/91
16	DM&A	35	8/27/91	419+51	23	86	16.5	paved	2.00"	10.3 ft	1.5 ft	SM	15.5 ft	8/26/91
16	DM&A	39	8/27/91	423+21	-17	89	20.0	paved	1.00"	1.5 ft		GM	10.0 ft	8/26/91
16	DM&A	36	8/27/91	423+58	19	89	20.0	paved	1.00"	3.5 ft		SP	10.0 ft	8/27/91
16	DM&A	38	8/27/91	425+59	-13	89	20.0	paved	1.00"	4.0 ft		SM	15.0 ft	guess
16	DM&A	37	8/27/91	427+62	20	89	16.5	paved	1.25"	5.0 ft		SM	8.5 ft	8/27/91
16	DOTPF	87	2/27/91	428+50	45	91	12.0					ML	10.0 ft	2/27/91
17a	DOTPF	1	2/6/91	433+83	-35	87	10.0			2.5 ft	1.0 ft	ML		
17b	DOTPF	86	2/27/91	434+20	40	87	12.0				4.0 ft	SP	10.0 ft	2/27/91
17b	DOTPF	115	3/7/91	435+10	10	89	15.0	paved	2.00"	3.0 ft	3.0 ft	SP		
17a	DOTPF	2	2/6/91	436+19	-45	87	10.0				0.5 ft	ML		
17a	DOTPF	3	2/6/91	438+60	-90	89	10.0				0.5 ft	ML		
17b	DOTPF	85	2/27/91	439+00	12	90	12.0					ML	10.0 ft	2/27/91
17a	DOTPF	4	2/6/91	441+80	-48	87	10.0				2.5 ft	ML		
17b	DOTPF	84	2/27/91	444+40	35	89	12.0				1.0 ft	ML	10.0 ft	2/27/91
17a	DOTPF	5	2/6/91	445+30	-90	87	10.0			2.5 ft		ML		
17a	DOTPF	6	2/6/91	447+60	-50	85	10.0				0.5 ft	ML	8.0 ft	2/6/91
17b	DOTPF	83	2/27/91	449+00	40	86	12.0				3.0 ft	SP		
17a	DOTPF	7	2/7/91	449+70	-45	86	15.0				1.0 ft	ML	7.5 ft	2/7/91
17a	DOTPF	8	2/7/91	451+50	-65	87	10.0				0.5 ft	ML		
17b	DOTPF	114	3/7/91	451+70	10	89	15.0	paved	2.00"	3.5 ft	2.5 ft	SP	8.0 ft	3/7/91
17b	DOTPF	82	2/26/91	453+75	35	86	12.0				2.0 ft	ML	8.5 ft	2/26/91
17a	DOTPF	9	2/7/91	454+00	-60	87	10.0				0.5 ft	ML		
18a	DOTPF	10	2/7/91	457+60	-40	87	10.0				1.0 ft	ML		
18b	DOTPF	81	2/26/91	458+50	95	84	12.0					ML		
18c	DOTPF	88	2/28/91	459+50	-20	80	7.0				6.5 ft	SM	1.0 ft	2/28/91
18b	DOTPF	113	3/7/91	459+50	45	87	20.0	paved	2.25"	12.0 ft	2.0 ft	SM	10.0 ft	3/7/91
18a	DOTPF	11	2/7/91	459+70	-20	80	10.0				6.5 ft	ML	0.0 ft	2/7/91
18c	DOTPF	12	2/8/91	463+00	0	81	15.0				4.0 ft	SM	0.0 ft	2/8/91
18a	DOTPF	89	3/1/91	463+55	-50	76	6.5				6.0 ft	ML	0.5 ft	3/1/91
18b	DOTPF	80	2/26/91	463+65	135	81	11.5					SP		
18c	DOTPF	90	3/1/91	463+75	-20	77	7.5				7.5 ft	ML	0.0 ft	3/1/91
18b	DOTPF	112	3/7/91	464+75	40	88	25.0	paved	1.75"	14.0 ft	7.0 ft	SM	11.0 ft	3/7/91

*- offset is left of centerline

Kenai Spur Highway
9/17/92

BORING SUMMARY by STATION

Duane Miller & Associates

P&P Sheet	by	Boring No.	Date Drilled	Station	Offset*	Surface Elev.	Total Depth	Setting	A/C	Fill depth	Organic thickness	Natural Soil	Water	Date
18c	DOTPF	111	3/6/91	466+50	40	90	15.0	paved	0.75"	4.0 ft		ML	12.0 ft	3/6/91
18a	DOTPF	13	2/9/91	466+80	-15	86	15.0					ML	9.0 ft	2/9/91
18b	DOTPF	79	2/23/91	468+30	60	85	12.0				3.5 ft	SP	9.0 ft	2/23/91
18a	DOTPF	14	2/9/91	468+80	-50	85	10.0					ML	7.5 ft	2/1/29
18b	DOTPF	110	3/6/91	470+15	-8	90	15.0	paved	1.00"	3.5 ft	1.5 ft	SP	13.0 ft	3/6/91
18a	DOTPF	15	2/9/91	471+90	-60	86	10.0			2.5 ft	3.5 ft	SP		
18b	DOTPF	78	2/23/91	473+60	45	86	12.0					ML	10.0 ft	2/23/91
18a	DOTPF	16	2/9/91	474+20	-60	86	10.0			0.5 ft	1.0 ft	SP-SM		
18a	DOTPF	17	2/9/91	476+30	-40	86	10.0				3.0 ft	SP		
18b	DOTPF	109	3/6/91	476+60	35	86	15.0	paved	1.50"	3.8 ft	1.7 ft	SP	12.0 ft	3/6/91
18a	DOTPF	18	2/9/91	478+50	-20	88	10.0				1.0 ft	ML	8.5 ft	2/9/91
18c	DOTPF	77	2/22/91	478+60	75	85	12.0				2.0 ft	ML	9.0 ft	2/22/91
18c	DOTPF	19	2/11/91	480+00	-35	85	10.0					ML		
18b	DOTPF	108	3/6/91	480+30	-5	88	15.0	paved	1.75"	4.0 ft		ML	13.0 ft	3/6/91
19a	DOTPF	20	2/11/91	484+60	-15	88	15.0				2.0 ft	SP	12.0 ft	2/11/91
19b	DOTPF	76	2/22/91	485+80	90	85	12.0				3.5 ft	SP	10.0 ft	2/22/91
19a	DOTPF	21	2/11/91	487+50	-20	89	15.0				2.5 ft	SM	13.0 ft	2/11/91
19b	DOTPF	107	3/6/91	487+70	-50	84	15.0	paved	1.75"	4.0 ft		ML	12.0 ft	3/6/91
19a	DOTPF	22	2/11/91	490+20	-30	85	15.0					ML	12.0 ft	2/11/91
19b	DOTPF	75	2/22/91	490+70	25	85	12.0				2.5 ft	ML	10.0 ft	2/22/91
19c	DOTPF	106	3/6/91	492+60	15	87	15.0	paved	0.75"	4.5 ft		ML	13.0 ft	3/6/91
19a	DOTPF	23	2/11/91	493+00	-50	83	15.0					ML	10.5 ft	2/11/91
19b	DOTPF	74	2/22/91	495+75	60	83	12.0				4.5 ft	SP	10.0 ft	2/22/91
19a	DOTPF	24	2/11/91	496+00	-50	83	15.0			2.0 ft		ML	12.0 ft	2/11/91
19a	DOTPF	25	2/11/91	497+50	-55	83	15.0				1.0 ft	ML		
19c	DOTPF	105	3/6/91	497+50	2	88	15.0	paved	2.25"	4.0 ft		ML	12.0 ft	3/6/91
19b	DOTPF	73	2/22/91	498+10	60	84	12.0				2.5 ft	SM	10.5 ft	2/22/91
19a	DOTPF	26	2/11/91	501+60	-60	84	15.0				2.0 ft	ML	9.5 ft	2/11/91
19b	DOTPF	104	3/5/91	502+10	8	87	15.0	paved	1.75"	4.0 ft	1.0 ft	ML	13.0 ft	3/5/91
19a	DOTPF	27	2/11/91	503+30	-60	84	10.0				1.0 ft	ML		
19c	DOTPF	72	2/21/91	503+40	60	84	12.0				2.5 ft	SM	10.0 ft	2/21/91
19b	DOTPF	103	3/5/91	505+05	-10	87	15.0	paved	1.00"	3.5 ft	1.5 ft	ML		
19a	DOTPF	28	2/12/91	506+05	-50	85	10.0					ML		
19b	DOTPF	71	2/21/91	508+20	50	85	12.0					ML	10.0 ft	2/21/91
20a	DOTPF	29	2/12/91	509+80	-60	84	10.0					ML	8.5 ft	2/12/91
20b	DOTPF	102	3/5/91	511+00	20	87	15.0	paved	2.00"	5.0 ft		ML	12.0 ft	3/5/91
20a	DOTPF	30	2/12/91	512+60	-60	84	10.0					ML	10.0 ft	2/12/91
20b	DOTPF	70	2/21/91	513+70	50	83	12.0				2.0 ft	ML	12.0 ft	2/21/91
20a	DOTPF	31	2/12/91	515+55	-50	83	10.0			1.0 ft		ML		
20b	DOTPF	101	3/5/91	515+55	15	87	15.0	paved	3.00"	6.0 ft		ML	13.0 ft	3/5/91
20a	DOTPF	32	2/12/91	518+00	-60	83	10.0				2.0 ft	ML	9.0 ft	2/12/91
20b	DOTPF	69	2/21/91	518+00	45	86	12.0				2.0 ft	ML	10.0 ft	2/21/91
20a	DOTPF	33	2/12/91	520+90	-30	85	10.0			1.0 ft		ML	9.5 ft	2/12/91
20a	DOTPF	34	2/13/91	523+90	-30	82	10.0					SM		
20b	DOTPF	68	2/21/91	523+90	50	85	12.0					SP	9.5 ft	2/21/91
20b	DOTPF	100	3/5/91	525+60	10	86	15.0	paved	2.25"	5.0 ft		SP	12.0 ft	3/5/91
20a	DOTPF	35	2/13/91	526+90	-45	83	10.0					SM		
20b	DOTPF	67	2/21/91	528+80	45	81	12.0				1.5 ft	ML		
20a	DOTPF	36	2/13/91	529+75	-55	81	10.0					SM		
20a	DOTPF	99	3/5/91	530+90	-15	84	15.0	paved	2.25"	6.5 ft		ML	13.5 ft	3/5/91
20b	DOTPF	66	2/20/91	531+10	30	70	10.0	bog				SP	4.0 ft	2/20/91

*- offset is left of centerline

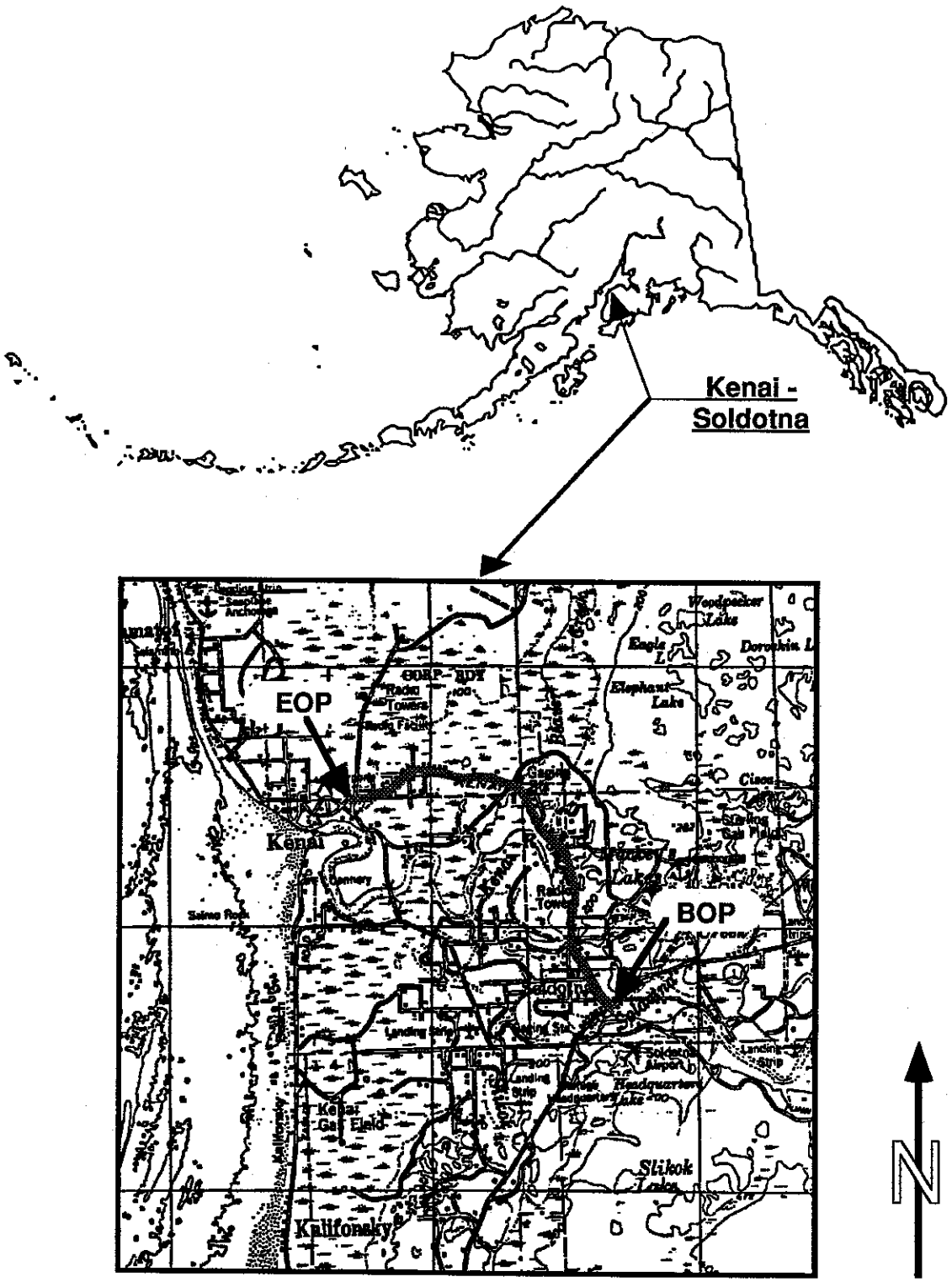
Kenai Spur Highway
9/17/92

BORING SUMMARY by STATION

Duane Miller & Associates

P&P Sheet	by	Boring No.	Date Drilled	Station	Offset*	Surface Elev.	Total Depth	Setting	A/C	Fill depth	Organic thickness	Natural Soil	Water	Date
20c	DOTPF	65	2/20/91	531+40	30	67	10.0	bog			5.5 ft	SP	4.0 ft	2/20/91
20c	DOTPF	64	2/20/91	531+70	30	70	10.0	bog			6.0 ft	SP	3.0 ft	2/20/91
20c	DOTPF	63	2/20/91	532+00	30	73	10.0	bog			7.0 ft	SP	3.0 ft	2/20/91
20	DOTPF	92	3/2/91	532+15	40	74	11.0	bog			11.0 ft	SP	1.0 ft	3/2/91
20c	DOTPF	62	2/20/91	532+20	30	74	15.0	bog				SP	3.0 ft	2/20/91
20c	DOTPF	61	2/20/91	532+40	30	76	10.5	bog				SP	3.0 ft	2/20/91
20c	DOTPF	98	3/4/91	532+40	-2	84	25.0		2.50"	18.0 ft	7.0 ft	SP	17.0 ft	3/4/91
20c	DOTPF	60	2/20/91	532+70	30	77	10.0	bog				SP	0.5 ft	2/20/91
20	DOTPF	37	2/13/91	532+80	-130	65	20.0				2.5 ft	SP	0.5 ft	2/13/91
20a	DOTPF	91	3/2/91	532+80	-125	72	8.0				8.0 ft	SP	1.0 ft	3/2/91
20c	DOTPF	59	2/20/91	532+90	30	77	3.0	bog			1.5 ft	SP		
20b	DOTPF	58	2/20/91	533+25	20	78	12.0	bog				SP	9.0 ft	2/20/91
21a	DOTPF	38	2/13/91	535+00	-40	77	15.0					ML	8.0 ft	2/13/91
21b	DOTPF	97	3/4/91	535+00	10	84	15.0	paved	2.25"	5.5 ft		SP	13.0 ft	3/4/91
21b	DOTPF	57	2/20/91	537+50	45	81	12.0	Off-road				SM	10.0 ft	2/20/91
21a	DOTPF	39	2/13/91	538+00	-60	80	15.0	Off-road			1.0 ft	ML	8.5 ft	2/13/91
21b	DOTPF	96	3/4/91	540+00	12	84	15.0	paved	1.75"	4.0 ft		SP-SM		
21a	DOTPF	40	2/13/91	541+00	-75	81	15.0	Off-road		1.5 ft		ML	11.0 ft	2/13/91
21b	DOTPF	56	2/20/91	541+00	55	82	12.0	Off-road				ML	10.5 ft	2/20/91
21a	DOTPF	41	2/14/91	544+00	-65	82	15.0	Off-road		0.5 ft	2.0 ft	ML	12.5 ft	2/14/91
21b	DOTPF	95	3/4/91	545+00	9	85	15.0	paved	2.50"	5.0 ft		SP		
21b	DOTPF	55	2/20/91	546+00	50	83	12.0	Off-road			4.5 ft	SP		
21a	DOTPF	42	2/14/91	547+00	-45	83	15.0	Off-road		0.5 ft		ML	12.0 ft	2/14/91
21a	DOTPF	43	2/14/91	550+00	-45	83	10.0	Off-road				ML		
21b	DOTPF	54	2/16/91	551+00	50	82	12.0	Off-road		1.0 ft		GM		
21a	DOTPF	44	2/14/91	553+00	-45	83	10.0	Off-road				ML		
21a	DOTPF	45	2/14/91	556+00	-50	82	10.0	Off-road				ML		
21b	DOTPF	53	2/15/91	556+00	42	80	12.0	Off-road			2.0 ft	SP	10.5 ft	2/15/91
21a	DOTPF	46	2/14/91	559+00	-45	82	10.0	Off-road				ML		
22b	DOTPF	52	2/15/91	561+00	48	81	12.0	Off-road						
22b	DOTPF	94	3/4/91	561+00	24	84	15.0	paved	2.25"	3.0 ft		SP-SM		
22a	DOTPF	47	2/14/91	562+00	-50	81	10.0	Off-road				ML		
22a	DOTPF	48	2/15/91	565+00	-90	82	10.0	Off-road			2.5 ft	SP		
22a	DOTPF	49	2/15/91	568+00	-39	81	10.0	Off-road				ML		
22a	DOTPF	50	2/15/91	571+00	-48	81	10.0	Off-road		2.0 ft		ML		
22b	DOTPF	51	2/15/91	571+00	48	80	12.0	Off-road				ML		
22a	DOTPF	93	3/4/91	573+00	-28	79	15.0	paved	2.50"	4.0 ft		SP-SM		

*- offset is left of centerline

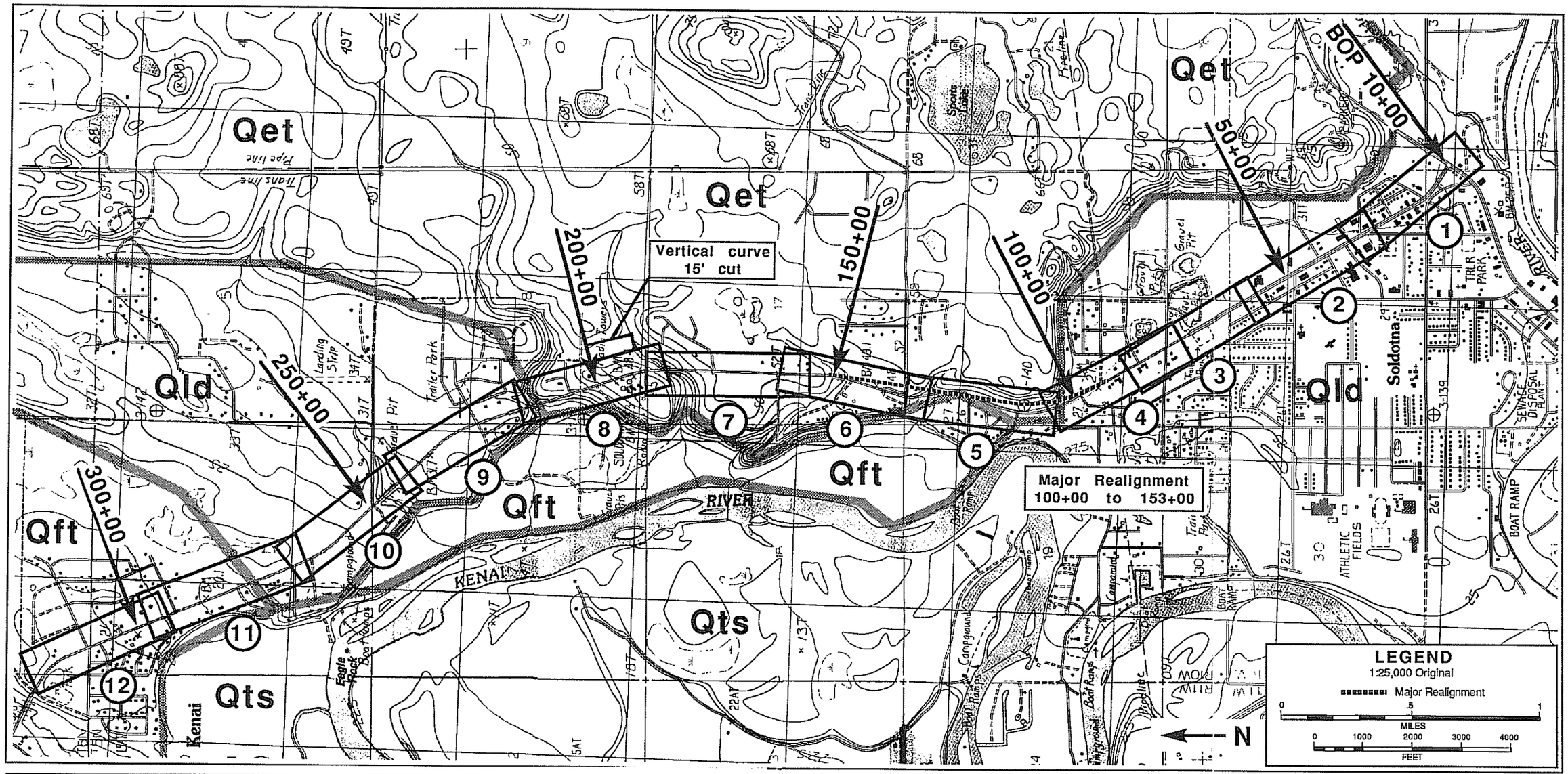


Kenai and Soldotna Area

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date :April 1992

LOCATION MAP
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
1



Geologic Units From Karlstrom, 1964 — Boundary

Qld - Hanging deltaic complexes associated with one or more strandline levels and deposited at mouth of streams draining into proglacial lakes of Naptowne age

Qet - Terraced moraines of Eklutna age. Discontinuously mantled below about the 1000-foot strandline level with proglacial lake sediments of Knik and Naptowne Age.

Qts - Elevated tidal silt and beach deposits. Record high sea level stand about 5 to 10 feet above present datum during late Tanya time.

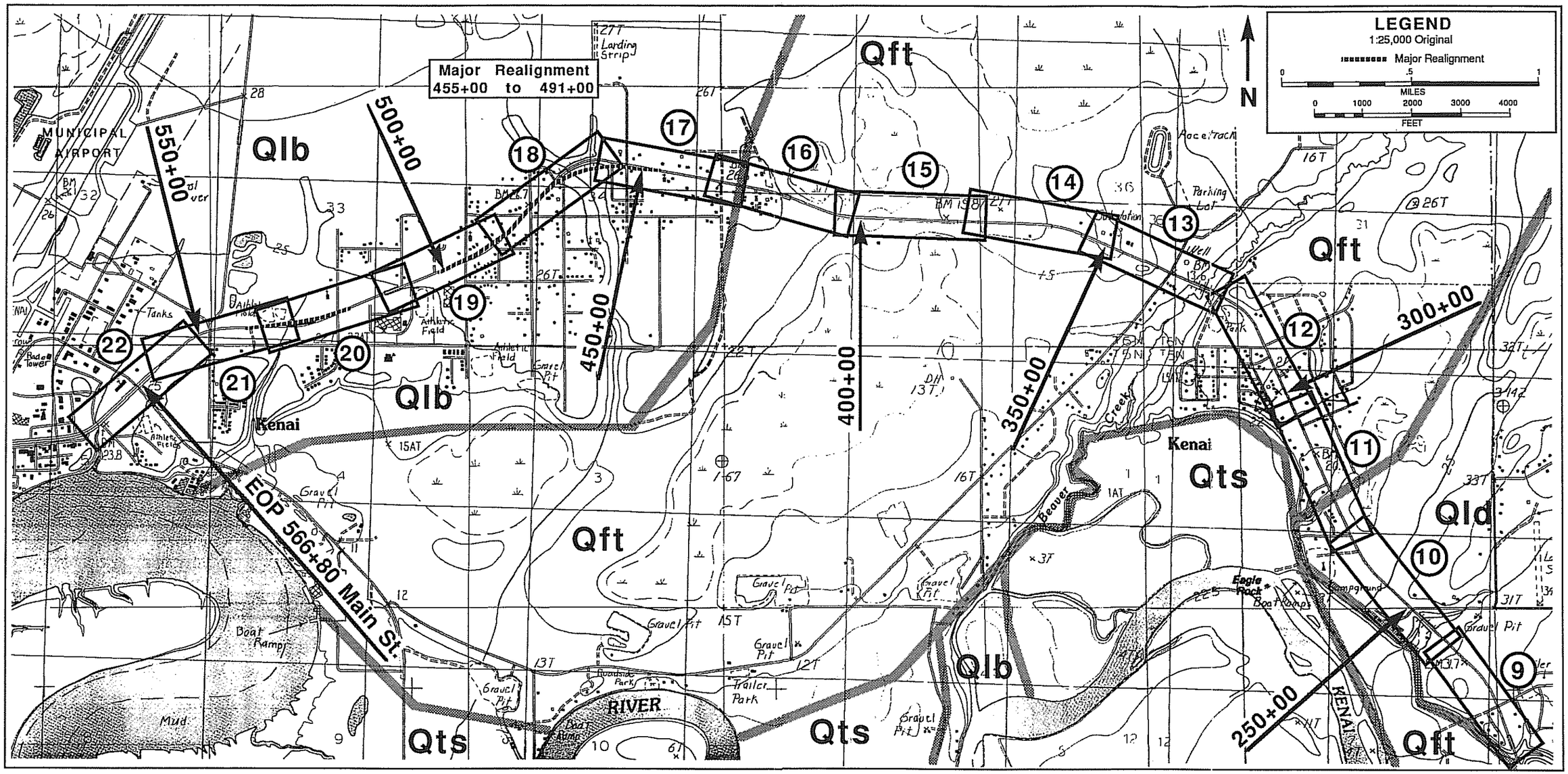
Qft - Floodplain and associated higher terraces along major streams and abandoned drainage lines. - Recent

Map was scanned from USGS Quad Maps Kenai (C-3) SW and Kenai (C-4) SE, 1986

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date :April 1992

GEOLOGIC SETTING
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
2



Geologic Units From Karlstrom, 1964 — Boundary

Qld - Hanging deltaic complexes associated with one or more strandline levels and deposited at mouth of streams draining into proglacial lakes of Naptowne age

Qet - Terraced moraines of Eklutna age. Discontinuously mantled below about the 1000-foot strandline level with proglacial lake sediments of Knik and Naptowne Age.

Qts - Elevated tidal silt and beach deposits. Record high sea level stand about 5 to 10 feet above present datum during late Tanya time.

Qft - Floodplain and associated higher terraces along major streams and abandoned drainage lines. - Recent

Qlb - Proglacial lake bottom sediments underlying terraced and channeled surfaces between major morainal belts in lowland - Naptowne age

Map was scanned from USGS Quad Maps Kenai (C-3) SW and Kenai (B-3) NW, 1986

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date :April 1992

GEOLOGIC SETTING
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
3

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	1	22

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Arctic and Geotechnical Engineering

PIONEER STREET
STERLING HIGHWAY
SOLDOTNA AVENUE
REDOUBT AVENUE
BIRCH LANE
KENAI SPUR HWY.
FARNSWORTH AVENUE
COHOE STREET
KENAI AVENUE
B87
B88
B86
B89
B85
16+45.80 PC
20+06.75 PT
MATCH LINE STA 32+60
SEE SHEET 2

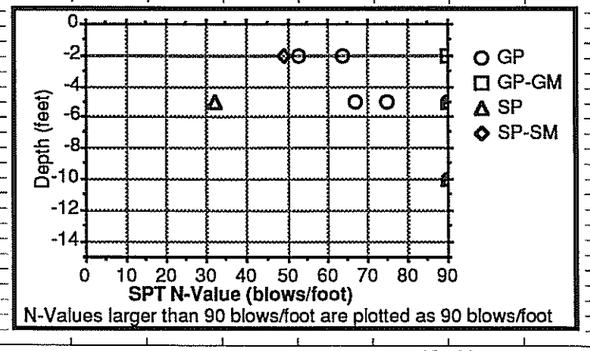
LOG of BORING 87
Station 12+95, 26' Lt.
GREY BROWN GRAVELLY SAND (SP) Dense, moist
GREY SANDY GRAVEL (GP) Very dense, moist
GREY BROWN GRAVELLY SAND (SP) Very dense, moist
No free water encountered

LOG of BORING 88
Station 15+79, 26' Rt.
GREY BROWN SANDY GRAVEL (GP) Very dense, moist w/gravel to 3" dia.
LIGHT GREY GRAVELLY SAND (SP) Dense, moist
Very dense
No free water encountered

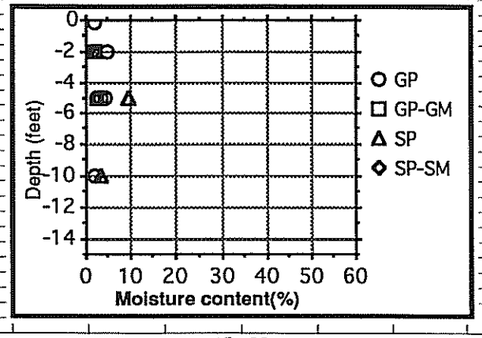
LOG of BORING 86
Station 21+00, 26' Lt.
GREY BROWN GRAVELLY SAND (SP) Very dense, moist w/increasing gravel at 1' rounded gravel to 1.5" dia.
Gravel to 2.5" dia.
GREY SANDY GRAVEL (GP) Very dense, moist
No free water encountered

LOG of BORING 84
Station 27+31, 26' Rt.
GREY BROWN SANDY GRAVEL (GP) Very dense, moist
Refusal, no recovery
No free water encountered

LOG of BORING 85
Station 32+60, 26' Lt.
GREY BROWN SANDY GRAVEL (GP) Very dense, moist
No free water encountered



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



0 95 90 85 80

100 95 90 85 80 75 70 65 60 55

10+00 15+00 20+00 25+00 30+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 4

DM&A Job No. 4005.40 Date : April 1992

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	2	22

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BARBARA ERICKSON STREET
PARK AVENUE
CORRAL STREET
MARYDALE AVENUE
ASPEN STREET
KENAI SPUR HIGHWAY
KENAI AVENUE
KAREN STREET
TAYLOR COURT
MARYDALE AVENUE

MATCH LINE STA 32+00
SEE SHEET 1

MATCH LINE STA 60+00
SEE SHEET 3

35 40 45 50 55

B90 B84 B91 B83 B92

LOG of BORING 90
Station 37+13, 27' Rt.
GREY BROWN SANDY GRAVEL (GP) Very dense, moist
No free water encountered

LOG of BORING 84
Station 41+97, 24' Lt
GREY BROWN SANDY GRAVEL (GP) Very dense, moist w/rounded gravel to 2" dia.
BROWN SAND (SP) Very dense, moist
BROWN GRAVEL (GP)
BROWN SAND (SP) Very dense, moist
GREY BROWN SANDY GRAVEL (GP) Very dense, moist
No free water encountered

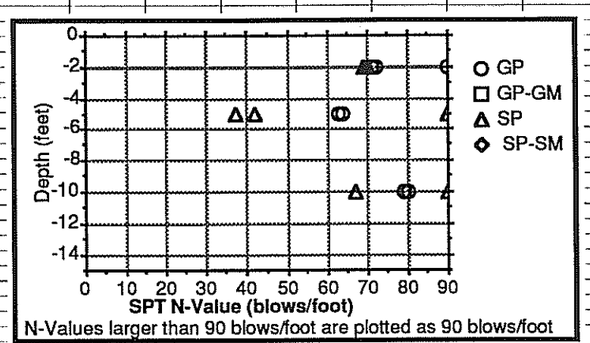
LOG of BORING 91
Station 47+48, 27' Rt.
GREY BROWN GRAVELLY SAND (SP) Very dense, moist w/rounded gravel to 2" dia.
No free water encountered

LOG of BORING 83
Station 51+56, 28' Lt.
GREY BROWN SANDY GRAVEL (GP) Very dense, moist w/subrounded gravel to 2" dia.
Refusal, no recovery
No free water encountered

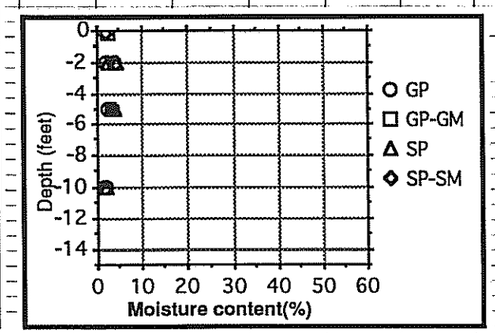
LOG of BORING 92
Station 57+10, 5' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Moist
GREY GRAVELLY SAND (SP) Very dense, moist
Dark grey
No free water encountered

100 95 90 85 80 75 70 65 60 55

35+00 40+00 45+00 50+00 55+00 60+00



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

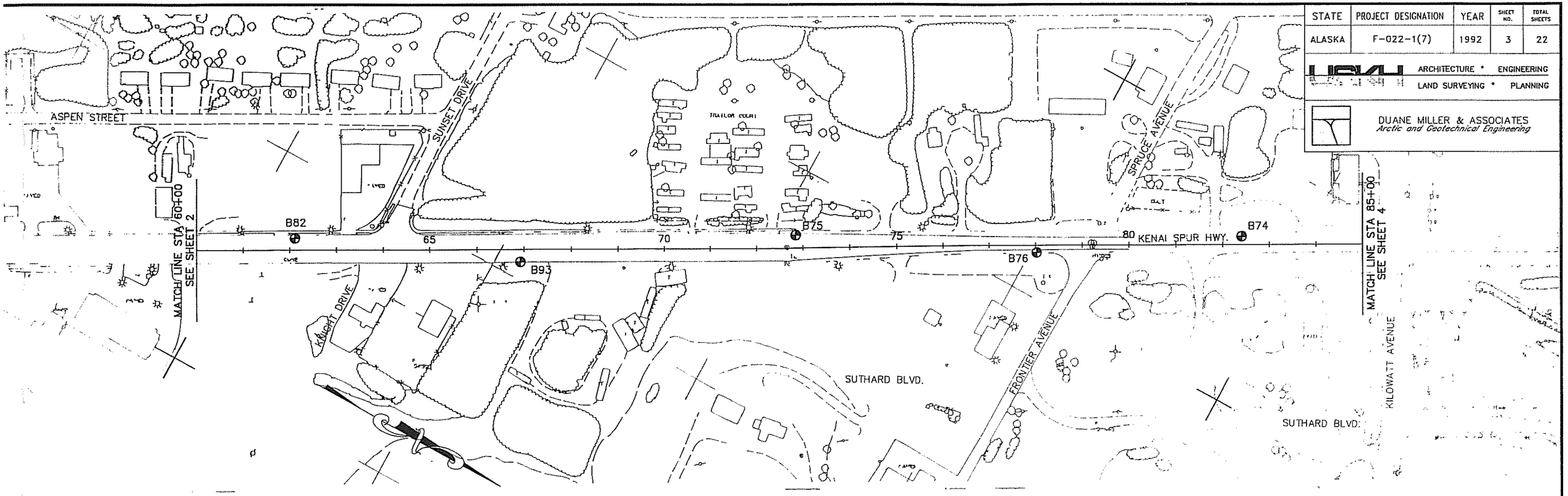
Plate 5

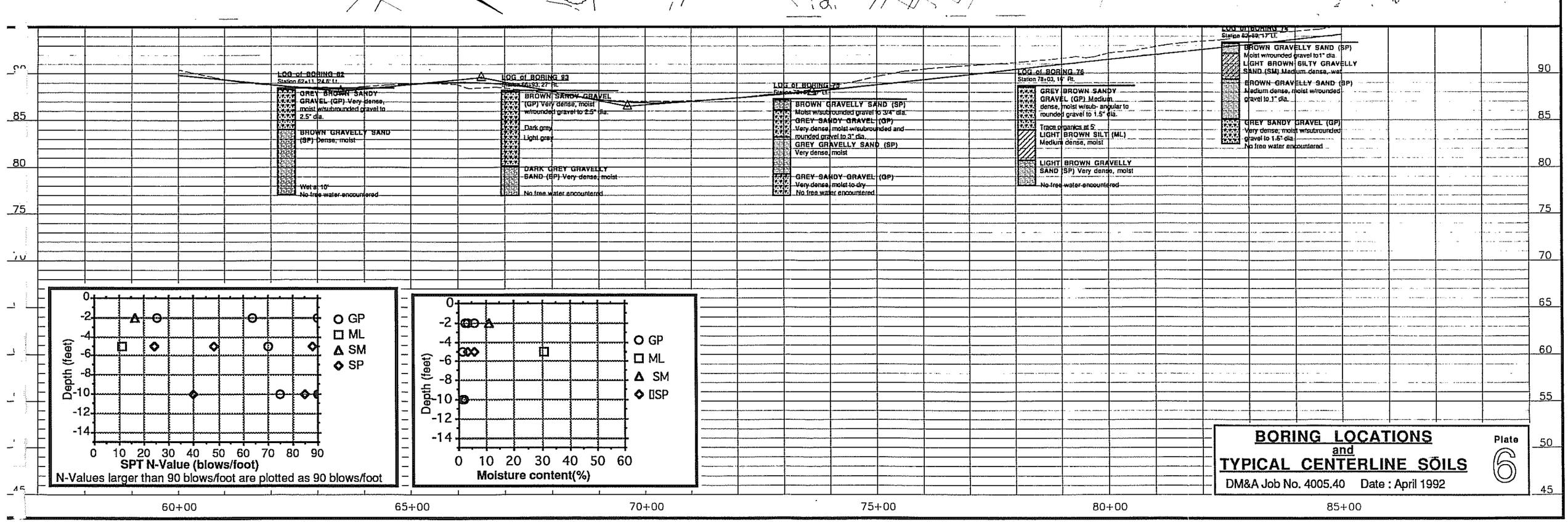
DM&A Job No. 4005.40 Date : April 1992

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	3	22

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N-Values larger than 90 blows/foot are plotted as 90 blows/foot

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 6

DM&A Job No. 4005.40 Date : April 1992

STATE	PROJECT DESIGNATION	YEAR	SHEET	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	4	22

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SPRUCE AVENUE
PIONEER DRIVE
IRONS AVENUE
REBELS RUN
KENAI SPUR HWY.
MATCH LINE STA 85+00 SEE SHEET 3
MATCH LINE STA 105+00 SEE SHEET 5
B73
B77
B78
B72
B79
90
95
100
99+98.59 PC
KILOWATT AVENUE
SUTHARD BLVD.
DELTA AVENUE
OMEGA STREET
EDDY HILL DRIVE

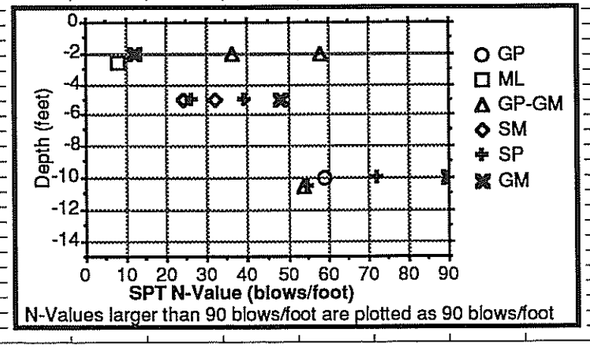
LOG of BORING 77
Station 85+82, 15' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Moist w/subrounded gravel to 1/2" dia.
Refusal, no recovery at 2'
LIGHT BROWN GRAVELLY SILTY SAND (SM) Medium dense, wet
LIGHT GREY GRAVELLY SILTY SAND (SM) Very dense, wet
LIGHT BROWN GRAVELLY SAND (SP) Very dense, moist
No free water encountered

LOG of BORING 73
Station 89+00, 26' Lt.
GREY SANDY GRAVEL (GP-GM) Dense, moist
LIGHT BROWN SILTY SAND (SM) Dense, moist w/occasional gravel
LIGHT BROWN SANDY GRAVEL (GP) Very dense, moist w/rounded gravel to 2.5" dia.
No free water encountered

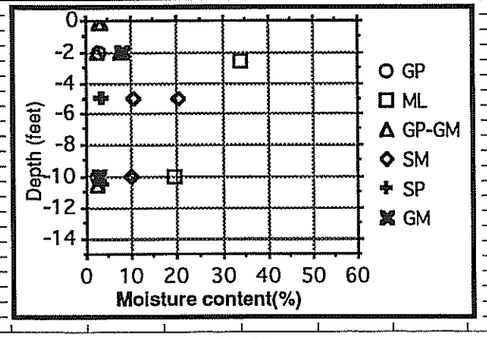
LOG of BORING 78
Station 91+00, 29' Rt.
GREY BROWN SANDY GRAVEL (GP) Loose, moist w/rounded gravel to 1.5" dia.
LIGHT BROWN SANDY SILT (ML) Loose, wet
GREY BROWN GRAVELLY SAND (SP) Dense, moist w/subrounded to rounded gravel to 2.5" dia.
No free water encountered

LOG of BORING 72
Station 96+18, 13' Lt.
GREY BROWN SILTY SANDY GRAVEL (GM) Medium dense becoming very dense, moist w/rounded gravel to 3/4" dia.
Occasional rounded gravel to 2.5"
No free water encountered

LOG of BORING 79
Station 100+97, 12' Rt.
BROWN GRAVELLY SAND (SP) Very dense to dense, moist w/rounded gravel to 3/4" dia., 2" silt layer at 2.5' Rounded gravel to 3" dia.
GREY SILT (ML) Very dense, moist
GREY SANDY GRAVEL (GP-GM) Very dense, moist
No free water encountered



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



85+00 90+00 95+00 100+00 105+00

95 90 85 80 75 70 65 60 55 50

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 7

DM&A Job No. 4005.40 Date : April 1992

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	5	22

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REBEL'S RUN

MATCH LINE STA 105+00 SEE SHEET 4

EDDY HILL DRIVE

KENAI SPUR HIGHWAY

CHEECHAKO DRIVE

PASTURE

B125 B126 B124 B94 B97 B123 B121 B122 B120

110 115 120 125

116+17.76 PT

MATCH LINE STA 130+00 SEE SHEET 6

LOG of BORING 126
Station 106+10, 14' Rt.
LIGHT RED BROWN SILT (ML) Loose, wet
Grey brown
GREY BROWN SAND (SP) Loose, moist
GREY SANDY GRAVEL (GP) Very dense, moist to wet w/rounded gravel to 1.5" dia.
GREY SAND (SP) Very dense, moist
No free water encountered

LOG of BORING 125
Station 108+10, 32' Lt.
LIGHT YELLOW BROWN SANDY SILT (ML) Loose, moist
LIGHT GREY BROWN SAND (SP) Medium dense, moist
GREY SANDY SILT (ML) Dense, moist
No free water encountered

LOG of BORING 124
Station 109+88, 2' Lt.
LIGHT YELLOW BROWN SILT (ML) Loose, wet
LIGHT GREY BROWN SILT (ML) Loose, wet
GREY BROWN SAND (SP) Medium dense, wet
Set .5" dia. slotted PVC to BH
No free water encountered
No free water on 10/18/91

LOG of BORING 94
Station 113+84, 2' Lt.
BROWN GRAVELLY SAND (SP) w/grass roots
LIGHT BROWN SILT (ML) Loose, wet
LIGHT BROWN SILTY SAND (SM) Loose, wet
LIGHT GREY BROWN SILTY SAND (SM) Medium dense, saturated
No free water encountered

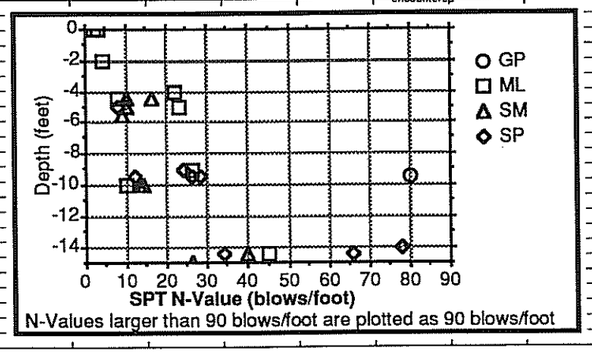
LOG of BORING 123
Station 124+75, 11' Lt.
YELLOW BROWN SANDY SILT (ML) Loose, wet
LIGHT GREY SILTY SAND (SM) Medium dense, wet, medium grained
LIGHT GREY SAND (SP) Medium dense, moist
No free water encountered

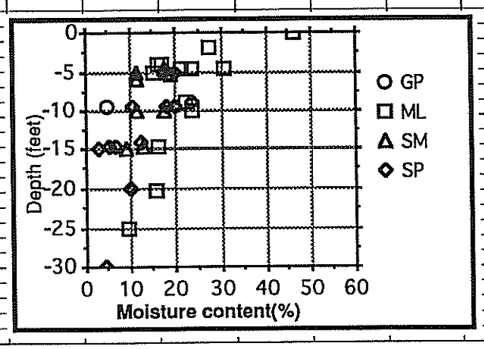
LOG of BORING 97
Station 119+70, 26' Rt.
BROWN SANDY GRAVEL (GP) Wet
LIGHT BROWN SILT (ML) Soft, moist
LIGHT GREY BROWN SILTY SAND (SM) Medium dense, moist
No free water encountered

LOG of BORING 122
Station 125+50, 37' Rt.
DARK BROWN ORGANICS (Pt) Duff
ORANGE TO BROWN TO LIGHT GREY BROWN SILT (ML) Loose, wet w/root hairs upper 3"
LIGHT BROWN SANDY SILT (ML) Medium dense, moist, fine grained
LIGHT GREY BROWN INTER-LAYERED SILTY SAND (SM) AND SAND (SP) Dense, moist
COARSE AND FINE GREY SAND (SP) Very dense, moist
Set .5" diameter slotted PVC to BH
No free water encountered
No free water on 10/18/91

LOG of BORING 121
Station 128+00, 57' Lt.
DARK BROWN ORGANICS (Pt) Duff
ORANGE AND LIGHT YELLOW BROWN SILT (ML) Loose, moist, becomes light grey brown at 2' Medium dense
LIGHT BROWN SILTY SAND (SM) Medium dense, moist, fine to medium grained
LIGHT BROWN SAND (SP) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Very dense, moist
GREY SAND (SP) Very dense, moist
Set .5" diameter slotted PVC to BH
No free water encountered
No free water on 10/18/91

LOG of BORING 120
Station 129+91, 26' Rt.
GREY BROWN SANDY SILT (ML) Loose, saturated w/trace tree root
Becomes medium dense, trace organics
Water level observed during drilling
GREY SILTY SAND (SM) Medium dense, saturated w/angular gravel to 6" dia.
GREY SAND (SP) Medium dense, medium grained
Becomes grey brown w/occasional gravel



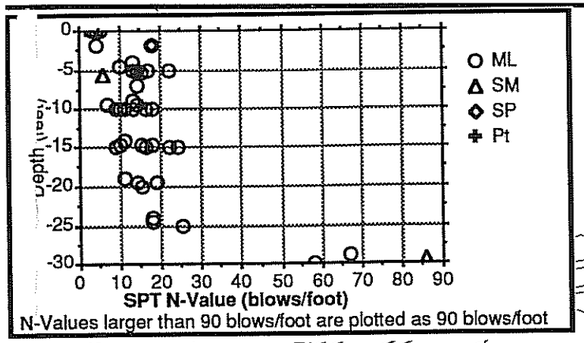


105+00 110+00 115+00 120+00 125+00 130+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 8

DM&A Job No. 4005.40 Date : April 1992



N-Values larger than 90 blows/foot are plotted as 90 blows/foot

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(7)	1992	6	22

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KENAI SPUR HIGHWAY

LANCASHIRE DRIVE

135+69.91 PT

MATCH LINE STA 130+00 SEE SHEET 5

130+17.37

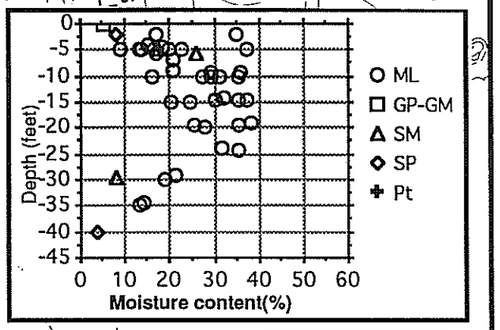
LINE STA 155+00 SEE SHEET 7

B98 B118 B119 B117 B116 B115 B114 B113 B112 B71 B99

135 140 145 150

4.9' 5.3' 5.1' 4.8' 5.2' 5.5' 2.5' 4.5' 5.7' 3.0' 0.0'

▲ Peat Depth Probes



LOG of BORING 98
Station 131+60, 16' Rt.
LIGHT BROWN SILT (ML) Medium dense, moist
Grades to gray
Dark gray silt (ML)
Very dense
LIGHT GREY BROWN SANDY SILT (ML) Very dense, moist
LIGHT GREY BROWN SAND (SP) Very dense, moist
Set .5" dia. slotted PVC to BH
No free water encountered

LOG of BORING 118
Station 133+72, 22' Lt.
PEAT (Pt) Dark
LIGHT YELLOW BROWN SILT (ML) Loose, moist
LIGHT GREY BROWN SILT (ML) Medium dense, wet
PUSH SHELBY
1" sand seam, medium grained at 20'
GREY SILTY SAND (SM) Very dense, moist w/traces of silt (ML) w/gravel from 32'
Water level observed on 10/18/91
LIGHT GREY BROWN SANDY SILT (ML) Very dense, moist
Set 0.5" diameter slotted PVC to BH
Lost 15' of auger when pulling out of hole
No free water encountered during drilling

LOG of BORING 119
Station 135+65, 41' Lt.
LIGHT BROWN SILT (ML) Loose, saturated
GREY BROWN SILT (ML) Medium dense, wet
Water level on 10/18/91
Water level observed during drilling
LIGHT BROWN SAND (SP) Very dense, moist to wet
Set .5" diameter slotted PVC to BH

LOG of BORING 117
Station 137+65, 32' Lt.
LIGHT GREY BROWN SILT (ML) Loose, wet
Bulk sample from 0.5' - 9.5'
Becomes dark grey
Traces of organics or coal, traces of oxidation
No free water encountered

LOG of BORING 116
Station 140+06, 9' Rt.
LIGHT BROWN SILT (ML) Loose, wet to 6", then dry to moist
Becomes sandy
Light grey, loose, wet
No free water encountered

LOG of BORING 115
Station 141+94, 42' Lt.
LIGHT BROWN SANDY SILT (ML) Loose, moist w/roots, becomes yellow brown at 0.5', no roots
With sparse sand
No free water encountered

LOG of BORING 114
Station 143+90, 16' Rt.
LIGHT BROWN SILT (ML) Loose w/abundant roots
With many thin layers of sand (SP), medium dense
No free water encountered

LOG of BORING 99
Station 145+30, 21' Lt.
ORANGE BROWN SANDY SILT (ML) Medium dense, moist to wet
Becomes grey brown
Moist w/very fine sand
Wet, no sand
No free water encountered

LOG of BORING 113
Station 146+76, 11' Lt.
DARK BROWN SILTY PEAT (Pt) Loose, moist
Water level observed during drilling
GREY LIGHT BROWN SILTY SAND (SM) Loose, saturated
LIGHT GREY SILT (ML) Medium dense, saturated

Gross Section at Station 148+50
100' Lt. 100' Rt.
160' 150' 140' 130'

LOG of BORING 74
Station 148+91, 64' Lt.
GR.: BROWN SANDY GRAVEL (GP-GM) Moist
BROWN GRAVELLY SAND (SP) Medium dense, moist
LIGHT GREY BROWN SANDY GRAVELLY SILT (ML) Medium dense, moist
No free water encountered

LOG of BORING 113
Station 148+60, 27' Rt.
Water level observed during drilling
PEAT (Pt)
GREY SANDY SILT (ML) Medium dense, saturated
GREY SILT (ML) Medium dense

130+00 135+00 140+00 145+00 150+00 155+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

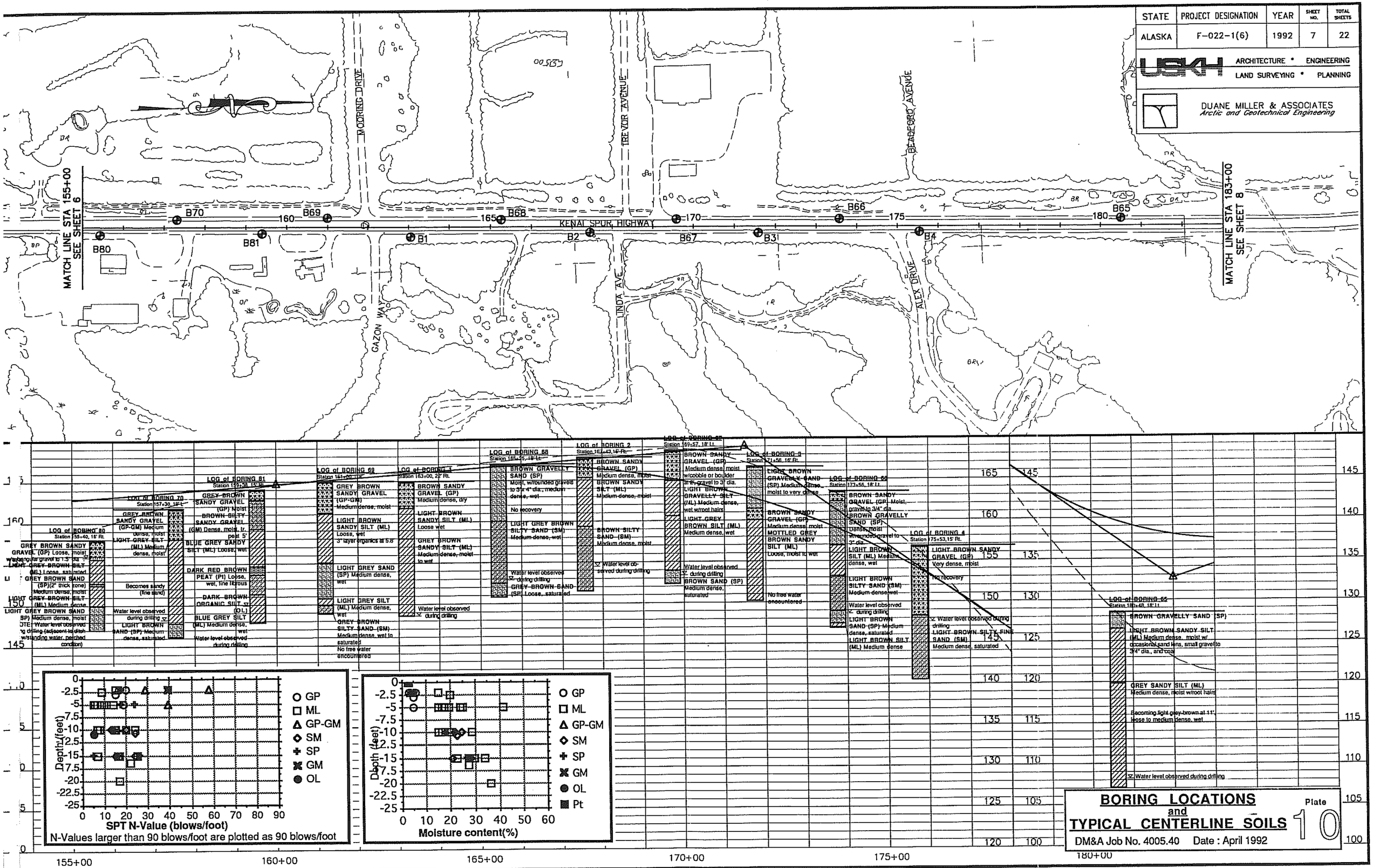
DM&A Job No. 4005.40 Date : April 1992

Plate 9

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	7	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

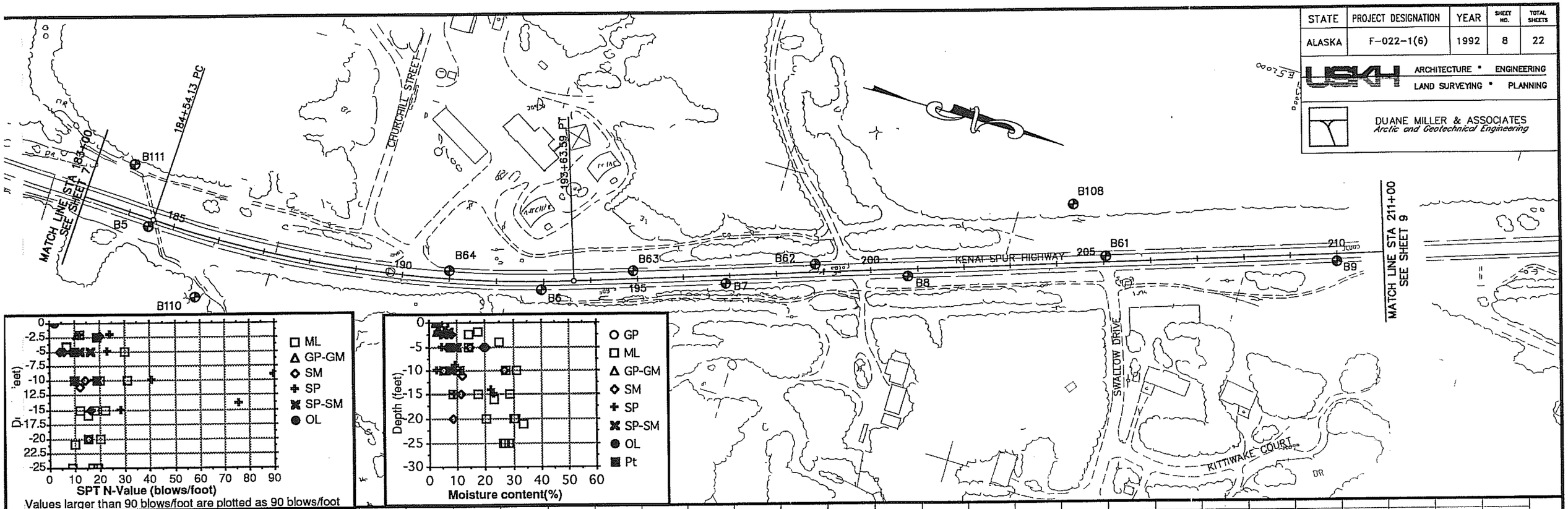
DM&A Job No. 4005.40 Date : April 1992

Plate 10

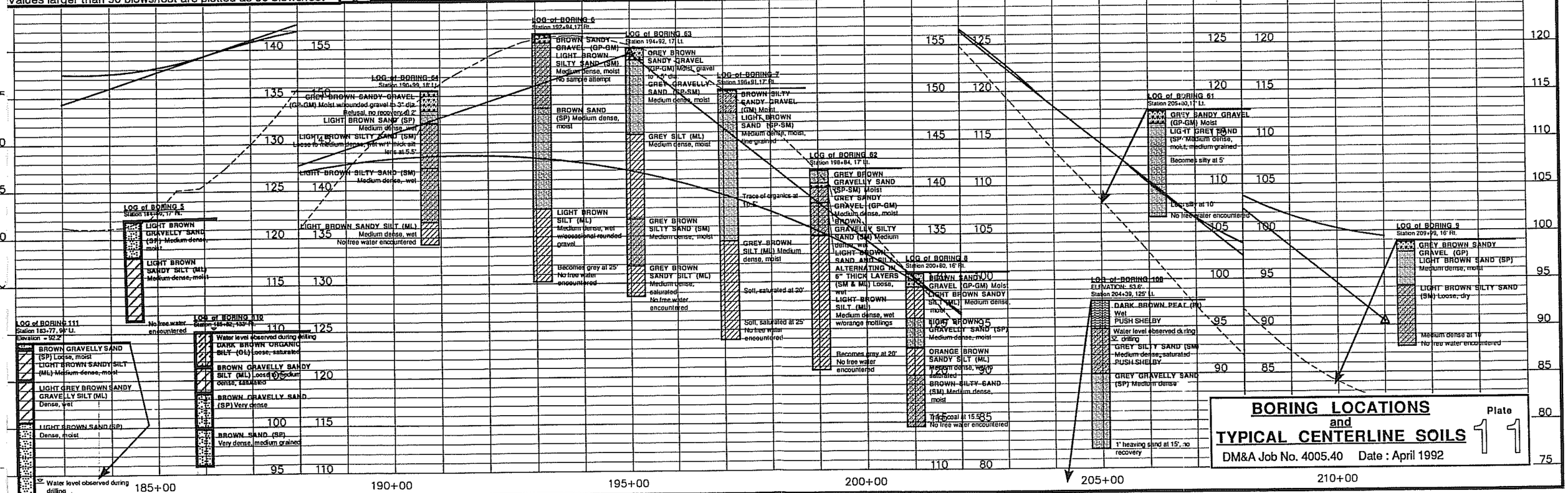
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	8	22

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Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

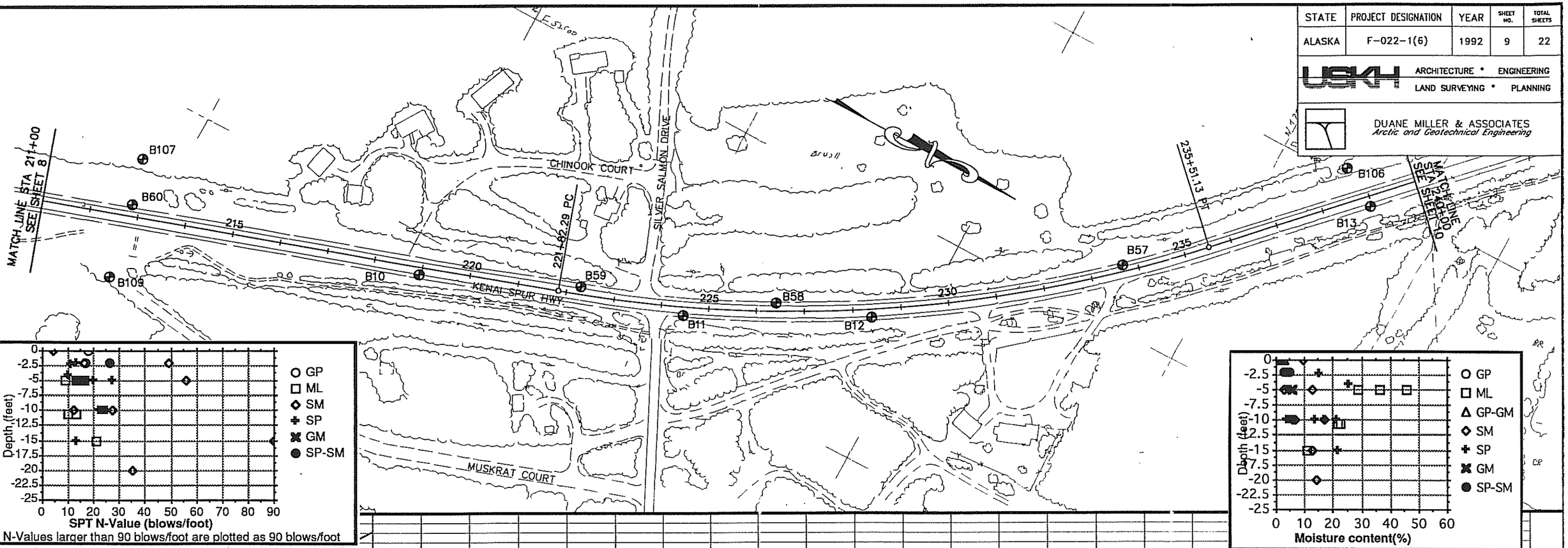
DM&A Job No. 4005.40 Date : April 1992

Plate 11

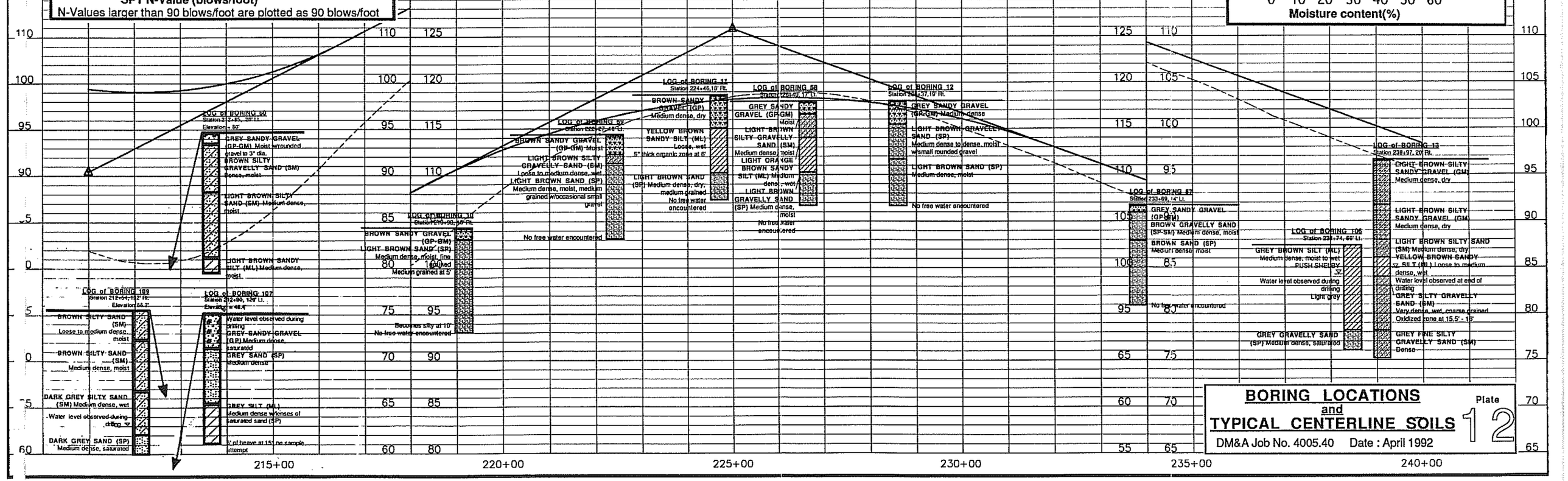
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	9	22

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N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 12

DM&A Job No. 4005.40 Date : April 1992

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	10	22

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MATCH LINE STA 240+00 SEE SHEET 9

STRAWBERRY STREET

KENAI SPUR HIGHWAY

STRAWBERRY ROAD

DENRAY

WORTHAM AVENUE

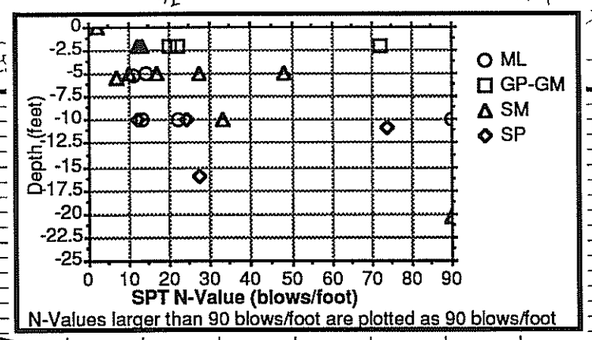
ROSS STREET

MATCH LINE STA 268+00 SEE SHEET 11

258+24.61 PC

B104 B58 B14 B105 B15 B55 B16

245 250 255 260 265



LOG of BORING 58
Station 242+39, 14' Lt.
GREY SANDY GRAVEL (GP-GM) Moist
LIGHT BROWN SILTY GRAVELLY SAND (SM) Medium dense, moist w/occasional rounded gravel to 2" dia.
ORANGE LIGHT BROWN SANDY SILT (ML) Medium dense, wet
GREY SILT (ML) Medium dense, moist w/ 5" thick sand (SP) layers
Water level observed after drilling
GREY BROWN SAND (SP) Medium dense to dense, saturated
1' heaving sand at 20'
GREY BROWN SILTY SAND (SM) Very dense, saturated

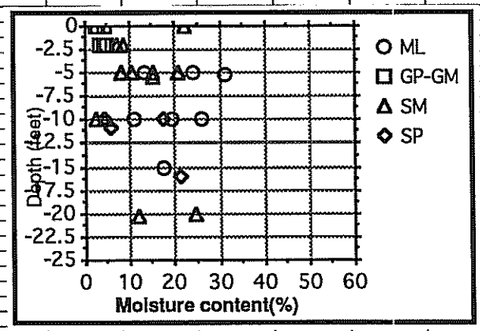
LOG of BORING 14
Station 245+44, 19' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense
LIGHT BROWN SILTY GRAVELLY SAND (SM) Dense, moist
LIGHT BROWN GRAVELLY SAND (SP) Very dense, medium grained
No free water encountered

LOG of BORING 104
Station 247+42, 77' Lt.
LIGHT BROWN SAND (SP) Moist
PUSH SHELBY
Water level observed after drilling
LIGHT BROWN GRAVELLY SANDY SILT (ML) Medium dense, saturated
Very dense

LOG of BORING 105
Station 248+64, 119' Rt.
GREY SILTY SAND (SM) Loose, wet w/root hairs
Water level observed during drilling
GREY SAND (SP) Medium dense, saturated

LOG of BORING 15
Station 255+13, 19' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Very dense, moist
LIGHT GREY BROWN SILTY GRAVELLY SAND (SM) Medium dense, moist w/ trace coal
Water level observed after drilling
LIGHT BROWN SANDY SILT (ML) Medium dense, wet
Free water encountered

LOG of BORING 55
Station 259+59, 16' Lt.
GREY SANDY GRAVEL (GP-GM)
LIGHT BROWN SILTY GRAVELLY SAND (SM) Medium dense, moist w/occasional rounded gravel to 1.5"
LIGHT ORANGE BROWN SANDY SILT (ML) Loose, moist w/trace coal
LIGHT GREY ORANGE BROWN SILTY SAND (SM) Loose to medium dense, moist w/root hairs, becoming light brown at 7', dense, moist
No free water encountered



LOG of BORING 16
Station 264+69, 16' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
GREY FINE SILTY SANDY GRAVEL (SM) Medium dense, moist
ORANGE ORGANIC SILT (OL)
LIGHT BROWN SAND (SP) Medium dense, moist
No free water encountered

100 95 90 85 80 75 70 65 60 55

80 75 70 65 60 55 50 45 40 35

240+00 245+00 250+00 255+00 260+00 265+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

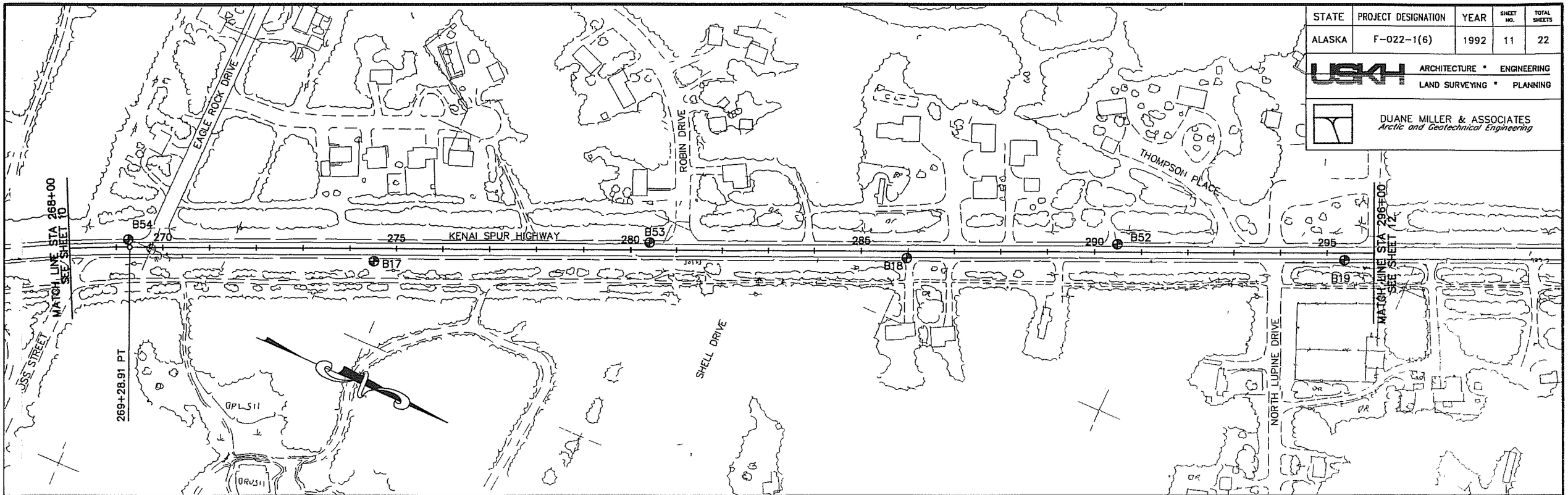
DM&A Job No. 4005.40 Date : April 1992

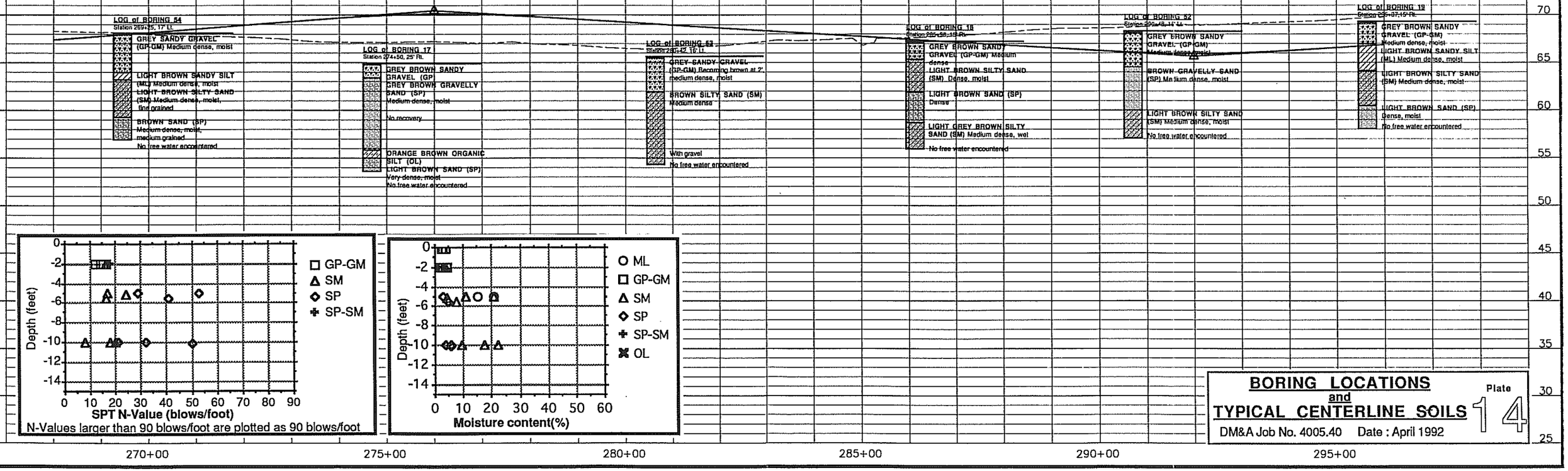
Plate 13

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	11	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 14

DM&A Job No. 4005.40 Date : April 1992

ARCHITECTURE • ENGINEERING LAND SURVEYING • PLANNING	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
	ALASKA	F-022-1(6)	1992	12	22

DUANE MILLER & ASSOCIATES
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FIREWEED LANE

TOGIAK STREET

FERN STREET

NORTH LUPINE DRIVE

NORTH DOGWOOD DRIVE

MATCH LINE STA 296+00 SEE SHEET 11

MATCH LINE STA 324+00 SEE SHEET 13

514+38.61 PC

B51 B50 B20 B21 B22 B23 B95 B96

300 305 310 315 320

70 65 60 55 50 45 40 35 30 25

300+00 305+00 310+00 315+00 320+00

LOG of BORING B1
Station 300+36, 19' Lt.
GREY SANDY GRAVEL (GP-GM)
BROWN SILTY GRAVELLY SAND (SM) Dense, moist
BROWN SILTY SANDY GRAVEL (GM) Medium dense, moist
No free water encountered

LOG of BORING 20
Station 305+73, 18' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
GREY BROWN SILTY GRAVELLY SAND (SM) Dense, wet
No recovery
No free water encountered

LOG of BORING 50
Station 310+24, 19' Lt.
GREY SANDY GRAVEL (GP-GM) Moist
GREY BROWN GRAVELLY SAND (SP) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Medium dense, moist, fine grained
No free water encountered

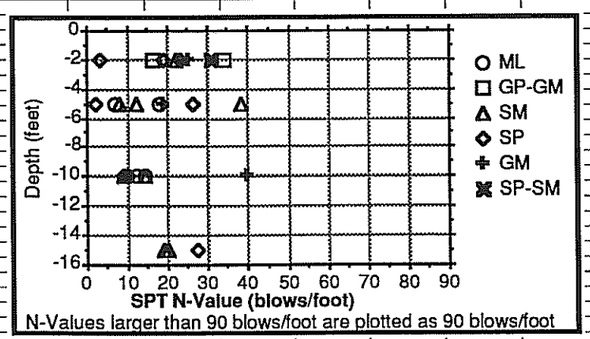
LOG of BORING 21
Station 315+53, 19' Rt.
GREY BROWN SANDY GRAVEL (GP-GM)
LIGHT BROWN SILTY SANDY GRAVEL (GM) Medium dense, moist
LIGHT ORANGE BROWN SANDY SILT (ML) Loose to medium dense, moist w/trace organics
No free water encountered

LOG of BORING 95
Station 317+97, 4' Lt.
LIGHT BROWN SILTY SAND (SM) Moist
LIGHT BROWN FINE SAND (SP) Loose, moist w/root hairs
LIGHT GREY SAND (SP) Loose moist
No free water encountered

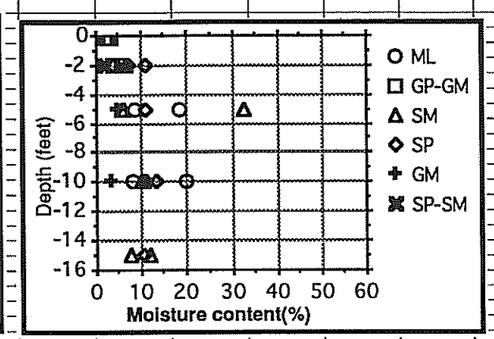
LOG of BORING 22
Station 319+06, 49' Rt.
GREY BROWN SANDY GRAVEL (GP-GM)
LIGHT BROWN GRAVELLY SAND (SP) Dense moist
No recovery
LIGHT BROWN SILTY SAND (SM) Loose to medium dense, moist
No free water encountered

LOG of BORING 96
Station 321+06, 25' Lt.
LIGHT BROWN FINE SILTY SAND (SM) Moist w/grass roots
LIGHT BROWN SAND (SP) Medium dense, moist
Light grey
No free water encountered

LOG of BORING 23
Station 323+70, 36' Rt.
GREY BROWN SANDY GRAVEL (GP-GM)
LIGHT BROWN SILTY GRAVELLY SAND (SM) Medium dense, dry w/occasional gravel
With less gravel at 5'
No free water encountered



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : April 1992

Plate 15

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	13	22

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<326+02.85 PT

MATCH LINE STA 324+00 SEE SHEET 12

MATCH LINE STA 350+00 SEE SHEET 14

KENAI SPUR HWY.

FERN STREET

EAGLE STREET

B101 B100 B49 B24 B102 B103 B48 B25 B47 B26

325 330 335 340 345

Cross Section at Station 329+50

100' Lt. 100' Rt.

329+50

40' 40'

30' 30'

20' 20'

LOG of BORING 24
Station 329+50, 0' Rt.
1-1/8" A.C. PAVEMENT
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense, damp
LIGHT BROWN GRAVELLY SAND (SP) Medium dense, moist
No free water encountered

LOG of BORING 101
Station 329+76, 117' Lt.
DARK BROWN SANDY SILT (ML) Wet
PUSH SHELBY
Water level observed during drilling
GREY SANDY GRAVEL (GP) Medium dense, saturated w/rounded gravel to1.5" dia.
1.5' heaving sand at 10'
3' heave at 15', no sample attempt

LOG of BORING 103
Station 329+66, 144' Rt.
GREY GRAVELLY SAND (SP) Wet
Water level observed during drilling
DARK BROWN GRAVELLY SANDY SILT (ML)
With ebundant organics
GREY GRAVELLY SAND (SP)
Medium dense, saturated
3' heave at 15', no sample attempt

LOG of BORING 49
Station 325+85, 76' Lt.
GREY SANDY GRAVEL (GP-GM) Moist
BROWN SANDY GRAVEL (GP) Medium dense, moist
BROWN SILTY SAND (SM) Medium dense, moist
BROWN SANDY SILT (ML) Medium dense, wet
No free water encountered

LOG of BORING 48
Station 334+97, 19' Lt.
GREY SANDY GRAVEL (GP-GM) Medium dense, moist
ORANGE BROWN SILTY GRAVELLY SAND (SM) Medium dense to dense, wet
Water level observed during drilling
DARK BROWN SANDY GRAVEL (GP) Very dense, saturated
Refusal, no recovery
GREY SILTY SANDY GRAVEL (GM) Very dense
GREY SILT (ML) Very dense

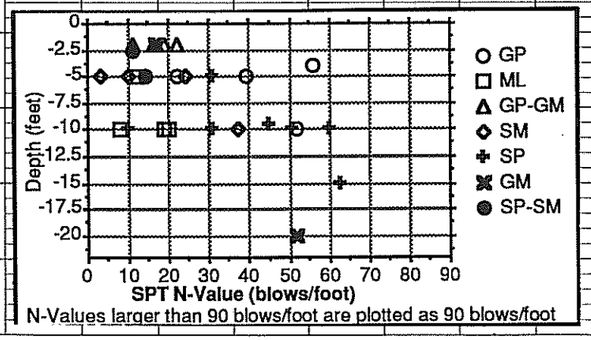
LOG of BORING 102
Station 332+23, 65' Rt.
ORANGE BROWN SAND (SP)
▽ PUSH SHELBY
Water level observed during drilling
GREY BROWN SANDY GRAVEL (GP)
Very dense, saturated w/rounded gravel to 3" dia.
LIGHT BROWN GRAVELLY SAND (SP) Very dense

LOG of BORING 100
Station 332+12, 109' Lt.
Water level observed during drilling
BROWN GRAVELLY SILTY SAND (SP-SM) Loose, saturated
PUSH SHELBY
LIGHT GREY SANDY GRAVEL (GP) Dense, saturated
BROWN GRAVELLY SAND (SP) Dense, wet
12" heave at 9.5'
No free water encountered

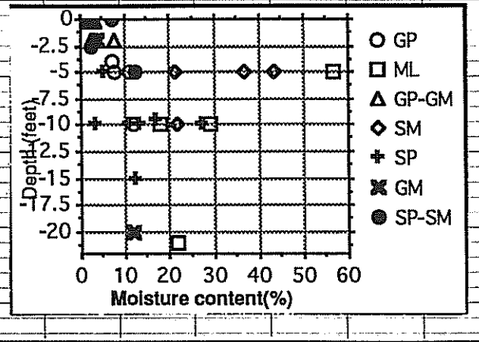
LOG of BORING 25
Station 339+20, 19' Rt.
GREY BROWN SANDY GRAVEL (GP)
BROWN SILTY SANDY GRAVEL (GM) Medium dense, moist
LIGHT BROWN SILTY SAND (SM) Loose w/ trace organics, oxidized zone at 5'
GREY-BROWN SILTY SAND (SM) Dense, moist to wet
No free water encountered

LOG of BORING 47
Station 344+30, 14' Lt.
BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
BROWN SILTY GRAVELLY SAND (SM) Medium dense, saturated
BROWN SANDY SILT (ML) Medium dense, saturated w/ trace ▽ organics
Water level observed during drilling

LOG of BORING 26
ELEVATION: 66.9'
Station 349+49, 19' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense
BROWN SAND (SP) Medium dense, moist, medium grained
Becomes silty at 5'
LIGHT BROWN SANDY SILT (ML) Loose, saturated
No free water encountered



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 16

DM&A Job No. 4005.40 Date : April 1992

65 60 55 50 45 40 35 30 25 20

325+00 330+00 335+00 340+00 345+00 350+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	14	22

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EAGLE STREET

E STREET

MATCH LINE STA 350+00
SEE SHEET 13

352+92.94 PC

B46

355

360

B27

B28

B45

365

RAVEN STREET

368+20.68 PT

370

KENAI SPUR HIGHWAY

B29

B44

375

MATCH LINE STA 378+00
SEE SHEET 15

LOG of BORING 45
Station 354+84, 11' Lt.
GREY SANDY GRAVEL (GP-GM)
BROWN GRAVELLY SAND (SP) Medium dense, moist
BROWN SILTY SAND (SM) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Soft to medium dense, saturated
No free water encountered

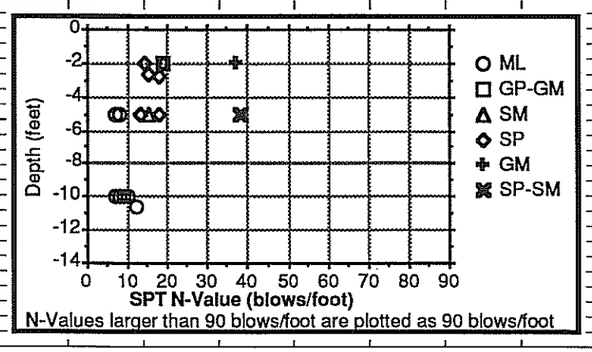
LOG of BORING 27
Station 359+00.28' Rt.
GREY BROWN SANDY GRAVEL (GP-GM)
BROWN GRAVELLY SAND (SP) Medium dense, dry
No recovery
GREY SANDY SILT (ML) Loose, wet, fine grained sand
No free water encountered

LOG of BORING 28
Station 362+57, 37' Rt.
GREY BROWN SANDY GRAVEL (GP-GM)
BROWN SILTY GRAVELLY SAND (SM) Dense, moist
BROWN SANDY SILT (ML) Medium dense, moist
DARK BROWN SILTY PEAT (Pt) Medium dense, moist to wet
BROWN SANDY SILT (ML) Medium dense, moist w/trace organics
No free water encountered

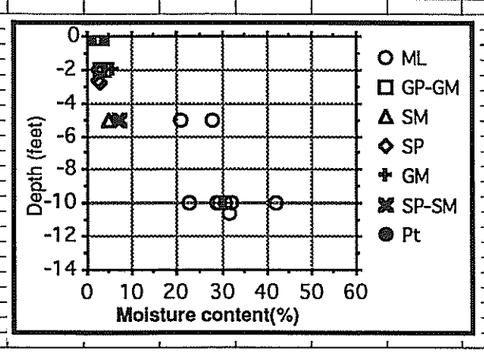
LOG of BORING 45
Station 364+67, 1' Lt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense
BROWN GRAVELLY SAND (SP) Medium dense, moist
No recovery
LIGHT BROWN SANDY SILT (ML) Loose, saturated
No free water encountered

LOG of BORING 29
Station 368+52.22' Rt.
BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
YELLOW BROWN SANDY SILT (ML) Loose, wet w/ trace organics
Without organics
Becomes saturated
No free water encountered

LOG of BORING 44
Station 374+56, 11' Lt.
GREY SANDY GRAVEL (GP-GM) Medium dense
BROWN SAND (SP) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Loose to medium dense, moist to wet
Saturated
No free water encountered



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

Plate 17

DM&A Job No. 4005.40 Date : April 1992

75 70 65 60 55 50 45 40 35 30

350+00 355+00 360+00 365+00 370+00 375+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	15	22

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MATCH LINE STA 378+00
SEE SHEET 14

MATCH LINE STA 402+00
SEE SHEET 16

KENAI-SPUR HIGHWAY

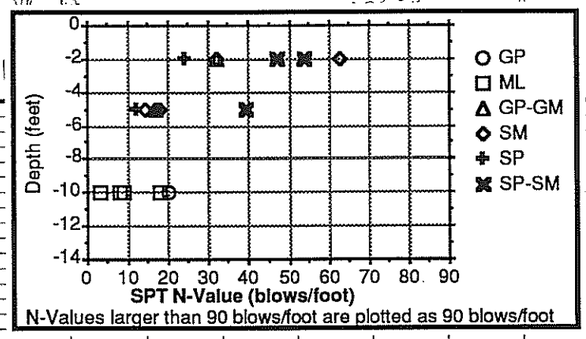
380 B43 385 B42 395 B41 400

B30 390 B31 B32

400+18.36 PC

5.3'

▲ Peat Depth Probes



N-Values larger than 90 blows/foot are plotted as 90 blows/foot

LOG of BORING 30
Station 378+03, 30' Rt.

GREY BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
BROWN GRAVELLY SAND (SP) Medium dense, moist
BROWN SILTY GRAVELLY SAND (SM) Medium dense, moist
GREY BROWN SANDY SILT (ML) Loose, saturated
No free water encountered

LOG of BORING 43
Station 380+37, 15' Lt.

GREY SANDY GRAVEL (GP) BROWN SILTY SANDY GRAVEL (GP-GM) Medium dense, moist
Water level observed during drilling
BROWN SANDY GRAVEL (GP) Medium dense

LOG of BORING 31
Station 384+83, 20' Rt.

GREY BROWN SANDY GRAVEL (GP-GM) Moist
BROWN GRAVELLY SAND (SP) Very dense, moist
LIGHT BROWN SANDY SILT (ML) Loose saturated
No free water encountered

LOG of BORING 42
Station 390+15, 12' Lt.

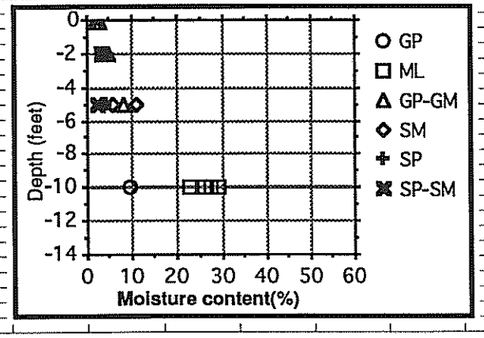
GREY SANDY GRAVEL (GP-GM) Medium dense, moist
BROWN SILTY GRAVELLY SAND (SM) Very dense, moist
BROWN SILTY SAND (SM) Medium dense, moist
LIGHT BROWN SANDY SILT (ML) Loose, soft to medium dense, wet
No free water encountered

LOG of BORING 32
Station 394+40, 16' Rt.

GREY SANDY GRAVEL (GP-GM)
BROWN GRAVELLY SAND (SP) Dense, moist
SANDY SILT (ML)
No recovery
No free water encountered

LOG of BORING 41
Station 399+20, 15' Lt.

GREY SANDY GRAVEL (GP-GM)
BROWN SILTY GRAVELLY SAND (SM) Dense, moist
No recovery
GREY BROWN SANDY SILT (ML) Medium dense, saturated, fine-grained
▽ Water level observed during drilling



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : April 1992

Plate 18

380+00 385+00 390+00 395+00 400+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	16	22

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MATCH LINE STA 402+00 SEE SHEET 15

MATCH LINE STA 430+00 SEE SHEET 17

KENAI SPUR HIGHWAY

416+34.86 PC

424+07.24 PT

413+16.64 PT

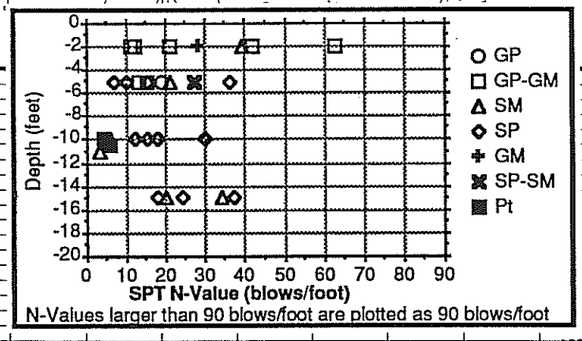
B33 B34 B35 B36 B37 B38 B39 B40 TH87

6.3' 4.6' 5.3' 5.3' 5.3' 5.6' 5.2' 5.8' 5.2' 7.0'

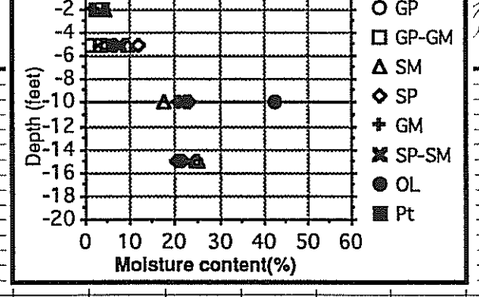
8.3' 8.5' 9.6' 11.7' 10.0' 10.2' 10.8' 10.0' 7.5'

TREES SCATTERED TREES & BRUSH

▲ Peat Depth Probes



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



LOG of BORING 35
Station 419+61, 23' Rt.
GREY SANDY GRAVEL (GP-GM) Medium dense, moist Becomes brown
LIGHT BROWN SILT (ML) Loose, wet w/abundant organics
DARK BROWN SILTY PEAT (Pt) Loose w/roots
BROWN SILTY SAND (SM) Medium dense, saturated
Water level observed during drilling

LOG of BORING 40
Station 409+34, 26' Lt.
GREY BROWN SANDY GRAVEL (GP-GM) Dense, moist
BROWN GRAVELLY SAND (SP) Loose, wet
Water level observed after drilling
DARK RED BROWN SILTY PEAT (Pt) Loose, wet, fine fibrous
GREY SILTY SAND (SM) Dense, saturated

LOG of BORING 34
Station 414+97, 15' Rt.
GREY SANDY GRAVEL (GP-GM) Moist
GREY SILTY GRAVELLY SAND (SM) Dense
Water level observed during drilling
GREY SANDY GRAVEL (GP) Medium dense, saturated
RED BROWN PEAT (Pt) Loose No recovery
GREY SILTY SAND (SM) Loose

LOG of BORING 38
Station 423+21, 17' Lt.
GREY SANDY GRAVEL (GP) BROWN SILTY SANDY GRAVEL (GM) Medium dense, moist
BROWN SAND (SP) Medium dense, moist
Water level observed during drilling
4' heaving sand No sample attempt at 20'

LOG of BORING 39
Station 423+58, 19' Rt.
GREY SANDY GRAVEL (GP-GM)
BROWN SAND (SP) Dense, moist, medium grained
Water level observed during drilling
Heaving sand at 15'
Heaving sand No sample attempt at 20' No free water encountered

LOG of BORING 37
Station 425+59, 13' Rt.
GREY BROWN SANDY GRAVEL (GP-GM) Medium dense, moist
BROWN SILTY SAND (SM) Medium dense, wet
BROWN SAND (SP) Medium dense
4' heaving sand No sample attempt at 20' Water level observed during drilling

LOG of BORING 36
Station 427+62, 20' Rt.
GREY SANDY GRAVEL (GP-GM) Medium dense, moist
BROWN SILTY SAND (SM) Medium dense, wet
Water level observed during drilling
BROWN SAND (SP) Medium dense, saturated

LOG of TH 87
Station 428+50, 45' Rt.
BROWN SANDY GRAVEL Fill
BROWN SILT TAN SANDY SILT Damp to wet
BROWN SAND w/gravel Dry to damp to 8', wet 8'-10', saturated 10'+

LOG of BORING 33
Station 404+33, 0
GREY BROWN SANDY GRAVEL (GP-GM) Very dense
Becomes grey, medium dense
DARK BROWN SILTY SAND (SM) Loose, saturated, free water in sample
No free water encountered

405+00 410+00 415+00 420+00 425+00 430+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	17A	22

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SWIRES ROAD

HIGHBUSH LANE

453+47.69 PC

MATCH LINE STA 430+00 SEE SHEET 16

MATCH LINE STA 455+00 SEE SHEET 18

KENAI SPUR HWY.

TH1 TH2 TH3 TH4 TH5 TH6 TH7 TH8 TH9

TH86 TH115 TH85 TH84 TH83 TH114 TH82

435 440 445 450

LOG of TH 1
Station 433+83, 35' Lt.
BROWN SANDY GRAVEL w/cobbles, fill
BROWN GRAVELLY SAND fill, damp
BROWN SILTY ORGANIC
BROWN SILT Wet
BROWN SLIGHTLY SILTY SAND w/occasional gravel
Wet 8'-9', saturated 9'-10'

LOG of TH 2
Station 436+19, 45' Lt.
BROWN SILTY ORGANIC w/roots
BROWN SILT Wet
BROWN SILTY SAND w/occasional gravel
Dry to damp 5', wet 5'-8', saturated 8'-13'

LOG of TH 3
Station 438+52, 60' Lt.
BROWN SILTY ORGANIC
BROWN SILT
Damp to wet
BROWN SLIGHTLY SILTY SAND w/occasional gravel
Dry to damp to 6', wet 6'-9', saturated 9'+

LOG of TH 4
Station 441+80, 40' Lt.
BROWN ORGANIC
BROWN SANDY SILT
Damp to wet
BROWN SLIGHTLY SILTY SAND w/occasional gravel
Dry to damp to 6', wet 6'-9', saturated 9'+

LOG of TH 5
Station 445+30, 60' Lt.
BROWN SANDY GRAVEL TO GRAVELLY SAND fill
BROWN SILT Wet
BROWN SAND w/occasional gravel
Dry to damp to 7.5', wet 7.5'-8.5', saturated 8.5'+

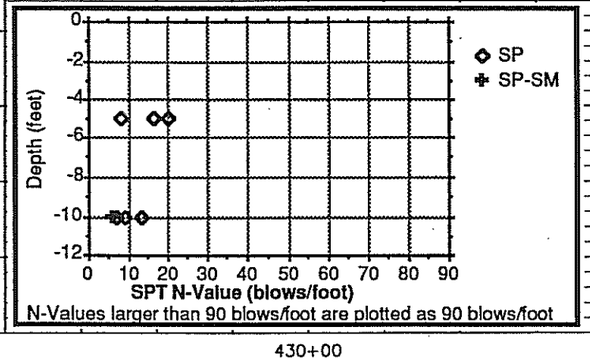
LOG of TH 6
Station 447+60, 50' Lt.
BROWN SILTY ORGANIC
BROWN SILT
Saturated
BROWN SLIGHTLY SILTY SAND
Wet to 7.5', saturated 7.5'+

LOG of TH 7
Station 449+70, 45' Lt.
DARK BROWN ORGANIC
BROWN SILT Wet
BROWN SLIGHTLY SILTY SAND w/gravel
Dry to damp to 5', damp to wet 5'-7', saturated 7'+

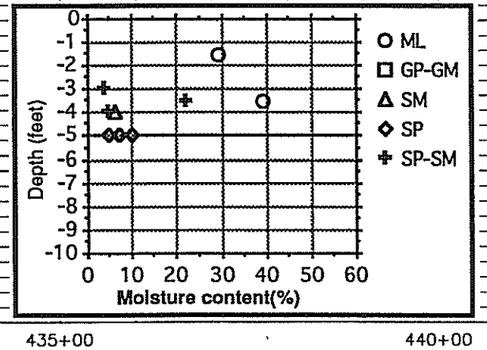
LOG of TH 8
Station 451+50, 65' Lt.
DARK BROWN SILTY ORGANIC w/roots
BROWN SILT Damp
BROWN SAND w/gravel
Dry to damp to 5', wet 8'-10'

LOG of TH 9
Station 454+00, 60' Lt.
BROWN SILTY ORGANIC
BROWN SILT
BROWN SAND w/gravel
Dry to damp to 7', wet 7'-10'

* Organics previously stripped



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

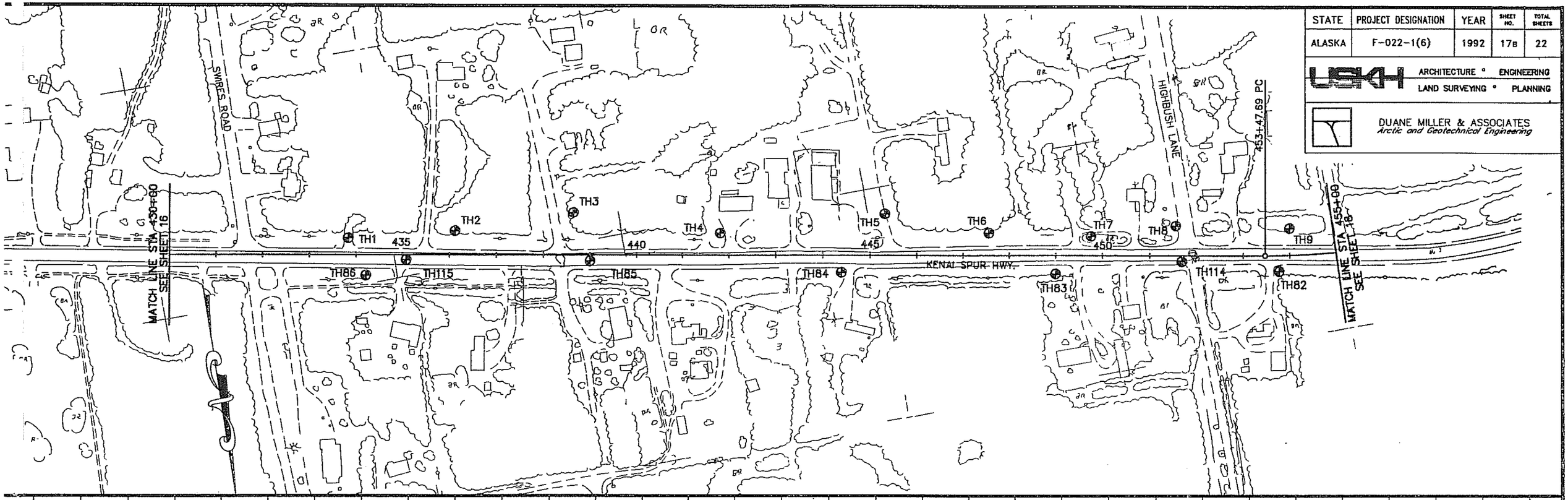
Plate 20

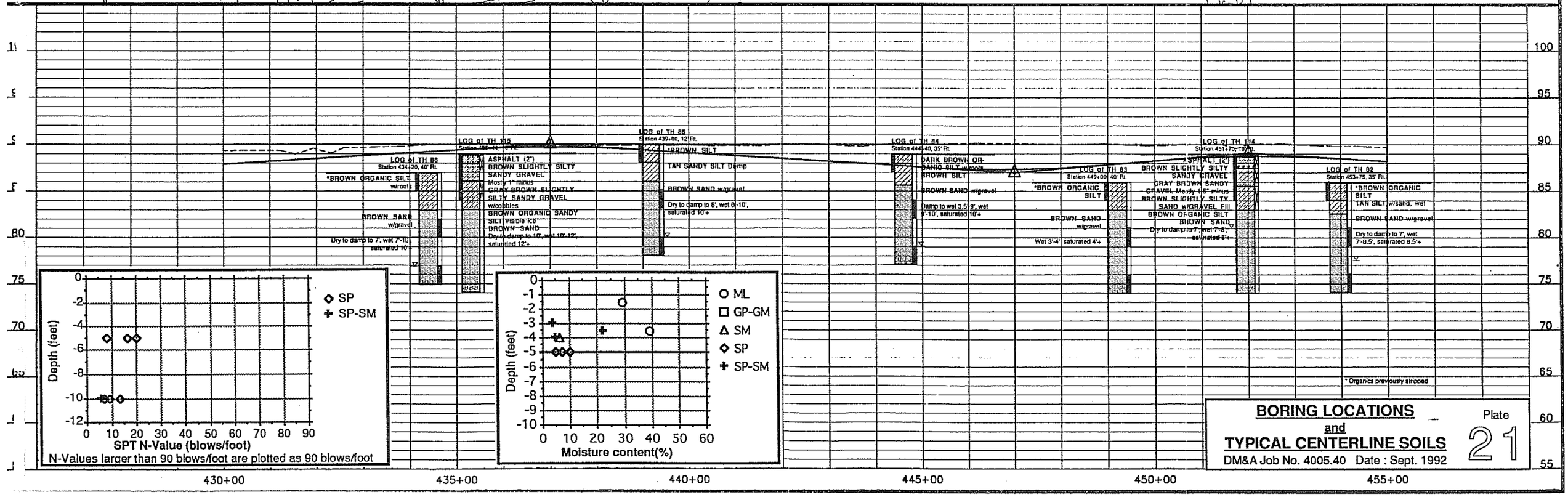
430+00 435+00 440+00 445+00 450+00 455+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	17B	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

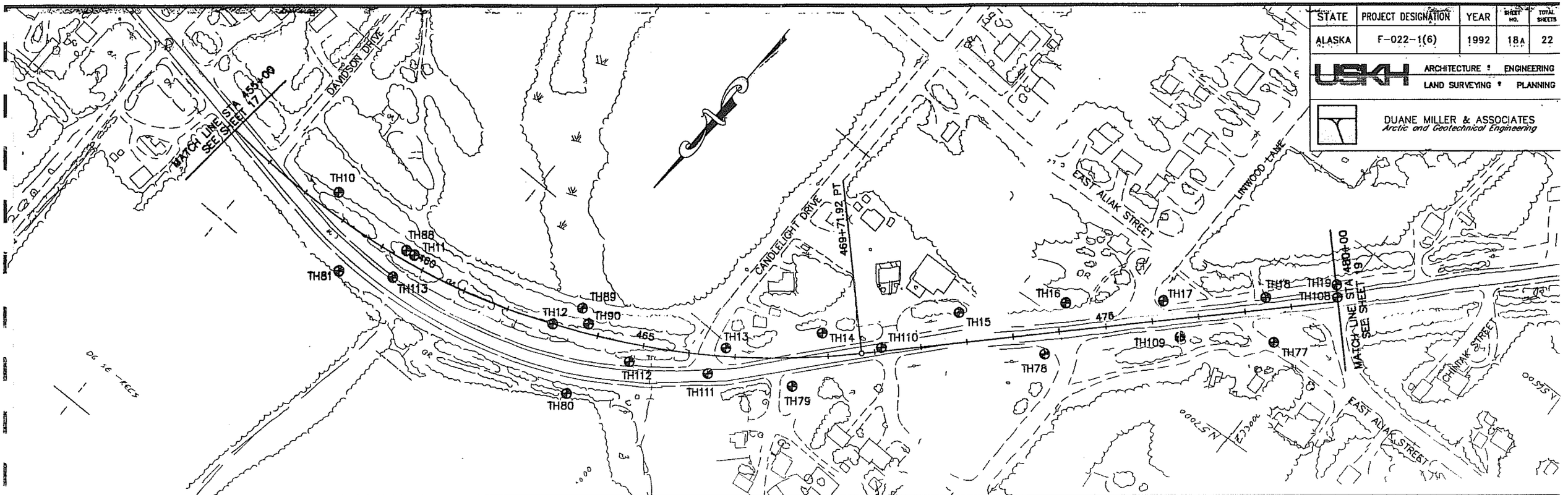
DM&A Job No. 4005.40 Date : Sept. 1992

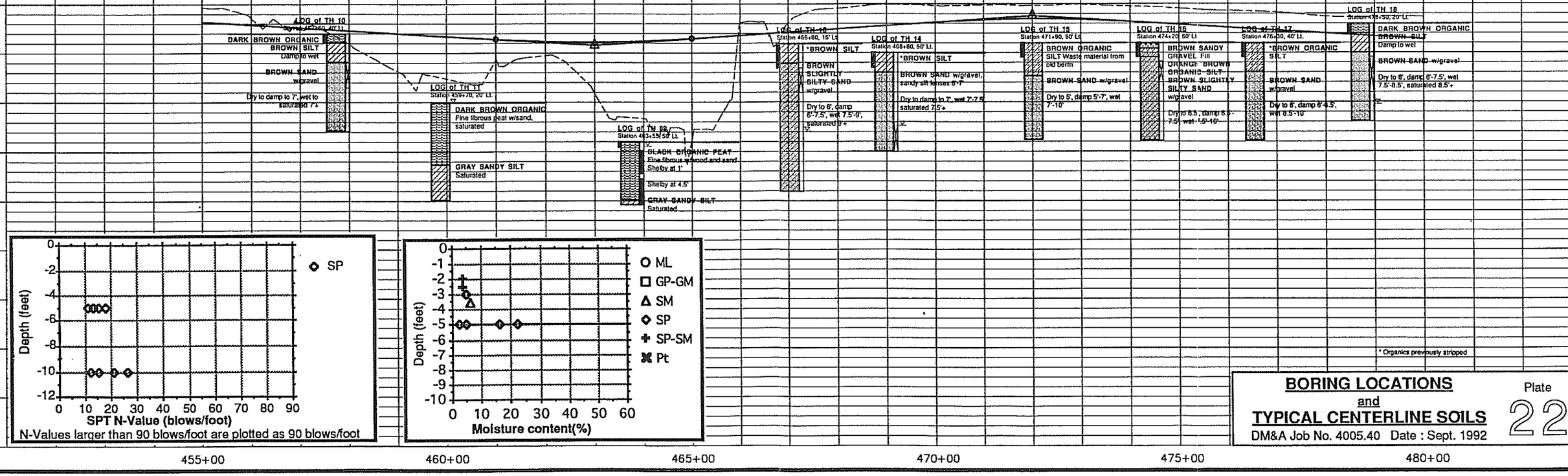
Plate 21

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	18A	22

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TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

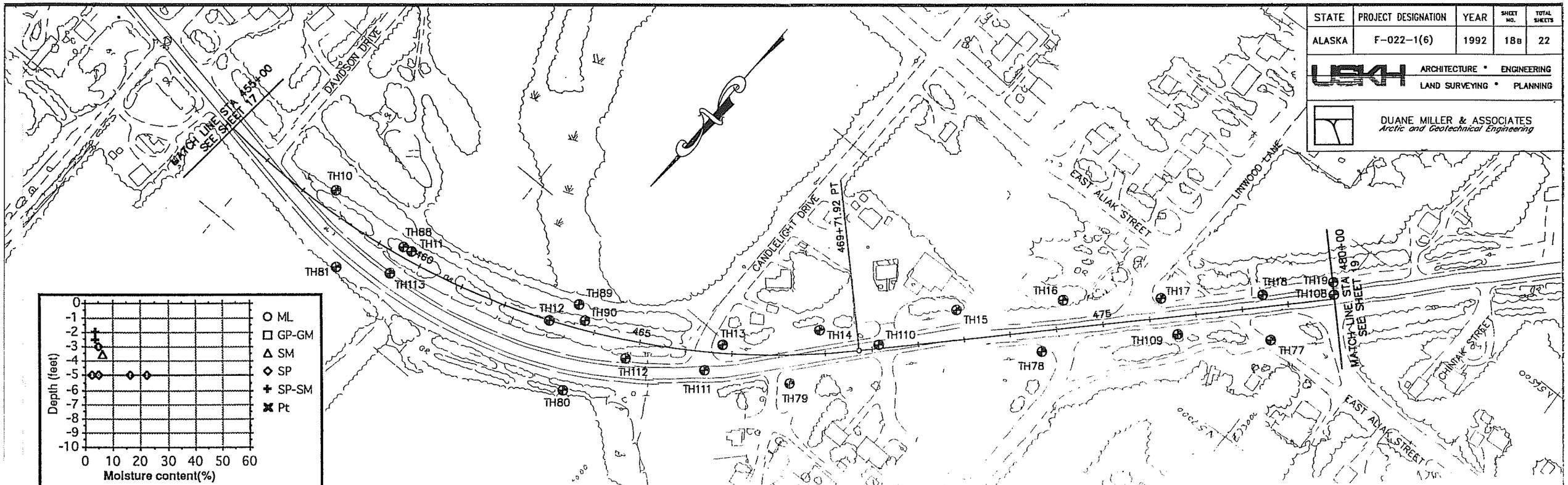
Plate 22

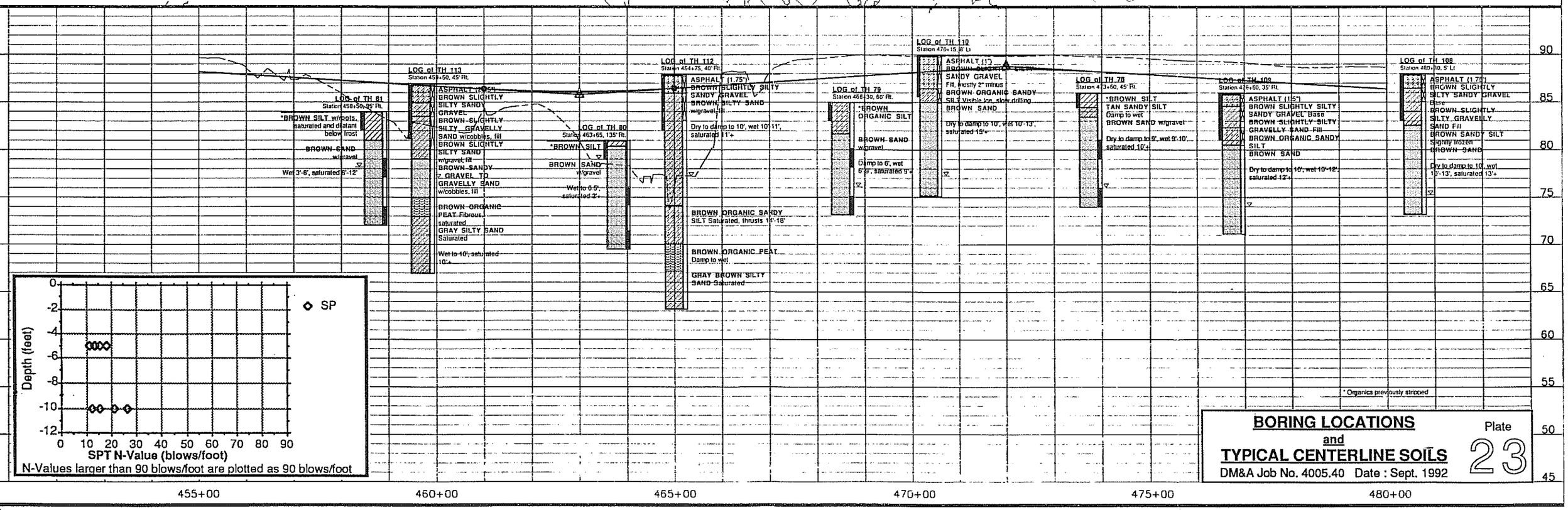
12-29-92 JOB# 3814 PF-18PLI.DWG

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	18B	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

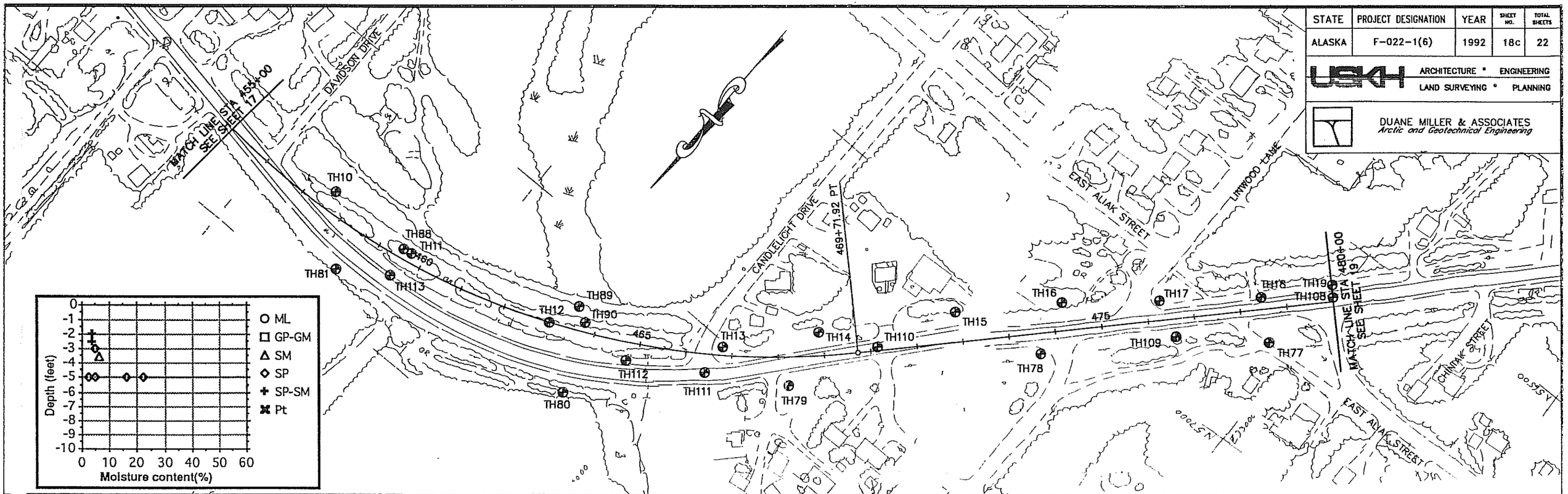
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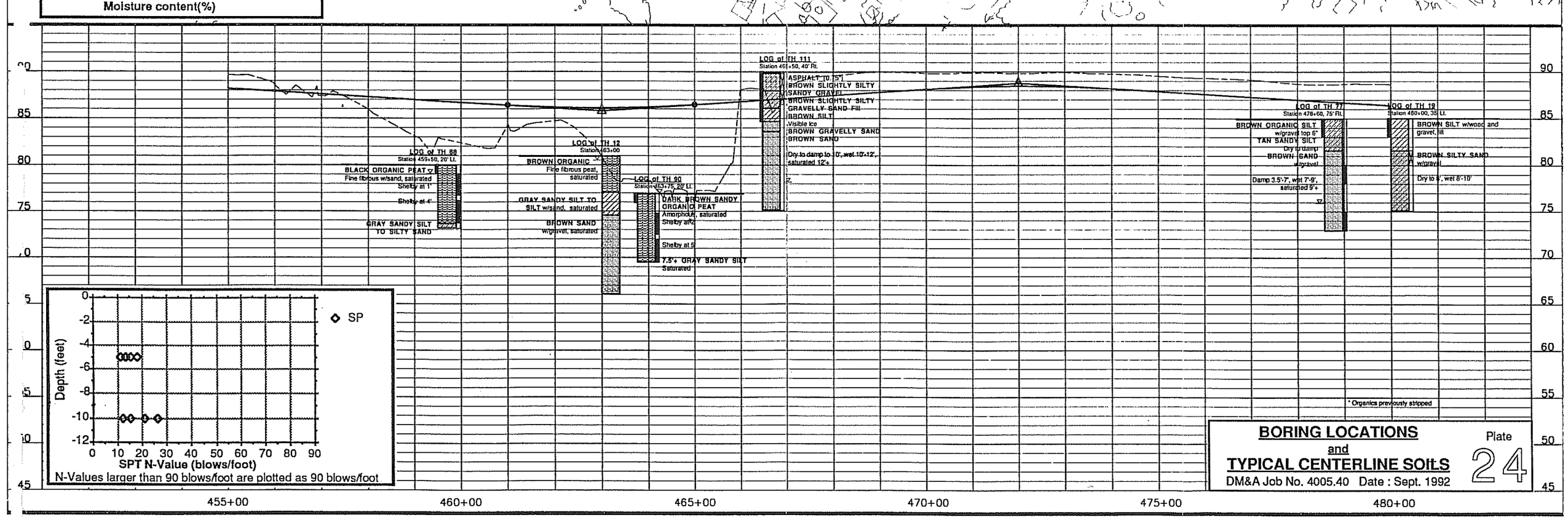
Plate 23

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	18c	22

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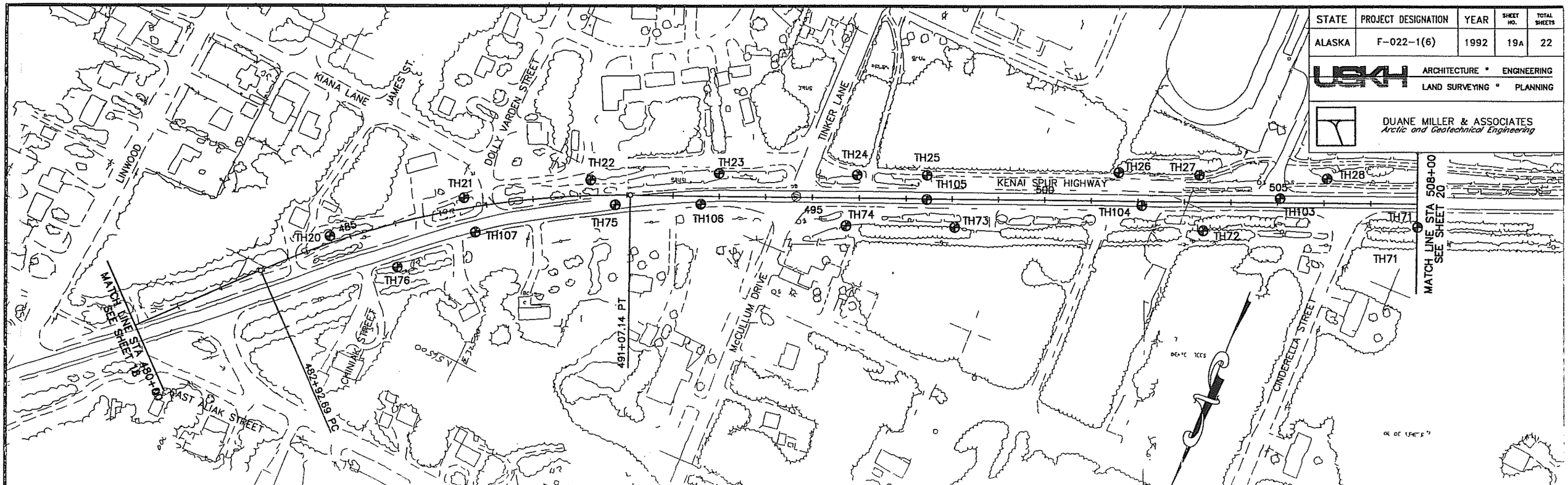
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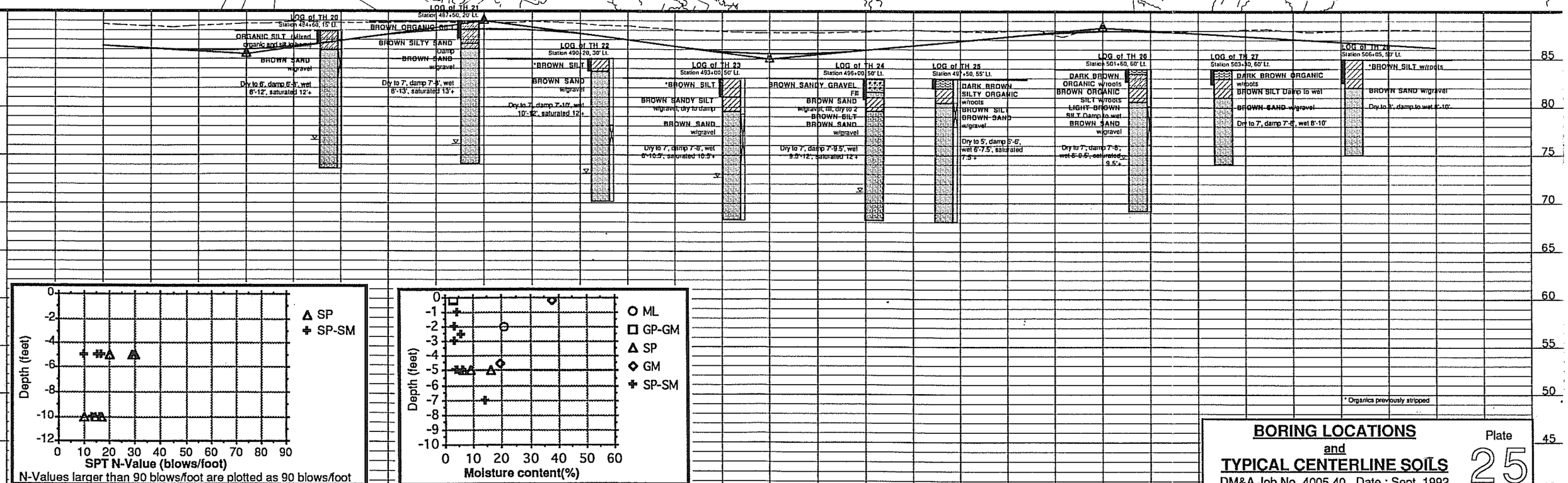
Plate 24

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	19A	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

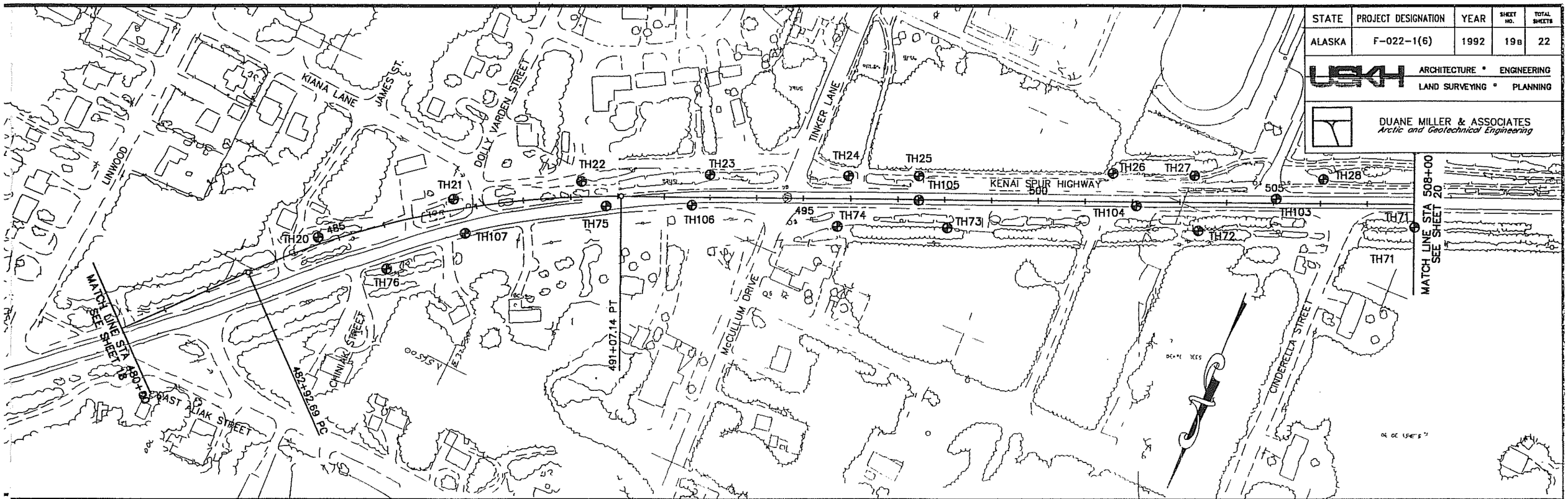
DM&A Job No. 4005.40 Date : Sept. 1992

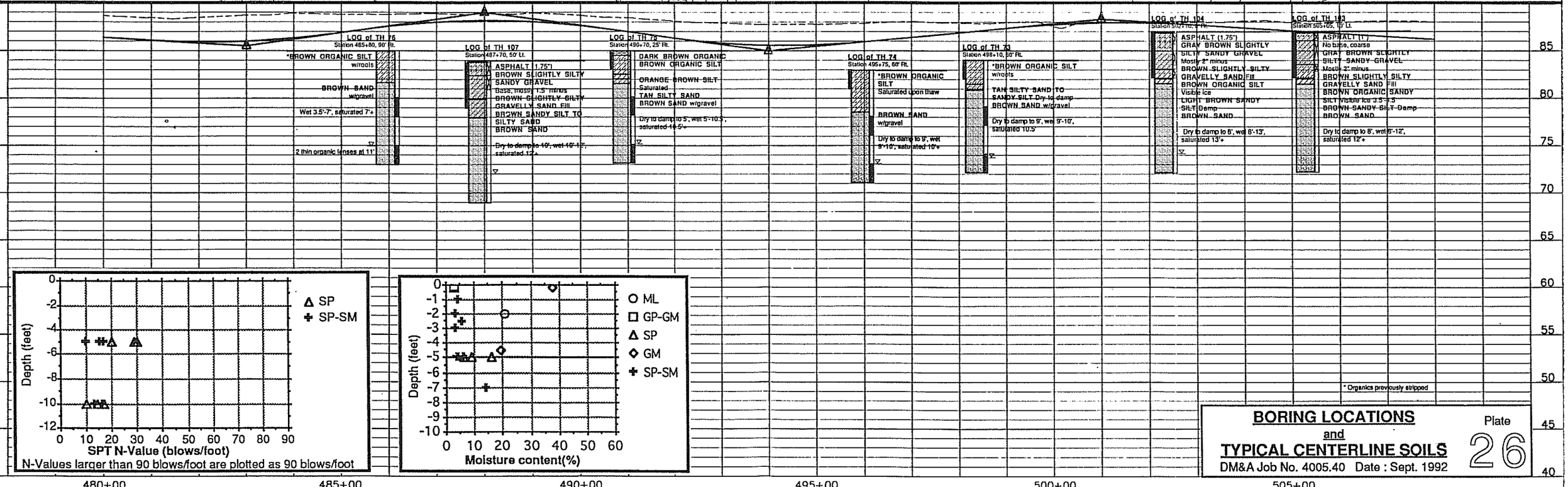
Plate 25

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	19B	22

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TYPICAL CENTERLINE SOILS

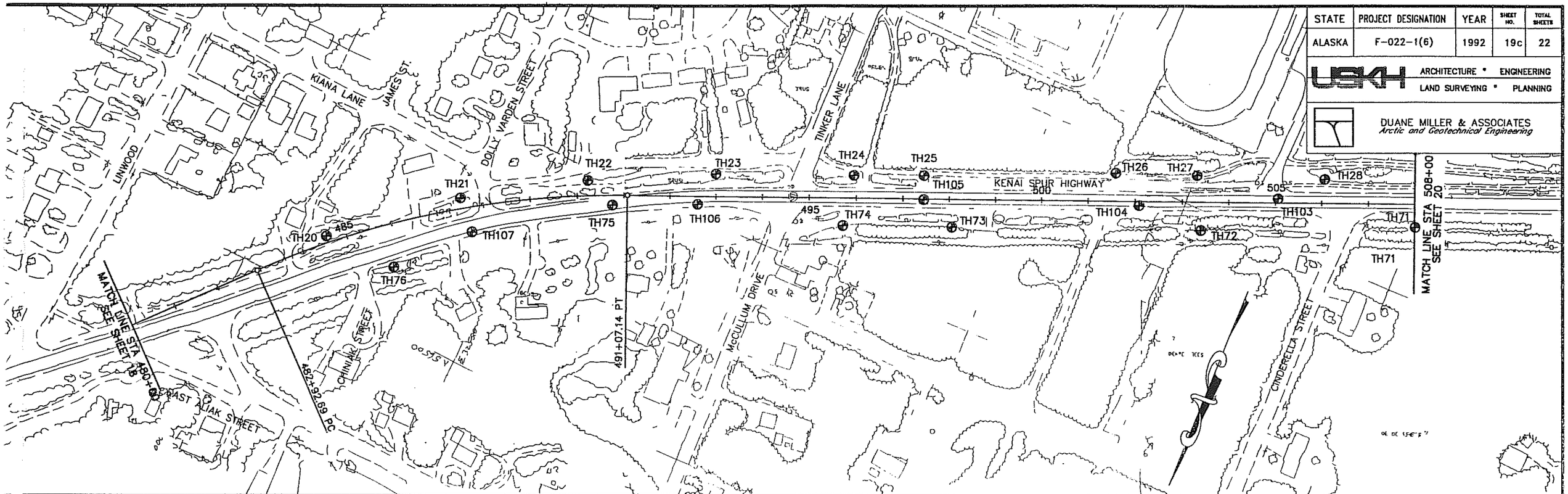
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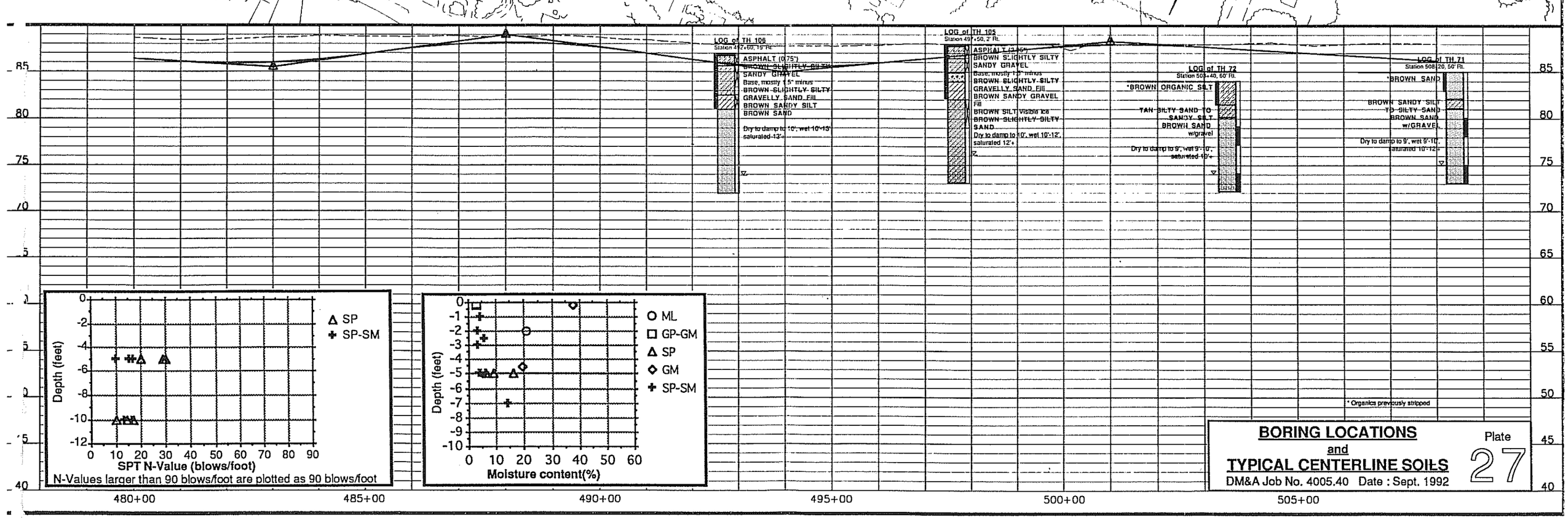
Plate 26

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	19c	22

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BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 27

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	20A	22

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TH29 TH30 TH31 TH32 TH33 TH34 TH35 TH36 TH37 TH91 TH98 TH99 TH100 TH101 TH102 TH69 TH70 TH67 TH68 TH66 TH65 TH64 TH63 TH62 TH61 TH60 TH59 TH58

510 515 520 525

MATCH LINE STA 508+00 SEE SHEET 19

MATCH LINE STA 535+00 SEE SHEET 21

523+90.30 PC

529+77.21 PT

DERELLA STREET

PRINCESS STREET

BELUGA DRIVE

CRICKET DRIVE

LOG of TH 29
Station 509+80, 60' Lt.
*BROWN SILT
BROWN SAND w/gravel
Dry to 7', damp 7'-8.5', saturated 8.5'+

LOG of TH 30
Station 512+60, 60' Lt.
*BROWN SILT w/roots
BROWN SAND w/gravel
Dry to 8', damp 8'-8.5', wet 8.5'-10'

LOG of TH 31
Station 515+55, 50' Lt.
*BROWN SILT Fill
BROWN SAND w/gravel, fill
BROWN SILT Wet to saturated 1'-2', damp to wet 2'-4'
BROWN SLIGHTLY SILTY SAND w/gravel
Damp 4'-7', wet 7'-10'

LOG of TH 32
Station 518+00 60' Lt.
*BROWN SILT w/organics
TAN SILT
Damp to wet
BROWN SAND w/gravel
Dry to 5', damp 5'-7', wet 7'-9', saturated 9'+

LOG of TH 33
Station 520+90, 30' Lt.
BROWN GRAVELLY SAND Fill
BROWN SILT
BROWN SAND w/gravel
Organics 9'-10'
Dry to 7', damp 7'-8.5', wet 8.5'-9.5', saturated 9.5'+

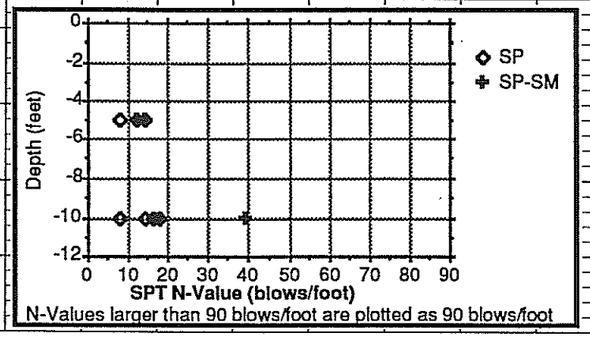
LOG of TH 34
Station 523+90, 30' Lt.
BROWN SILT
BROWN SAND w/silt balls, disturbed
BROWN SAND w/gravel
Dry to 7', damp 7'-8.5', wet 8.5'-10'

LOG of TH 35
Station 526+90, 45' Lt.
BROWN SAND w/silt balls, disturbed
BROWN SAND w/gravel
Dry to 8', damp 8'-10'

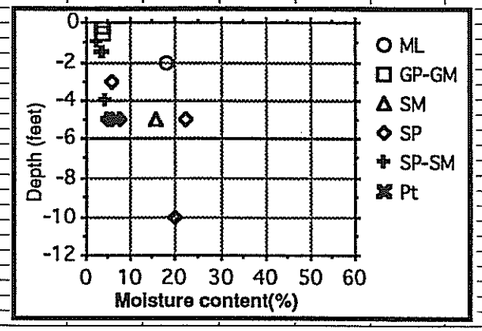
LOG of TH 99
Station 530+90, 5' Lt.
ASPHALT (2.25")
BROWN SANDY GRAVEL Fill, mostly 1" minus
GRAY-BROWN SLIGHTLY SILTY SANDY GRAVEL Mostly 2" minus
BROWN SAND Fill
BROWN SLIGHTLY SILTY GRAVELLY SAND Fill
BROWN SANDY SILT Slightly frozen, wet upon thaw
BROWN GRAVELLY SAND Dry to damp
BROWN SAND Dry to damp to 13.5', saturated 13.5'+

LOG of TH 91
Station 532+80, 125' Rt.
BROWN SANDY ORGANIC w/sand and gravelly sand lenses
Attempted ST-8 from 5'-8', no sample taken due to sand and gravelly sand lenses

* Organics previously stripped



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



85 80 75 70 65 60 55 50 45 40

510+00 515+00 520+00 525+00 530+00 535+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 28

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	20B	22

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TH29 TH30 TH31 TH32 TH33 TH34 TH35 TH36 TH37 TH91 TH98 TH99 TH100 TH102 TH70 TH101 TH69 TH68 TH67 TH66 TH65 TH64 TH63 TH62 TH61 TH60 TH59 TH58

510 515 520 525

MATCH LINE STA 508+00 SEE SHEET 19

MATCH LINE STA 535+00 SEE SHEET 21

523+90.30 PC

529+77.21 PT

PRINCESS STREET

BELUGA DRIVE

CRICKET DRIVE

LOG of TH 102
Station 511+00, 20 Ft.

ASPHALT (2")
BROWN SANDY GRAVEL Base, mostly 1" minus
GRAY BROWN SANDY GRAVEL Fill, mostly 2" minus
BROWN SAND w/gravel, fill
BROWN GRAVELLY SAND Fill
BROWN SANDY SILT Frozen silt balls and visible ice crystals
BROWN SAND
Dry to damp to 10', wet 10'-12', saturated 12'+

LOG of TH 70
Station 513+70, 50 Ft.

*BROWN ORGANIC SILT
BROWN SANDY SILT TO SILTY SAND
BROWN SAND w/gravel
Dry to damp to 9', wet 9'-10', saturated 10'+

LOG of TH 101
Station 515+55, 15 Ft.

ASPHALT (3")
BROWN SLIGHTLY SILTY SANDY GRAVEL Base, mostly 1" minus
BROWN SANDY GRAVEL Fill, mostly 1.5" minus
BROWN SLIGHTLY SILTY SAND w/GRAVEL Fill
BROWN SANDY SILT Slightly frozen, wet upon thaw
BROWN SAND w/gravel
Dry to damp to 12', wet 12'-13', saturated 13'+

LOG of TH 69
Station 518+00, 45 Ft.

*BROWN ORGANIC SILT
BROWN SANDY SILT TO SILTY SAND
BROWN SAND w/gravel
Dry to damp to 9', wet 9'-10', saturated 10'+

LOG of TH 68
Station 523+90, 50 Ft.

BROWN SILT w/roots
BROWN SAND w/gravel
Dry to damp to 9', wet 9'-9.5', saturated 9.5'+

LOG of TH 100
Station 526+60, 10 Ft.

ASPHALT (2.25")
BROWN SLIGHTLY SILTY SANDY GRAVEL base, mostly 1" minus
BROWN SLIGHTLY SILTY GRAVELLY SAND Fill
BROWN GRAVELLY SAND Fill
BROWN SLIGHTLY SILTY GRAVELLY SAND Fill
BROWN SAND w/gravel
Dry to damp to 10', wet 10'-12', saturated 12'+

LOG of TH 67
Station 528+60, 45 Ft.

*BROWN ORGANIC SILT
BROWN SILTY SAND
BROWN SILT
BROWN SAND w/gravel
Dry to damp to 9.5', wet 9.5'-12'

LOG of TH 98
Station 532+40, 2 Ft.

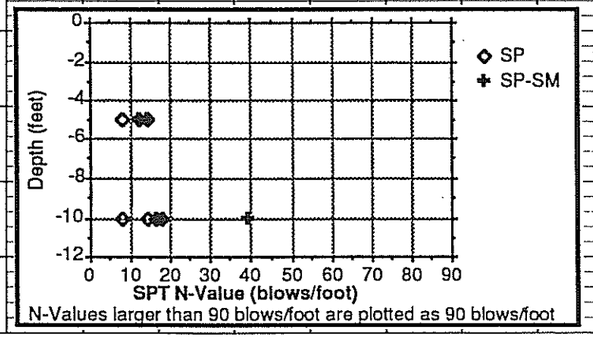
ASPHALT (3.5")
BROWN SANDY GRAVEL Mostly 1" minus
BROWN SAND w/gravel, fill
Dry to 5', damp 5'-10'

LOG of TH 99
Station 532+15, 30 Ft.

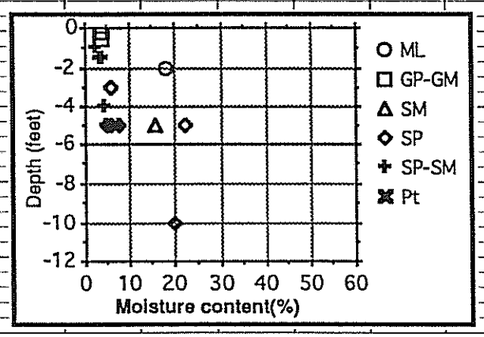
DARK BROWN ORGANIC, FINE, FIBROUS PEAT w/sand and occasional gravel, saturated
11'+ BROWN SAND Saturated

BROWN GRAVELLY SAND Fill
Damp 10'-15', wet 15'-17', saturated 17'+
BROWN ORGANIC PEAT Fine fibrous, saturated

* Organics previously stripped



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



510+00 515+00 520+00 525+00 530+00 535+00

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 29

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	20c	22

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TH29 TH30 TH31 TH32 TH33 TH34 TH35 TH36 TH37
TH102 TH70 TH101 TH69 TH68 TH100 TH67 TH99 TH91 TH98
TH66 TH65 TH64 TH63 TH62 TH61 TH60 TH59 TH58

510 515 520 525

MATCH LINE STA 508+00 SEE SHEET 19

MATCH LINE STA 535+00 SEE SHEET 21

523+90.30 PC

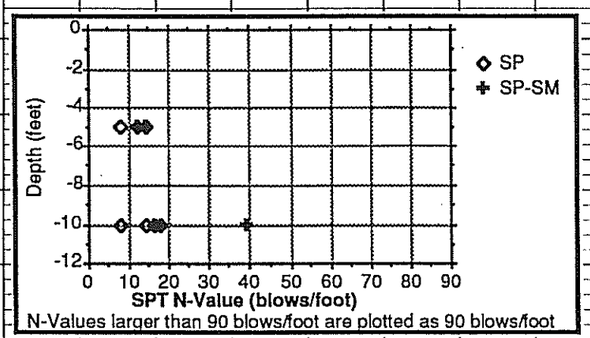
529+77.21 PT

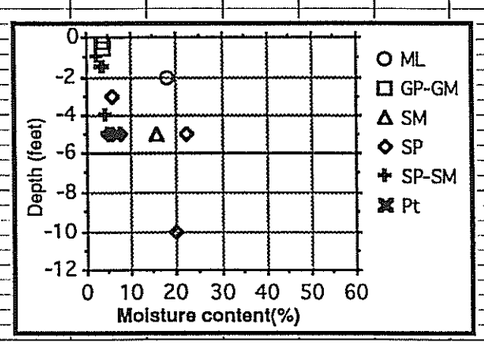
UNNAMED STREET

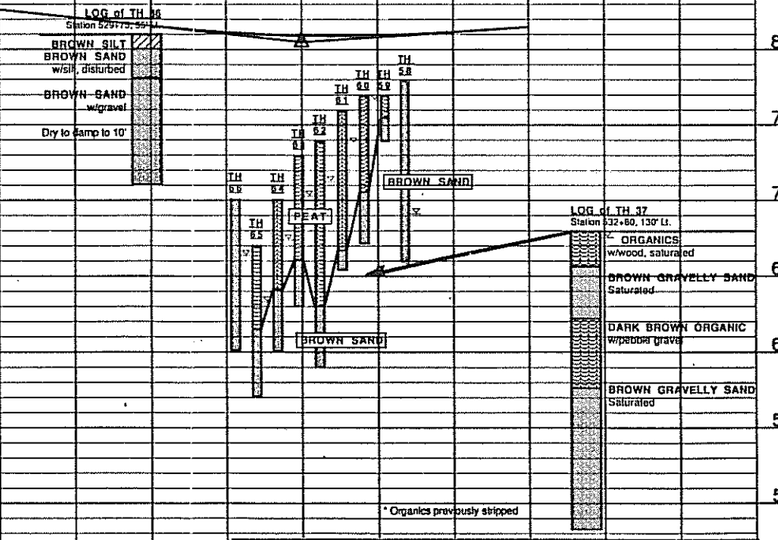
PRINCESS STREET

BELUGA DRIVE

CRICKET DRIVE







BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 30

510+00 515+00 520+00 525+00 530+00 535+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	21A	22

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Arctic and Geotechnical Engineering

LAWTON DRIVE
WALKER LANE
CRICKET DRIVE
MARATHON ROAD
MATCH LINE STA 535+00 SEE SHEET 20
MATCH LINE STA 560+00 SEE SHEET 22
554+81.49 PTo 1CO
543+25.45 PC

TH38 TH97 TH39 TH40 TH57 TH96 TH56 TH41 TH42 TH95 TH55 TH43 TH54 TH44 TH45 TH53 TH46

LOG of TH 38
Station 535+00, 40 Lt.
GRAVELLY SILT
Disturbed, fill
BROWN SAND w/gravel
Dry to damp to 7', wet 7'-8', saturated 8'+

LOG of TH 39
Station 539+00, 60 Lt.
*DARK BROWN ORGANIC SILT
BROWN SILT
BROWN SAND w/gravel
Dry to 4', damp 6'-8', wet 8'-8.5', saturated 8.5'+

LOG of TH 40
Station 541+00, 75 Lt.
BROWN SILTY SANDY GRAVEL Fill
BROWN SILT
BROWN SAND w/gravel
Dry to 5.5', damp 5.5'-9', wet 9'-11', saturated 11'+
BROWN ORGANIC SILTY SAND Saturated

LOG of TH 41
Station 544+00, 65 Lt.
BROWN SANDY GRAVEL Fill
DARK BROWN ORGANIC SILT
TAN SILT Damp
BROWN SLIGHTLY SILTY SAND w/gravel
Dry to damp to 10', wet 10'-12.5', saturated 12.5'+

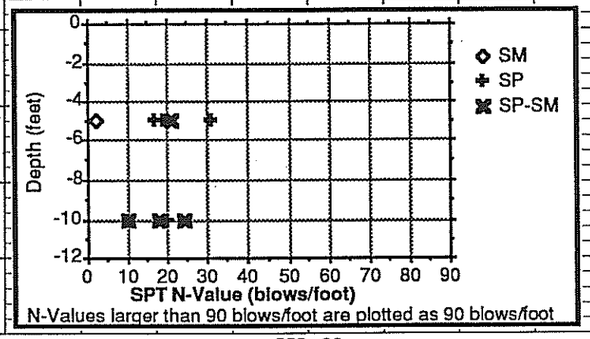
LOG of TH 42
Station 547+00, 45 Lt.
BROWN SANDY SILTY GRAVEL Fill
BROWN SILT w/organics
TAN SILT
BROWN SAND w/gravel
Dry to 7', damp 7'-10', wet 10'-12' saturated 12'+

LOG of TH 43
Station 550+00, 45 Lt.
BROWN GRAVELLY SILT
Disturbed
TAN SILT Damp
BROWN SAND w/gravel
Dry to 5' damp 5'-10'

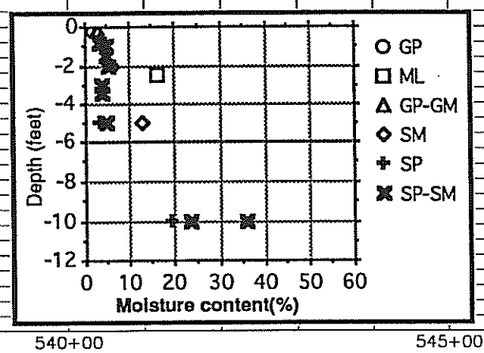
LOG of TH 44
Station 553+00, 45 Lt.
BROWN SILT w/gravel and wood
TAN SILT
BROWN SAND w/gravel, silty sand lense 7'-8'
Dry to 5', damp 5'-10'

LOG of TH 45
Station 556+00, 50 Lt.
BROWN SILT
BROWN SAND DRY
TAN SILT Damp
BROWN SAND w/gravel
Dry to 7', damp 7'-10'

LOG of TH 46
Station 559+00, 45 Lt.
BROWN SILT w/gravel
BROWN SILTY SAND
Disturbed
BROWN SAND w/gravel
Dry to 7', damp 7'-10'



N-Values larger than 90 blows/foot are plotted as 90 blows/foot



535+00 540+00 545+00 550+00 555+00 560+00

* Organics previously stripped

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

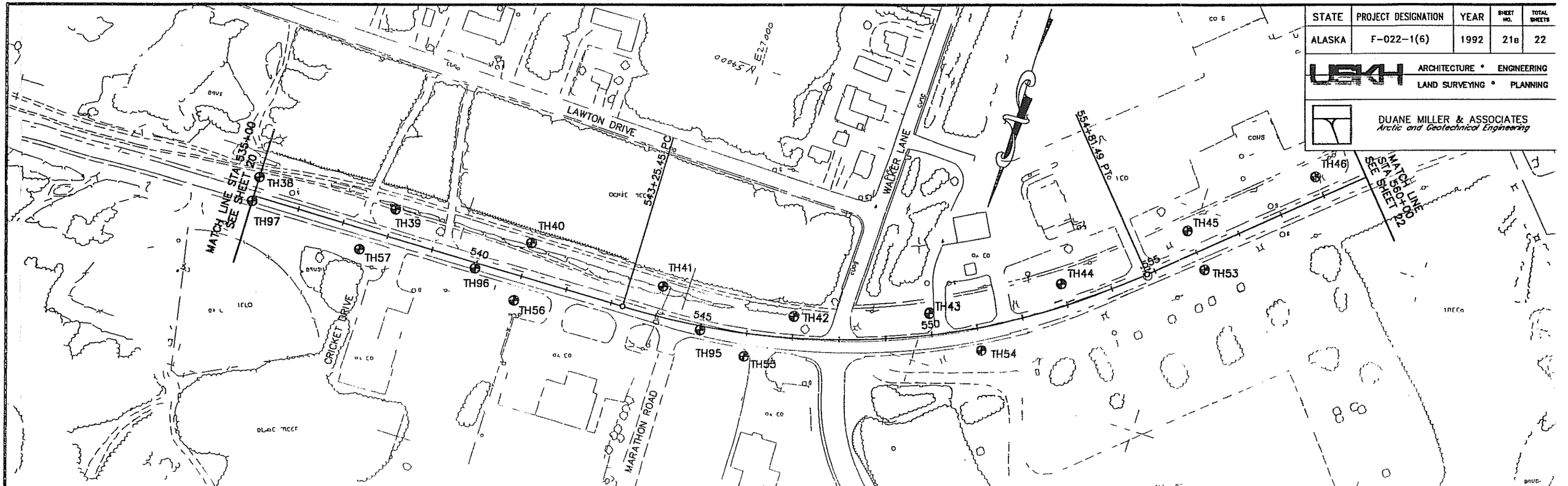
DM&A Job No. 4005.40 Date : Sept. 1992

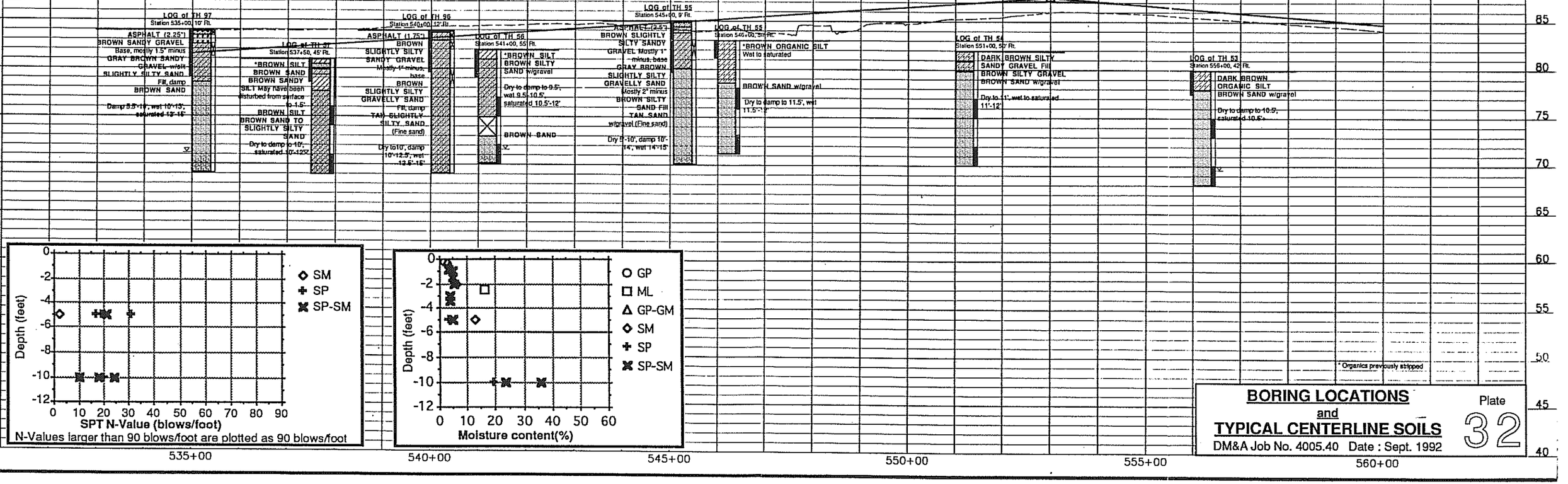
Plate 31

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	21B	22

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Arctic and Geotechnical Engineering





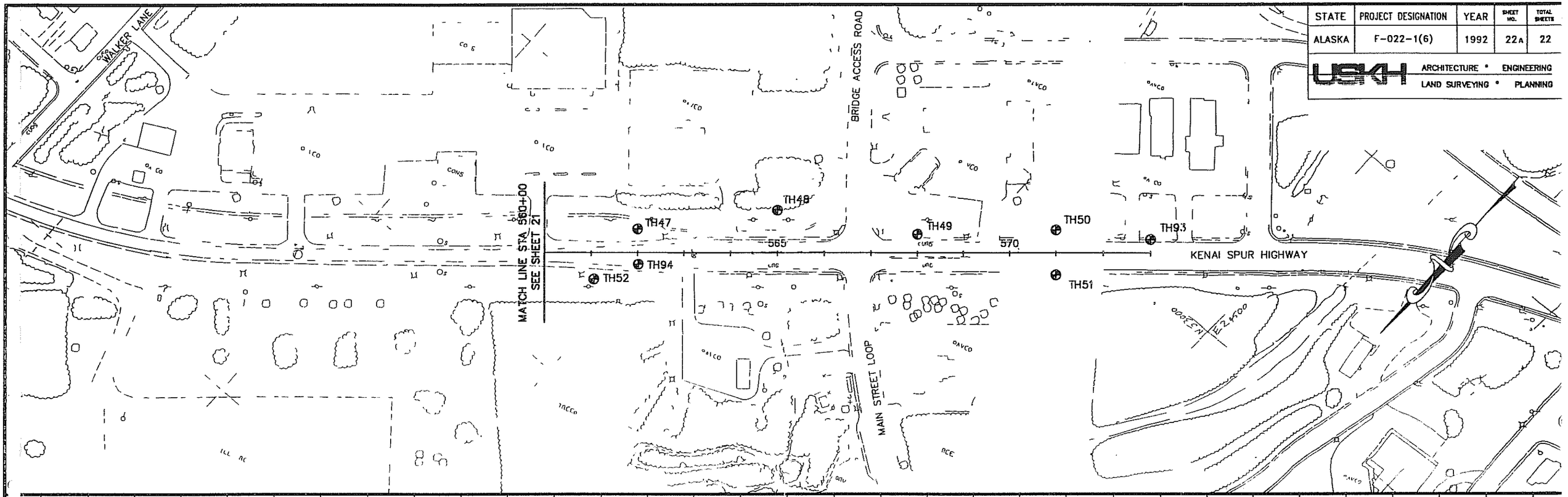
BORING LOCATIONS and TYPICAL CENTERLINE SOILS

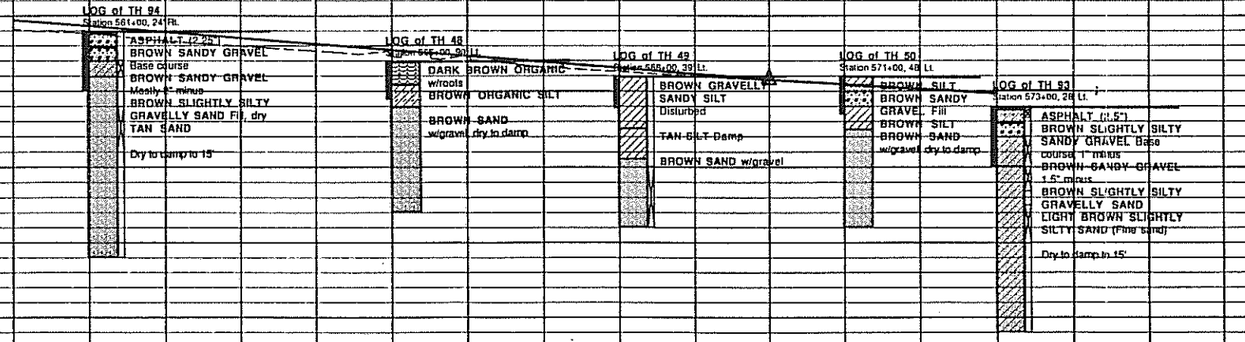
DM&A Job No. 4005.40 Date : Sept. 1992

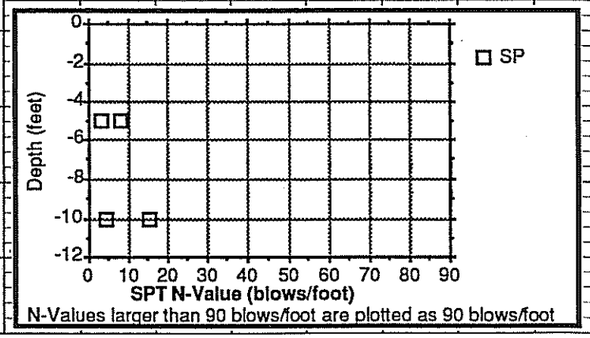
Plate 32

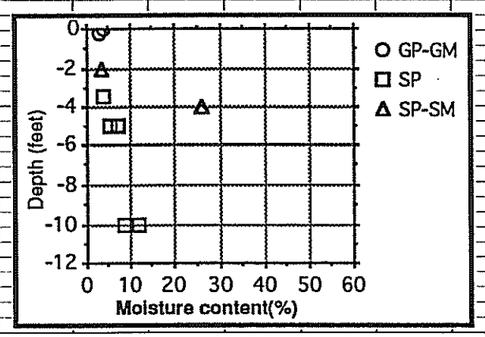
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	22A	22

URS/H ARCHITECTURE • ENGINEERING
LAND SURVEYING • PLANNING









* Organics previously stripped

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

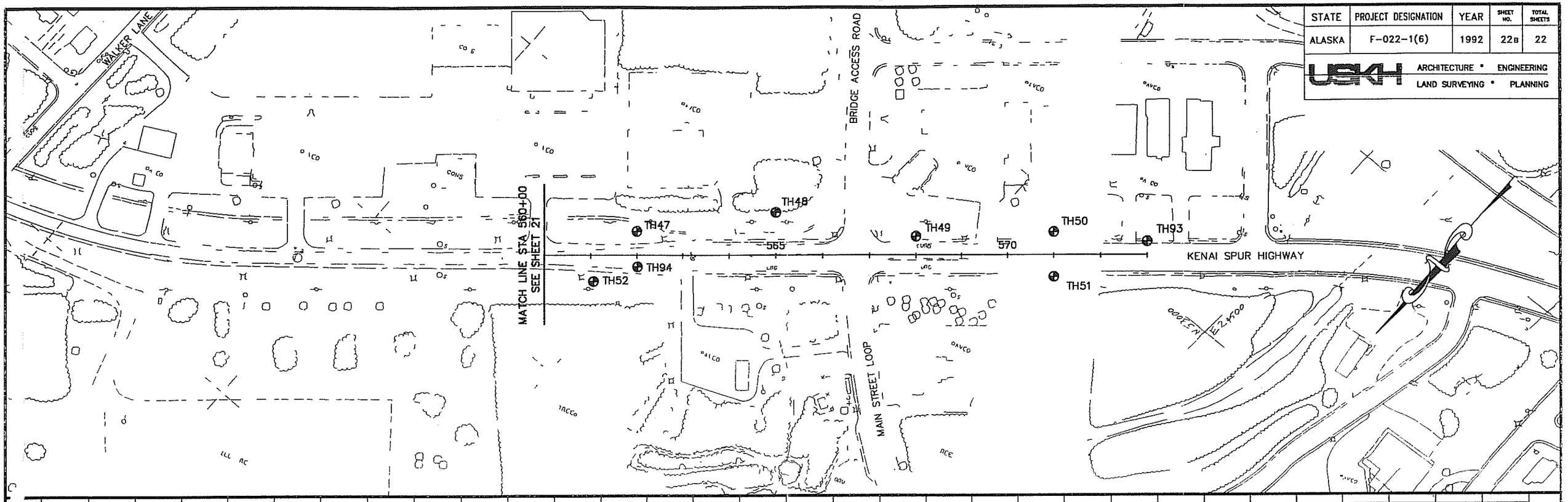
DM&A Job No. 4005.40 Date : Sept. 1992

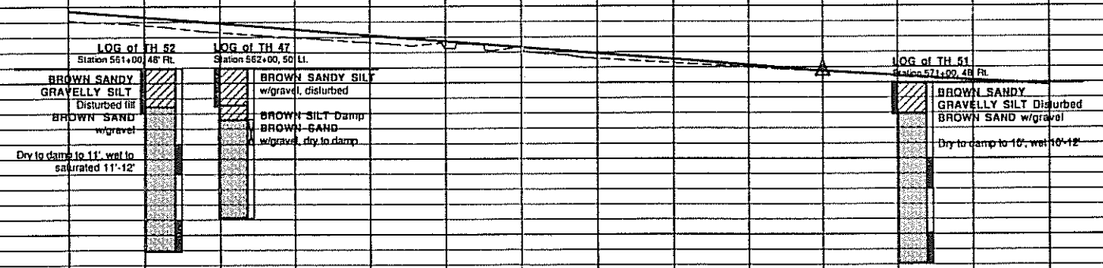
Plate 33

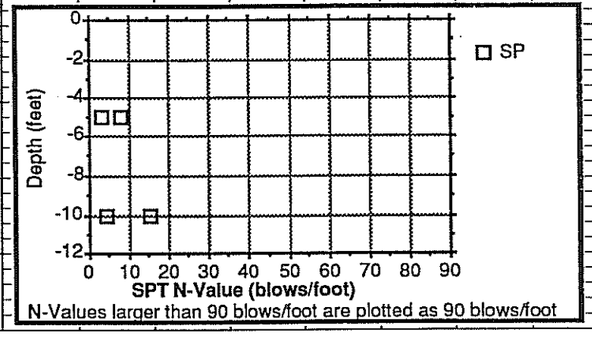
560+00 565+00 570+00

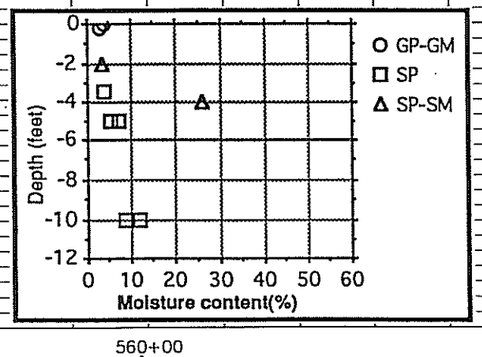
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-022-1(6)	1992	22B	22

USKH ARCHITECTURE • ENGINEERING
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560+00 565+00 570+00

* Organics previously stripped

BORING LOCATIONS and TYPICAL CENTERLINE SOILS

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 34

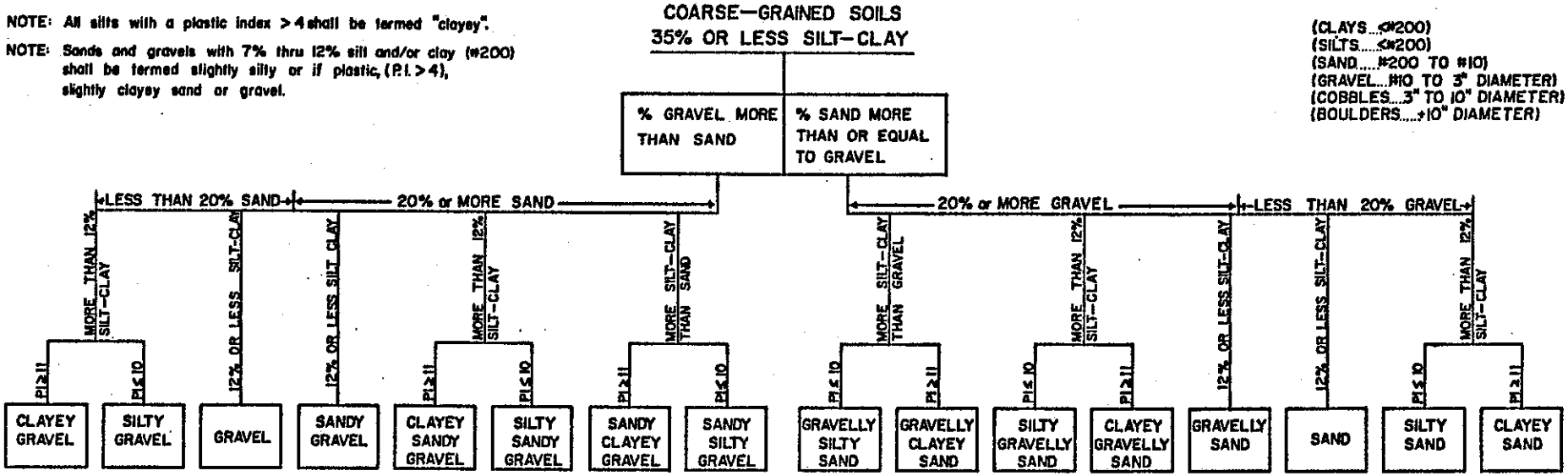
Rev. Jan. 3, 1983

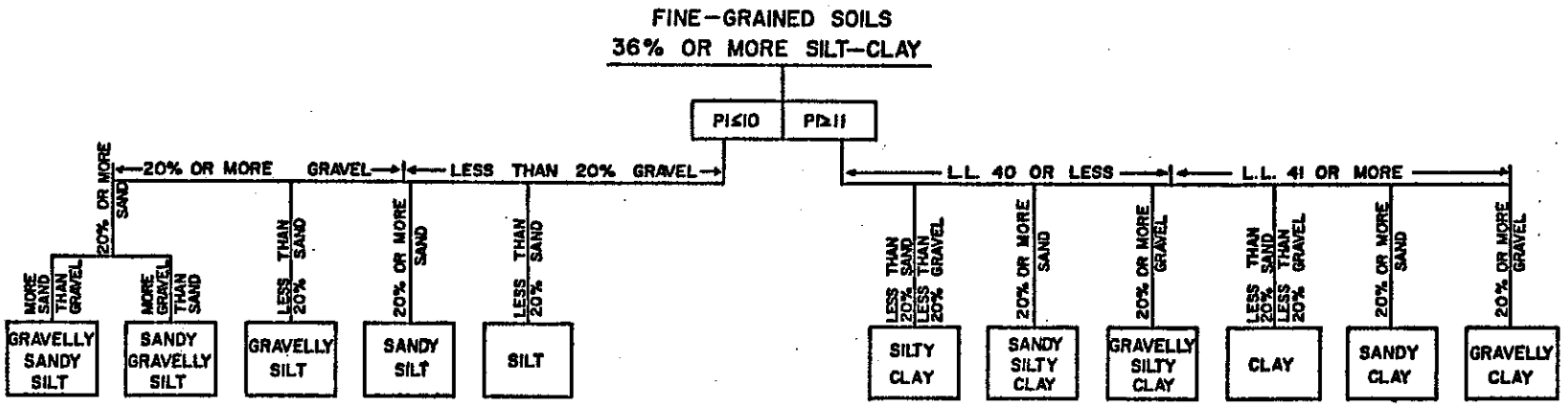
ALASKA DEPARTMENT OF TRANSPORTATION TEXTURAL SOIL DESCRIPTIONS

NOTE: All silts with a plastic index > 4 shall be termed "clayey".

NOTE: Sands and gravels with 7% thru 12% silt and/or clay (#200) shall be termed slightly silty or if plastic, (P.I. > 4), slightly clayey sand or gravel.

(CLAYS...≤#200)
(SILTS...≤#200)
(SAND...#200 TO #10)
(GRAVEL...#10 TO 3" DIAMETER)
(COBBLES...3" TO 10" DIAMETER)
(BOULDERS...>10" DIAMETER)





ALASKA DOTPF

TEXTURAL SOIL DESCRIPTION

DM&A Job No. 4005.40 Date : Sept. 1992

Plate 35

MAJOR DIVISIONS			SYMBOL		TYPICAL NAMES
COARSE GRAINED SOILS More than35% larger than #200 sieve, > 0.07 mm	GRAVELS More than half of the coarse fraction is larger than #10 sieve size, >2 mm.	Clean gravels with little or no fines	GW		Well graded gravels, sandy gravel
			GP		Poorly graded gravels, sandy gravel
		Gravels with more than 12% fines	GM		Silty gravels, silt sand gravel mixtures
			GC		Clayey gravels, clay sand gravel mixtures
	SANDS More than half of the coarse fraction is smaller than #10 sieve size	Clean sands with little or no fines	SW		Well graded sand, gravelly sand
			SP		Poorly graded sands, gravelly sand
		Sands with more than 12% fines	SM		Silty sand, silt gravel sand mixtures
			SC		Clayey sand, clay gravel sand mixtures
FINE GRAINED SOILS >50%finer than #200 sieve, 0.07 mm	Plasticity Chart (Plasticity Index 40, 10, 0; Silty Clay; Clay; Silt; 0; 40; Liquid Limit)	SILTS and CLAYS	ML		Inorganic silt and very fine sand, rock flour
			CL		Inorganic clay, gravelly and sandy clay, silty clay
			OL		Organic silts and clay of low plasticity
		SILTS and CLAYS	MH		Inorganic silt
			CH		Inorganic clay, fat clay
			OH		Organic silt and clay of high plasticity
HIGHLY ORGANIC SOILS			Pt		Peat and other highly organic soil

DOTPF SOIL CLASSIFICATION SYSTEM (w/ Symbols)

GROUP	ICE VISIBILITY	DESCRIPTION		SYMBOL	
N	Segregated ice not visible by eye	Poorly bonded or friable		Nf	
		Well bonded	No excess ice	Nb	Nbn
			Excess microscopic ice		Nbe
V	Segregated ice is visible by eye and is one inch or less in thickness	Individual ice crystals or inclusions		Vx	
		Ice coatings on particles		Vc	
		Random or irregularly oriented ice		Vr	
		Stratified or distinctly oriented ice		Vs	
ICE	Ice greater than one inch in thickness	Ice with soil inclusions		ICE + soil type	
		Ice without soil inclusions		ICE	

ICE CLASSIFICATION SYSTEM

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : September 1992

SOIL and ICE CLASSIFICATION
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate 36

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
1	4	12+95	DM&A	87	0.1 ft		grab	SP							
1	4	12+95	DM&A	87	2.0 ft	2.0%	49	SP-SM						5.8%	
1	4	12+95	DM&A	87	5.0 ft	2.5%	75	GP							
1	4	12+95	DM&A	87	10.0 ft	3.1%	90	SP							
1	4	16+78	DM&A	88	0.1 ft		grab	GP							
1	4	16+78	DM&A	88	2.0 ft	4.7%	53	GP							
1	4	16+78	DM&A	88	5.0 ft	9.3%	32	SP							
1	4	16+78	DM&A	88	10.0 ft		90	SP							
1	4	22+00	DM&A	86	0.1 ft		grab	SP							
1	4	22+00	DM&A	86	2.0 ft	2.5%	92	SP							
1	4	22+00	DM&A	86	5.0 ft	2.4%	90	SP							
1	4	22+00	DM&A	86	10.0 ft	2.0%	90	GP							
1	4	27+31	DM&A	89	0.2 ft	1.8%	grab	GP						2%	Sieve
1	4	27+31	DM&A	89	2.0 ft	1.9%	64	GP							
1	4	27+31	DM&A	89	5.0 ft	3.4%	67	GP							
1	4	30+69	DM&A	85	2.0 ft	2.0%	90	GP-GM						6.5%	
1	4	30+69	DM&A	85	5.0 ft	4.1%	90	GP							
1	4	30+69	DM&A	85	10.0 ft		90	GP							
2	5	37+13	DM&A	90	0.2 ft		grab	GP							
2	5	37+13	DM&A	90	2.0 ft	2.0%	72	GP							
2	5	37+13	DM&A	90	5.0 ft	3.1%	63	GP							
2	5	37+13	DM&A	90	10.0 ft	1.6%	80	GP							
2	5	41+97	DM&A	84	0.1 ft		grab	GP							
2	5	41+97	DM&A	84	0.1 ft		grab	GP							
2	5	41+97	DM&A	84	2.0 ft	1.8%	90	GP							
2	5	41+97	DM&A	84	5.0 ft	3.9%	90	SP							
2	5	41+97	DM&A	84	10.0 ft	1.8%	79	GP							
2	5	47+48	DM&A	91	0.2 ft	2.1%	grab	SP-SM						7.5%	
2	5	47+48	DM&A	91	2.0 ft	2.4%	69	SP							
2	5	47+48	DM&A	91	5.0 ft	3.5%	37	SP							
2	5	47+48	DM&A	91	10.0 ft		67	SP							
2	5	51+56	DM&A	83	0.1 ft		grab	GP							
2	5	51+56	DM&A	83	2.0 ft	3.6%	71	GP							
2	5	51+56	DM&A	83	5.0 ft	2.5%	64	GP							
2	5	51+56	DM&A	83	10.0 ft										
2	5	57+10	DM&A	92	0.2 ft	2.2%	grab	GP-GM						6%	Sieve
2	5	57+10	DM&A	92	2.0 ft	4.2%	70	SP							
2	5	57+10	DM&A	92	5.0 ft	3.2%	42	SP					2.70		
2	5	57+10	DM&A	92	10.0 ft	2.1%	90	SP							
3	6	62+11	DM&A	82	0.1 ft		grab	GP							
3	6	62+11	DM&A	82	2.0 ft	2.4%	90	GP							
3	6	62+11	DM&A	82	5.0 ft	3.4%	48	SP							
3	6	62+11	DM&A	82	10.0 ft		40	SP							
3	6	66+93	DM&A	93	0.2 ft		grab	GP							
3	6	66+93	DM&A	93	2.0 ft	5.9%	90	GP							
3	6	66+93	DM&A	93	5.0 ft	1.5%	70	GP							
3	6	66+93	DM&A	93	10.0 ft	2.0%	85	SP							
3	6	72+85	DM&A	75	0.1 ft		grab								
3	6	72+85	DM&A	75	2.0 ft	3.1%	64	GP							
3	6	72+85	DM&A	75	5.0 ft	3.3%	88	SP							
3	6	72+85	DM&A	75	10.0 ft	1.6%	90	GP							
3	6	78+03	DM&A	76	0.1 ft		grab								
3	6	78+03	DM&A	76	2.0 ft	2.4%	25	GP							
3	6	78+03	DM&A	76	5.0 ft	30.8%	11	ML						70.6%	
3	6	78+03	DM&A	76	10.0 ft		90	SP							
3	6	82+39	DM&A	74	0.1 ft		grab	GP							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Station

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
3	6	82+39	DM&A	74	2.0 ft	10.9%	16	SM						32.3%	
3	6	82+39	DM&A	74	5.0 ft	5.6%	24	SP							
3	6	82+39	DM&A	74	10.0 ft	2.0%	75	GP							
4	7	86+92	DM&A	77	0.1 ft	3.3%	grab	GP-GM						9%	Sieve
4	7	86+92	DM&A	77	5.0 ft	20.1%	24	SM							
4	7	86+92	DM&A	77	10.0 ft	9.9%		SM							
4	7	86+92	DM&A	77	10.5 ft	3.8%	55	SP							
4	7	89+00	DM&A	73	0.1 ft	2.6%	grab	GP-GM						7%	Sieve
4	7	89+00	DM&A	73	2.0 ft	2.5%	36	GP-GM							
4	7	89+00	DM&A	73	5.0 ft	10.4%	32	SM							
4	7	89+00	DM&A	73	10.0 ft	2.4%	59	GP							
4	7	91+00	DM&A	78	0.1 ft		grab	GP							
4	7	91+00	DM&A	78	2.0 ft	2.9%		GP							
4	7	91+00	DM&A	78	2.6 ft	34.1%	8	ML						76.4%	
4	7	91+00	DM&A	78	5.0 ft	3.2%	39	SP							
4	7	91+00	DM&A	78	10.0 ft		72	SP							
4	7	96+18	DM&A	72	0.1 ft		grab	GM							
4	7	96+18	DM&A	72	2.0 ft	8.0%	12	GM						22.2%	
4	7	96+18	DM&A	72	5.0 ft		48	GM							
4	7	96+18	DM&A	72	10.0 ft	3.0%	100	GM							
4	7	100+97	DM&A	79	0.1 ft		grab	SP							
4	7	100+97	DM&A	79	2.0 ft	7.4%	58	GP-GM						9%	Sieve
4	7	100+97	DM&A	79	5.0 ft	3.9%	26	SP							
4	7	100+97	DM&A	79	10.0 ft	19.2%		ML							
4	7	100+97	DM&A	79	10.5 ft	2.3%	54	GP-GM							
5	8	106+13	DM&A	126	0.0 ft		2	ML							
5	8	106+13	DM&A	126	4.5 ft	23.5%		ML							
5	8	106+13	DM&A	126	5.0 ft	19.7%	8	SP							
5	8	106+13	DM&A	126	9.5 ft	4.8%	80	GP							
5	8	106+13	DM&A	126	14.5 ft	5.0%	66	SP							
5	8	108+19	DM&A	125	0.0 ft		2	ML							
5	8	108+19	DM&A	125	4.5 ft	30.5%	8	ML						73.2%	
5	8	108+19	DM&A	125	9.5 ft	19.7%	12	SP							
5	8	108+19	DM&A	125	14.5 ft	15.9%	45	ML							
5	8	109+88	DM&A	124	0.0 ft		3	ML							
5	8	109+88	DM&A	124	4.5 ft	21.1%	8	ML		36%	32%	4%			
5	8	109+88	DM&A	124	9.5 ft	17.9%	28	SP							
5	8	114+84	DM&A	94	0.1 ft		grab	SP							
5	8	114+84	DM&A	94	2.0 ft	27.6%	4	ML						85.0%	
5	8	114+84	DM&A	94	5.0 ft	18.3%		SM							
5	8	114+84	DM&A	94	5.5 ft	18.8%	9	SM							
5	8	114+84	DM&A	94	6.0 ft	11.4%		SM							
5	8	114+84	DM&A	94	10.0 ft	17.3%	14	SM							
5	8	119+79	DM&A	97	0.1 ft		grab	GP							
5	8	119+79	DM&A	97	2.0 ft		push	ML							
5	8	119+79	DM&A	97	5.0 ft	11.3%	10	SM						32%	Sieve
5	8	119+79	DM&A	97	10.0 ft	11.4%	13	SM							
5	8	124+75	DM&A	123	0.0 ft		2	ML							
5	8	124+75	DM&A	123	4.5 ft	17.4%	10	SM						13.7%	
5	8	124+75	DM&A	123	9.5 ft	10.4%	26	SP							
5	8	124+75	DM&A	123	14.5 ft	6.7%	34	SP							
5	8	126+50	DM&A	122	0.0 ft		2	ML							
5	8	126+50	DM&A	122	4.0 ft	16.1%	22	ML							
5	8	126+50	DM&A	122	9.0 ft	22.1%	26	ML						37.3%	
5	8	126+50	DM&A	122	14.5 ft	12.6%	40	SM							
5	8	126+50	DM&A	122	14.9 ft	2.8%		SP							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
5	8	126+50	DM&A	122	19.0 ft		70	SP							
5	8	128+00	DM&A	121	0.0 ft		grab	ML							
5	8	128+00	DM&A	121	5.0 ft	14.9%	23	ML							
5	8	128+00	DM&A	121	10.0 ft	23.7%	10	ML						86.7%	
5	8	128+00	DM&A	121	15.0 ft	9.1%	26	SM							
5	8	128+00	DM&A	121	20.0 ft	9.8%		SP							
5	8	128+00	DM&A	121	20.4 ft	15.7%	26	ML							
5	8	128+00	DM&A	121	25.0 ft	9.4%	66	ML						42%	Sieve
5	8	128+00	DM&A	121	30.0 ft	4.1%	76	SP							
5	8	129+31	DM&A	120	0.0 ft	46.3%	2	ML						60.0%	
5	8	129+31	DM&A	120	4.0 ft	17.0%		ML							
5	8	129+31	DM&A	120	4.5 ft	17.7%	16	SM							
5	8	129+31	DM&A	120	9.0 ft	23.6%	24	SP							
5	8	129+31	DM&A	120	14.0 ft	12.4%	78	SP							
6	9	131+60	DM&A	98	0.1 ft		grab	ML							
6	9	131+60	DM&A	98	5.0 ft	22.8%	14	ML						85.6%	
6	9	131+60	DM&A	98	10.0 ft		16	ML							
6	9	131+60	DM&A	98	15.0 ft	20.2%	24	ML							
6	9	131+60	DM&A	98	20.0 ft	27.9%	15	ML					2.53		
6	9	131+60	DM&A	98	25.0 ft		25	ML							
6	9	131+60	DM&A	98	30.0 ft	18.9%	58	ML						99.4%	
6	9	131+60	DM&A	98	35.0 ft	13.1%	90	ML						44%	Sieve
6	9	131+60	DM&A	98	40.0 ft	3.7%	81	SP							
6	9	133+72	DM&A	119	0.0 ft		3	ML							
6	9	133+72	DM&A	119	5.0 ft	19.8%	13	ML							
6	9	133+72	DM&A	119	9.5 ft		push	ML							
6	9	133+72	DM&A	119	14.5 ft	37.4%	18	ML						96.7%	
6	9	133+72	DM&A	119	19.5 ft	25.7%	14	ML							
6	9	133+72	DM&A	119	24.5 ft	35.3%	18	ML						95%	Sieve
6	9	133+72	DM&A	119	29.5 ft	7.8%	86	SM						22%	Sieve
6	9	133+72	DM&A	119	34.5 ft	14.0%	76	ML							
6	9	135+83	DM&A	118	0.0 ft		3	ML							
6	9	135+83	DM&A	118	4.0 ft	15.0%	13	ML							
6	9	135+83	DM&A	118	9.0 ft	20.6%	13	ML		29%	19%	10%			
6	9	135+83	DM&A	118	14.0 ft	32.3%	11	ML							
6	9	135+83	DM&A	118	19.0 ft	38.5%	11	ML						96.6%	
6	9	135+83	DM&A	118	24.0 ft	31.6%	18	ML							
6	9	135+83	DM&A	118	29.0 ft	21.1%	67	ML							
6	9	137+65	DM&A	117	0.0 ft		3	ML							
6	9	137+65	DM&A	117	4.5 ft	18.6%	10	ML							
6	9	137+65	DM&A	117	9.5 ft	29.4%	14	ML					2.60	71%	Sieve
6	9	137+65	DM&A	117	14.5 ft	35.4%	10	ML							
6	9	137+65	DM&A	117	19.5 ft	35.5%	19	ML							
6	9	140+06	DM&A	116	0.0 ft		5	ML							
6	9	140+06	DM&A	116	5.0 ft	13.7%	22	ML							
6	9	140+06	DM&A	116	9.5 ft	35.8%	7	ML							
6	9	140+06	DM&A	116	14.5 ft	30.1%	15	ML							
6	9	141+94	DM&A	115	0.0 ft		5	ML							
6	9	141+94	DM&A	115	5.0 ft	16.3%	17	ML						64.1%	
6	9	141+94	DM&A	115	10.0 ft	31.0%	11	ML							
6	9	141+94	DM&A	115	15.0 ft		16	ML							
6	9	143+90	DM&A	114	0.0 ft		4	ML							
6	9	143+90	DM&A	114	5.0 ft	17.5%		SM						26%	Sieve
6	9	143+90	DM&A	114	5.5 ft	17.2%	15	ML							
6	9	143+90	DM&A	114	10.0 ft	35.6%	9	ML							
6	9	146+08	DM&A	99	0.1 ft		grab	ML							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
6	9	146+08	DM&A	99	2.0 ft	16.8%	18	ML						81.1%	
6	9	146+08	DM&A	99	5.0 ft	9.2%	17	ML							
6	9	146+08	DM&A	99	10.0 ft		9	ML							
6	9	148+60	DM&A	113	7.0 ft	21.0%	14	ML						64.4%	
6	9	148+60	DM&A	113	10.0 ft	29.1%	13	ML							
6	9	148+60	DM&A	113	15.0 ft		22	ML							
6	9	148+76	DM&A	112	0.0 ft		2	Pt							
6	9	148+76	DM&A	112	2.0 ft	34.9%	4	ML							
6	9	148+76	DM&A	112	5.0 ft	37.5%		ML							
6	9	148+76	DM&A	112	5.7 ft	26.1%	6	SM							
6	9	148+76	DM&A	112	10.0 ft	27.2%	10	ML							
6	9	148+80	DM&A	71	0.1 ft	5.4%	grab	GP-GM						6%	Sieve
6	9	148+80	DM&A	71	2.0 ft	8.0%	18	SP							
6	9	148+80	DM&A	71	5.0 ft	13.3%	13	ML							
6	9	148+80	DM&A	71	10.0 ft	16.1%	18	ML							
6	9	148+80	DM&A	71	15.0 ft	24.5%	9	ML							
7	10	155+40	DM&A	80	0.1 ft		grab	GP							
7	10	155+40	DM&A	80	2.0 ft	5.7%		GP							
7	10	155+40	DM&A	80	2.4 ft	19.9%	9	ML						77.5%	
7	10	155+40	DM&A	80	5.0 ft	16.3%	10	ML							
7	10	155+40	DM&A	80	10.0 ft	17.9%	14	SP							
7	10	157+30	DM&A	70	0.1 ft		grab	GP-GM							
7	10	157+30	DM&A	70	2.0 ft	3.4%	29	GP-GM						8%	Sieve
7	10	157+30	DM&A	70	5.0 ft	19.6%	11	ML							
7	10	157+30	DM&A	70	10.0 ft	28.9%	8	ML							
7	10	157+30	DM&A	70	15.0 ft		17	SP							
7	10	159+38	DM&A	81	0.1 ft		grab	GP							
7	10	159+38	DM&A	81	2.0 ft	4.1%	39	GM							
7	10	159+38	DM&A	81	5.0 ft	15.2%	9	ML						52.0%	
7	10	159+38	DM&A	81	10.0 ft	348.8%		Pt							
7	10	159+38	DM&A	81	10.7 ft	89.3%	5	OL							
7	10	159+38	DM&A	81	15.0 ft		16	ML							
7	10	161+00	DM&A	69	0.1 ft		grab	GP-GM							
7	10	161+00	DM&A	69	2.0 ft	4.7%	29	GP-GM						8.3%	
7	10	161+00	DM&A	69	5.0 ft	41.7%	5	ML						70%	Sieve
7	10	161+00	DM&A	69	10.2 ft	18.5%	17	SP							
7	10	161+00	DM&A	69	15.0 ft	29.6%	25	ML							
7	10	163+00	DM&A	1	0.1 ft	2.3%		GP						5%	Sieve
7	10	163+00	DM&A	1	2.0 ft		20	GP							
7	10	163+00	DM&A	1	5.0 ft	25.2%	6	ML			NP			69%	Sieve
7	10	163+00	DM&A	1	10.0 ft	15.1%	20	ML							
7	10	163+00	DM&A	1	15.0 ft	27.6%	17	ML							
7	10	165+25	DM&A	68	0.1 ft		grab	SP							
7	10	165+25	DM&A	68	2.0 ft	5.1%	18	SP							
7	10	165+25	DM&A	68	5.0 ft		18	SP							
7	10	165+25	DM&A	68	10.0 ft	21.6%	14	SM							
7	10	165+25	DM&A	68	15.0 ft	27.9%	5	SP							
7	10	167+43	DM&A	2	0.1 ft	2.4%	grab	GP-GM		18%	17%	1%		6%	Sieve
7	10	167+43	DM&A	2	2.0 ft	2.9%	17	GP							
7	10	167+43	DM&A	2	5.0 ft	17.4%	7	ML							
7	10	167+43	DM&A	2	10.0 ft	24.5%	13	SM							
7	10	167+43	DM&A	2	15.0 ft	28.5%	15	SM							
7	10	169+57	DM&A	67	0.1 ft		grab	GP							
7	10	169+57	DM&A	67	3.0 ft	4.6%	15	GP							
7	10	169+57	DM&A	67	5.0 ft	24.2%	14	ML							
7	10	169+57	DM&A	67	10.0 ft	16.3%	15	ML							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
7	10	169+57	DM&A	67	15.0 ft	27.2%	26	SP							
7	10	171+56	DM&A	3	0.1 ft	3.1%	grab	SP							
7	10	171+56	DM&A	3	2.0 ft	3.1%	58	GP-GM						9%	Sieve
7	10	171+56	DM&A	3	5.0 ft	4.9%	19	GP							
7	10	171+56	DM&A	3	10.0 ft	19.9%	7	ML							
7	10	171+56	DM&A	3	15.0 ft	22.5%	16	ML							
7	10	173+56	DM&A	66	0.1 ft		grab	GP							
7	10	173+56	DM&A	66	2.0 ft	3.6%	40	SP							
7	10	173+56	DM&A	66	5.0 ft		24	SP							
7	10	173+56	DM&A	66	10.0 ft	20.4%		ML							
7	10	173+56	DM&A	66	10.6 ft	22.6%	24	SM							
7	10	173+56	DM&A	66	15.0 ft	26.8%		SP							
7	10	173+56	DM&A	66	16.4 ft	27.2%	22	ML							
7	10	175+53	DM&A	4	0.1 ft	2.8%	grab	GM							
7	10	175+53	DM&A	4	2.0 ft	3.1%	58	GP-GM							
7	10	175+53	DM&A	4	5.0 ft		39	GP-GM							
7	10	175+53	DM&A	4	10.0 ft	24.5%	20	SM							
7	10	175+53	DM&A	4	15.0 ft	20.6%	24	SM							
7	10	180+48	DM&A	65	0.1 ft		grab	GP-GM							
7	10	180+48	DM&A	65	2.0 ft	15.0%	15	ML						62.3%	
7	10	180+48	DM&A	65	5.0 ft		9	ML							
7	10	180+48	DM&A	65	10.0 ft	19.4%	24	ML							
7	10	180+48	DM&A	65	15.0 ft	34.1%	7	ML							
7	10	180+48	DM&A	65	20.0 ft	36.4%	17	ML							
8	11	183+77	DM&A	111	0.0 ft		2	SP							
8	11	183+77	DM&A	111	2.5 ft	14.1%	19	ML							
8	11	183+77	DM&A	111	5.0 ft	7.6%	30	ML							
8	11	183+77	DM&A	111	10.0 ft	9.0%	41	SP							
8	11	183+77	DM&A	111	15.0 ft	23.2%	28	SP							
8	11	184+50	DM&A	5	2.0 ft	3.9%	11	GP-GM							
8	11	184+50	DM&A	5	5.0 ft	14.4%	10	ML							
8	11	184+50	DM&A	5	10.0 ft	10.9%	31	ML							
8	11	185+82	DM&A	110	0.0 ft	60.8%	2	OL			NP			85.8%	
8	11	185+82	DM&A	110	4.0 ft	25.2%	7	ML							
8	11	185+82	DM&A	110	9.0 ft	9.6%	90	SP							
8	11	185+82	DM&A	110	14.0 ft	22.4%	76	SP							
8	11	190+99	DM&A	64	0.1 ft	3.0%	grab	GP-GM							
8	11	190+99	DM&A	64	5.0 ft	19.5%	9	SM						43%	Sieve
8	11	190+99	DM&A	64	10.0 ft	26.7%	10	SM							
8	11	190+99	DM&A	64	15.0 ft	29.0%	12	ML							
8	11	192+94	DM&A	6	0.1 ft	3.4%	grab	GP-GM							
8	11	192+94	DM&A	6	5.0 ft	7.6%	11	SM						16.3%	
8	11	192+94	DM&A	6	10.0 ft	8.4%	18	SP						3%	Sieve
8	11	192+94	DM&A	6	15.0 ft	9.2%	17	SP							
8	11	192+94	DM&A	6	20.0 ft	30.7%	15	ML							
8	11	192+94	DM&A	6	25.0 ft	27.0%	19	ML							
8	11	194+92	DM&A	63	0.1 ft	2.9%	grab	GP-GM							
8	11	194+92	DM&A	63	2.0 ft	6.9%		SP-SM							
8	11	194+92	DM&A	63	2.4 ft	5.2%	19	SP-SM							
8	11	194+92	DM&A	63	5.0 ft	10.1%	12	SP-SM							
8	11	194+92	DM&A	63	10.0 ft	5.1%	20	ML							
8	11	194+92	DM&A	63	15.0 ft	8.4%	18	ML							
8	11	194+92	DM&A	63	20.0 ft	8.7%	15	SM							
8	11	194+92	DM&A	63	25.0 ft	26.5%	17	ML							
8	11	196+91	DM&A	7	0.1 ft	2.5%	grab	GP-GM							
8	11	196+91	DM&A	7	5.0 ft	9.3%	16	SP-SM						7%	Sieve

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
8	11	196+91	DM&A	7	10.0 ft	8.1%	19	SP-SM						5.1%	
8	11	196+91	DM&A	7	16.0 ft	23.1%	15	ML							
8	11	196+91	DM&A	7	20.0 ft	30.4%		ML							
8	11	196+91	DM&A	7	21.0 ft	33.6%	10	ML							
8	11	196+91	DM&A	7	25.0 ft	28.3%	9	ML							
8	11	198+84	DM&A	62	0.1 ft	2.9%	grab	SP-SM							
8	11	198+84	DM&A	62	2.0 ft	2.9%		GP-GM							
8	11	198+84	DM&A	62	2.3 ft	8.2%	20	SM						26.1%	
8	11	198+84	DM&A	62	5.0 ft	20.3%	6	SM							
8	11	198+84	DM&A	62	10.0 ft	31.3%	10	ML		34%	22%	12%		97%	Sieve
8	11	198+84	DM&A	62	15.0 ft	17.7%	22	ML							
8	11	198+84	DM&A	62	20.0 ft	20.5%	20	ML							
8	11	200+80	DM&A	8	0.1 ft	5.7%	grab	GP-GM							
8	11	200+80	DM&A	8	2.0 ft	17.7%	12	ML						61.6%	
8	11	200+80	DM&A	8	5.0 ft	6.5%	9	SP							
8	11	200+80	DM&A	8	10.0 ft	27.2%		ML							
8	11	200+80	DM&A	8	11.0 ft	11.9%	12	SM							
8	11	200+80	DM&A	8	15.0 ft	11.5%	16	SM							
8	11	204+39	DM&A	108	0.0 ft		push	Pt							
8	11	204+39	DM&A	108	2.0 ft		push	SM							
8	11	204+39	DM&A	108	5.0 ft	14.7%	10	SM							
8	11	204+39	DM&A	108	10.0 ft	11.5%	10	SP							
8	11	205+00	DM&A	61	0.1 ft	2.7%	grab	GP-GM							
8	11	205+00	DM&A	61	2.0 ft	3.5%	24	SP						4%	Sieve
8	11	205+00	DM&A	61	5.0 ft	4.5%	23	SP							
8	11	205+00	DM&A	61	10.0 ft	2.8%	18	SP							
8	11	209+99	DM&A	9	0.1 ft	5.5%	grab	GP							
8	11	209+99	DM&A	9	2.0 ft	5.5%	12	SP							
8	11	209+99	DM&A	9	5.0 ft	6.5%	4	SM							
8	11	209+99	DM&A	9	10.0 ft	5.4%	14	SM							
9	12	212+64	DM&A	109	0.0 ft	9.5%	4	SM						25%	Sieve
9	12	212+64	DM&A	109	5.0 ft	12.8%	13	SM							
9	12	212+64	DM&A	109	10.0 ft	17.0%	12	SM							
9	12	212+64	DM&A	109	15.0 ft	21.6%	13	SP							
9	12	212+85	DM&A	60	0.1 ft	2.6%	grab	GP-GM							
9	12	212+85	DM&A	60	2.0 ft	2.9%	49	SM							
9	12	212+85	DM&A	60	5.0 ft	2.9%	56	SM							
9	12	212+85	DM&A	60	10.0 ft	5.6%	27	SM							
9	12	212+85	DM&A	60	15.0 ft	10.8%	21	ML							
9	12	212+90	DM&A	107	0.0 ft	1.5%	18	GP						2.3%	
9	12	212+90	DM&A	107	4.0 ft	25.3%	10	SP							
9	12	212+90	DM&A	107	10.0 ft	21.3%		SP							
9	12	212+90	DM&A	107	10.6 ft	21.9%	10	ML							
9	12	218+93	DM&A	10	0.1 ft	2.1%	grab	GP-GM							
9	12	218+93	DM&A	10	2.0 ft	4.1%	13	SP						4%	Sieve
9	12	218+93	DM&A	10	5.0 ft	3.7%	13	SP							
9	12	218+93	DM&A	10	10.0 ft	13.5%	24	SP							
9	12	222+27	DM&A	59	0.1 ft	3.0%	grab	GPGM						9%	Sieve
9	12	222+27	DM&A	59	2.0 ft	3.1%		SM							
9	12	222+27	DM&A	59	2.3 ft	15.0%	11	SP							
9	12	222+27	DM&A	59	5.0 ft	4.7%	27	SP							
9	12	222+27	DM&A	59	10.0 ft	5.3%	22	SP							
9	12	224+46	DM&A	11	0.1 ft		grab	GP							
9	12	224+46	DM&A	11	2.0 ft	2.7%	17	GP							
9	12	224+46	DM&A	11	5.0 ft	45.6%	9	ML			NP			70%	Sieve
9	12	224+46	DM&A	11	10.0 ft	3.8%	25	SP							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
9	12	226+40	DM&A	58	0.1 ft	2.9%	grab	GP-GM						9%	Sieve
9	12	226+40	DM&A	58	2.0 ft	3.5%	16	SM							
9	12	226+40	DM&A	58	5.0 ft	28.9%	15	ML							
9	12	226+40	DM&A	58	10.0 ft	4.9%	23	SP							
9	12	228+37	DM&A	12	0.1 ft	2.0%	grab	GP-GM							
9	12	228+37	DM&A	12	2.0 ft	2.7%	26	SP							
9	12	228+37	DM&A	12	5.0 ft	5.2%	20	SP							
9	12	228+37	DM&A	12	10.0 ft	3.7%	24	SP							
9	12	233+69	DM&A	57	0.1 ft	2.4%	grab	GP-GM							
9	12	233+69	DM&A	57	2.0 ft	4.9%	26	SP-SM						7.7%	
9	12	233+69	DM&A	57	5.0 ft	4.7%	18	SP							
9	12	233+69	DM&A	57	10.0 ft	6.6%	23	SP							
9	12	238+74	DM&A	106	0.0 ft		push	ML							
9	12	238+74	DM&A	106	5.0 ft	36.5%	13	ML							
9	12	238+74	DM&A	106	10.0 ft	17.0%	25	SP							
9	12	238+97	DM&A	13	5.0 ft	5.8%	16	GM							
9	12	238+97	DM&A	13	10.0 ft	6.4%		SM							
9	12	238+97	DM&A	13	10.5 ft	22.6%	13	ML							
9	12	238+97	DM&A	13	15.0 ft	12.8%	100	SM							
9	12	238+97	DM&A	13	20.0 ft	14.3%	35	SM							
10	13	242+33	DM&A	56	0.1 ft	2.5%	grab	GP-GM							
10	13	242+33	DM&A	56	2.0 ft	8.7%	12	SM							
10	13	242+33	DM&A	56	5.2 ft	31.4%	11	ML							
10	13	242+33	DM&A	56	10.0 ft	19.5%	22	ML							
10	13	242+33	DM&A	56	15.0 ft	17.6%		ML							
10	13	242+33	DM&A	56	16.0 ft	21.2%	27	SP							
10	13	242+33	DM&A	56	20.0 ft	24.7%		SM							
10	13	242+33	DM&A	56	20.3 ft	11.7%	100	SM							
10	13	245+44	DM&A	14	0.1 ft	2.3%	grab	GP-GM							
10	13	245+44	DM&A	14	2.0 ft	4.9%	22	GP-GM							
10	13	245+44	DM&A	14	5.0 ft	8.1%	48	SM						22.8%	
10	13	245+44	DM&A	14	10.0 ft	2.3%		SM							
10	13	245+44	DM&A	14	10.8 ft	5.5%	74	SP							
10	13	247+42	DM&A	104	5.0 ft	13.2%	14	ML							
10	13	247+42	DM&A	104	10.0 ft	10.9%	90	ML							
10	13	248+64	DM&A	105	0.0 ft	22.0%	2	SM						34.1%	
10	13	248+64	DM&A	105	5.0 ft	20.6%	17	SM							
10	13	248+64	DM&A	105	10.0 ft	17.4%	12	SP							
10	13	255+13	DM&A	15	0.1 ft	4.3%	grab	GP-GM							
10	13	255+13	DM&A	15	2.0 ft	4.4%	72	GP-GM							
10	13	255+13	DM&A	15	5.0 ft	10.2%	27	SM							
10	13	255+13	DM&A	15	10.0 ft	26.1%	13	ML							
10	13	259+59	DM&A	55	0.1 ft	3.0%	grab	GP-GM						7%	Sieve
10	13	259+59	DM&A	55	2.0 ft	6.9%	13	SM						26.4%	
10	13	259+59	DM&A	55	5.0 ft	24.1%		ML							
10	13	259+59	DM&A	55	5.4 ft	15.0%	7	SM							
10	13	259+59	DM&A	55	10.0 ft	4.1%	33	SM							
10	13	264+93	DM&A	16	0.1 ft	2.4%	grab	GP-GM							
10	13	264+93	DM&A	16	2.0 ft	3.1%	20	GP-GM							
10	13	264+93	DM&A	16	5.0 ft	15.0%	10	SM							
10	13	264+93	DM&A	16	10.0 ft	4.4%	24	SP							
11	14	269+25	DM&A	54	0.1 ft	2.6%	grab	GP-GM							
11	14	269+25	DM&A	54	2.0 ft	1.8%	15	GP-GM						6.3%	
11	14	269+25	DM&A	54	5.0 ft	14.9%		ML							
11	14	269+25	DM&A	54	5.2 ft	4.2%	24	SM							
11	14	269+25	DM&A	54	10.0 ft	4.0%	21	SP							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
11	14	274+50	DM&A	17	0.1 ft	3.8%	grab	GP-GM						6%	Sieve
11	14	274+50	DM&A	17	2.0 ft	2.6%	18	SP-SM						6.6%	
11	14	274+50	DM&A	17	5.0 ft		53	SP							
11	14	274+50	DM&A	17	10.0 ft			OL							
11	14	274+50	DM&A	17	10.2 ft	5.5%	50	SP							
11	14	280+42	DM&A	53	0.1 ft	2.9%	grab	GP-GM							
11	14	280+42	DM&A	53	2.0 ft	2.7%	14	GP-GM						8.0%	
11	14	280+42	DM&A	53	5.0 ft	10.9%	17	SM							
11	14	280+42	DM&A	53	10.0 ft	9.6%	8	SM							
11	14	285+98	DM&A	18	0.1 ft	2.5%	grab	GP-GM							
11	14	285+98	DM&A	18	2.0 ft	3.8%	16	SM							
11	14	285+98	DM&A	18	5.0 ft	21.0%		SM							
11	14	285+98	DM&A	18	5.5 ft	4.7%	41	SP							
11	14	285+98	DM&A	18	10.0 ft	22.4%	20	SM							
11	14	290+48	DM&A	52	0.1 ft	2.8%	grab	GP-GM							
11	14	290+48	DM&A	52	2.0 ft	2.2%	12	GP-GM							
11	14	290+48	DM&A	52	5.0 ft	2.8%	29	SP							
11	14	290+48	DM&A	52	10.0 ft	17.7%	18	SM							
11	14	295+37	DM&A	19	0.1 ft	2.5%	grab	GP-GM							
11	14	295+37	DM&A	19	2.0 ft	4.1%	15	GP-GM							
11	14	295+37	DM&A	19	5.0 ft	20.8%		ML							
11	14	295+37	DM&A	19	5.6 ft	7.4%	16	SM							
11	14	295+37	DM&A	19	10.0 ft	5.7%	32	SP							
12	15	300+35	DM&A	51	0.1 ft	2.4%	grab	GP-GM							
12	15	300+35	DM&A	51	2.0 ft	5.5%	34	GP-GM							
12	15	300+35	DM&A	51	5.0 ft	4.5%	19	GM							
12	15	300+35	DM&A	51	10.0 ft	3.5%	40	GM							
12	15	305+23	DM&A	20	0.1 ft	3.1%	grab	GP-GM							
12	15	305+23	DM&A	20	2.0 ft	3.9%	16	GP-GM						11.1%	
12	15	305+23	DM&A	20	5.0 ft	32.6%	38	SM							
12	15	310+24	DM&A	50	0.1 ft	2.1%	grab	GP-GM							
12	15	310+24	DM&A	50	2.0 ft	4.0%	19	SP							
12	15	310+24	DM&A	50	5.0 ft	8.5%	18	ML							
12	15	310+24	DM&A	50	10.0 ft	20.0%	12	ML							
12	15	315+53	DM&A	21	0.1 ft	2.8%	grab	GP-GM							
12	15	315+53	DM&A	21	2.0 ft	7.2%	25	GM							
12	15	315+53	DM&A	21	5.0 ft	18.6%	7	ML						76%	Sieve
12	15	315+53	DM&A	21	10.0 ft	8.1%	14	ML							
12	15	317+32	DM&A	95	0.1 ft		grab	SM							
12	15	317+32	DM&A	95	2.0 ft	11.0%	3	SP							
12	15	317+32	DM&A	95	5.0 ft	11.1%	2	SP							
12	15	317+32	DM&A	95	10.0 ft	10.7%	9	SP							
12	15	319+06	DM&A	22	0.1 ft	2.0%	grab	GP-GM							
12	15	319+06	DM&A	22	2.0 ft	2.1%	31	SP-SM						7.2%	
12	15	319+06	DM&A	22	5.0 ft		26	SP							
12	15	319+06	DM&A	22	10.0 ft	10.2%	9	SM							
12	15	319+06	DM&A	22	15.0 ft	11.8%	19	SM							
12	15	321+08	DM&A	96	0.1 ft		grab	SM							
12	15	321+08	DM&A	96	2.0 ft	7.1%	23	SP							
12	15	321+08	DM&A	96	5.0 ft	5.5%	8	SM						38%	Sieve
12	15	321+08	DM&A	96	10.0 ft	13.0%	10	SP							
12	15	321+08	DM&A	96	15.0 ft	10.5%	27	SP							
12	15	323+70	DM&A	23	0.1 ft	1.8%	grab	GP-GM							
12	15	323+70	DM&A	23	2.0 ft	6.4%	22	SM						34%	Sieve
12	15	323+70	DM&A	23	5.0 ft	6.1%	12	SM						25.0%	
12	15	323+70	DM&A	23	10.0 ft	9.9%	14	SM							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
12	15	323+70	DM&A	23	15.0 ft	7.7%	20	SM							
13	16	325+65	DM&A	49	0.1 ft	3.1%	grab	GP-GM							
13	16	325+65	DM&A	49	2.0 ft	3.9%	19	GP-GM						11%	Sieve
13	16	325+65	DM&A	49	5.0 ft	12.1%	10	SM					2.59		
13	16	325+65	DM&A	49	10.0 ft	17.9%	20	ML							
13	16	329+00	DM&A	24	0.1 ft	2.1%	grab	GP-GM							
13	16	329+00	DM&A	24	2.0 ft	3.2%	22	GP-GM							
13	16	329+00	DM&A	24	5.0 ft	5.3%	31	SP							
13	16	329+00	DM&A	24	10.0 ft	3.5%	10	SP							
13	16	329+68	DM&A	103	0.0 ft	7.2%	grab	SP-SM						7.7%	
13	16	329+68	DM&A	103	0.0 ft		push	SP							
13	16	329+68	DM&A	103	5.0 ft	56.8%	12	ML			NP				
13	16	329+68	DM&A	103	10.0 ft	11.0%	31	SP							
13	16	329+76	DM&A	101	0.1 ft		push	ML							
13	16	329+76	DM&A	101	5.0 ft	10.7%	22	GP							
13	16	329+76	DM&A	101	10.0 ft	27.4%	60	SP							
13	16	332+12	DM&A	100	0.1 ft		push	SP-SM							
13	16	332+12	DM&A	100	5.0 ft	7.4%	39	GP							
13	16	332+12	DM&A	100	9.5 ft	16.8%	45	SP							
13	16	332+23	DM&A	102	0.0 ft		push	SP							
13	16	332+23	DM&A	102	4.0 ft	7.1%	56	GP							
13	16	332+23	DM&A	102	10.0 ft	13.3%	51	SP							
13	16	332+23	DM&A	102	15.0 ft	12.2%	63	SP							
13	16	334+97	DM&A	48	0.1 ft	2.2%	grab	GP-GM							
13	16	334+97	DM&A	48	2.0 ft	7.5%	11	GP-GM							
13	16	334+97	DM&A	48	5.0 ft	21.3%	24	SM							
13	16	334+97	DM&A	48	10.0 ft	11.8%	52	GP							
13	16	334+97	DM&A	48	20.0 ft	11.9%	52	GM							
13	16	334+97	DM&A	48	21.0 ft	21.9%		ML							
13	16	339+20	DM&A	25	2.0 ft	2.4%	16	GP-GM						8.0%	
13	16	339+20	DM&A	25	5.0 ft	36.8%	3	SM							
13	16	339+20	DM&A	25	10.0 ft	21.9%	37	SM							
13	16	344+30	DM&A	47	0.1 ft	3.1%	grab	GP-GM							
13	16	344+30	DM&A	47	2.0 ft	4.0%	17	GM						13.3%	
13	16	344+30	DM&A	47	5.0 ft	43.3%	14	SM							
13	16	344+30	DM&A	47	10.0 ft	29.1%	19	ML							
13	16	349+49	DM&A	26	0.1 ft	0.9%	grab	GP-GM							
13	16	349+49	DM&A	26	2.0 ft	2.6%		GP-GM							
13	16	349+49	DM&A	26	2.5 ft	2.3%	11	SP-SM						3%	Sieve
13	16	349+49	DM&A	26	5.0 ft	12.4%	14	SP-SM							
13	16	349+49	DM&A	26	10.0 ft	29.2%	8	ML							
14	17	354+64	DM&A	46	0.1 ft	2.6%	grab	GP-GM							
14	17	354+64	DM&A	46	2.0 ft	2.8%	14	SP							
14	17	354+64	DM&A	46	5.0 ft	4.6%	15	SM							
14	17	354+64	DM&A	46	10.0 ft	28.7%	9	ML							
14	17	359+00	DM&A	27	0.1 ft	1.9%	grab	GP-GM							
14	17	359+00	DM&A	27	2.0 ft	2.5%	19	SP							
14	17	359+00	DM&A	27	5.0 ft		18	SP							
14	17	359+00	DM&A	27	10.0 ft	22.7%	8	ML							
14	17	362+52	DM&A	28	0.1 ft	1.3%	grab	GP-GM							
14	17	362+52	DM&A	28	2.0 ft	5.6%	37	GM						14.6%	
14	17	362+52	DM&A	28	5.0 ft	7.1%	38	SP-SM							
14	17	362+52	DM&A	28	10.0 ft	41.9%		ML							
14	17	362+52	DM&A	28	10.3 ft	95.0%		Pt							
14	17	362+52	DM&A	28	10.6 ft	31.6%	12	ML							
14	17	364+67	DM&A	45	0.1 ft	3.1%	grab	GP-GM							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
14	17	364+67	DM&A	45	2.0 ft	3.6%		GP-GM						8.5%	
14	17	364+67	DM&A	45	2.8 ft	2.9%	18	SP							
14	17	364+67	DM&A	45	5.0 ft		13	SP							
14	17	364+67	DM&A	45	10.0 ft	32.3%	8	ML							
14	17	369+52	DM&A	29	0.1 ft	2.7%	grab	GP-GM							
14	17	369+52	DM&A	29	2.0 ft	3.7%	19	GP-GM							
14	17	369+52	DM&A	29	5.0 ft	27.9%	7	ML							
14	17	369+52	DM&A	29	10.0 ft	30.6%	7	ML							
14	17	374+56	DM&A	44	0.1 ft	2.3%	grab	GP-GM							
14	17	374+56	DM&A	44	2.0 ft	2.7%		GP-GM							
14	17	374+56	DM&A	44	2.7 ft	2.3%	15	SP							
14	17	374+56	DM&A	44	5.0 ft	20.9%	8	ML					2.51		
14	17	374+56	DM&A	44	10.0 ft	29.4%	10	ML							
15	18	379+02	DM&A	30	0.1 ft	2.0%	grab	GP-GM							
15	18	379+02	DM&A	30	2.0 ft	3.8%	24	SP							
15	18	379+02	DM&A	30	5.0 ft	10.8%	17	SM							
15	18	379+02	DM&A	30	10.0 ft	29.1%	3	ML							
15	18	380+37	DM&A	43	0.1 ft	2.3%	grab	GP							
15	18	380+37	DM&A	43	2.0 ft	4.6%	32	GP-GM						11.1%	
15	18	380+37	DM&A	43	5.0 ft	7.8%	17	GP-GM							
15	18	380+37	DM&A	43	10.0 ft	9.4%	20	GP							
15	18	384+83	DM&A	31	0.1 ft	3.0%	grab	GP-GM							
15	18	384+83	DM&A	31	2.0 ft	3.4%	54	SP-SM						10%	Sieve
15	18	384+83	DM&A	31	5.0 ft	4.3%	12	SP							
15	18	384+83	DM&A	31	10.0 ft	25.8%	8	ML							
15	18	390+19	DM&A	42	0.1 ft	2.7%	grab	GP-GM							
15	18	390+19	DM&A	42	2.0 ft	4.4%	63	SM							
15	18	390+19	DM&A	42	5.0 ft	5.7%	18	SM							
15	18	390+19	DM&A	42	10.0 ft	27.4%	9	ML							
15	18	394+40	DM&A	32	0.1 ft	2.0%	grab	GP-GM							
15	18	394+40	DM&A	32	2.0 ft	3.1%	47	SP-SM						8.0%	
15	18	394+40	DM&A	32	5.0 ft	2.3%	39	SP-SM							
15	18	394+40	DM&A	32	10.0 ft		8	ML							
15	18	399+20	DM&A	41	0.1 ft	1.7%	grab	GP-GM							
15	18	399+20	DM&A	41	2.0 ft	3.1%	32	SM							
15	18	399+20	DM&A	41	5.0 ft		14	SM							
15	18	399+20	DM&A	41	10.0 ft	22.6%	18	ML							
16	19	404+33	DM&A	33	0.1 ft		grab	GP-GM							
16	19	404+33	DM&A	33	2.0 ft	2.2%	63	GP-GM							
16	19	404+33	DM&A	33	5.0 ft	1.1%	13	GP-GM							
16	19	404+33	DM&A	33	10.0 ft	17.7%	6	SM							
16	19	409+24	DM&A	40	0.1 ft	2.0%	grab	GP-GM							
16	19	409+24	DM&A	40	2.0 ft	3.7%	42	GP-GM							
16	19	409+24	DM&A	40	5.0 ft	11.9%	7	SP							
16	19	409+24	DM&A	40	10.0 ft	235.3%	4	Pt							
16	19	409+24	DM&A	40	15.0 ft	25.1%	34	SM							
16	19	414+27	DM&A	34	0.1 ft	2.0%	grab	GP-GM							
16	19	414+27	DM&A	34	2.0 ft	4.3%	39	SM							
16	19	414+27	DM&A	34	5.0 ft	6.1%	19	GP							
16	19	414+27	DM&A	34	11.0 ft		3	SM							
16	19	419+51	DM&A	35	0.1 ft	2.2%	grab	GP-GM							
16	19	419+51	DM&A	35	2.0 ft	3.0%	21	GP-GM							
16	19	419+51	DM&A	35	5.0 ft	3.3%	15	GP-GM							
16	19	419+51	DM&A	35	10.0 ft	42.6%		OL							
16	19	419+51	DM&A	35	10.5 ft	175.1%	6	Pt							
16	19	419+51	DM&A	35	15.0 ft	24.6%	20	SM							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
16	19	423+21	DM&A	39	0.1 ft	2.1%	grab	GP-GM						5%	Sieve
16	19	423+21	DM&A	39	2.0 ft	2.0%	28	GM							
16	19	423+21	DM&A	39	5.0 ft	4.1%	15	SP						3.0%	
16	19	423+21	DM&A	39	10.0 ft	20.7%	12	SP							
16	19	423+21	DM&A	39	15.0 ft	24.5%	37	SP							
16	19	423+58	DM&A	36	0.1 ft	2.7%	grab	GP-GM							
16	19	423+58	DM&A	36	5.0 ft	4.5%	36	SP						4.3%	
16	19	423+58	DM&A	36	10.0 ft	23.3%	18	SP							
16	19	423+58	DM&A	36	15.0 ft	21.5%	24	SP							
16	19	425+59	DM&A	38	0.1 ft	2.4%	grab	GP-GM							
16	19	425+59	DM&A	38	2.0 ft	2.7%	11	GP-GM							
16	19	425+59	DM&A	38	5.0 ft	7.4%	27	SP-SM						13%	Sieve
16	19	425+59	DM&A	38	10.0 ft	22.0%	18	SP							
16	19	425+59	DM&A	38	15.0 ft	20.1%	18	SP							
16	19	427+62	DM&A	37	0.1 ft	2.3%	grab	GP-GM							
16	19	427+62	DM&A	37	2.0 ft	3.5%	12	GP-GM							
16	19	427+62	DM&A	37	5.0 ft	9.5%	21	SM							
16	19	427+62	DM&A	37	10.0 ft	23.1%	30	SP							
16	19	427+62	DM&A	37	15.0 ft	21.3%	24	SP							
16	19	428+50	DOTPF	87	5.0 ft		10	SP							
16	19	428+50	DOTPF	87	10.0 ft		15	SP							
17	20	433+83	DOTPF	1	5.0 ft			SP-SM						8%	Sieve
17	21	434+20	DOTPF	86	5.0 ft	4.7%	16	SP							
17	21	434+20	DOTPF	86	10.0 ft		13	SP							
17	21	435+10	DOTPF	115	0.2 ft			GP-GM						9%	Sieve
17	21	435+10	DOTPF	115	3.0 ft			ML	7.7%					61%	Sieve
17	20	436+19	DOTPF	2	4.0 ft	6.0%		SM						18%	Sieve
17	20	438+60	DOTPF	3	1.5 ft	29.1%		ML	4.5%						
17	20	438+60	DOTPF	3	4.0 ft	4.6%		SP-SM						8%	Sieve
17	21	439+00	DOTPF	85	5.0 ft		8	SP							
17	21	439+00	DOTPF	85	10.0 ft		9	SP							
17	20	441+80	DOTPF	4	4.5 ft			SP-SM						9%	Sieve
17	21	444+40	DOTPF	84	5.0 ft	6.9%	16	SP						3%	Sieve
17	21	444+40	DOTPF	84	10.0 ft		6	SP-SM						5%	Sieve
17	20	447+60	DOTPF	6	3.5 ft	22.0%		SP-SM						8%	Sieve
17	21	449+00	DOTPF	83	5.0 ft		8	SP						3%	Sieve
17	21	449+00	DOTPF	83	10.0 ft		9	SP							
17	20	449+70	DOTPF	7	2.0 ft			SP-SM	2.0%					12%	Sieve
17	20	451+50	DOTPF	8	3.0 ft	3.8%		SP-SM							
17	21	451+70	DOTPF	114	0.2 ft			GP-GM						8%	Sieve
17	21	451+70	DOTPF	114	1.5 ft			SP-SM						7%	Sieve
17	21	451+70	DOTPF	114	3.5 ft	39.3%		ML	8.0%					73%	Sieve
17	21	453+75	DOTPF	82	5.0 ft	10.1%	20	SP						3%	Sieve
17	21	453+75	DOTPF	82	10.0 ft		7	SP							
17	20	454+00	DOTPF	9	2.5 ft			SP-SM						6%	Sieve
18	22	457+60	DOTPF	10	3.0 ft	4.7%		SP							
18	23	458+50	DOTPF	81	5.0 ft	22.0%	15	SP						3%	Sieve
18	23	458+50	DOTPF	81	10.0 ft		26	SP							
18	24	459+50	DOTPF	88	2.0 ft	202.4%		Pt							
18	23	459+50	DOTPF	113	0.2 ft			GP-GM						11%	Sieve
18	23	459+50	DOTPF	113	2.0 ft			SP-SM						10%	Sieve
18	23	459+50	DOTPF	113	3.5 ft			SP-SM						9%	Sieve
18	22	463+55	DOTPF	89	2.0 ft	513.8%		Pt							
18	23	463+65	DOTPF	80	5.0 ft		11	SP							
18	23	463+65	DOTPF	80	10.0 ft		21	SP							
18	24	463+75	DOTPF	90	2.0 ft	175.4%		Pt							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
18	23	464+75	DOTPF	112	0.2 ft			GP-GM						10%	Sieve
18	23	464+75	DOTPF	112	2.0 ft			SM						15%	Sieve
18	24	466+50	DOTPF	111	0.1 ft			GP-GM						10%	Sieve
18	24	466+50	DOTPF	111	2.0 ft			SP-SM						8%	Sieve
18	22	466+80	DOTPF	13	2.5 ft	3.9%		SP-SM						11%	Sieve
18	23	468+30	DOTPF	79	5.0 ft	16.0%	13	SP						3%	Sieve
18	23	468+30	DOTPF	79	10.0 ft		21	SP						4%	Sieve
18	22	468+80	DOTPF	14	7.0 ft			SP-SM						6%	Sieve
18	23	470+15	DOTPF	110	0.1 ft			GP-GM						8%	Sieve
18	23	470+15	DOTPF	110	4.5 ft			ML	9.6%					57%	Sieve
18	23	473+60	DOTPF	78	5.0 ft	2.3%	11	SP						3%	Sieve
18	23	473+60	DOTPF	78	10.0 ft		15	SP						3%	Sieve
18	22	474+20	DOTPF	16	2.0 ft	3.7%		SP-SM	1.6%					9%	Sieve
18	23	476+60	DOTPF	109	0.1 ft			GP-GM						9%	Sieve
18	23	476+60	DOTPF	109	1.5 ft			SP-SM						9%	Sieve
18	23	476+60	DOTPF	109	3.8 ft			ML	7.4%					52%	Sieve
18	22	478+50	DOTPF	18	3.5 ft			SP-SM						6%	Sieve
18	24	478+60	DOTPF	77	5.0 ft	4.5%	18	SP						4%	Sieve
18	24	478+60	DOTPF	77	10.0 ft		12	SP						3%	Sieve
18	24	480+00	DOTPF	19	3.5 ft	6.0%		SM						14%	Sieve
18	23	480+30	DOTPF	108	0.2 ft			GP-GM						11%	Sieve
18	23	480+30	DOTPF	108	1.4 ft			SP-SM						11%	Sieve
19	25	484+60	DOTPF	20	2.0 ft			SP-SM	1.8%					6%	Sieve
19	26	485+80	DOTPF	76	5.0 ft	16.1%	29	SP						4%	Sieve
19	26	485+80	DOTPF	76	10.0 ft		13	SP-SM						5%	Sieve
19	26	487+70	DOTPF	107	0.2 ft			GP-GM						11%	Sieve
19	26	487+70	DOTPF	107	1.5 ft			SP-SM						8%	Sieve
19	25	490+20	DOTPF	22	7.0 ft	14.3%		SP-SM						6%	Sieve
19	26	490+70	DOTPF	75	5.0 ft	8.8%	30	SP						4%	Sieve
19	26	490+70	DOTPF	75	10.0 ft		14	SP						3%	Sieve
19	27	492+60	DOTPF	106	0.1 ft			GP-GM						11%	Sieve
19	27	492+60	DOTPF	106	1.3 ft			SP-SM						8%	Sieve
19	27	492+60	DOTPF	106	4.5 ft	19.6%		ML	4.5%					38%	Sieve
19	25	493+00	DOTPF	23	4.0 ft			SP						4%	Sieve
19	26	495+75	DOTPF	74	5.0 ft	6.0%	20	SP						4%	Sieve
19	26	495+75	DOTPF	74	10.0 ft		10	SP						3%	Sieve
19	25	497+50	DOTPF	25	2.5 ft	5.7%		SP-SM						6%	Sieve
19	27	497+50	DOTPF	105	0.2 ft	37.6%		GM							
19	27	497+50	DOTPF	105	1.5 ft			SP-SM						10%	Sieve
19	27	497+50	DOTPF	105	6.0 ft			SP-SM						8%	Sieve
19	26	498+10	DOTPF	73	5.0 ft	4.1%	15	SP-SM						5%	Sieve
19	26	498+10	DOTPF	73	10.0 ft		17	SP						4%	Sieve
19	25	501+60	DOTPF	26	4.0 ft			SP-SM	1.8%					5%	Sieve
19	26	502+10	DOTPF	104	0.2 ft	2.9%		GP-GM						9%	Sieve
19	26	502+10	DOTPF	104	2.0 ft	3.3%		SP-SM						10%	Sieve
19	26	502+10	DOTPF	104	4.0 ft			GP-GM						9%	Sieve
19	27	503+40	DOTPF	72	5.0 ft	6.1%	10	SP-SM						6%	Sieve
19	27	503+40	DOTPF	72	10.0 ft		10	SP						4%	Sieve
19	26	505+05	DOTPF	103	0.1 ft	2.7%		GP-GM						9%	Sieve
19	26	505+05	DOTPF	103	1.0 ft	4.3%		SP-SM						9%	Sieve
19	26	505+05	DOTPF	103	3.5 ft			ML	7.6%					70%	Sieve
19	25	506+05	DOTPF	28	2.0 ft	20.9%		ML	3.5%						
19	25	506+05	DOTPF	28	3.0 ft	3.1%		SP-SM						5%	Sieve
19	27	508+20	DOTPF	71	5.0 ft	3.8%	17	SP-SM						5%	Sieve
19	27	508+20	DOTPF	71	10.0 ft		16	SP-SM						6%	Sieve
20	28	509+80	DOTPF	29	3.0 ft			SP-SM	1.8%					5%	Sieve

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Station

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
20	29	511+00	DOTPF	102	0.2 ft	3.8%		GP-GM						9%	Sieve
20	29	511+00	DOTPF	102	1.5 ft	3.7%		SP-SM						8%	Sieve
20	29	511+00	DOTPF	102	5.0 ft	15.6%		ML						46%	Sieve
20	29	513+70	DOTPF	70	5.0 ft	7.7%	12	SP-SM						5%	Sieve
20	29	513+70	DOTPF	70	10.0 ft		14	SP						4%	Sieve
20	28	515+55	DOTPF	31	2.0 ft	17.9%		ML	3.7%						
20	28	515+55	DOTPF	31	4.0 ft	4.4%		SP-SM						8%	Sieve
20	29	515+55	DOTPF	101	0.3 ft	4.0%		GP-GM						10%	Sieve
20	29	515+55	DOTPF	101	1.5 ft	3.1%		SP-SM						8%	Sieve
20	29	515+55	DOTPF	101	8.0 ft			SP							
20	28	518+00	DOTPF	32	4.5 ft			SP-SM						5%	Sieve
20	29	518+00	DOTPF	69	5.0 ft	4.8%	14	SP-SM						5%	Sieve
20	29	518+00	DOTPF	69	10.0 ft		16	SP						4%	Sieve
20	28	523+90	DOTPF	34	5.0 ft	7.6%		SP							
20	29	523+90	DOTPF	68	5.0 ft	5.5%	8	SP						4%	Sieve
20	29	523+90	DOTPF	68	10.0 ft		8	SP						4%	Sieve
20	29	525+60	DOTPF	100	0.2 ft	3.1%		GP-GM						7%	Sieve
20	29	525+60	DOTPF	100	1.0 ft	2.3%		SP-SM						7%	Sieve
20	29	525+60	DOTPF	100	4.0 ft			SP-SM						10%	Sieve
20	28	526+90	DOTPF	35	3.0 ft	5.9%		SP							
20	28	526+90	DOTPF	35	5.0 ft			SP-SM	2.0%					6%	Sieve
20	29	528+80	DOTPF	67	5.0 ft	4.6%	12	SP						4%	Sieve
20	29	528+80	DOTPF	67	10.0 ft	19.7%	18	SP						4%	Sieve
20	28	530+90	DOTPF	99	0.5 ft	3.7%		GP-GM						9%	Sieve
20	28	530+90	DOTPF	99	1.5 ft	3.4%		SP-SM						6%	Sieve
20	28	530+90	DOTPF	99	4.0 ft	4.1%		SP-SM						12%	Sieve
20	29	532+15	DOTPF	92	2.0 ft			Pt							
20	29	532+15	DOTPF	92	5.0 ft			Pt							
20	30	533+25	DOTPF	58	5.0 ft	22.1%	14	SP						4%	Sieve
20	30	533+25	DOTPF	58	10.0 ft		39	SP-SM						5%	Sieve
21	31	535+00	DOTPF	38	2.0 ft	5.6%		SP							
21	32	535+00	DOTPF	97	0.2 ft	2.0%		GP							
21	32	535+00	DOTPF	97	1.5 ft	4.7%		SP-SM						11%	Sieve
21	32	537+50	DOTPF	57	5.0 ft	3.7%	31	SP						4%	Sieve
21	32	537+50	DOTPF	57	10.0 ft		10	SP-SM						7%	Sieve
21	31	538+00	DOTPF	39	3.5 ft			SP						4%	Sieve
21	32	540+00	DOTPF	96	0.2 ft	2.8%		GP-GM						10%	Sieve
21	32	540+00	DOTPF	96	1.0 ft	4.5%		SP-SM						9%	Sieve
21	32	540+00	DOTPF	96	2.0 ft	5.1%		SP-SM						11%	Sieve
21	32	541+00	DOTPF	56	5.0 ft	12.8%	2	SM						22%	Sieve
21	32	541+00	DOTPF	56	10.0 ft		10	SP-SM						5%	Sieve
21	31	544+00	DOTPF	41	2.5 ft	16.0%		ML							
21	31	544+00	DOTPF	41	3.5 ft	3.7%		SP-SM						8%	Sieve
21	32	545+00	DOTPF	95	0.2 ft	2.9%		GP-GM							
21	32	545+00	DOTPF	95	0.8 ft	3.4%		SP-SM						11%	Sieve
21	32	545+00	DOTPF	95	2.0 ft	6.1%		SM						18%	Sieve
21	32	546+00	DOTPF	55	5.0 ft	3.9%	19	SP						4%	Sieve
21	32	546+00	DOTPF	55	10.0 ft	35.7%	18	SP-SM	7.7%					5%	Sieve
21	31	547+00	DOTPF	42	2.5 ft			SP						4%	Sieve
21	32	551+00	DOTPF	54	5.0 ft	4.7%	21	SP-SM						5%	Sieve
21	32	551+00	DOTPF	54	10.0 ft	19.6%	20	SP							
21	31	553+00	DOTPF	44	3.0 ft	3.7%		SP-SM						6%	Sieve
21	31	556+00	DOTPF	45	3.5 ft	3.9%		SP-SM						6%	Sieve
21	32	556+00	DOTPF	53	5.0 ft	3.1%	17	SP						4%	Sieve
21	32	556+00	DOTPF	53	10.0 ft	23.6%	24	SP-SM						5%	Sieve
21	31	559+00	DOTPF	46	4.0 ft			SP						4%	Sieve

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
22	34	561+00	DOTPF	52	5.0 ft	5.3%	8	SP						4%	Sieve
22	34	561+00	DOTPF	52	10.0 ft	12.0%	15	SP						4%	Sieve
22	33	561+00	DOTPF	94	0.2 ft	2.6%		GP-GM						5%	Sieve
22	33	561+00	DOTPF	94	2.0 ft	3.4%		SP-SM						7%	Sieve
22	33	561+00	DOTPF	94	5.0 ft			GP-GM						7%	Sieve
22	34	562+00	DOTPF	47	3.5 ft	3.9%		SP							
22	33	568+00	DOTPF	49	6.0 ft			SP						3%	Sieve
22	34	571+00	DOTPF	51	5.0 ft	7.1%	3	SP							
22	34	571+00	DOTPF	51	10.0 ft	8.5%	4	SP							
22	33	573+00	DOTPF	93	0.0 ft	3.9%		GP-GM						10%	Sieve
22	33	573+00	DOTPF	93	4.0 ft	26.1%		SP-SM	5.1%					10%	Sieve
22	33	573+00	DOTPF	93	4.0 ft			SP-SM						9%	Sieve
22	33	573+00	DOTPF	93	6.5 ft			SP-SM							
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
			Count =	741	741	582	492		17	4	4	4	5	216	167

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.

Kenai Spur Road - Sample Data by Station for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
1	27+31	DM&A	89	0.2 ft	Fill	paved	1.8%	GP		100%	96%	75%	61%	36%	21%	13%	9%		5%	3%	1.7%		
2	57+10	DM&A	92	0.2 ft	Fill	paved	2.2%	GP-GM		100%	95%	75%	62%	42%	29%	21%	15%		10%	8%	6.3%		
4	86+92	DM&A	77	0.1 ft	Fill	paved	3.3%	GP-GM	100%	96%	93%	75%	69%	53%	40%	32%	24%		17%	12%	9.4%		
4	89+00	DM&A	73	0.1 ft	Fill	paved	2.6%	GP-GM	100%	95%	85%	60%	54%	41%	31%	25%	20%		14%	10%	7.1%		
4	100+97	DM&A	79	2.0 ft	Fill	paved	7.4%	GP-GM		100%	92%	81%	72%	60%	52%	46%	37%		20%	12%	8.7%		
6	148+80	DM&A	71	0.1 ft	Fill	paved	5.4%	GP-GM		100%	94%	78%	68%	50%	36%	26%	18%		11%	8%	5.6%		
7	157+30	DM&A	70	2.0 ft	Fill	paved	3.4%	GP-GM	100%	94%	94%	83%	75%	57%	43%	32%	24%		16%	11%	7.9%		
7	163+00	DM&A	1	0.1 ft	Fill	paved	2.3%	GP	100%	95%	83%	59%	48%	33%	24%	19%	14%		9%	7%	4.9%		
7	167+43	DM&A	2	0.1 ft	Fill	paved	2.4%	GP-GM		100%	94%	78%	69%	46%	33%	23%	16%		10%	7%	5.7%	4%	
7	171+56	DM&A	3	2.0 ft	Fill	paved	3.1%	GP-GM			100%	86%	79%	60%	44%	34%	26%		18%	13%	9.2%		
8	205+00	DM&A	61	2.0 ft	Fill	paved	3.5%	SP			100%	99%	98%	96%	95%	94%	83%		39%	12%	4.1%		
9	222+27	DM&A	59	0.1 ft	Fill	paved	3.0%	GPGM		100%	96%	78%	67%	50%	39%	32%	25%		17%	12%	9.4%		
9	226+40	DM&A	58	0.1 ft	Fill	paved	2.9%	GP-GM	100%	98%	95%	75%	67%	51%	39%	32%	24%		16%	11%	8.7%		
10	259+59	DM&A	55	0.1 ft	Fill	paved	3.0%	GP-GM	100%	98%	91%	75%	66%	51%	39%	30%	21%		14%	10%	7.4%		
11	274+50	DM&A	17	0.1 ft	Fill	paved	3.8%	GP-GM	100%	97%	97%	78%	64%	41%	28%	21%	16%		11%	8%	5.6%		
13	325+65	DM&A	49	2.0 ft	Fill	paved	3.9%	GP-GM	100%	95%	81%	71%	63%	51%	43%	38%	33%		27%	23%	11.2%	3%	
13	349+49	DM&A	26	2.5 ft	Fill	paved	2.3%	SP-SM		100%	97%	93%	90%	80%	72%	66%	54%		24%	8%	3.3%		
16	423+21	DM&A	39	0.1 ft	Fill	paved	2.1%	GP-GM	100%	93%	90%	70%	60%	39%	27%	21%	16%		10%	7%	5.1%		
17	435+10	DOTPF	115	0.2 ft	Fill	paved		GP-GM	100%	99%	96%	86%	78%	56%	43%		25%	19%			9.0%		
17	451+70	DOTPF	114	0.2 ft	Fill	paved		GP-GM		100%	97%	86%	76%	52%	38%		21%	16%			8.0%		
17	451+70	DOTPF	114	1.5 ft	Fill	paved		SP-SM			100%	97%	96%	90%	84%		61%	35%			7.0%		
18	459+50	DOTPF	113	0.2 ft	Fill	paved		GP-GM		100%	98%	86%	76%	53%	41%		26%	21%			11.0%		
18	459+50	DOTPF	113	2.0 ft	Fill	paved		SP-SM	100%	95%	90%	81%	75%	64%	57%		43%	32%			10.0%		
18	459+50	DOTPF	113	3.5 ft	Fill	paved		SP-SM		100%	99%	96%	93%	85%	81%		61%	39%			9.0%		
18	464+75	DOTPF	112	0.2 ft	Fill	paved		GP-GM		100%	98%	88%	79%	58%	47%		30%	24%			10.0%		
18	464+75	DOTPF	112	2.0 ft	Fill	paved		SM			100%	98%	96%	92%	88%		68%	45%			15.0%		
18	466+50	DOTPF	111	0.1 ft	Fill	paved		GP-GM	100%	99%	98%	89%	80%	59%	45%		26%	20%			10.0%		
18	466+50	DOTPF	111	2.0 ft	Fill	paved		SP-SM			100%	97%	96%	92%	86%		64%	42%			8.0%		
18	470+15	DOTPF	110	0.1 ft	Fill	paved		GP-GM	100%	98%	94%	81%	71%	49%	38%		23%	17%			8.0%		
18	476+60	DOTPF	109	0.1 ft	Fill	paved		GP-GM		100%	99%	89%	80%	58%	43%		24%	19%			9.0%		
18	476+60	DOTPF	109	1.5 ft	Fill	paved		SP-SM			100%	98%	95%	86%	79%		58%	39%			9.0%		
18	480+30	DOTPF	108	0.2 ft	Fill	paved		GP-GM		100%	98%	91%	83%	63%	48%		28%	22%			11.0%		
18	480+30	DOTPF	108	1.4 ft	Fill	paved		SP-SM			100%	96%	93%	83%	74%		56%	40%			11.0%		
19	487+70	DOTPF	107	0.2 ft	Fill	paved		GP-GM		100%	99%	91%	82%	60%	45%		26%	21%			11.0%		
19	487+70	DOTPF	107	1.5 ft	Fill	paved		SP-SM			100%	96%	92%	83%	74%		51%	34%			8.0%		
19	492+60	DOTPF	106	0.1 ft	Fill	paved		GP-GM	100%	99%	98%	89%	81%	61%	48%		28%	22%			11.0%		
19	492+60	DOTPF	106	1.3 ft	Fill	paved		SP-SM			100%	98%	96%	89%	81%		58%	38%			8.0%		
19	497+50	DOTPF	105	1.5 ft	Fill	paved		SP-SM			100%	97%	94%	86%	78%		57%	38%			10.0%		
19	502+10	DOTPF	104	0.2 ft	Fill	paved	2.9%	GP-GM		100%	98%	90%	81%	59%	41%		23%	18%			9.0%		
19	502+10	DOTPF	104	2.0 ft	Fill	paved	3.3%	SP-SM			100%	96%	91%	78%	64%		41%	29%			10.0%		
19	505+05	DOTPF	103	0.1 ft	Fill	paved	2.7%	GP-GM		100%	99%	88%	77%	55%	37%		21%	17%			9.0%		
19	505+05	DOTPF	103	1.0 ft	Fill	paved	4.3%	SP-SM			100%	96%	93%	84%	75%		52%	36%			9.0%		
20	511+00	DOTPF	102	0.2 ft	Fill	paved	3.8%	GP-GM		100%	99%	96%	88%	66%	45%		24%	19%			9.0%		

Plate 5

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Station for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
20	511+00	DOTPF	102	1.5 ft	Fill	paved	3.7%	SP-SM			100%	99%	97%	92%	86%		62%	39%			8.0%		
20	515+55	DOTPF	101	0.3 ft	Fill	paved	4.0%	GP-GM			100%	93%	85%	61%	41%		26%	21%			10.0%		
20	515+55	DOTPF	101	1.5 ft	Fill	paved	3.1%	SP-SM		100%	99%	99%	98%	92%	85%		55%	33%			8.0%		
20	525+60	DOTPF	100	0.2 ft	Fill	paved	3.1%	GP-GM			100%	95%	87%	63%	43%		24%	18%			7.0%		
20	525+60	DOTPF	100	1.0 ft	Fill	paved	2.3%	SP-SM			100%	98%	96%	86%	77%		56%	34%			7.0%		
20	525+60	DOTPF	100	4.0 ft	Fill	paved		SP-SM			100%	90%	93%	54%	72%		56%	35%			10.0%		
20	530+90	DOTPF	99	0.5 ft	Fill	paved	3.7%	GP-GM	100%	99%	96%	89%	81%	64%	47%		26%	21%			9.0%		
20	530+90	DOTPF	99	1.5 ft	Fill	paved	3.4%	SP-SM			100%	98%	98%	95%	91%		50%	32%			6.0%		
20	530+90	DOTPF	99	4.0 ft	Fill	paved	4.1%	SP-SM		100%	97%	93%	88%	76%	65%		46%	32%			12.0%		
21	535+00	DOTPF	97	1.5 ft	Fill	paved	4.7%	SP-SM			100%	99%	97%	91%	84%		57%	38%			11.0%		
21	540+00	DOTPF	96	0.2 ft	Fill	paved	2.8%	GP-GM			100%	93%	87%	67%	49%		31%	24%			10.0%		
21	540+00	DOTPF	96	1.0 ft	Fill	paved	4.5%	SP-SM		100%	98%	94%	92%	85%	78%		56%	37%			9.0%		
21	540+00	DOTPF	96	2.0 ft	Fill	paved	5.1%	SP-SM		100%	99%	98%	96%	92%	86%		62%	43%			11.0%		
21	545+00	DOTPF	95	0.8 ft	Fill	paved	3.4%	SP-SM	100%	99%	98%	94%	89%	72%	56%		39%	30%			11.0%		
21	545+00	DOTPF	95	2.0 ft	Fill	paved	6.1%	SM				100%	99%	95%	91%		72%	53%			18.0%		
22	561+00	DOTPF	94	0.2 ft	Fill	paved	2.6%	GP-GM		100%	97%	85%	73%	50%	35%		18%	14%			5.0%		
22	561+00	DOTPF	94	2.0 ft	Fill	paved	3.4%	SP-SM			100%	99%	98%	95%	90%		67%	44%			7.0%		
22	573+00	DOTPF	93	0.0 ft	Fill	paved	3.9%	GP-GM			100%	94%	84%	62%	43%		26%	21%			10.0%		
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
	Count of Fill samples =		61				40		16	38	60	61	61	61	61	18	61	43	18	18	61	200%	0%
	Average for Fill samples =			1.0 ft			3.5%		100%	99%	97%	88%	82%	67%	56%	34%	38%	30%	16%	10%	8.7%		
	Minimum for Fill samples =			0.0 ft			1.8%		100%	93%	81%	59%	48%	33%	21%	13%	9%	14%	5%	3%	1.7%		
	Maximum for Fill samples =			4.0 ft			7.4%		100%	100%	100%	100%	99%	96%	95%	94%	83%	53%	39%	23%	18.0%		

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.

Plate 52

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenal Spur Road - Sample Data by Station for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
5	119+79	DM&A	97	5.0 ft			11.3%	SM			100%	97%	96%	95%	93%	91%	82%		55%	38%	32.0%	22%	
5	128+00	DM&A	121	25.0 ft			9.4%	ML							100%	100%	99%		91%	71%	42.0%	13%	
6	131+60	DM&A	98	35.0 ft			13.1%	ML			100%	99%	99%	98%	97%	96%	96%		94%	75%	44.1%		
6	133+72	DM&A	119	24.5 ft			35.3%	ML							100%	100%	99%		97%	96%	94.7%	85%	17%
6	133+72	DM&A	119	29.5 ft			7.8%	SM				100%	99%	98%	96%	93%	89%		77%	38%	21.7%		
6	137+65	DM&A	117	9.5 ft			29.4%	ML			100%	99%	98%	94%	90%	87%	85%		81%	77%	70.7%	46%	12%
6	143+90	DM&A	114	5.0 ft			17.5%	SM						100%	100%	98%	92%		72%	44%	25.9%		
7	161+00	DM&A	69	5.0 ft		paved	41.7%	ML					100%	99%	98%	96%	92%		86%	79%	70.3%	33%	
7	163+00	DM&A	1	5.0 ft		paved	25.2%	ML	100%	100%	100%	97%	96%	95%	94%	92%	90%		84%	78%	69.2%	36%	5%
8	190+99	DM&A	64	5.0 ft		paved	19.5%	ML					100%	100%	99%	99%	93%		72%	55%	43.3%		
8	192+94	DM&A	6	10.0 ft		paved	8.4%	SP								100%	91%		23%	6%	3.4%		
8	196+91	DM&A	7	5.0 ft		paved	9.3%	SP-SM								100%	98%		90%	35%	7.3%		
8	198+84	DM&A	62	10.0 ft		paved	31.3%	ML					100%	100%	100%	100%	99%		99%	98%	96.7%	84%	22%
9	212+64	DM&A	109	0.0 ft			9.5%	SM			100%	94%	92%	88%	82%	77%	70%		53%	36%	25.0%		
9	218+93	DM&A	10	2.0 ft		paved	4.1%	SP					100%	99%	98%	96%	83%		39%	11%	3.6%		
9	224+46	DM&A	11	5.0 ft		paved	45.6%	ML					100%	100%	99%	99%	96%		88%	80%	69.8%	33%	4%
12	315+53	DM&A	21	5.0 ft		paved	18.6%	ML					100%	100%	99%	99%	98%		96%	93%	75.5%	21%	
12	321+08	DM&A	96	5.0 ft			5.5%	ML							100%	100%	99%		98%	91%	37.5%	2%	
12	323+70	DM&A	23	2.0 ft		paved	6.4%	SM	100%	92%	80%	79%	79%	76%	74%	73%	71%		68%	63%	34.0%	6%	
15	384+83	DM&A	31	2.0 ft		paved	3.4%	SP-SM	100%	90%	90%	81%	77%	65%	58%	52%	41%		23%	15%	9.8%	5%	
16	425+59	DM&A	38	5.0 ft		paved	7.4%	SP-SM		100%	91%	89%	89%	84%	80%	74%	54%		22%	15%	13.3%	6%	
17	433+83	DOTPF	1	5.0 ft				SP-SM				100%	98%	97%	95%		66%	36%			8.0%		
17	435+10	DOTPF	115	3.0 ft		paved		ML			100%	98%	97%	95%	91%		80%	75%			61.0%		
17	436+19	DOTPF	2	4.0 ft			6.0%	SM			100%	99%	98%	96%	94%		72%	55%			18.0%		
17	438+60	DOTPF	3	4.0 ft			4.6%	SP-SM					100%	98%	96%		83%	56%			8.0%		
17	441+80	DOTPF	4	4.5 ft				SP-SM			100%	98%	97%	95%	92%		58%	34%			9.0%		
17	444+40	DOTPF	84	5.0 ft			6.9%	SP				100%	98%	97%	94%		75%	44%			3.0%		
17	444+40	DOTPF	84	10.0 ft				SP-SM				100%	99%	97%	93%		68%	38%			5.0%		
17	447+60	DOTPF	6	3.5 ft			22.0%	SP-SM					100%	99%	98%		78%	53%			8.0%		
17	449+00	DOTPF	83	5.0 ft				SP			100%	98%	95%	89%	82%		45%	24%			3.0%		
17	449+70	DOTPF	7	2.0 ft				SP-SM			100%	99%	97%	94%	92%		73%	47%			12.0%		
17	451+70	DOTPF	114	3.5 ft		paved	39.3%	ML			100%	99%	97%	95%	92%		86%	82%			73.0%		
17	453+75	DOTPF	82	5.0 ft			10.1%	SP						100%	99%		84%	42%			3.0%		
17	454+00	DOTPF	9	2.5 ft				SP-SM				100%	99%	98%	96%		71%	38%			6.0%		
18	458+50	DOTPF	81	5.0 ft			22.0%	SP					100%	99%	97%		66%	34%			3.0%		
18	466+80	DOTPF	13	2.5 ft			3.9%	SP-SM			100%	99%	98%	97%	94%		65%	35%			11.0%		
18	468+30	DOTPF	79	5.0 ft			16.0%	SP					100%	99%	96%		79%	50%			3.0%		
18	468+30	DOTPF	79	10.0 ft				SP			100%	99%	98%	97%	97%		76%	47%			4.0%		
18	468+80	DOTPF	14	7.0 ft				SP-SM						100%	99%		78%	55%			6.0%		
18	470+15	DOTPF	110	4.5 ft		paved		OL			100%	97%	96%	91%	84%		74%	70%			57.0%		
18	473+60	DOTPF	78	5.0 ft			2.3%	SP				100%	99%	98%	96%		54%	22%			3.0%		
18	473+60	DOTPF	78	10.0 ft				SP		100%	99%	99%	99%	97%	95%		63%	36%			3.0%		
18	474+20	DOTPF	16	2.0 ft			3.7%	SP-SM			100%	99%	99%	96%	94%		72%	54%			9.0%		

Plate 3 of 3

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Station for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
18	476+60	DOTPF	109	3.8 ft		paved		ML	100%	98%		94%	92%	90%	86%		75%	68%			52.0%		
18	478+50	DOTPF	18	3.5 ft				SP-SM						100%	99%		91%	75%			6.0%		
18	478+60	DOTPF	77	5.0 ft			4.5%	SP					100%	99%	96%		66%	35%			4.0%		
18	478+60	DOTPF	77	10.0 ft				SP			100%	98%	97%	95%	93%		55%	22%			3.0%		
18	480+00	DOTPF	19	3.5 ft			6.0%	SM		100%	99%	98%	98%	96%	92%		66%	44%			14.0%		
19	484+60	DOTPF	20	2.0 ft				SP-SM					100%	99%	97%		65%	35%			6.0%		
19	485+80	DOTPF	76	5.0 ft			16.1%	SP					100%	99%	96%		59%	30%			4.0%		
19	485+80	DOTPF	76	10.0 ft				SP-SM						100%	99%		74%	51%			5.0%		
19	490+20	DOTPF	22	7.0 ft			14.3%	SP-SM					100%	98%	95%		67%	40%			6.0%		
19	490+70	DOTPF	75	5.0 ft			8.8%	SP				100%	99%	98%	96%		66%	39%			4.0%		
19	490+70	DOTPF	75	10.0 ft				SP					100%	99%	98%		71%	40%			3.0%		
19	492+60	DOTPF	106	4.5 ft		paved	19.6%	ML			100%	88%	84%	73%	66%		56%	49%			38.0%		
19	493+00	DOTPF	23	4.0 ft				SP					100%	99%	98%		75%	47%			4.0%		
19	495+75	DOTPF	74	5.0 ft			6.0%	SP			100%	99%	99%	98%	96%		81%	52%			4.0%		
19	495+75	DOTPF	74	10.0 ft				SP		100%	98%	98%	98%	97%	96%		72%	45%			3.0%		
19	497+50	DOTPF	25	2.5 ft			5.7%	SP-SM				100%	99%	98%	95%		73%	47%			6.0%		
19	497+50	DOTPF	105	6.0 ft		paved		SP-SM			100%	98%	95%	89%	82%		42%	23%			8.0%		
19	498+10	DOTPF	73	5.0 ft			4.1%	SP-SM		100%	98%	97%	95%	93%	90%		54%	25%			5.0%		
19	498+10	DOTPF	73	10.0 ft				SP				100%	99%	99%	98%		67%	29%			4.0%		
19	501+60	DOTPF	26	4.0 ft				SP-SM					100%	98%	95%		60%	28%			5.0%		
19	502+10	DOTPF	104	4.0 ft		paved		GP-GM		100%	99%	91%	84%	62%	45%		25%	19%			9.0%		
19	503+40	DOTPF	72	5.0 ft			6.1%	SP-SM		100%	97%	95%	93%	88%	84%		62%	43%			6.0%		
19	503+40	DOTPF	72	10.0 ft				SP						100%	99%		86%	48%			4.0%		
19	505+05	DOTPF	103	3.5 ft		paved		ML				100%	99%	97%	92%		84%	80%			70.0%		
19	506+05	DOTPF	28	3.0 ft			3.1%	SP-SM					100%	98%	95%		67%	37%			5.0%		
19	508+20	DOTPF	71	5.0 ft			3.8%	SP-SM					100%	96%	92%		63%	43%			5.0%		
19	508+20	DOTPF	71	10.0 ft				SP-SM						100%	99%		82%	62%			6.0%		
20	509+80	DOTPF	29	3.0 ft				SP-SM					100%	97%	93%		65%	36%			5.0%		
20	511+00	DOTPF	102	5.0 ft		paved	15.6%	ML			100%	98%	94%	88%	82%		69%	60%			46.0%		
20	513+70	DOTPF	70	5.0 ft			7.7%	SP-SM						100%	99%		88%	61%			5.0%		
20	513+70	DOTPF	70	10.0 ft				SP							100%		81%	46%			4.0%		
20	515+55	DOTPF	31	4.0 ft			4.4%	SP-SM			100%	99%	99%	96%	91%		55%	36%			8.0%		
20	518+00	DOTPF	32	4.5 ft				SP-SM				100%	99%	98%	95%		58%	33%			5.0%		
20	518+00	DOTPF	69	5.0 ft			4.8%	SP-SM			100%	99%	98%	94%	91%		59%	38%			5.0%		
20	518+00	DOTPF	69	10.0 ft				SP					100%	99%	97%		67%	37%			4.0%		
20	523+90	DOTPF	68	5.0 ft			5.5%	SP			100%	99%	98%	97%	95%		75%	50%			4.0%		
20	523+90	DOTPF	68	10.0 ft				SP							100%		80%	44%			4.0%		
20	526+90	DOTPF	35	5.0 ft				SP-SM					100%	98%	97%		75%	47%			6.0%		
20	528+80	DOTPF	67	5.0 ft			4.6%	SP			100%		97%	94%	91%		61%	31%			4.0%		
20	528+80	DOTPF	67	10.0 ft			19.7%	SP					100%	99%	97%		75%	43%			4.0%		
20	533+25	DOTPF	58	5.0 ft			22.1%	SP						100%	99%		85%	59%			4.0%		
20	533+25	DOTPF	58	10.0 ft				SP-SM					100%	99%	99%		78%	38%			5.0%		
21	537+50	DOTPF	57	5.0 ft			3.7%	SP		100%	98%	98%	97%	95%	93%		71%	39%			4.0%		

Plate 4

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

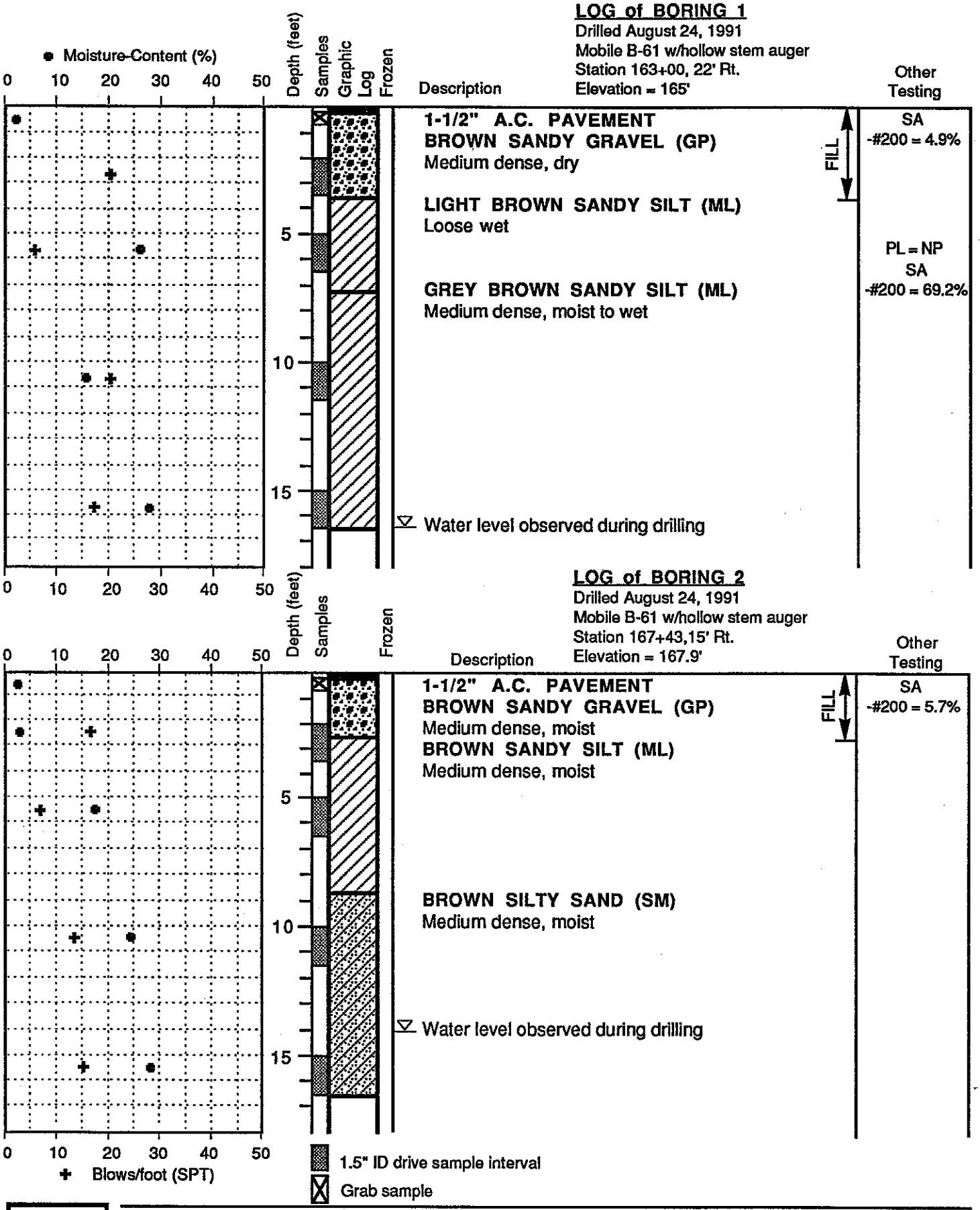
Kenai Spur Road - Sample Data by Station for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
21	537+50	DOTPF	57	10.0 ft				SP-SM					100%	99%	99%		81%	50%			7.0%		
21	538+00	DOTPF	39	3.5 ft				SP				100%	99%	97%	95%		65%	33%			4.0%		
21	541+00	DOTPF	56	5.0 ft			12.8%	SM		100%	97%	96%	96%	93%	89%		61%	43%			22.0%		
21	541+00	DOTPF	56	10.0 ft				SP-SM			100%	99%	99%	99%	98%		81%	48%			5.0%		
21	544+00	DOTPF	41	3.5 ft			3.7%	SP-SM							100%		85%	54%			8.0%		
21	546+00	DOTPF	55	5.0 ft			3.9%	SP					100%	99%	97%		66%	40%			4.0%		
21	546+00	DOTPF	55	10.0 ft			35.7%	SP-SM					100%	99%	98%		55%	25%			5.0%		
21	547+00	DOTPF	42	2.5 ft				SP					100%	99%	99%		81%	47%			4.0%		
21	551+00	DOTPF	54	5.0 ft			4.7%	SP-SM			100%	99%	98%	96%	94%		74%	47%			5.0%		
21	553+00	DOTPF	44	3.0 ft			3.7%	SP-SM				100%	99%	98%	97%		71%	48%			6.0%		
21	556+00	DOTPF	45	3.5 ft			3.9%	SP-SM			100%	99%	99%	96%	93%		44%	25%			6.0%		
21	556+00	DOTPF	53	5.0 ft			3.1%	SP			100%	93%	91%	83%	70%		30%	16%			4.0%		
21	556+00	DOTPF	53	10.0 ft			23.6%	SP-SM							100%		85%	50%			5.0%		
21	559+00	DOTPF	46	4.0 ft				SP			100%	99%	98%	94%	90%		58%	30%			4.0%		
22	561+00	DOTPF	52	5.0 ft			5.3%	SP		100%	96%		94%	89%	83%		59%	36%			4.0%		
22	561+00	DOTPF	52	10.0 ft			12.0%	SP		100%	98%		97%	95%	92%		54%	26%			4.0%		
22	561+00	DOTPF	94	5.0 ft		paved		GP-GM			100%	91%	82%	60%	43%		25%	20%			7.0%		
22	568+00	DOTPF	49	6.0 ft				SP					100%	98%	95%		70%	45%			3.0%		
22	573+00	DOTPF	93	4.0 ft		paved	26.1%	SP-SM		100%	98%	96%	94%	88%	80%		49%	32%			10.0%		
22	573+00	DOTPF	93	4.0 ft		paved		SP-SM			100%	99%	97%	92%	85%		55%	34%			9.0%		
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
Count of Natural samples =			106				65			16	45	56	88	97	104	21	106	85	21	21	106	13	5
Average for Natural samples =			6.4	ft			12.6%			99%	99%	97%	97%	95%	92%	91%	71%	43%	72%	57%	16.4%	30%	12%
Min. for Natural samples =			0.0	ft			2.3%			90%	80%	79%	77%	60%	43%	52%	25%	16%	22%	6%	3.0%	2%	4%
Max. for Natural samples =			35.0	ft			45.6%			100%	100%	100%	100%	100%	100%	100%	99%	82%	99%	98%	96.7%	85%	22%

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.

Plate 5

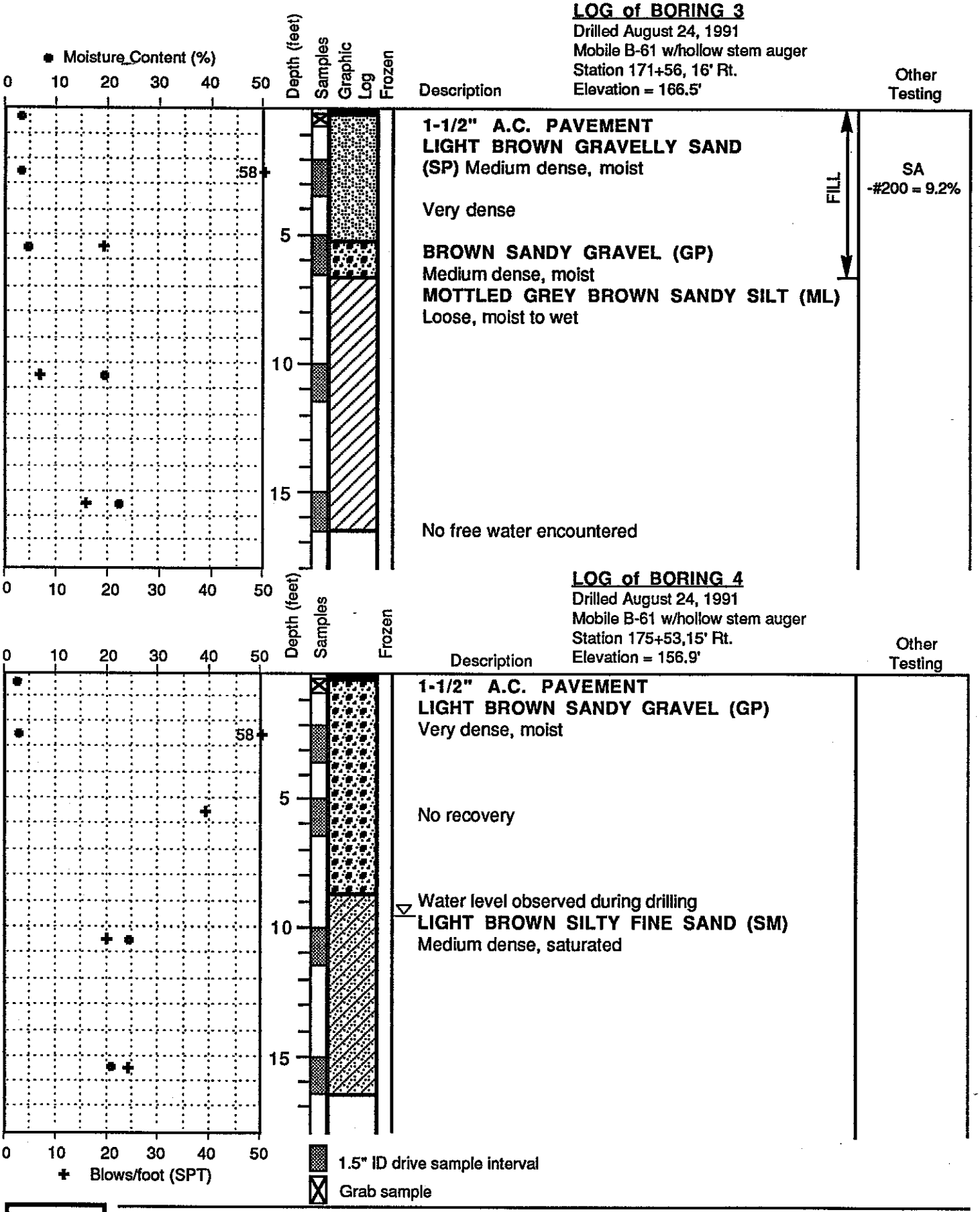
*USCS symbols are used as an abbreviation for DOTPF Textural Classification



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Date : November 1991

LOGS of BORINGS 1 and 2
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-1



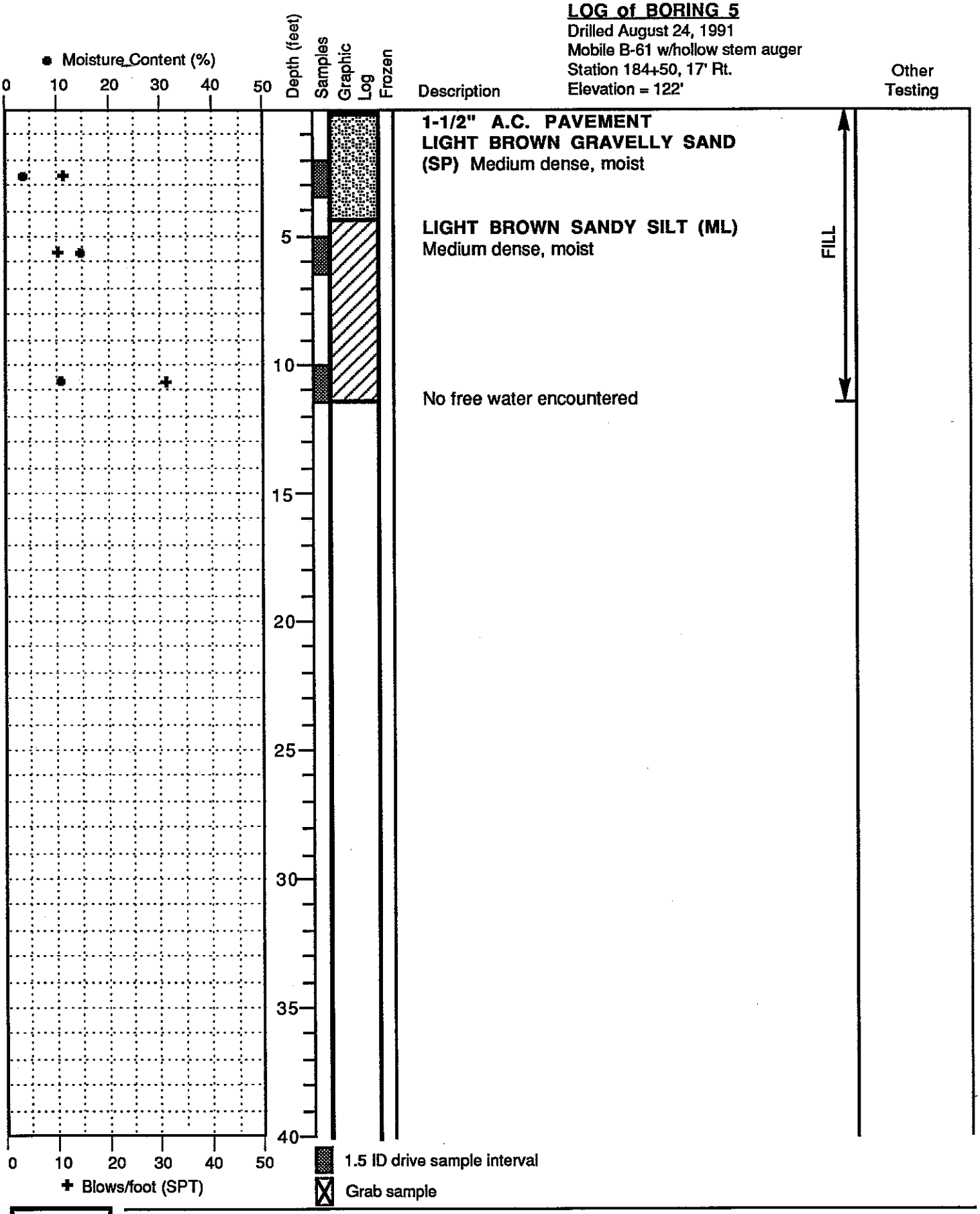
Duane Miller & Associates
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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 3 and 4
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-2

LOG of BORING 5

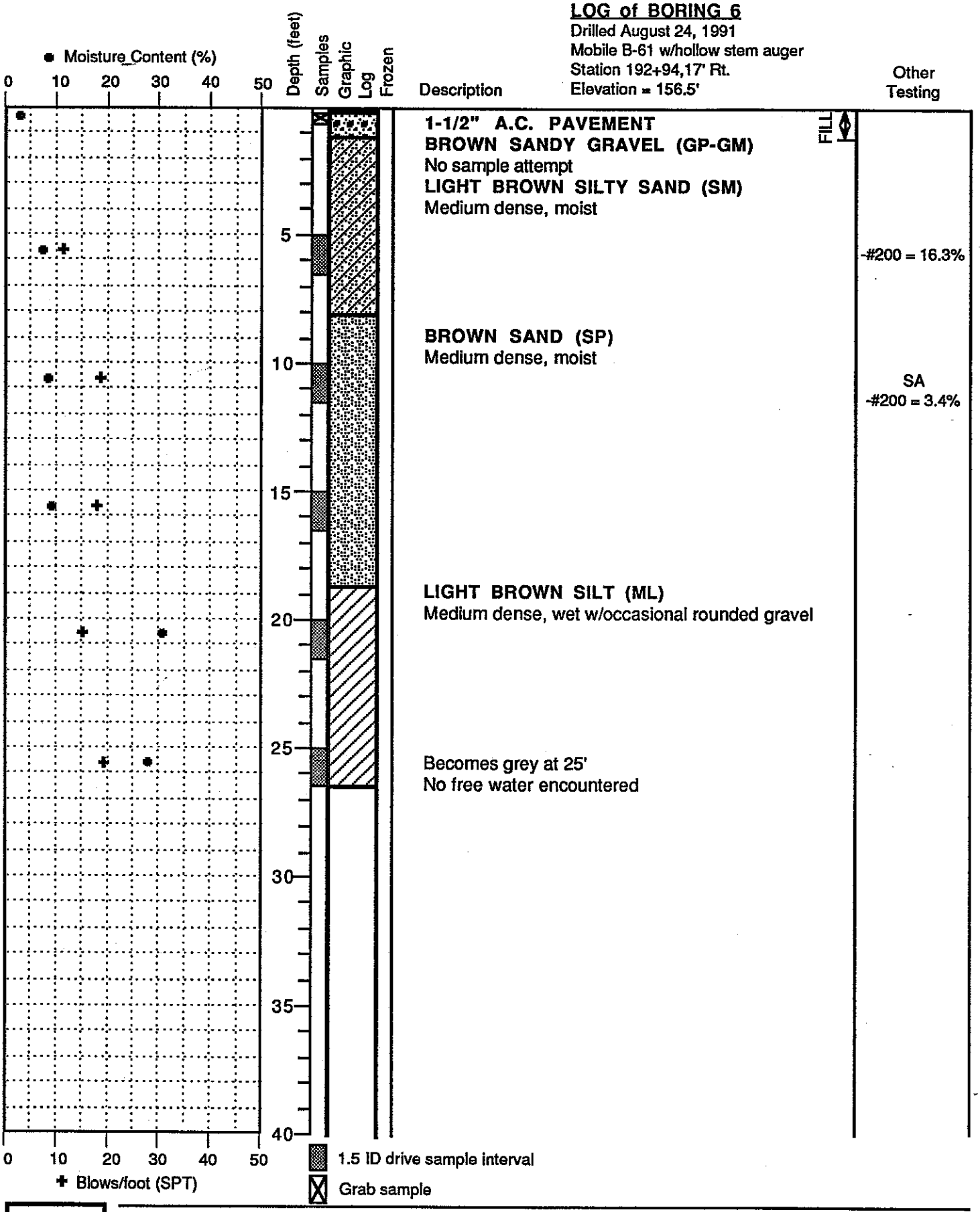
Drilled August 24, 1991
Mobile B-61 w/hollow stem auger
Station 184+50, 17' Rt.
Elevation = 122'



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Date : November 1991

LOG of BORING 5
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-3



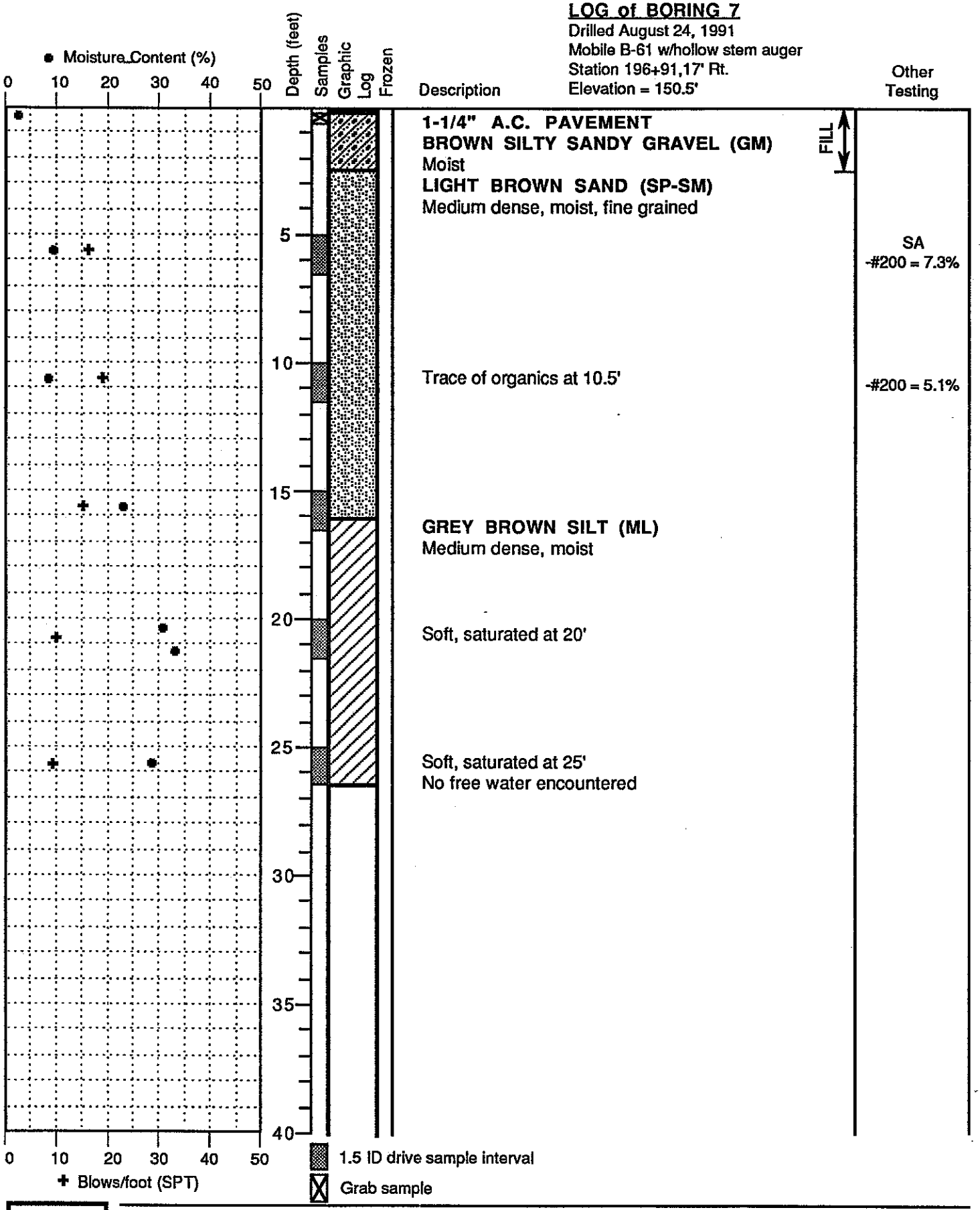
LOG of BORING 6

Drilled August 24, 1991
Mobile B-61 w/hollow stem auger
Station 192+94,17' Rt.
Elevation = 156.5'

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Job No.: 4005.40
Date : November 1991

LOG of BORING 6
Kenai Spur Highway
Soldotna to Kenai, Alaska

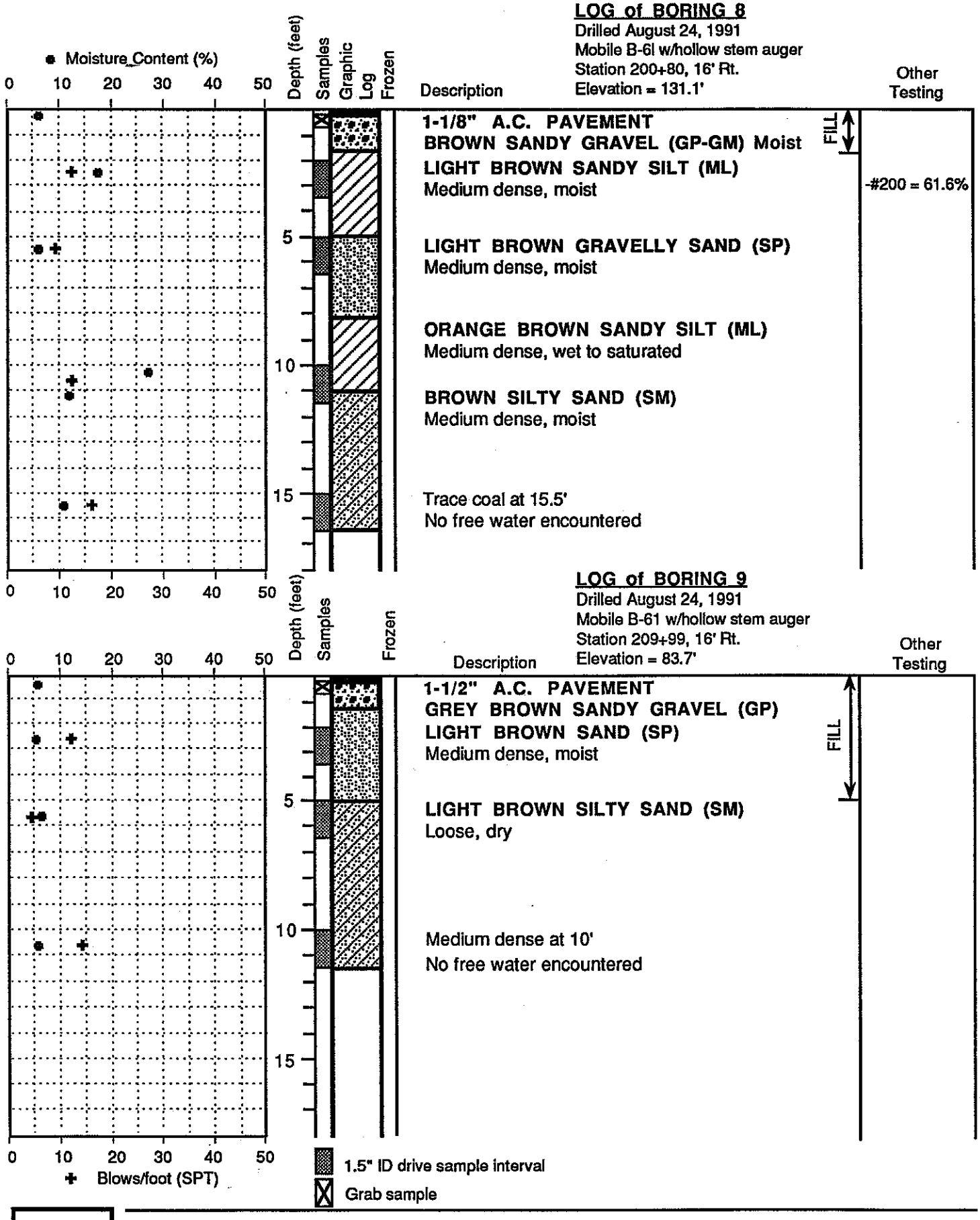
Plate
A-4



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Job No.: 4005.40
Date : November 1991

LOG of BORING 7
Kenai Spur Highway
Soldotna to Kenai, Alaska

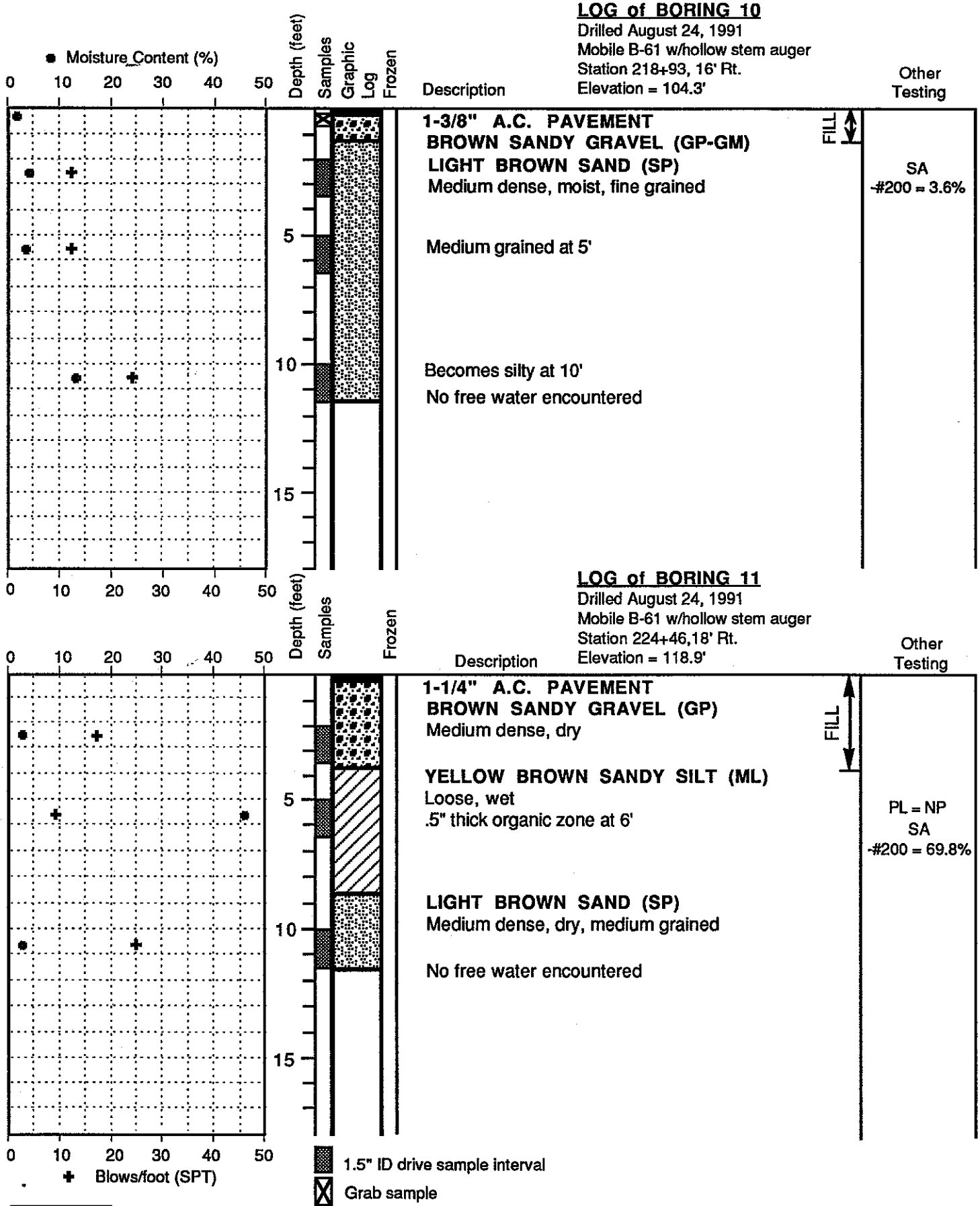
Plate
A-5



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 8 and 9
Kenai Spur Highway
Soldotna to Kenai, Alaska

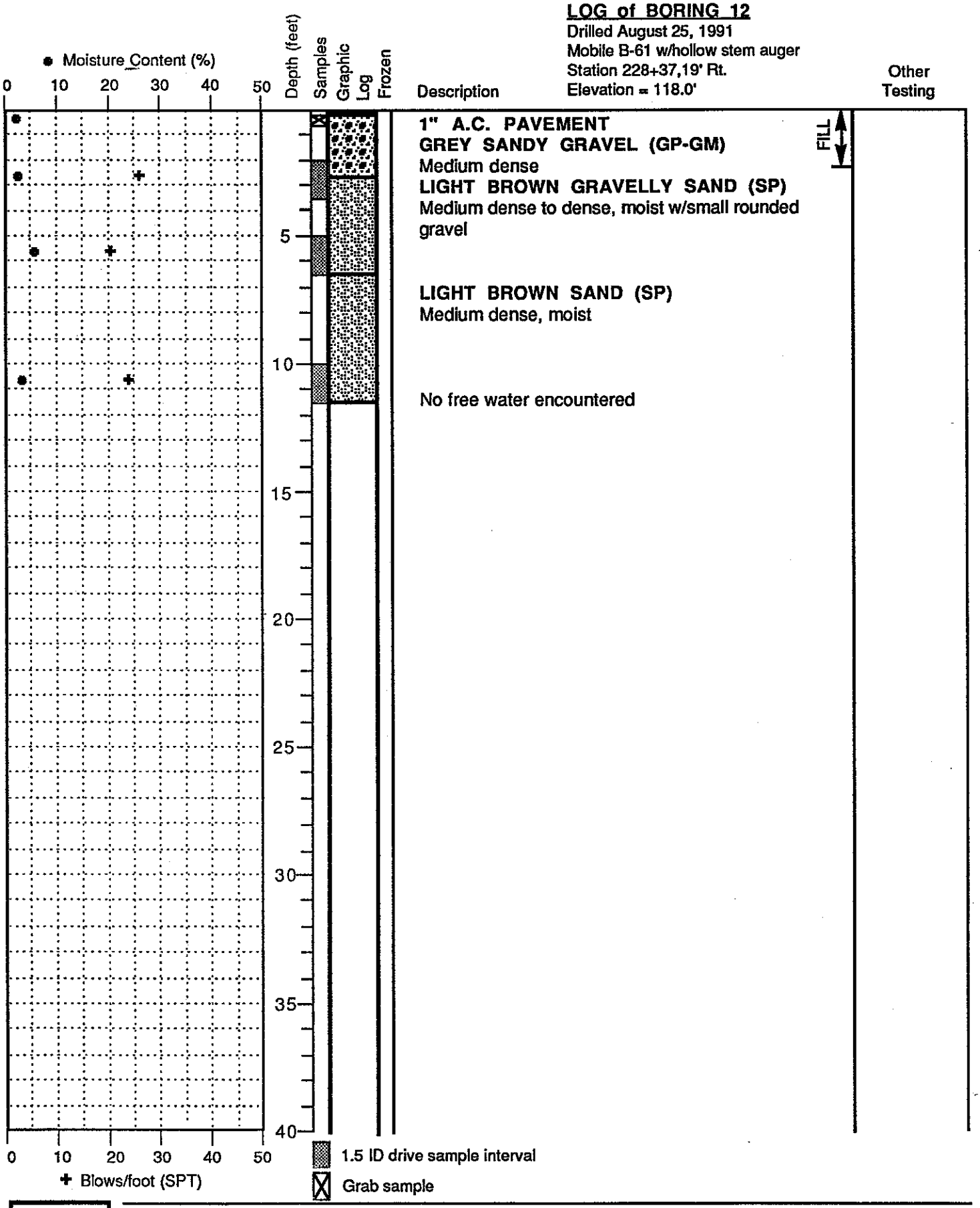
Plate
A-6



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 10 and 11
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-7

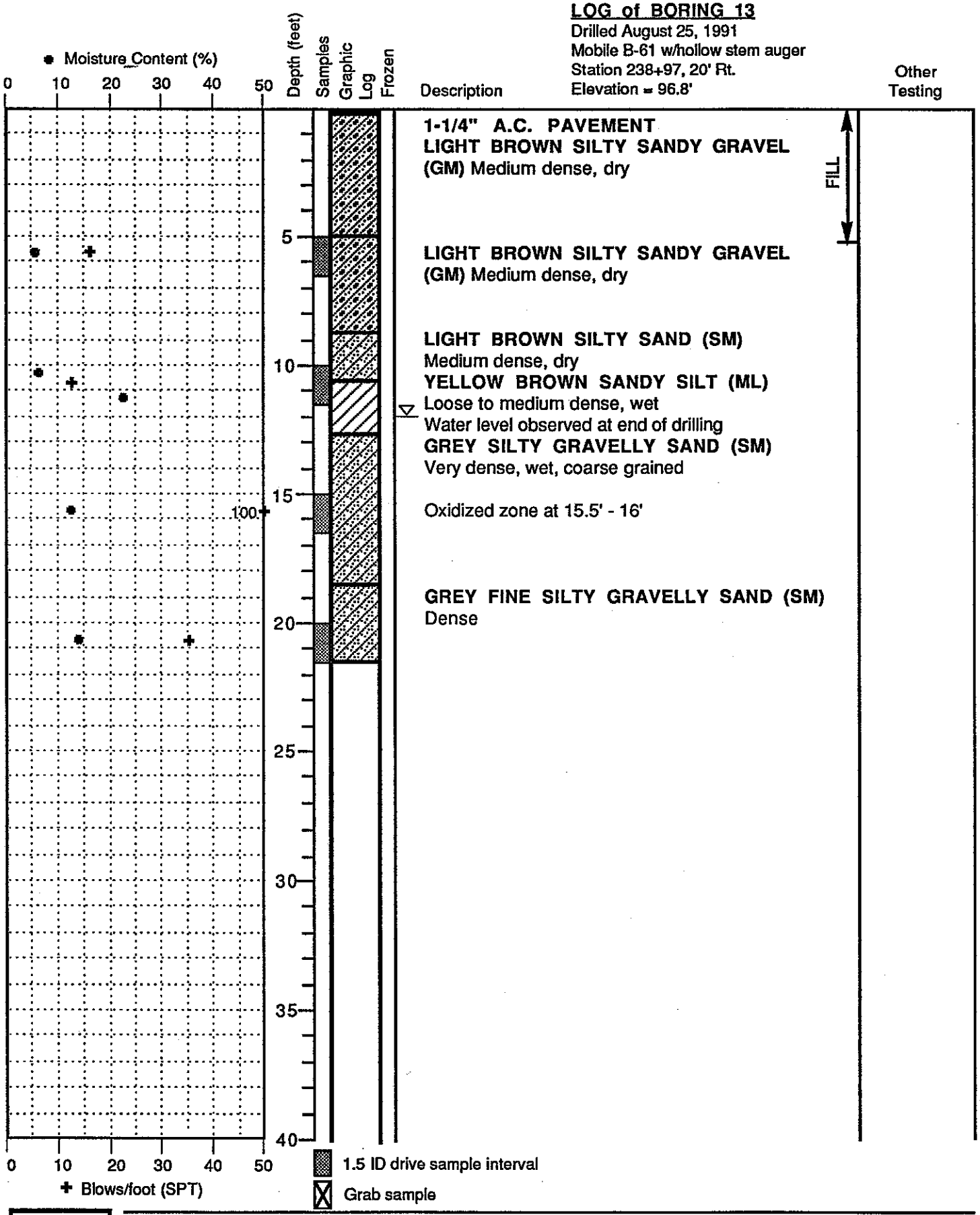


LOG of BORING 12
Drilled August 25, 1991
Mobile B-61 w/hollow stem auger
Station 228+37,19' Rt.
Elevation = 118.0'

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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 12
Kenai Spur Highway
Soldotna to Kenai, Alaska

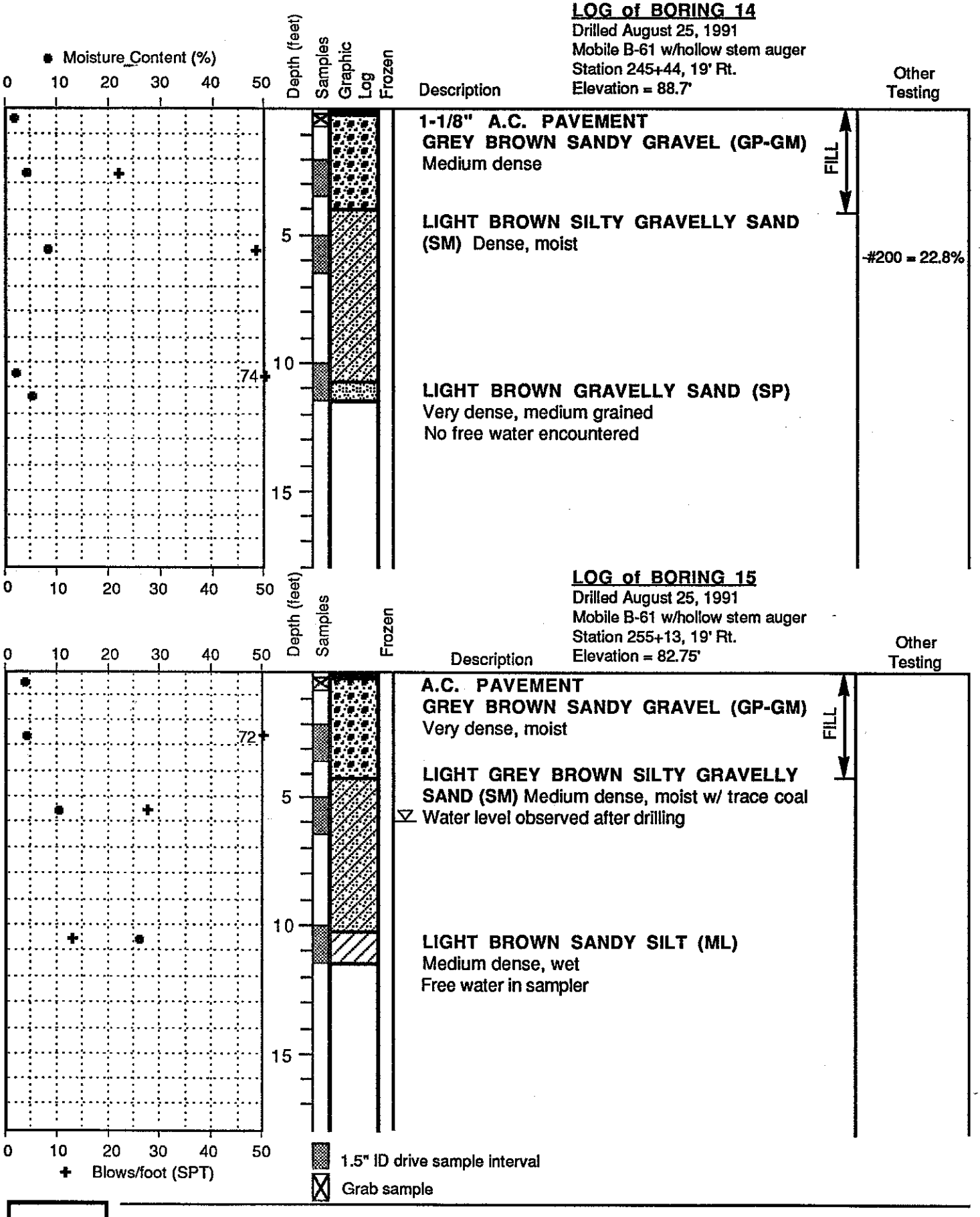
Plate
A-8



Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 13
Kenai Spur Highway
Soldotna to Kenai, Alaska

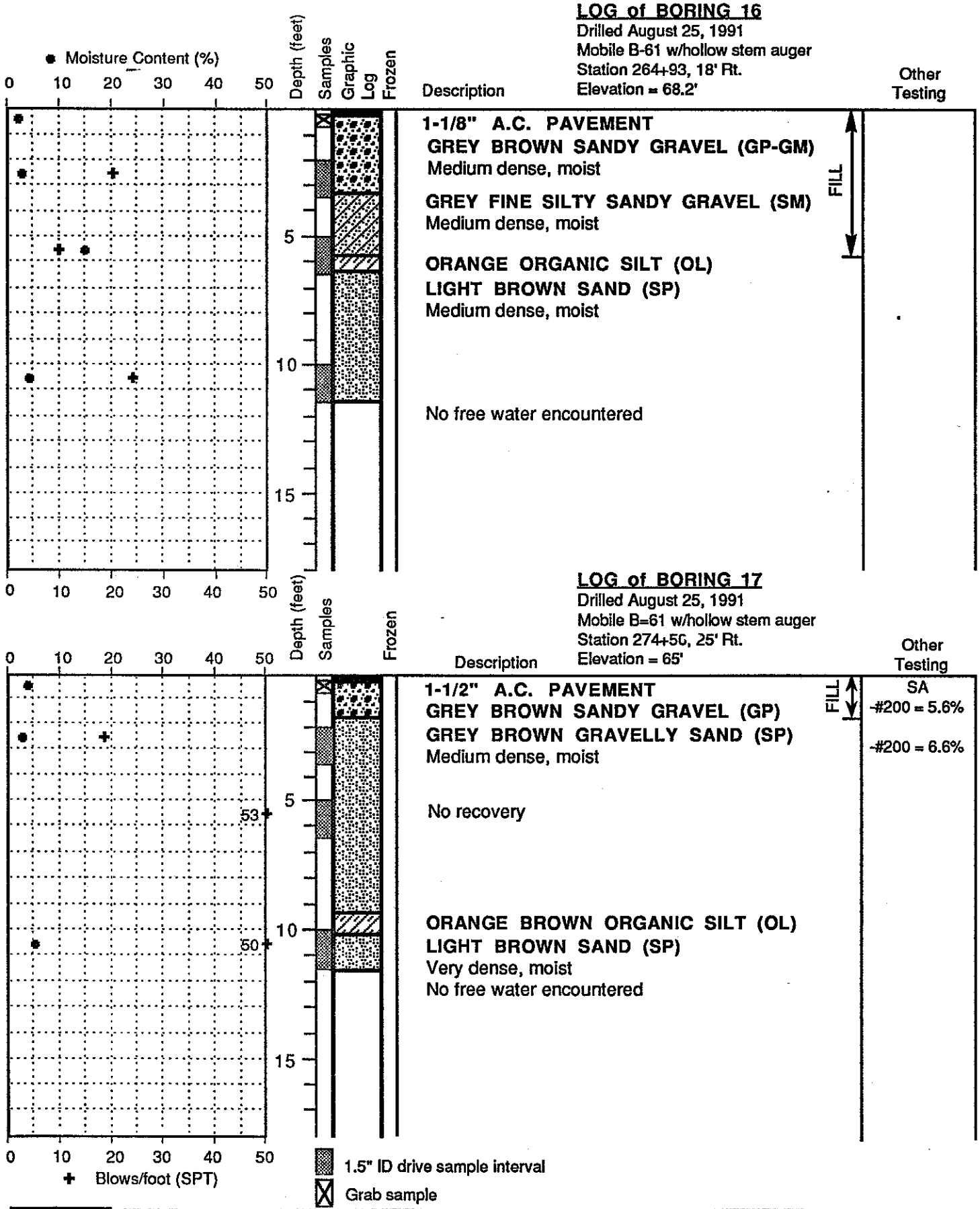
Plate
A-9



Duane Miller & Associates
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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 14 and 15
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-10



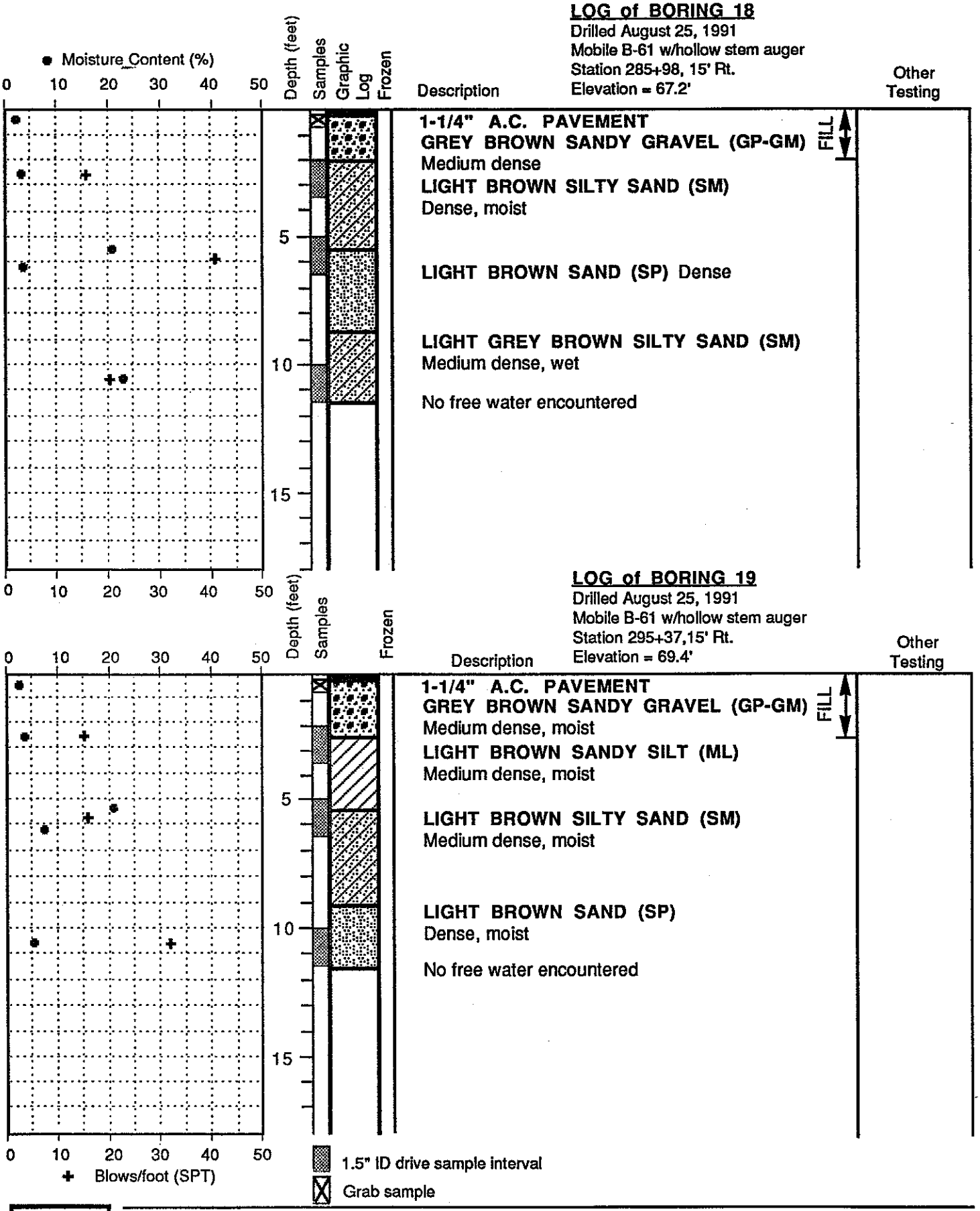
LOG of BORING 16
Drilled August 25, 1991
Mobile B-61 w/hollow stem auger
Station 264+93, 18' Rt.
Elevation = 68.2'

LOG of BORING 17
Drilled August 25, 1991
Mobile B=61 w/hollow stem auger
Station 274+50, 25' Rt.
Elevation = 65'

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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 16 and 17
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-11



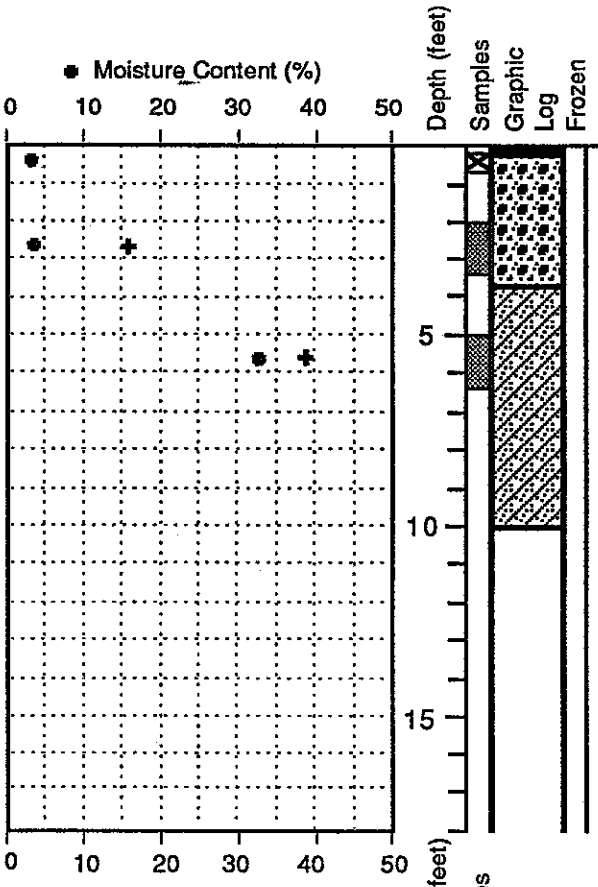
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 18 and 19
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-12

LOG of BORING 20

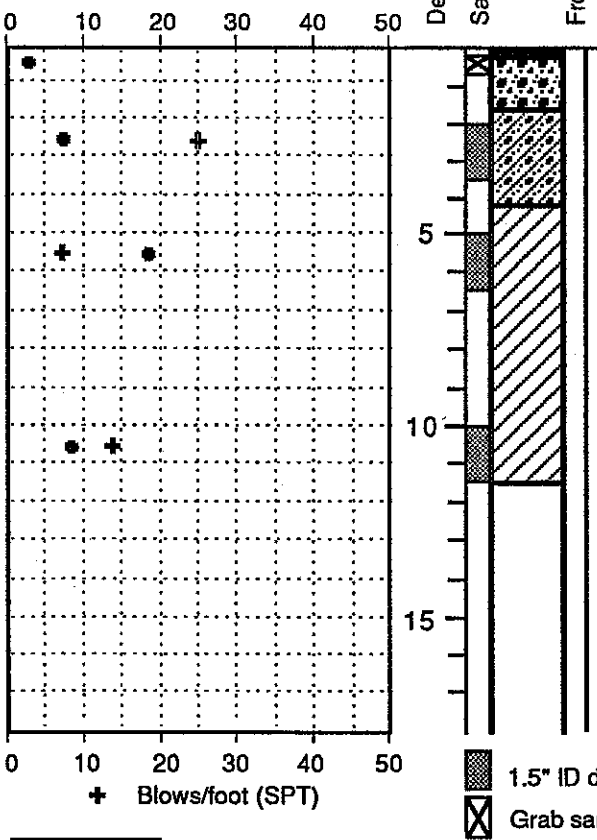
Drilled August 25, 1991
Mobile B-61 w/hollow stem auger
Station 305+23, 15' Rt.
Elevation = 64.4'



Description	Other Testing
1" A.C. PAVEMENT **GREY BROWN SANDY GRAVEL** **(GP-GM)** Medium dense, moist	FILL
GREY BROWN SILTY GRAVELLY SAND **(SM)** Dense, wet	-#200 = 11.1%
No recovery No free water encountered	

LOG of BORING 21

Drilled August 25, 1991
Mobile B-61 w/hollow stem auger
Station 315+53,19' Rt.
Elevation = 63.0'



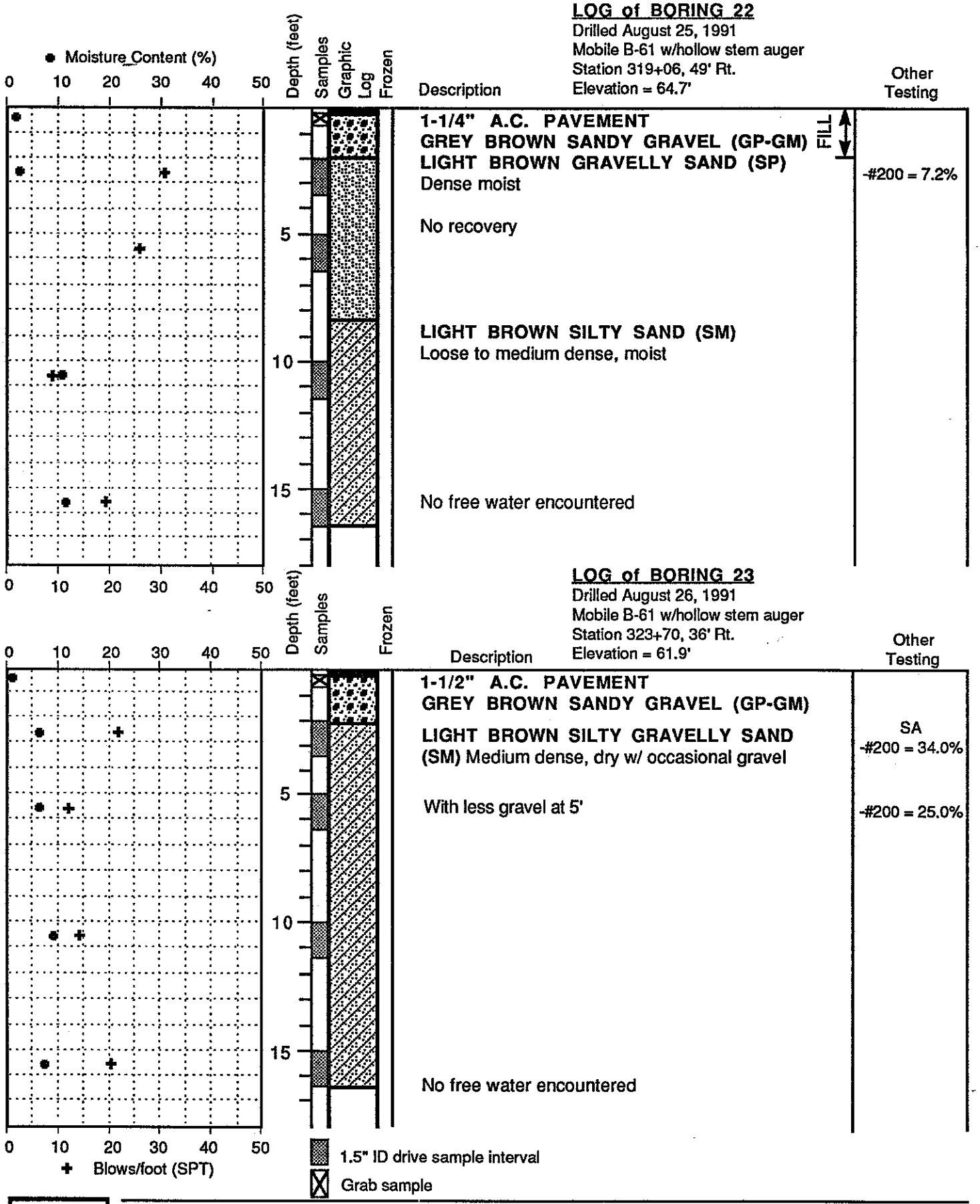
Description	Other Testing
1-1/2" A.C. PAVEMENT **GREY BROWN SANDY GRAVEL (GP-GM)** **LIGHT BROWN SILTY SANDY GRAVEL** **(GM)** Medium dense, moist	FILL
LIGHT ORANGE BROWN SANDY SILT (ML) Loose to medium dense, moist w/trace organics	SA -#200 = 75.5%
No free water encountered	

1.5" ID drive sample interval
Grab sample

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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 20 and 21
Kenai Spur Highway
Soldotna to Kenai, Alaska

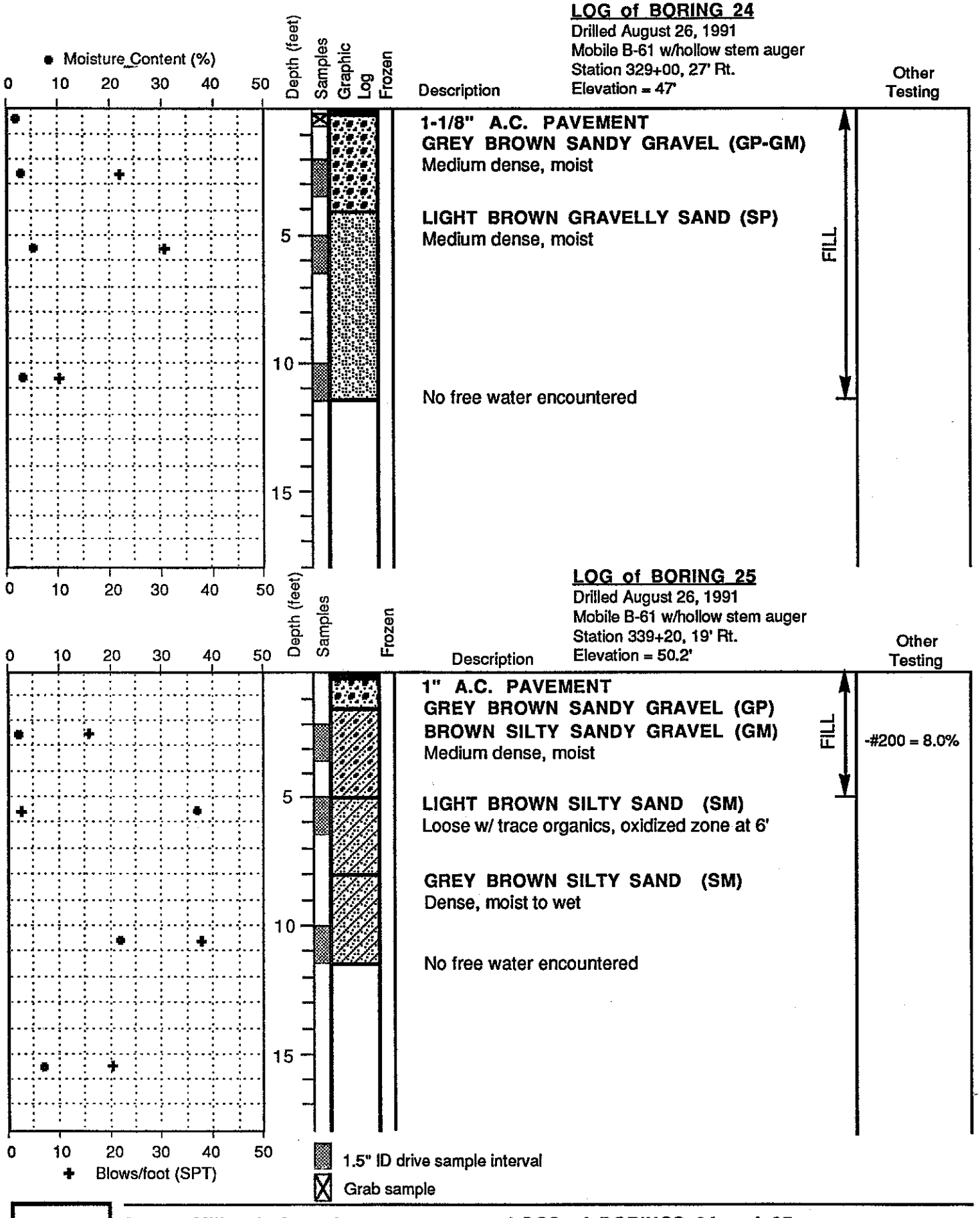
Plate
A-13



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 22 and 23
Kenai Spur Highway
Soldotna to Kenai, Alaska

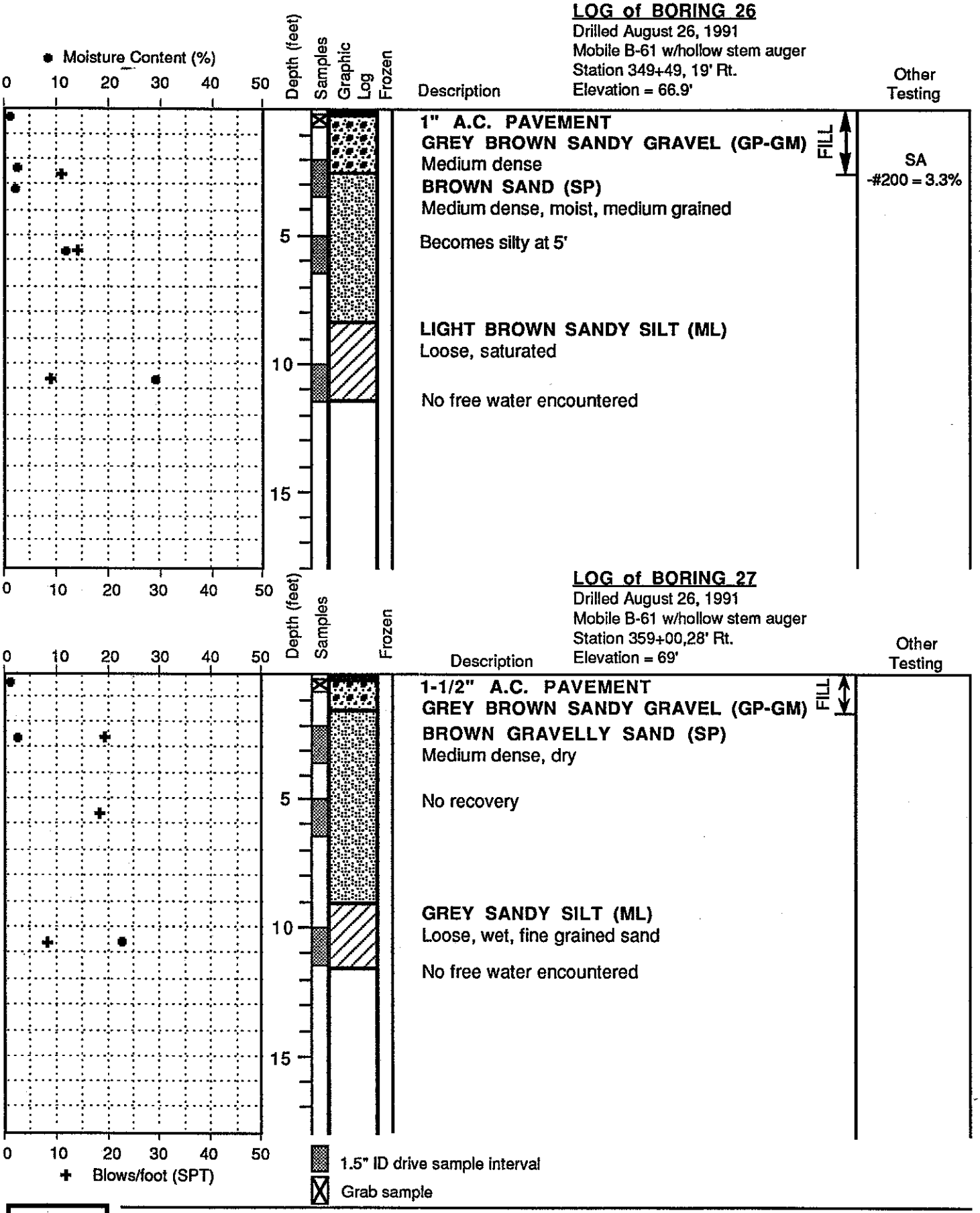
Plate
A-14



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 24 and 25
Kenai Spur Highway
Soldotna to Kenai, Alaska

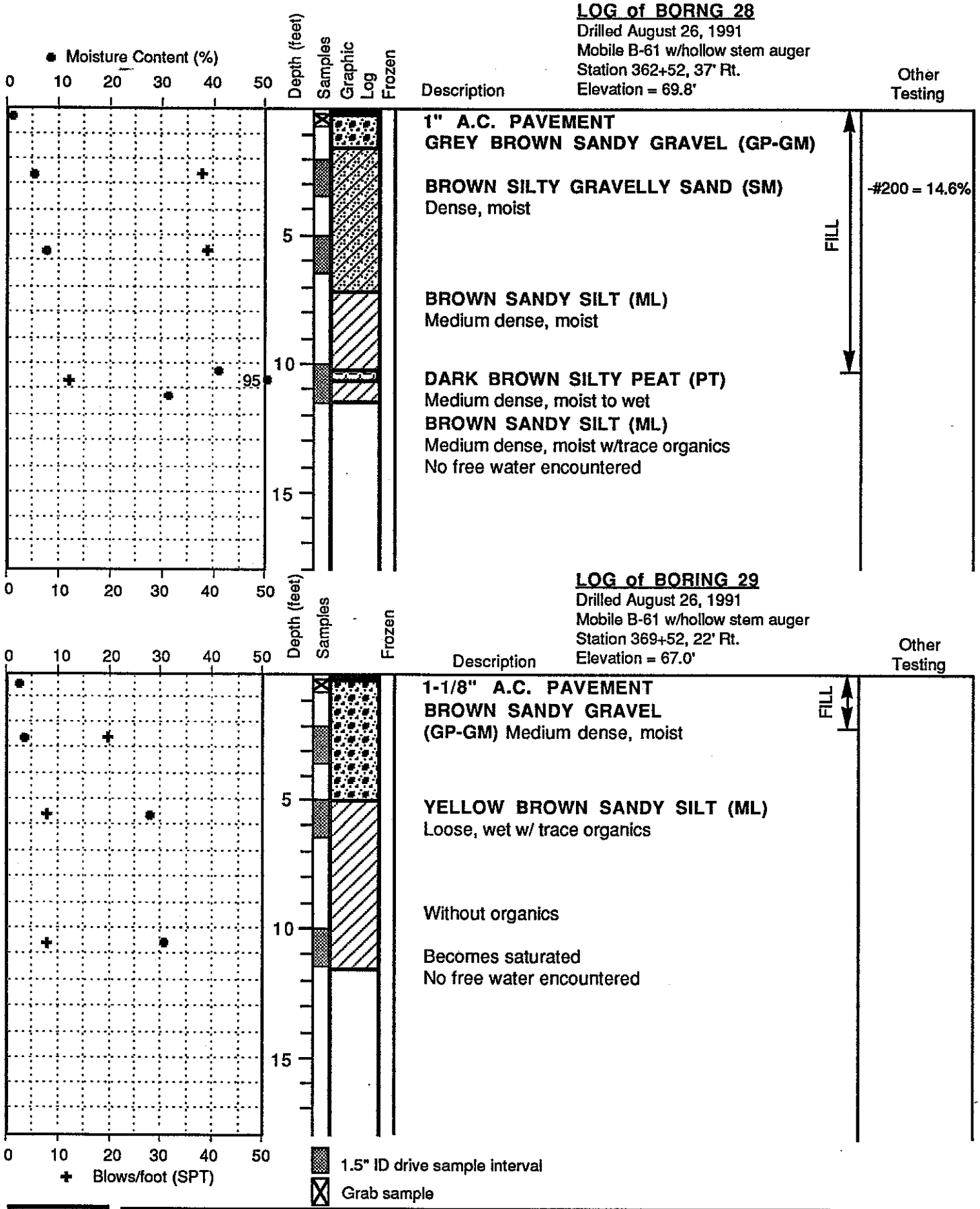
Plate
A-15



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 26 and 27
Kenai Spur Highway
Soldotna to Kenai, Alaska

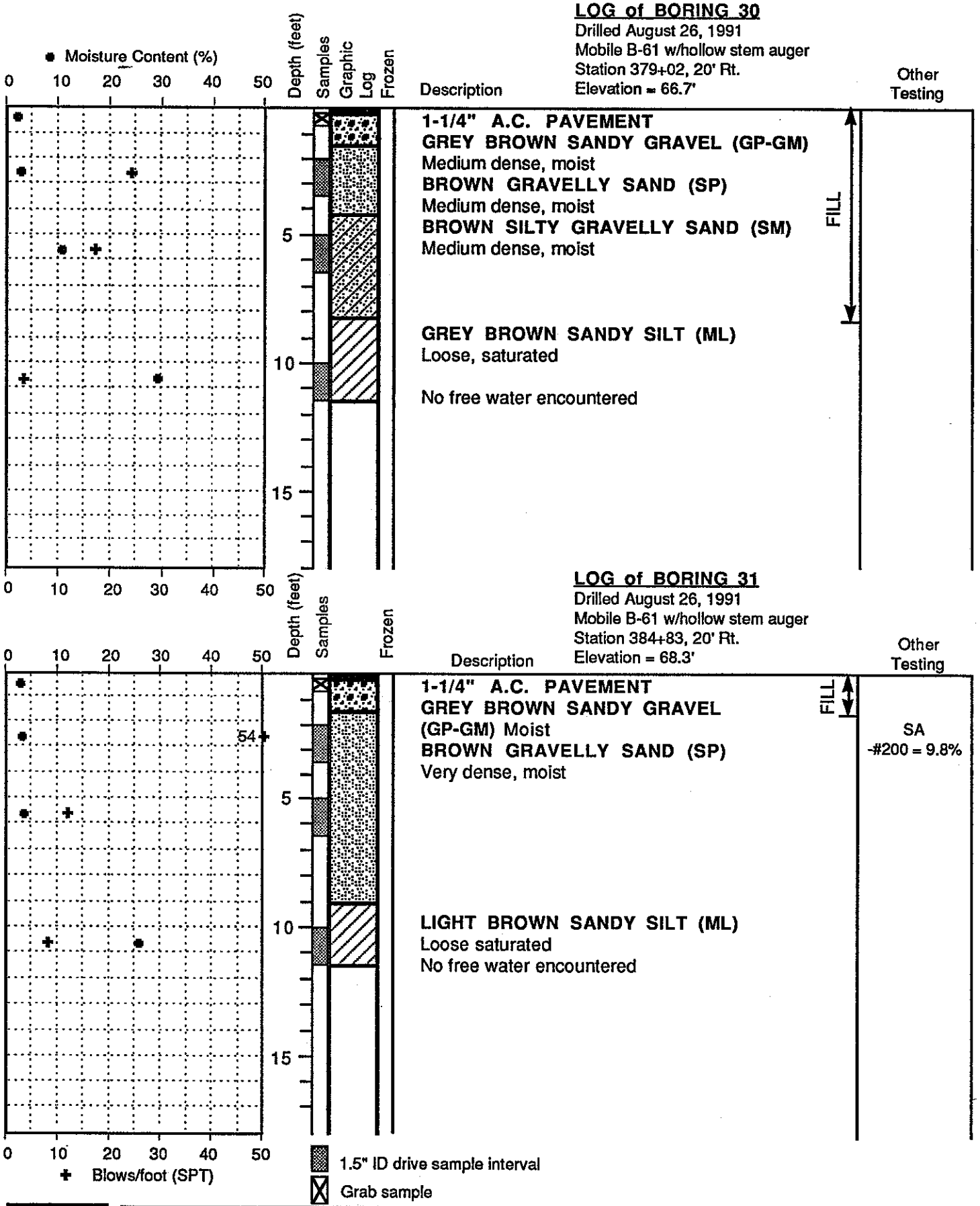
Plate
A-16



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 28 and 29
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-17



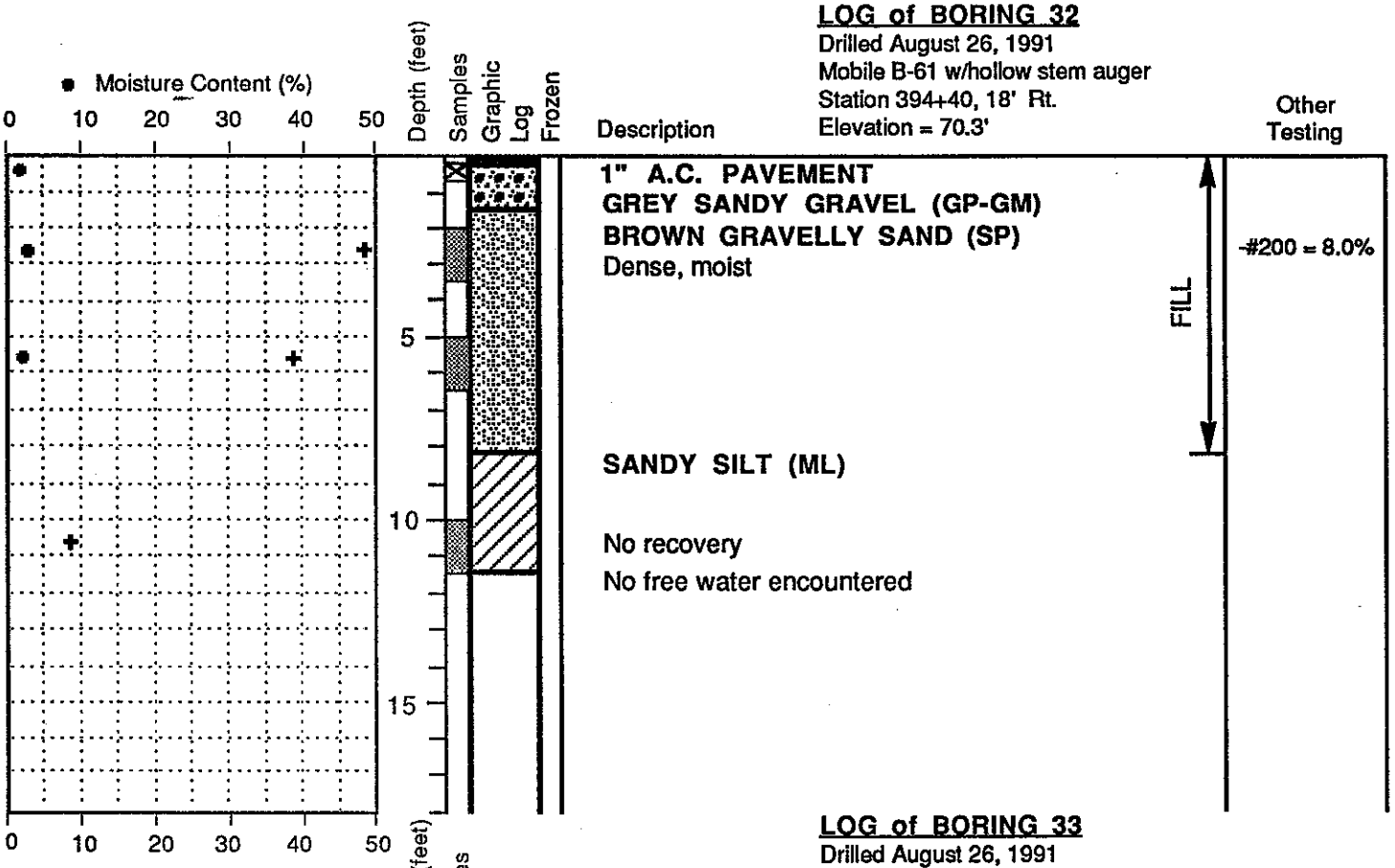
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 30 and 31
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-18

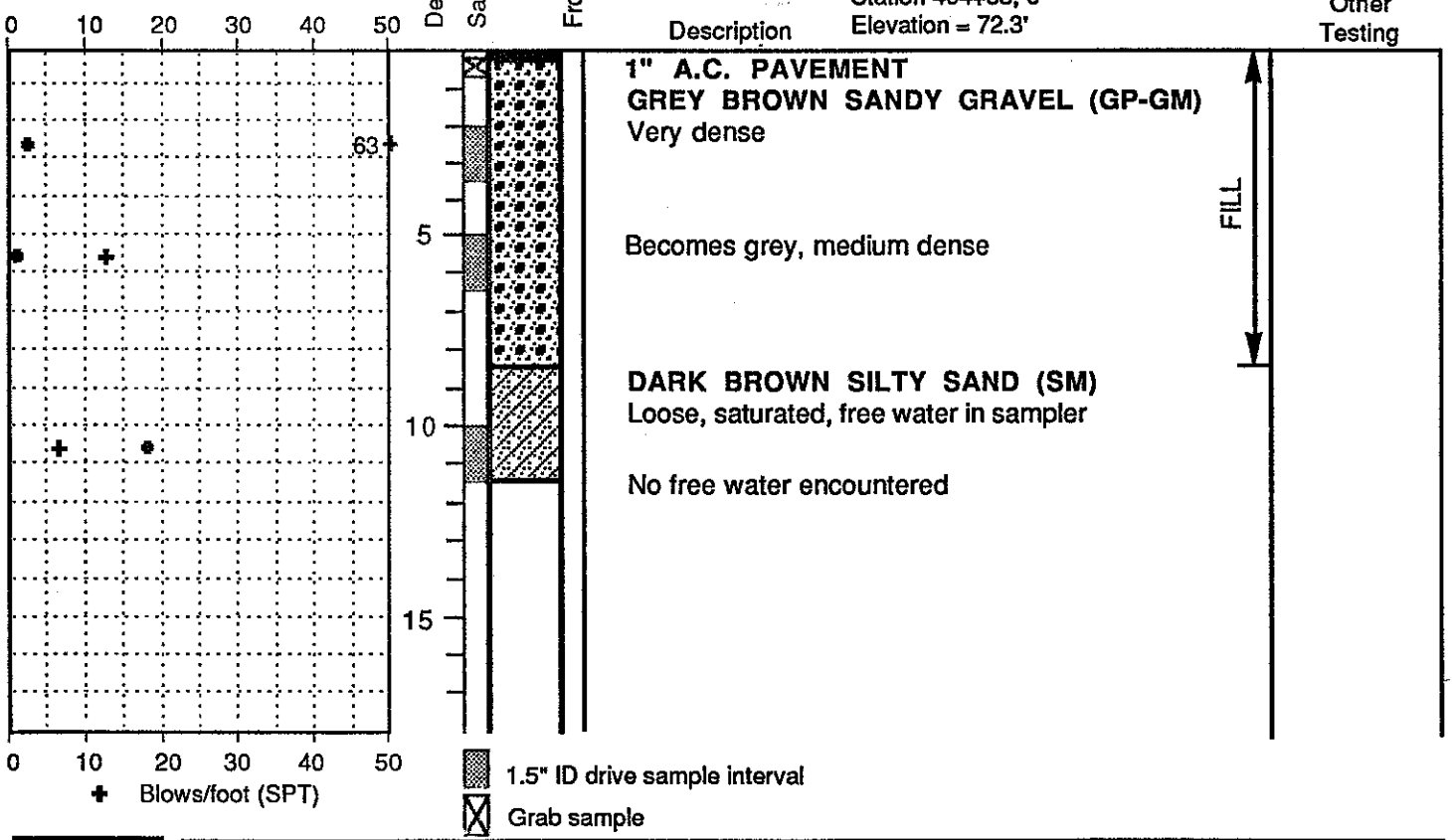
LOG of BORING 32

Drilled August 26, 1991
Mobile B-61 w/hollow stem auger
Station 394+40, 18' Rt.
Elevation = 70.3'



LOG of BORING 33

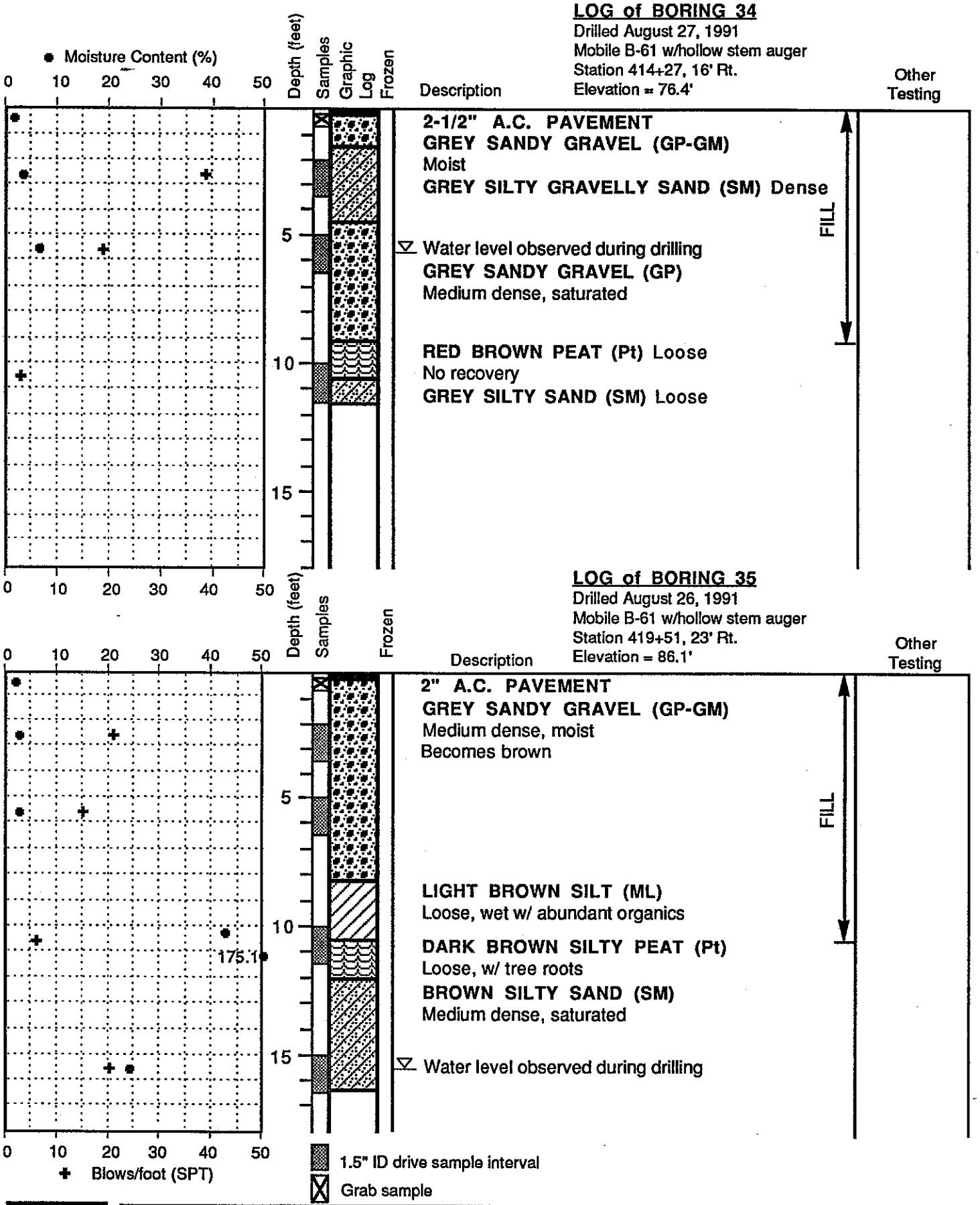
Drilled August 26, 1991
Mobile B-61 w/hollow stem auger
Station 404+33, 0
Elevation = 72.3'



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 32 and 33
Kenai Spur Highway
Soldotna to Kenai, Alaska

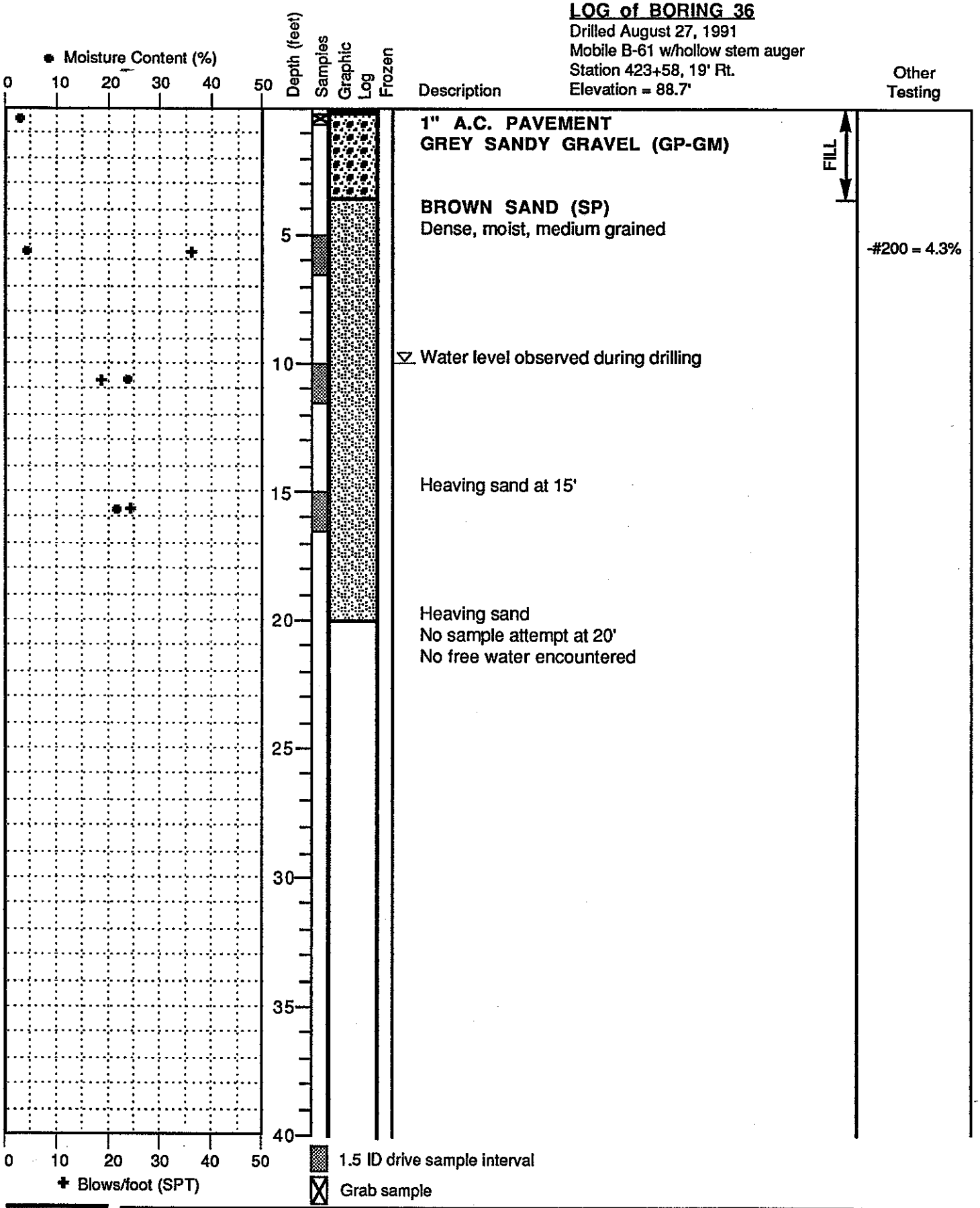
Plate
A-19



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 34 and 35
Kenai Spur Highway
Soldotna to Kenai, Alaska

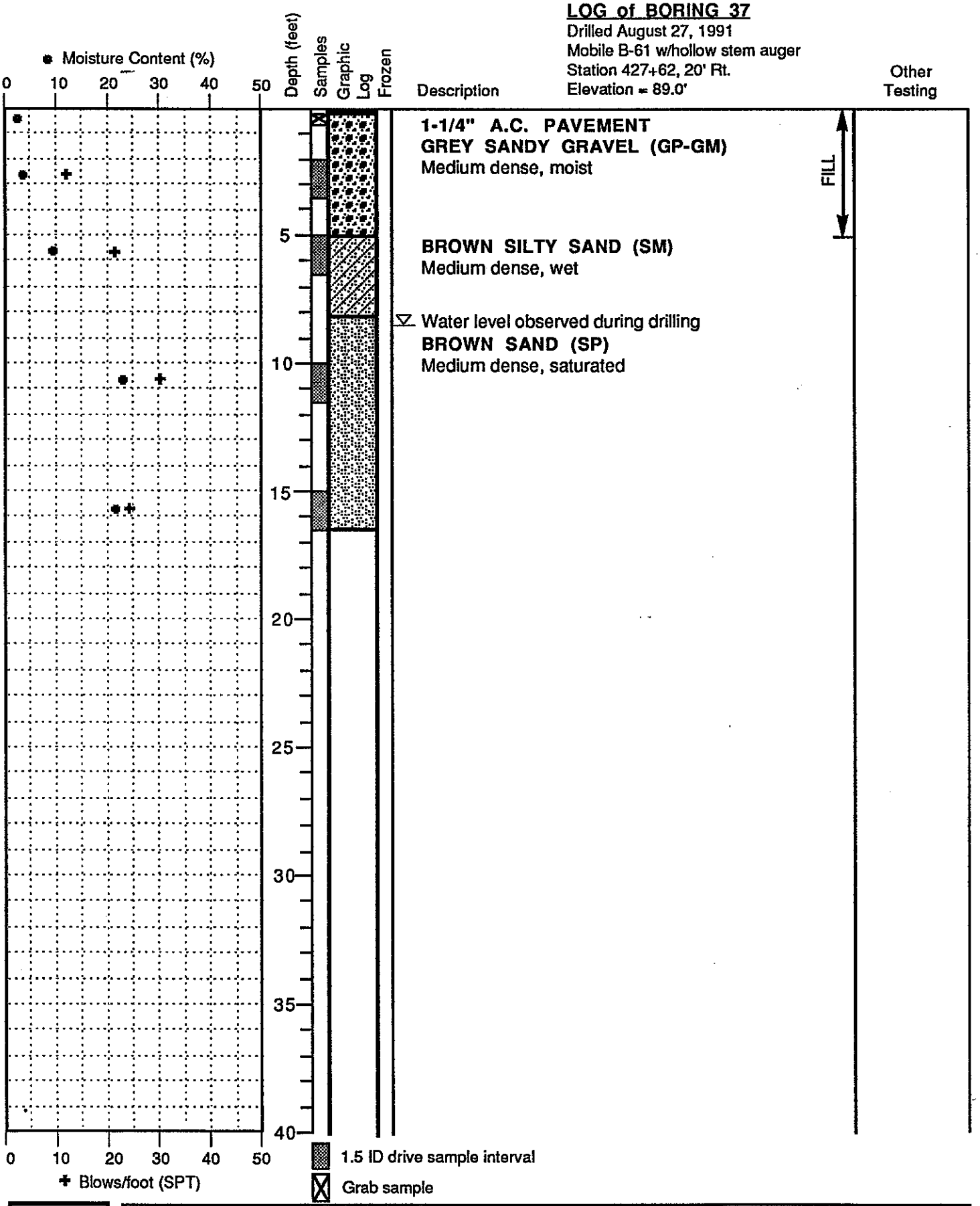
Plate
A-20



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Job No.: 4005.40
Date: November 1991

LOG of BORING 136Kenai Spur Highway
Soldotna to Kenai, Alaska

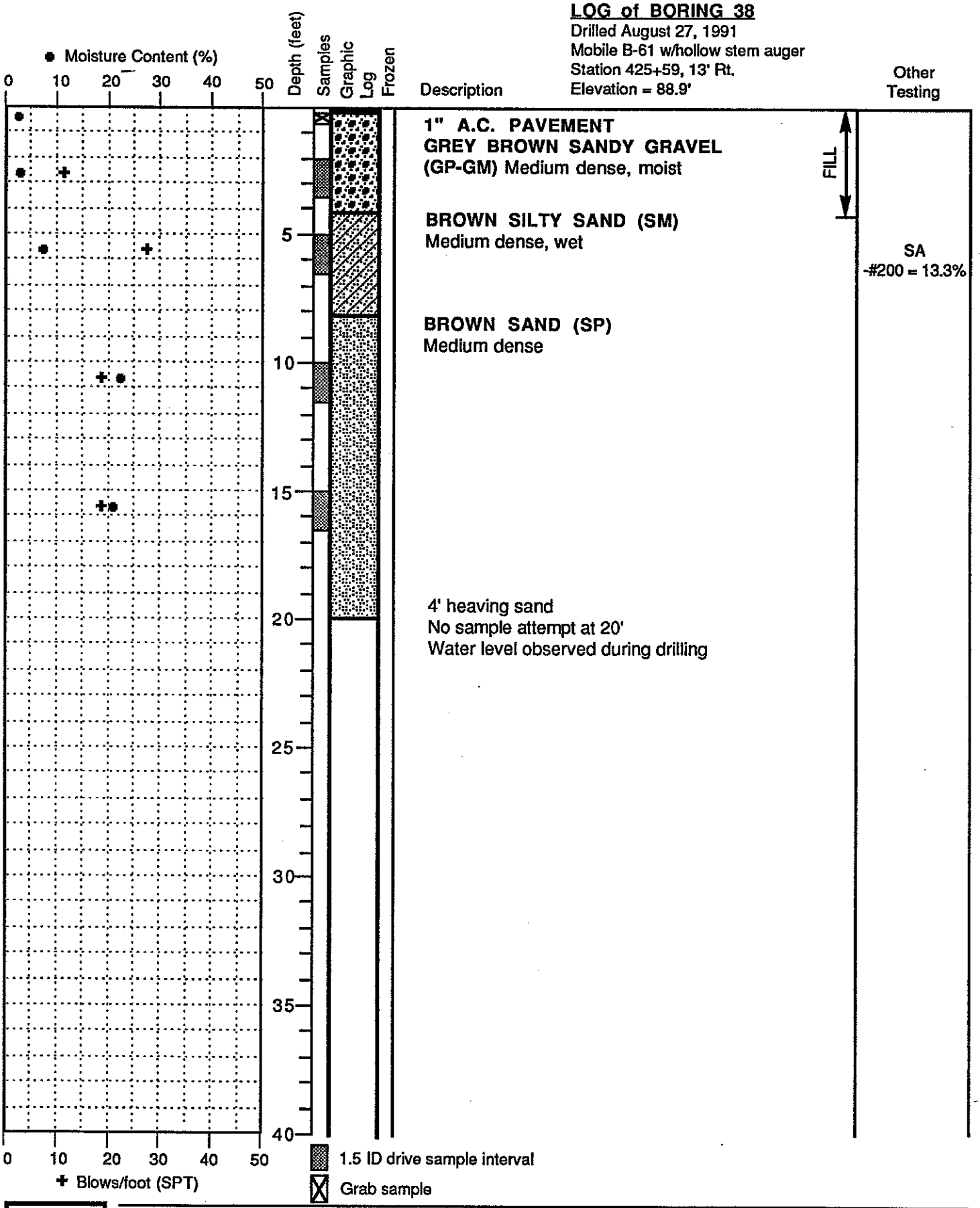
Plate
A-21



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Job No.: 4005.40
Date: November 1991

LOG of BORING 37
Kenai Spur Highway
Soldotna to Kenai, Alaska

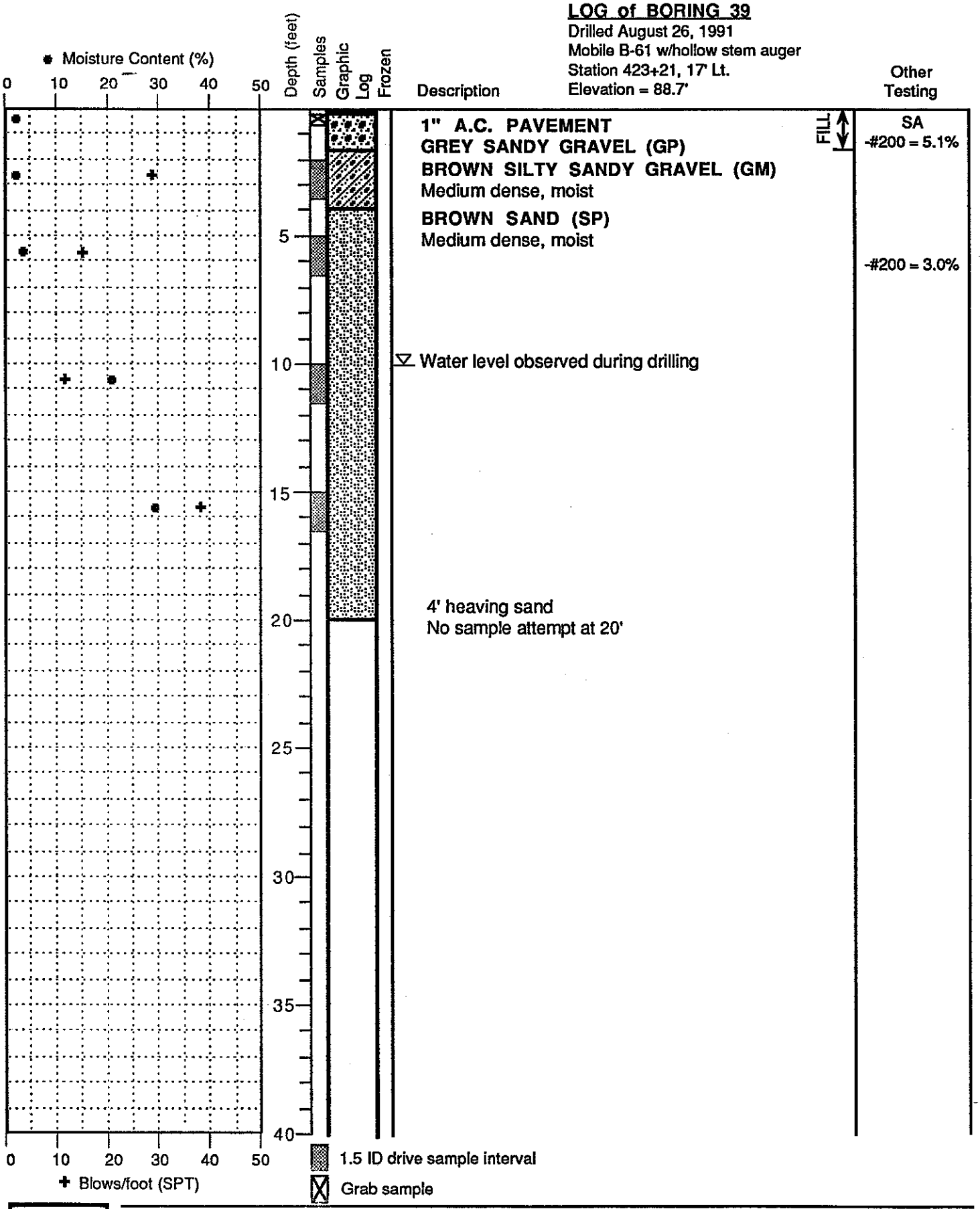
Plate
A-22



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 38
Kenai Spur Highway
Soldotna to Kenai, Alaska

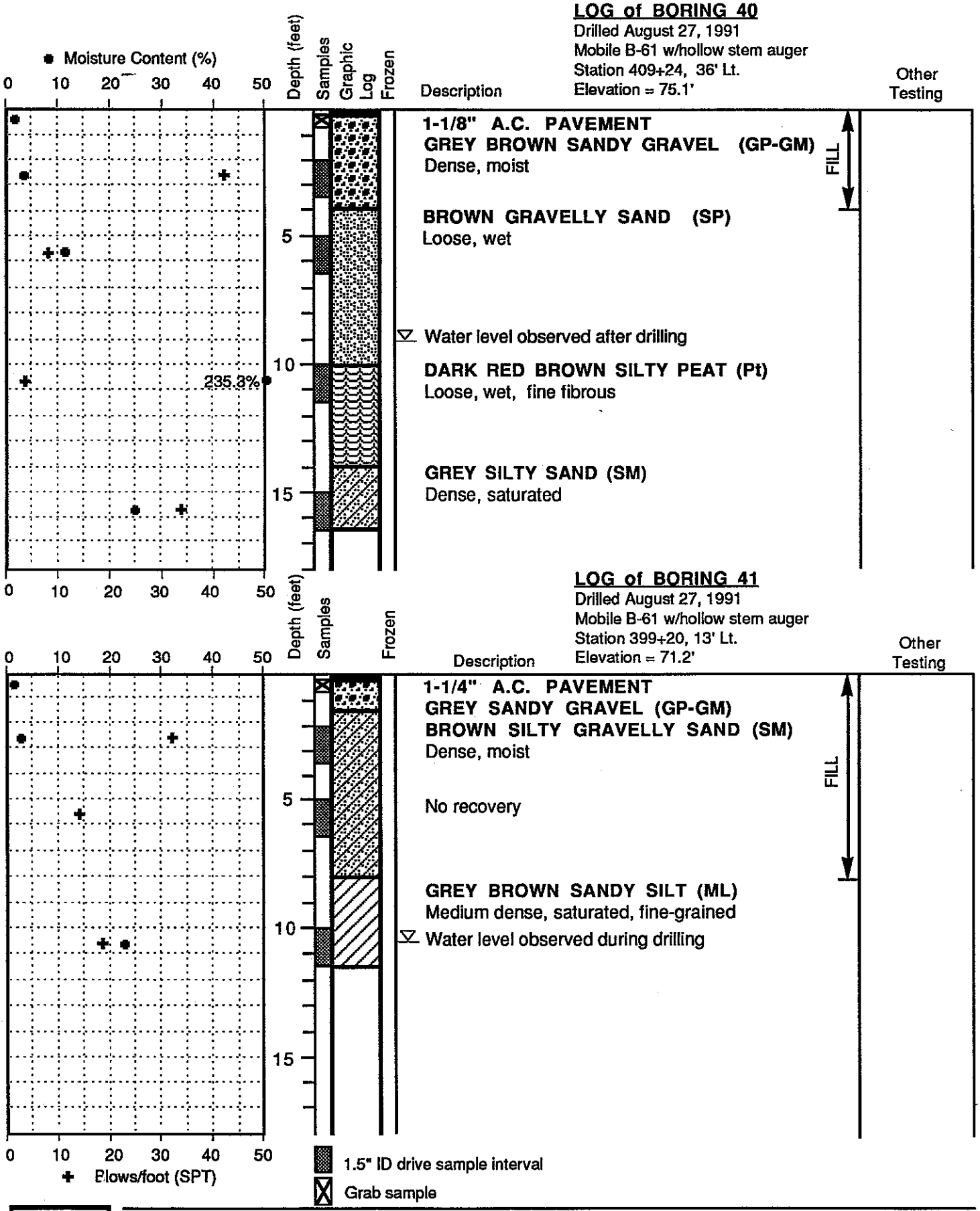
Plate
A-23



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Job No.: 4005.40
Date: November 1991

LOG of BORING 39
Kenai Spur Highway
Soldotna to Kenai, Alaska

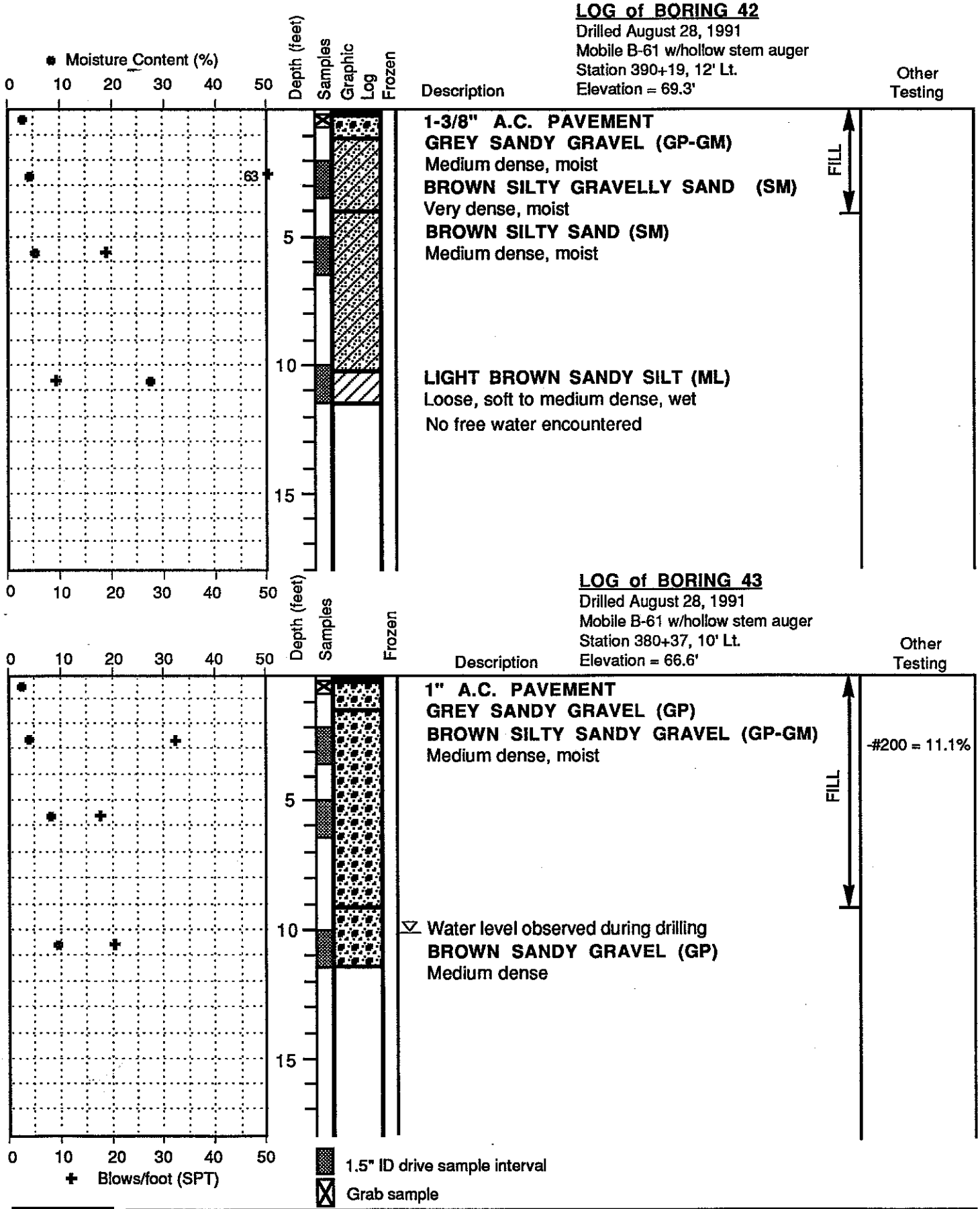
Plate
A-24



Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 40 and 41
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-25



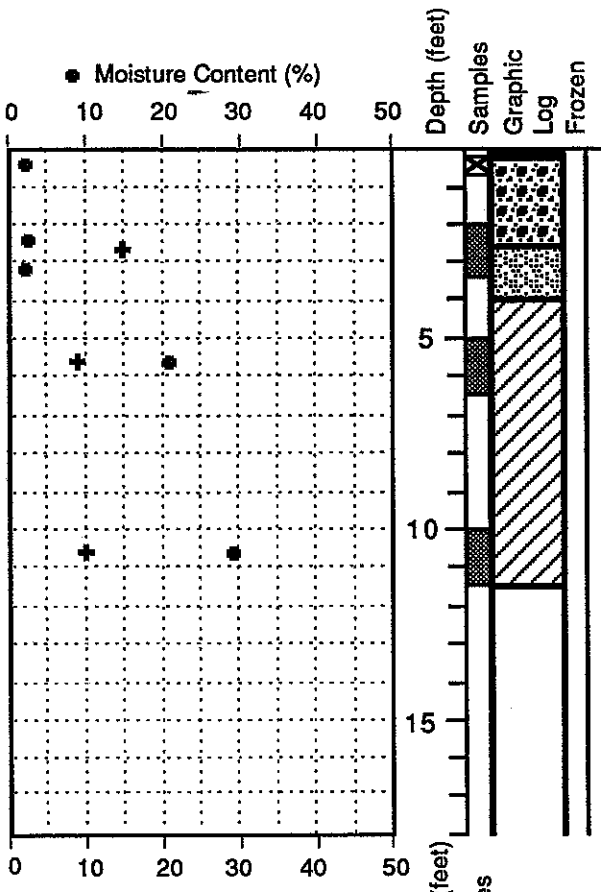
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 42 and 43
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-26

LOG of BORING 44

Drilled August 28, 1991
Mobile B-61 w/hollow stem auger
Station 374+56, 11' Lt.
Elevation = 66.9'



Description

1-1/8" A.C. PAVEMENT
GREY SANDY GRAVEL (GP-GM)
Medium dense
BROWN SAND (SP)
Medium dense, moist
LIGHT BROWN SANDY SILT (ML)
Loose to medium dense, moist to wet

FILL

Saturated

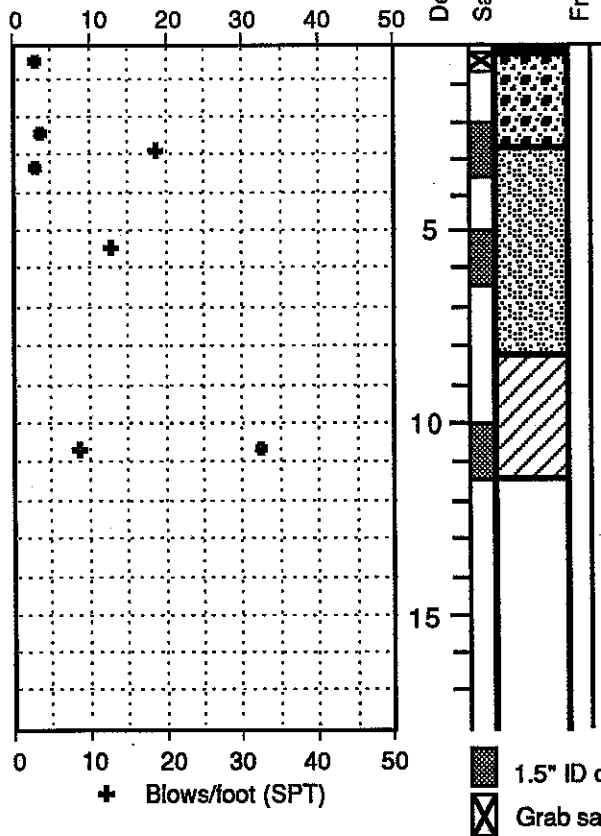
No free water encountered

Other Testing

Gs = 2.51

LOG of BORING 45

Drilled August 28, 1991
Mobile B-61 w/hollow stem auger
Station 364+67, 1' Lt.
Elevation = 68.0'



Description

1-1/2" A.C. PAVEMENT
GREY BROWN SANDY GRAVEL (GP-GM)
Medium dense
BROWN GRAVELLY SAND (SP)
Medium dense, moist

FILL

No recovery

LIGHT BROWN SANDY SILT (ML)
Loose, saturated

No free water encountered

Other Testing

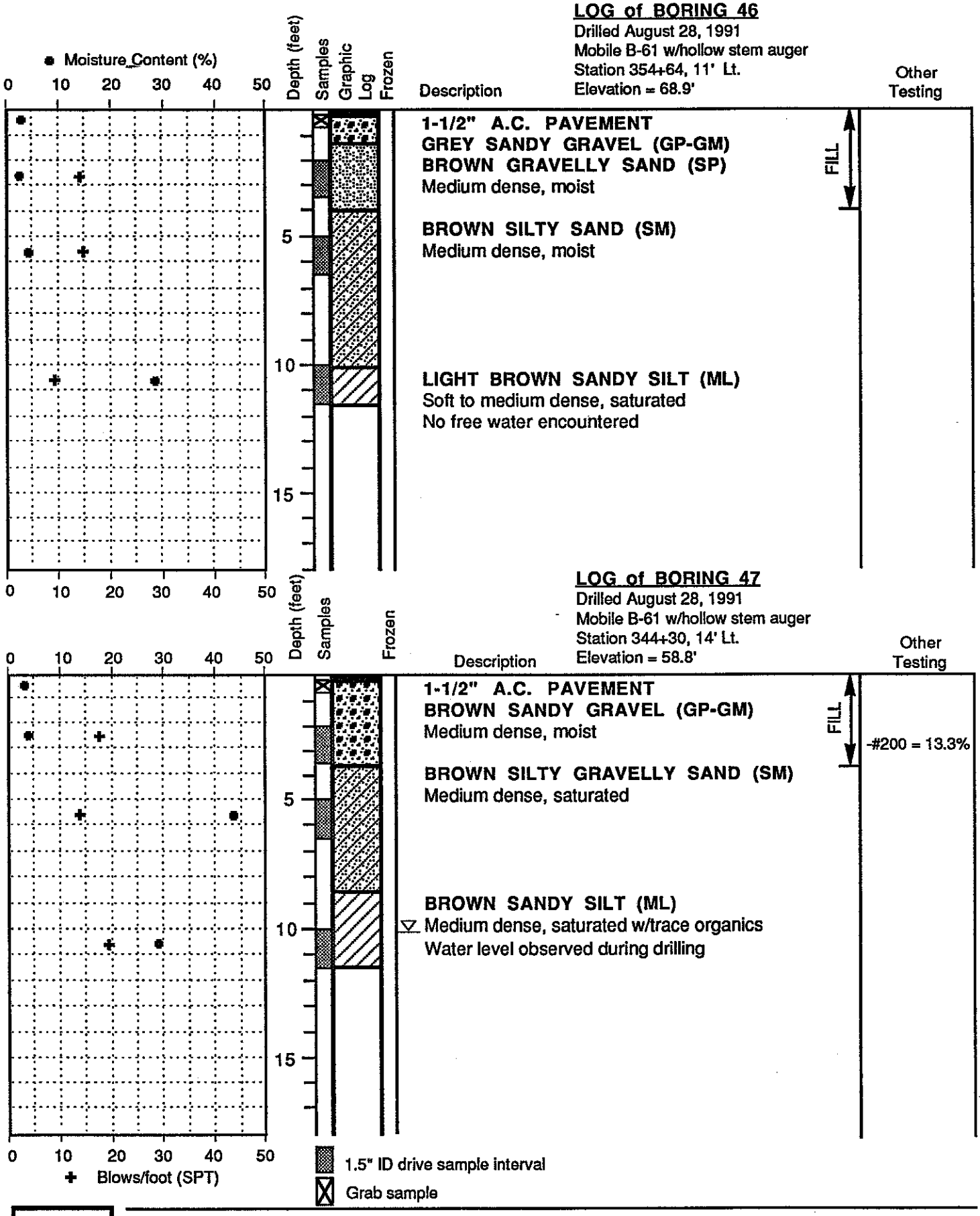
-#200 = 8.5%

1.5" ID drive sample interval
Grab sample

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 44 and 45
Kenai Spur Highway
Soldotna to Kenai, Alaska

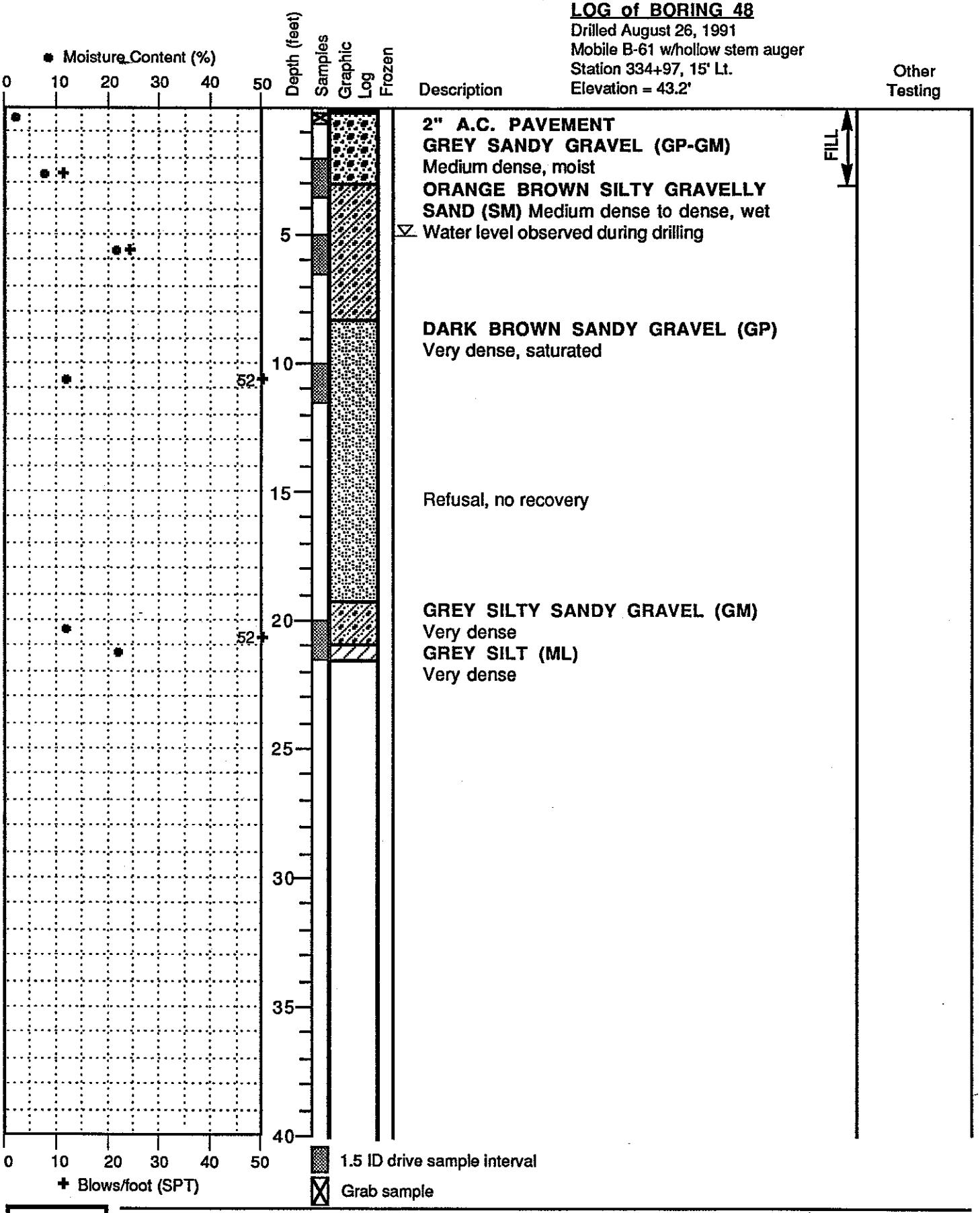
Plate
A-27



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 46 and 47
Kenai Spur Highway
Soldotna to Kenai, Alaska

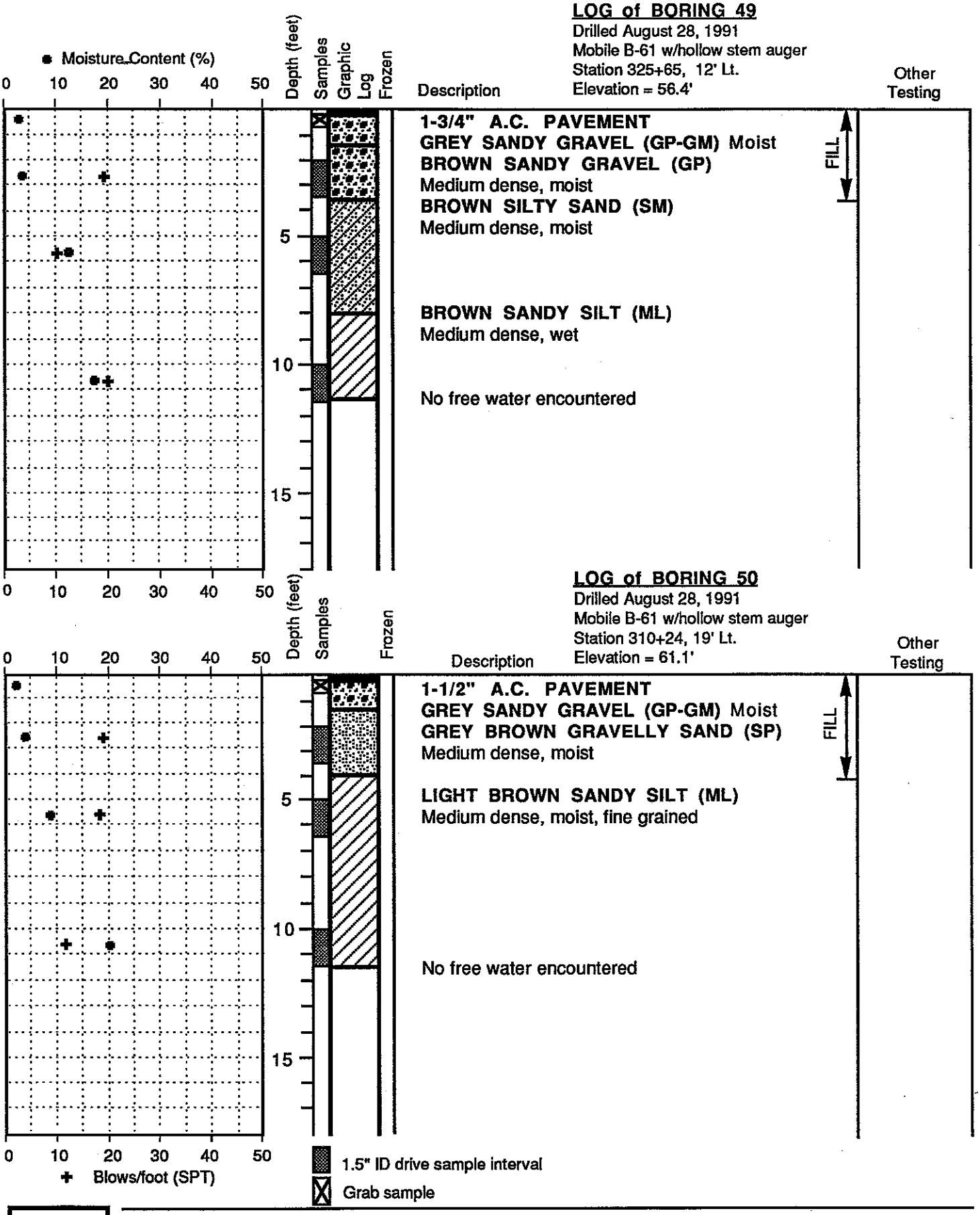
Plate
A-28



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Job No.: 4005.40
Date: November 1991

LOG of BORING 48
Kenai Spur Highway
Soldotna to Kenai, Alaska

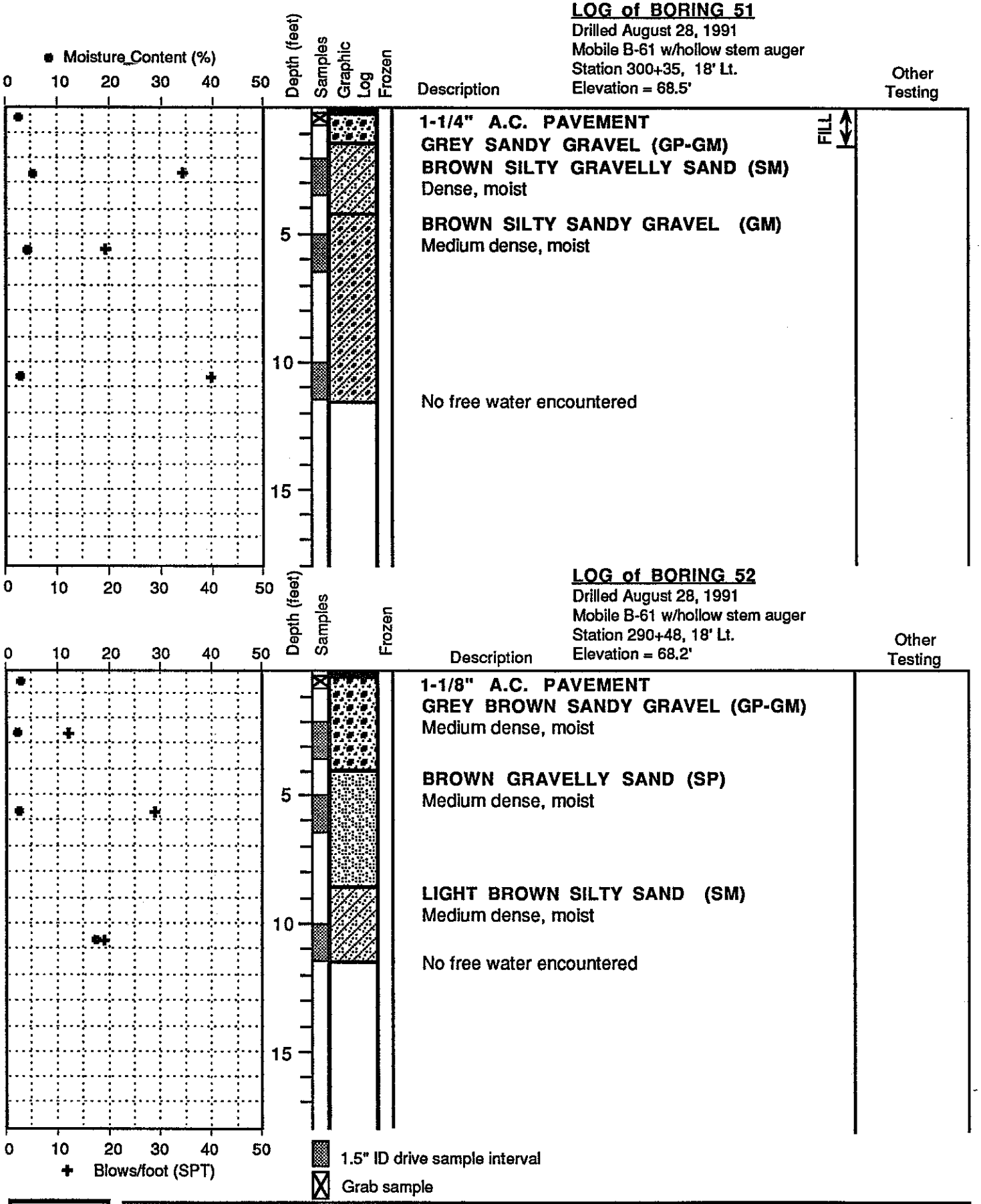
Plate
A-29



Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 49 and 50
Kenai Spur Highway
Soldotna to Kenai, Alaska

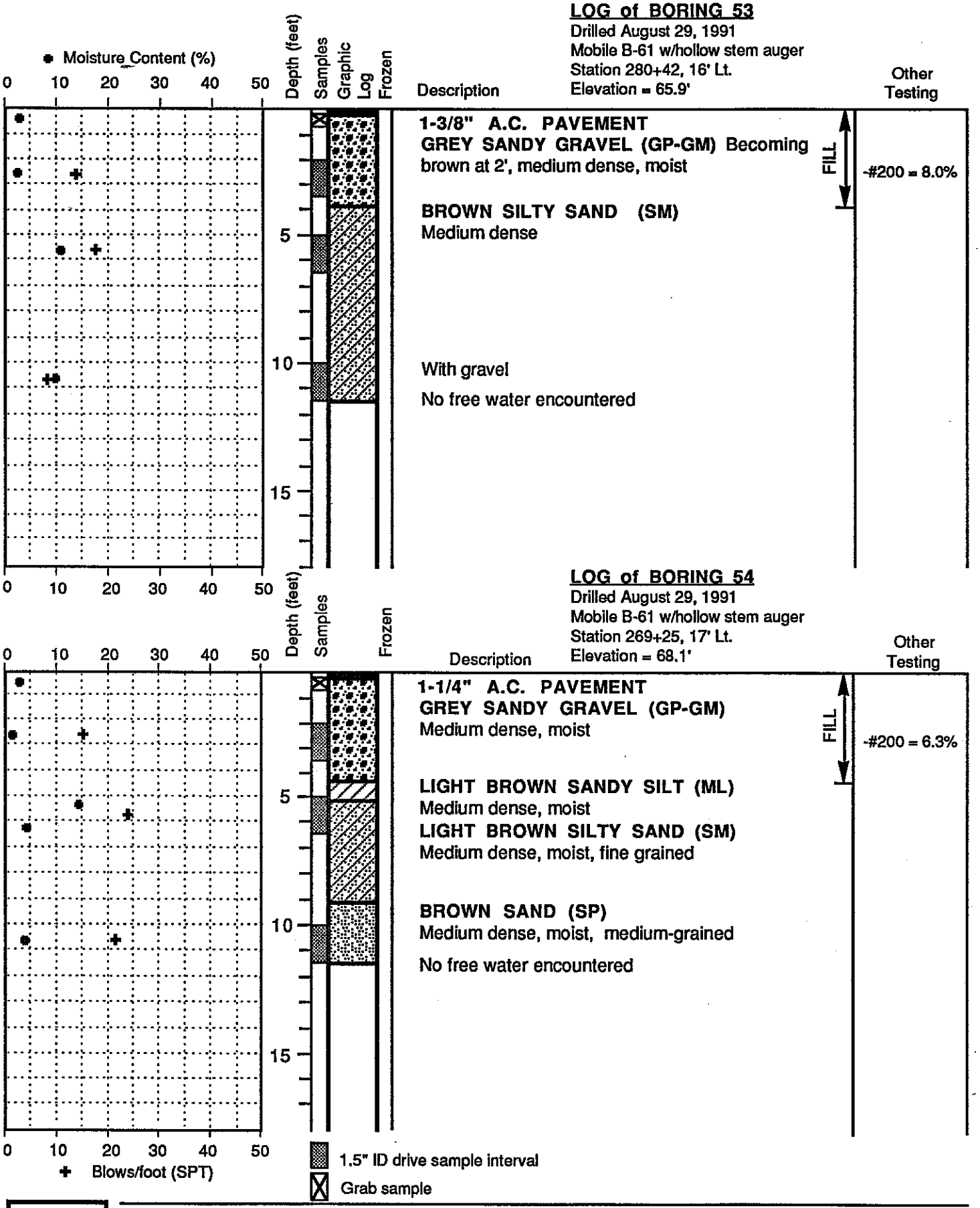
Plate
A-30



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 51 and 52
Kenal Spur Highway
Soldotna to Kenai, Alaska

Plate
A-31



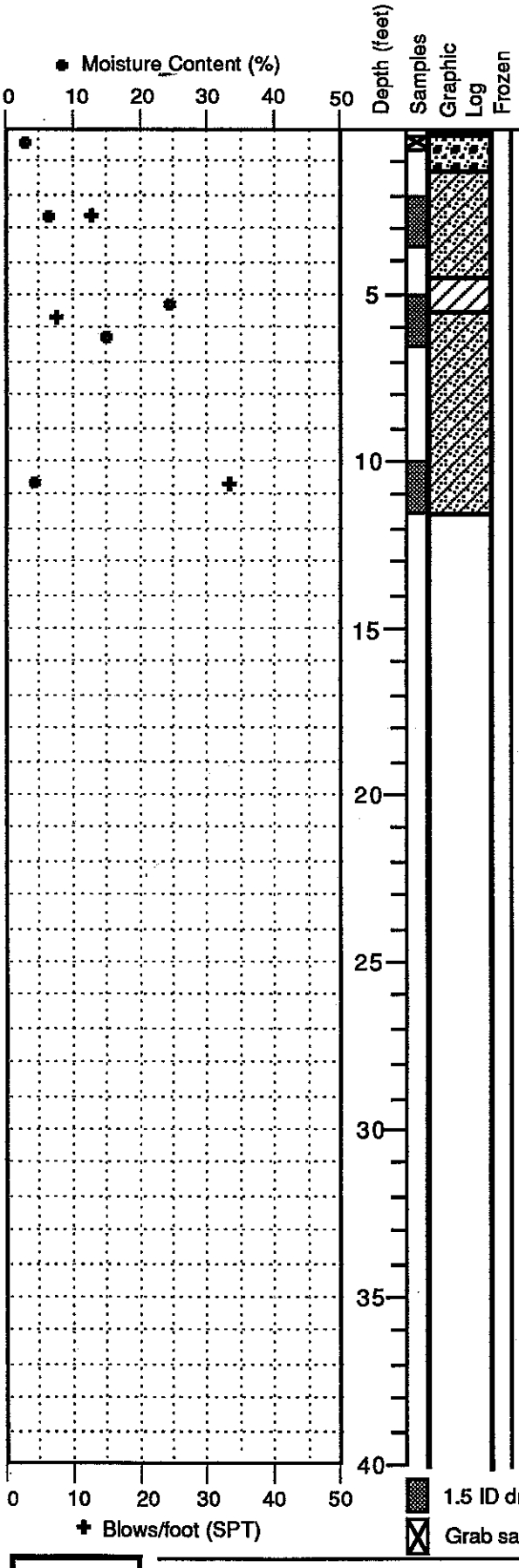
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 53 and 54
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-32

LOG of BORING 55

Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 259+59, 16' Lt.
Elevation = 77.7'



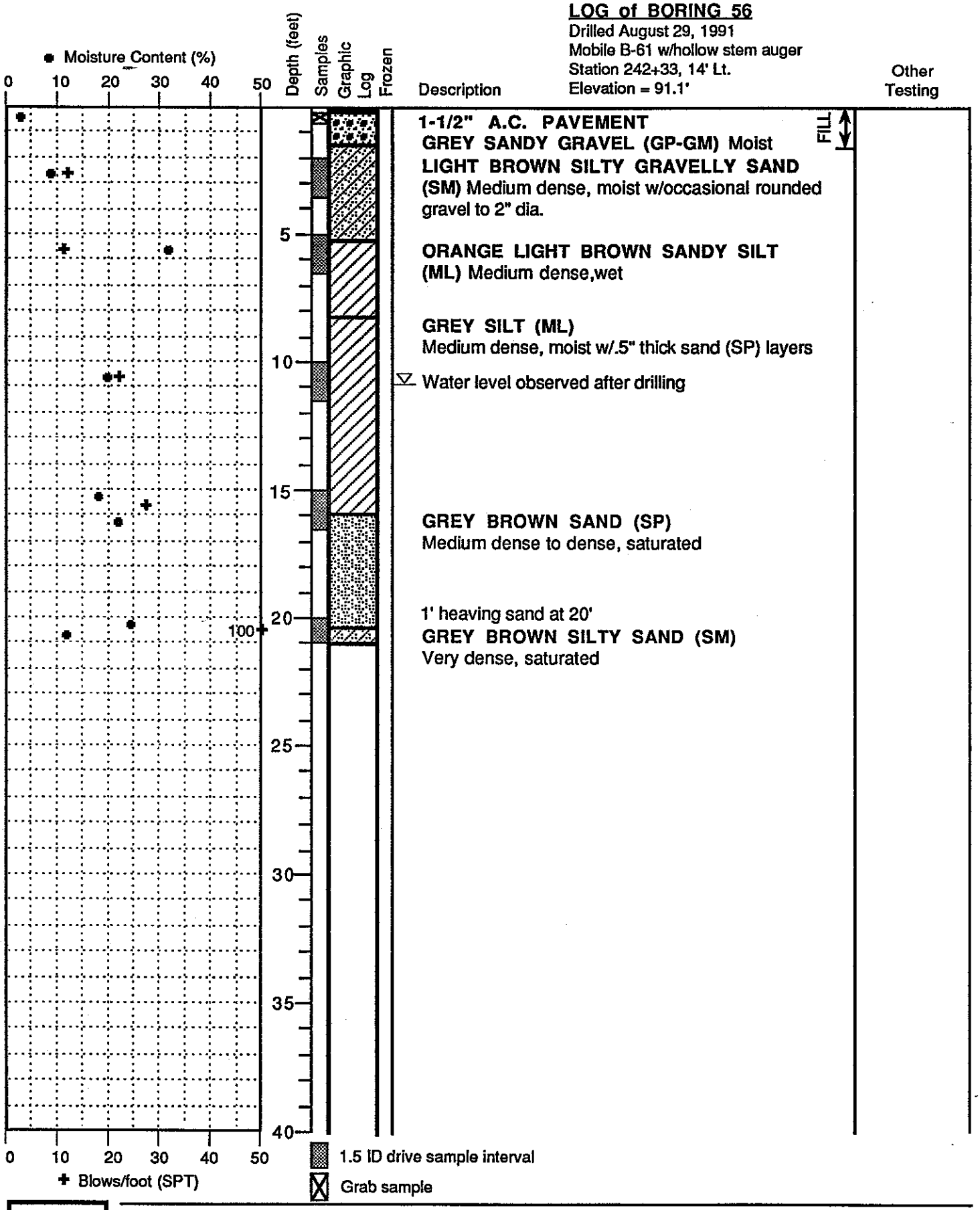
Description	Other Testing
1-1/4" A.C. PAVEMENT **GREY SANDY GRAVEL (GP-GM)** **LIGHT BROWN SILTY GRAVELLY SAND** **(SM)** Medium dense, moist w/occasional rounded gravel to 1.5" **LIGHT ORANGE BROWN SANDY SILT** **(ML)** Loose, moist w/trace coal **LIGHT GREY ORANGE BROWN SILTY SAND** **(SM)** Loose to medium dense, moist w/root hairs, becoming light brown at 7', dense, moist No free water encountered	SA -#200 = 7.4% -#200 = 26.4%

FILL

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Date: November 1991

LOG of BORING 55
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-33

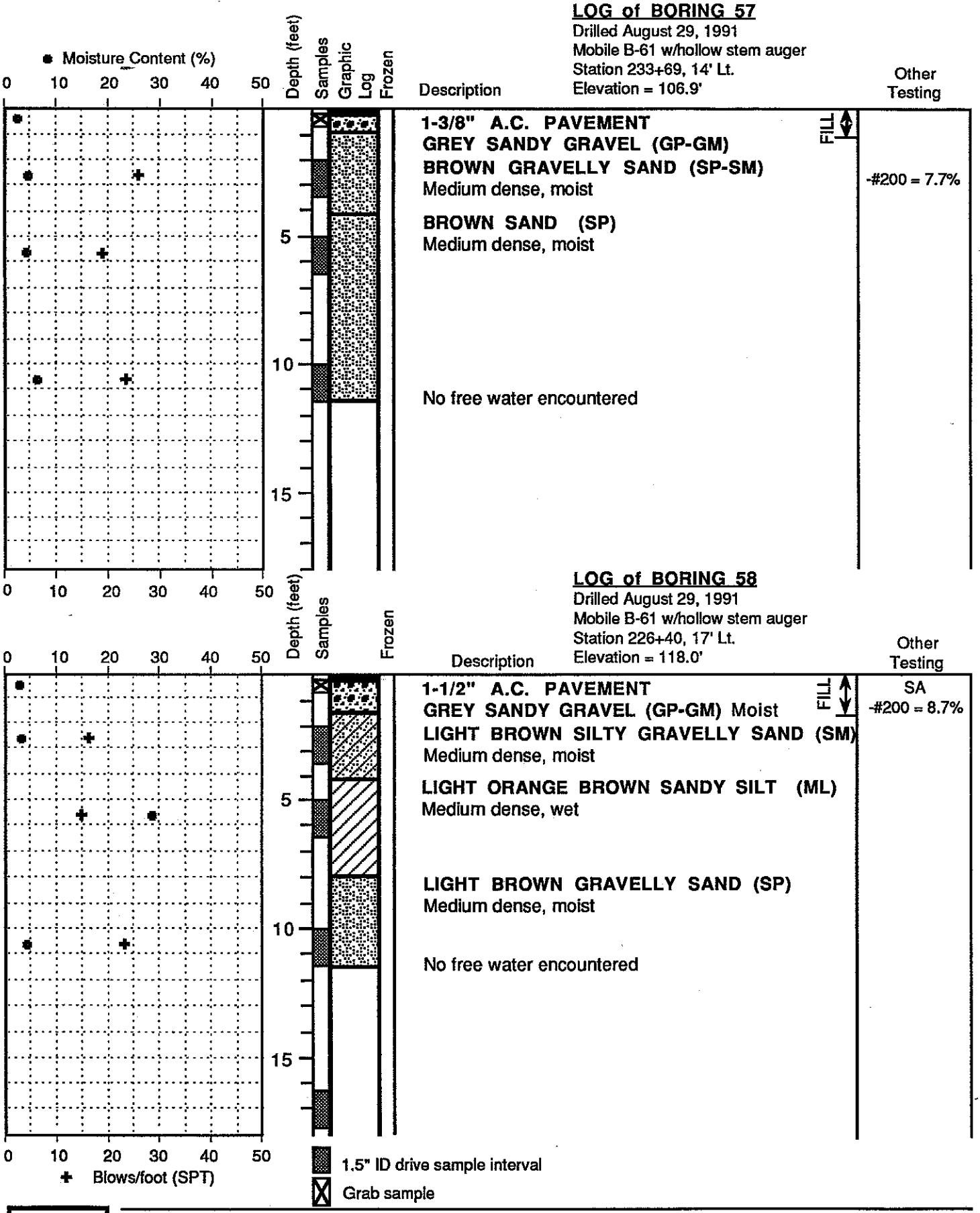


LOG of BORING 56
Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 242+33, 14' Lt.
Elevation = 91.1'

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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 56
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
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LOG of BORING 57

Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 233+69, 14' Lt.
Elevation = 106.9'

LOG of BORING 58

Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 226+40, 17' Lt.
Elevation = 118.0'

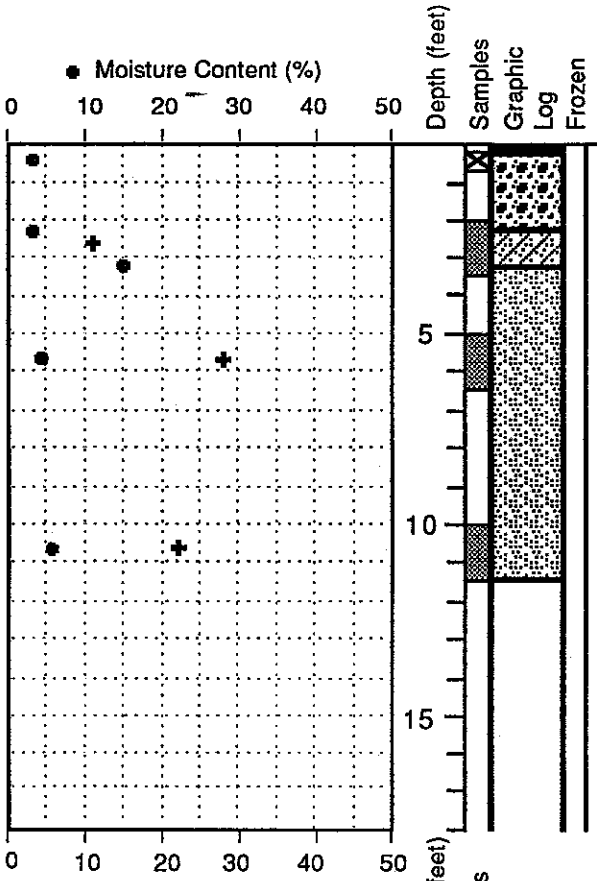
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 57 and 58
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-35

LOG of BORING 59

Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 222+27, 16' Lt.
Elevation = 114.2'

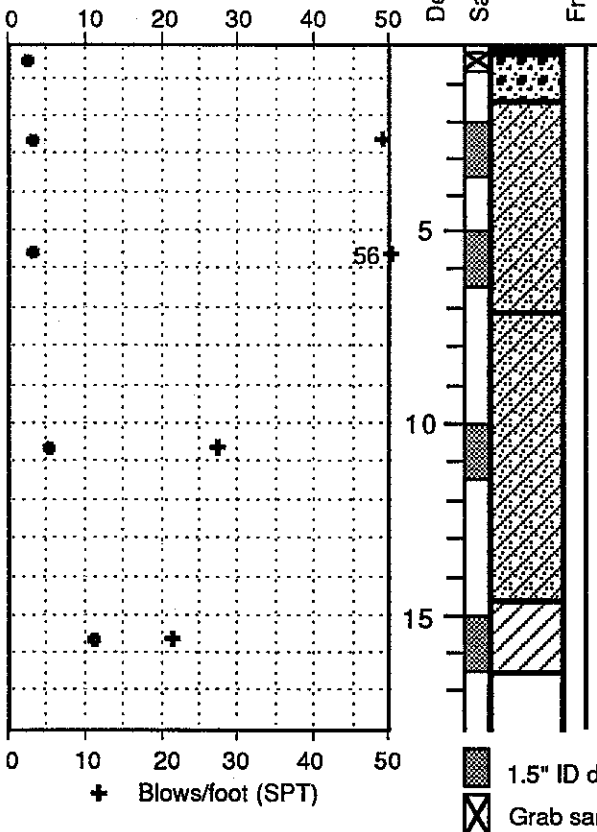


Description	Other Testing
1-1/2" A.C. PAVEMENT	SA
BROWN SANDY GRAVEL (GP-GM) Moist	-#200 = 9.4%
LIGHT BROWN SILTY GRAVELLY SAND (SM) Loose to medium dense, wet	
LIGHT BROWN SAND (SP) Medium dense, moist, medium grained w/occasional small gravel	
No free water encountered	

FILL

LOG of BORING 60

Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 212+85, 20' Lt.
Elevation = 80'



Description	Other Testing
1-1/2" A.C. PAVEMENT	
GREY SANDY GRAVEL (GP-GM) Moist w/rounded gravel to 3" dia.	
BROWN SILTY GRAVELLY SAND (SM) Dense, moist	
LIGHT BROWN SILTY SAND (SM) Medium dense, moist	
LIGHT BROWN SANDY SILT (ML) Medium dense, moist	
No free water encountered	

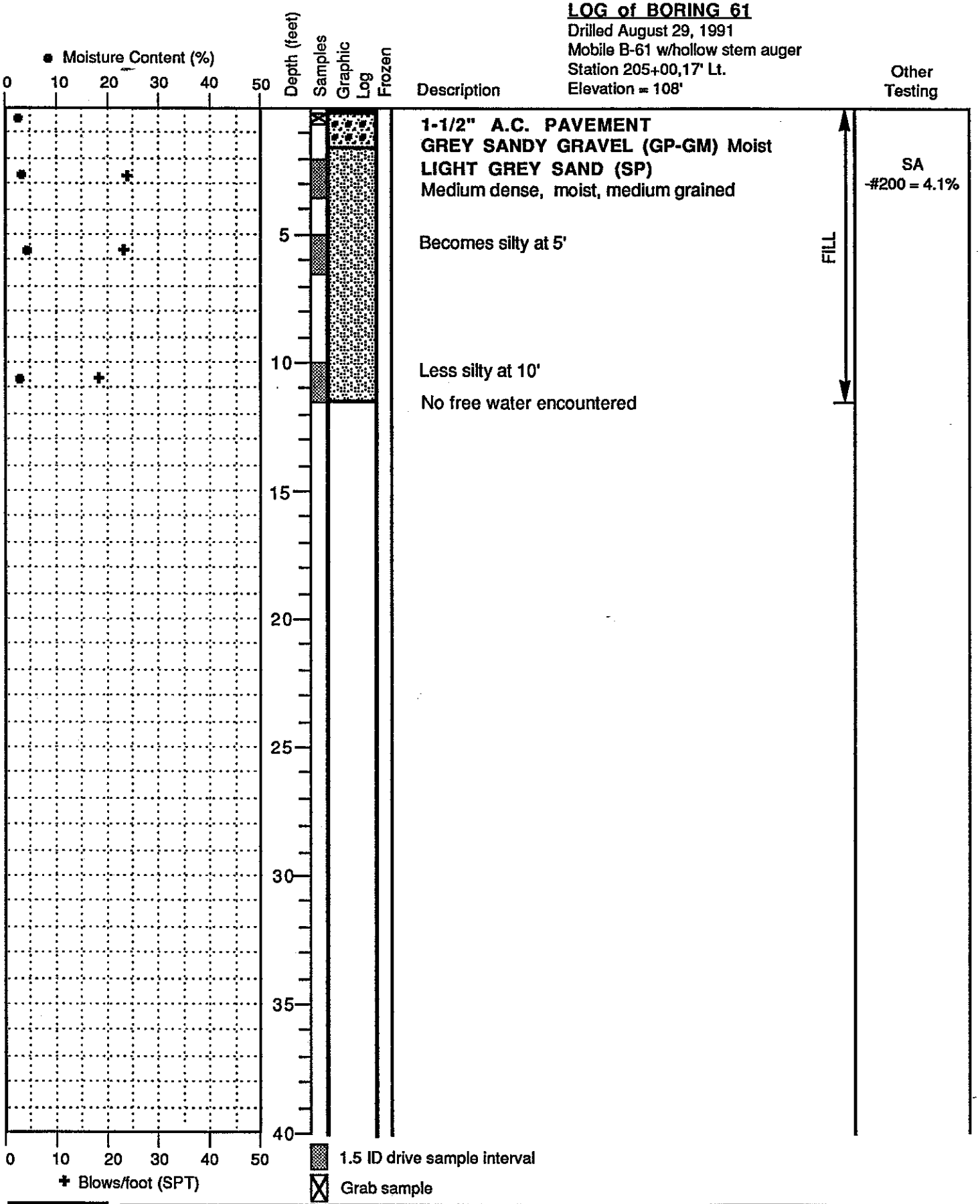
FILL

1.5" ID drive sample interval
Grab sample

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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 59 and 60
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
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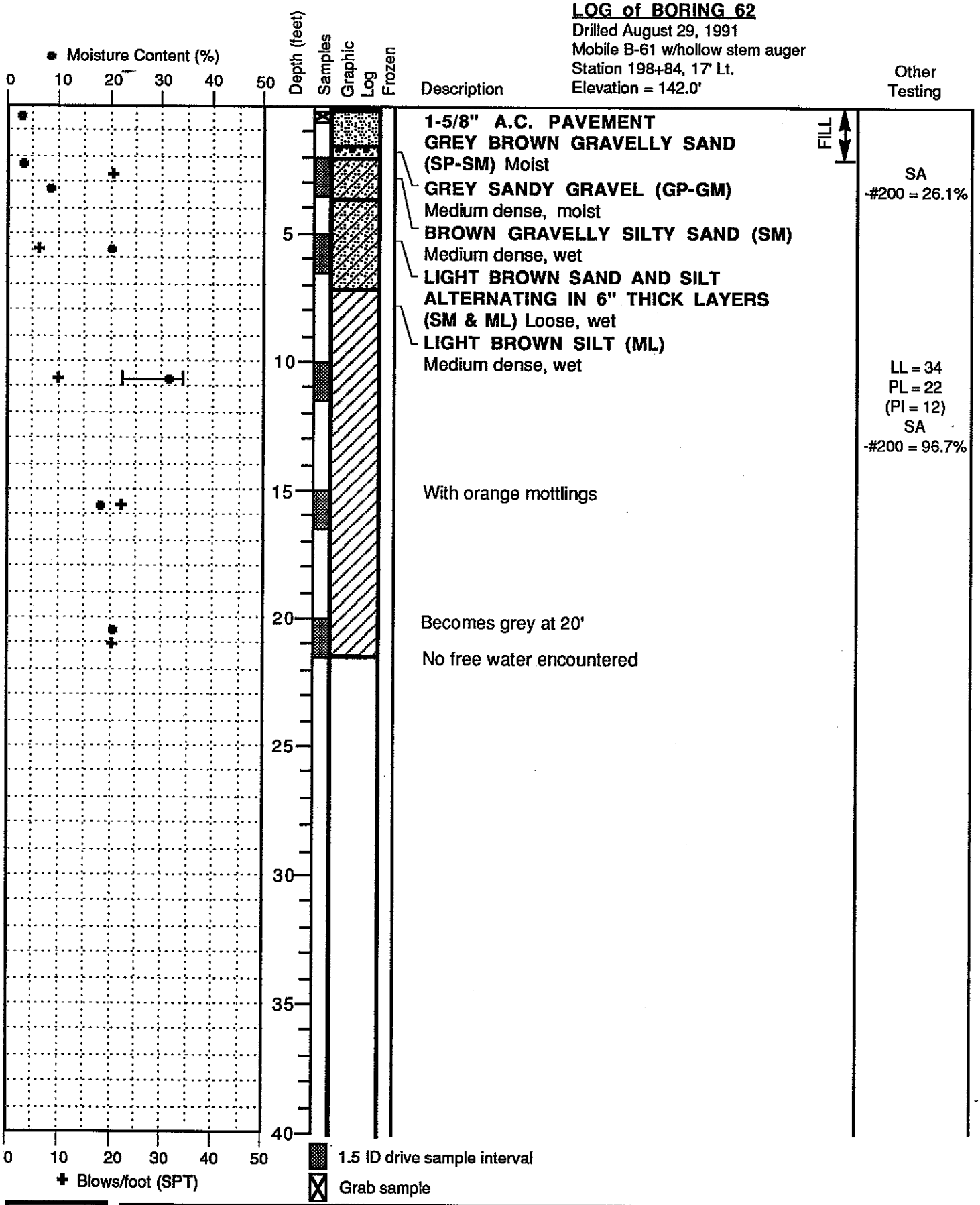
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 61
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-37

LOG of BORING 62

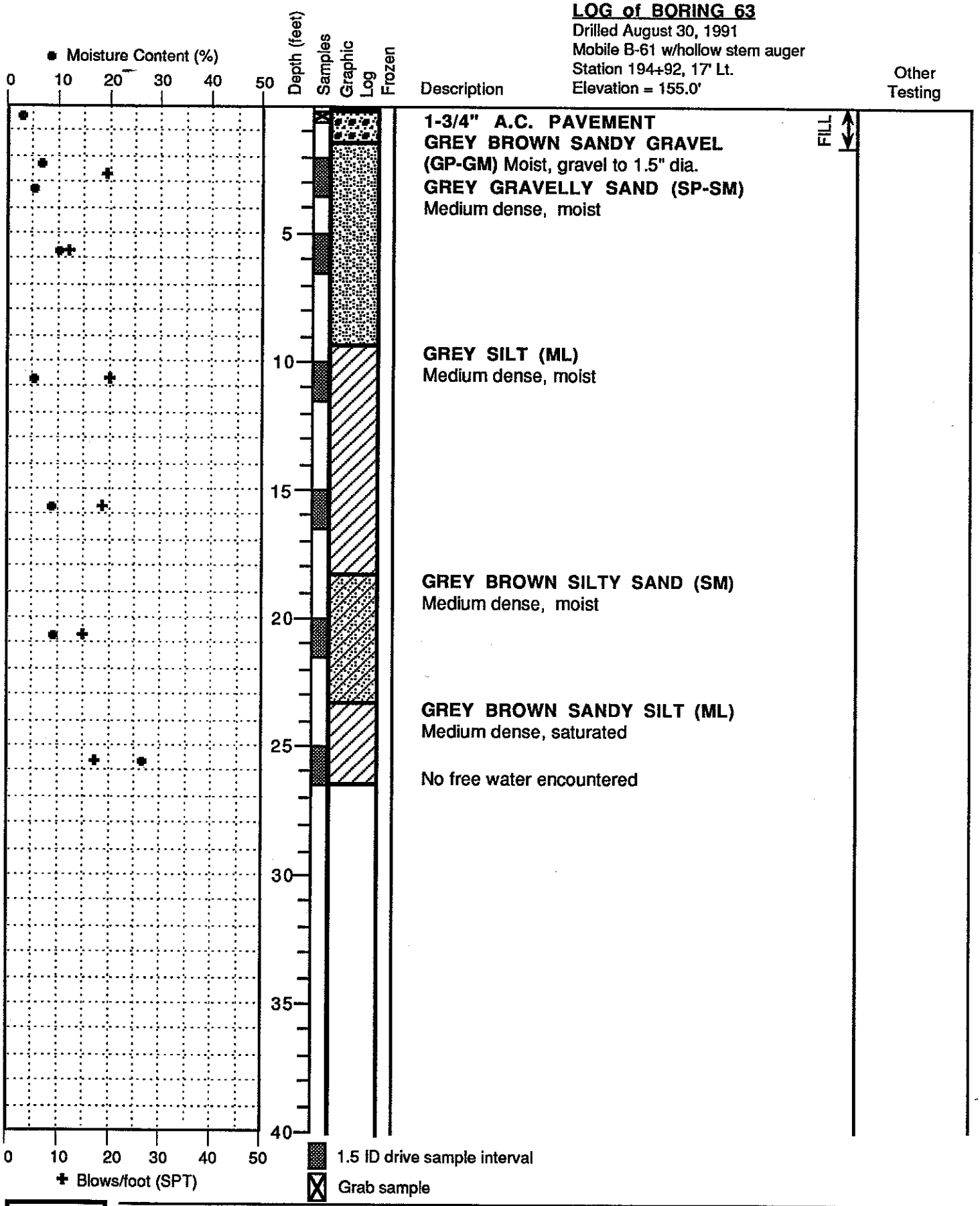
Drilled August 29, 1991
Mobile B-61 w/hollow stem auger
Station 198+84, 17' Lt.
Elevation = 142.0'



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Job No.: 4005.40
Date: November 1991

LOG of BORING 62
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-38



LOG of BORING 63
Drilled August 30, 1991
Mobile B-61 w/hollow stem auger
Station 194+92, 17' Lt.
Elevation = 155.0'

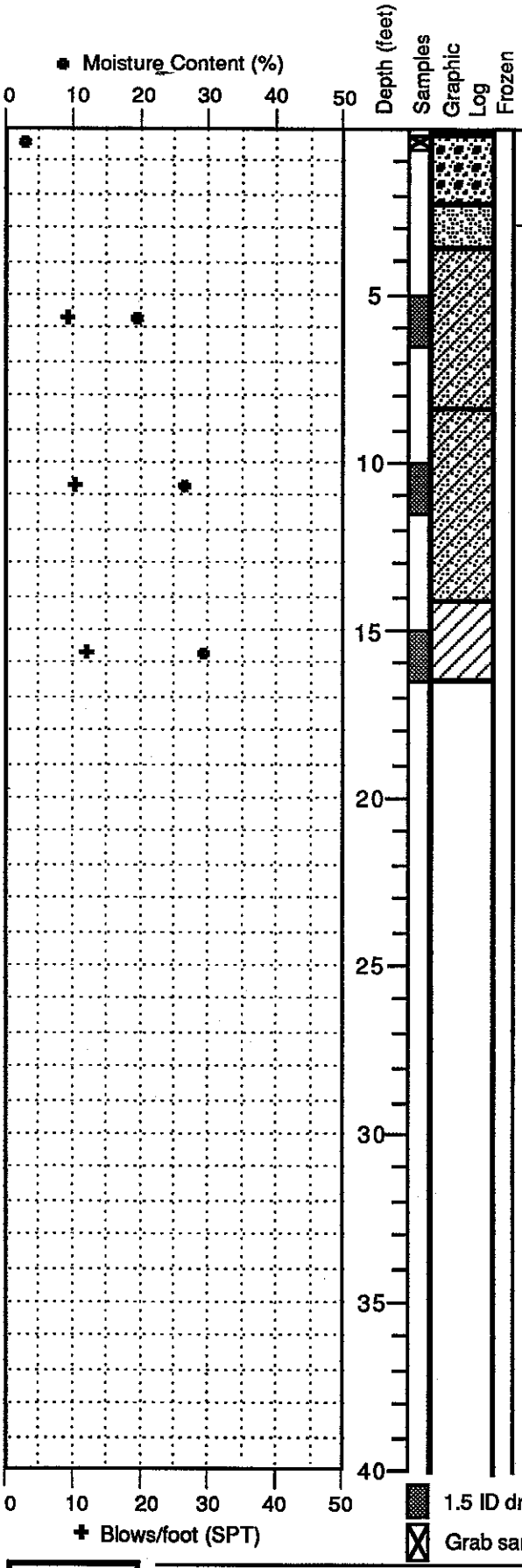
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 63
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-39

LOG of BORING 64

Drilled August 30, 1991
Mobile B-61 w/hollow stem auger
Station 190+99, 18' Lt.
Elevation = 150.5'

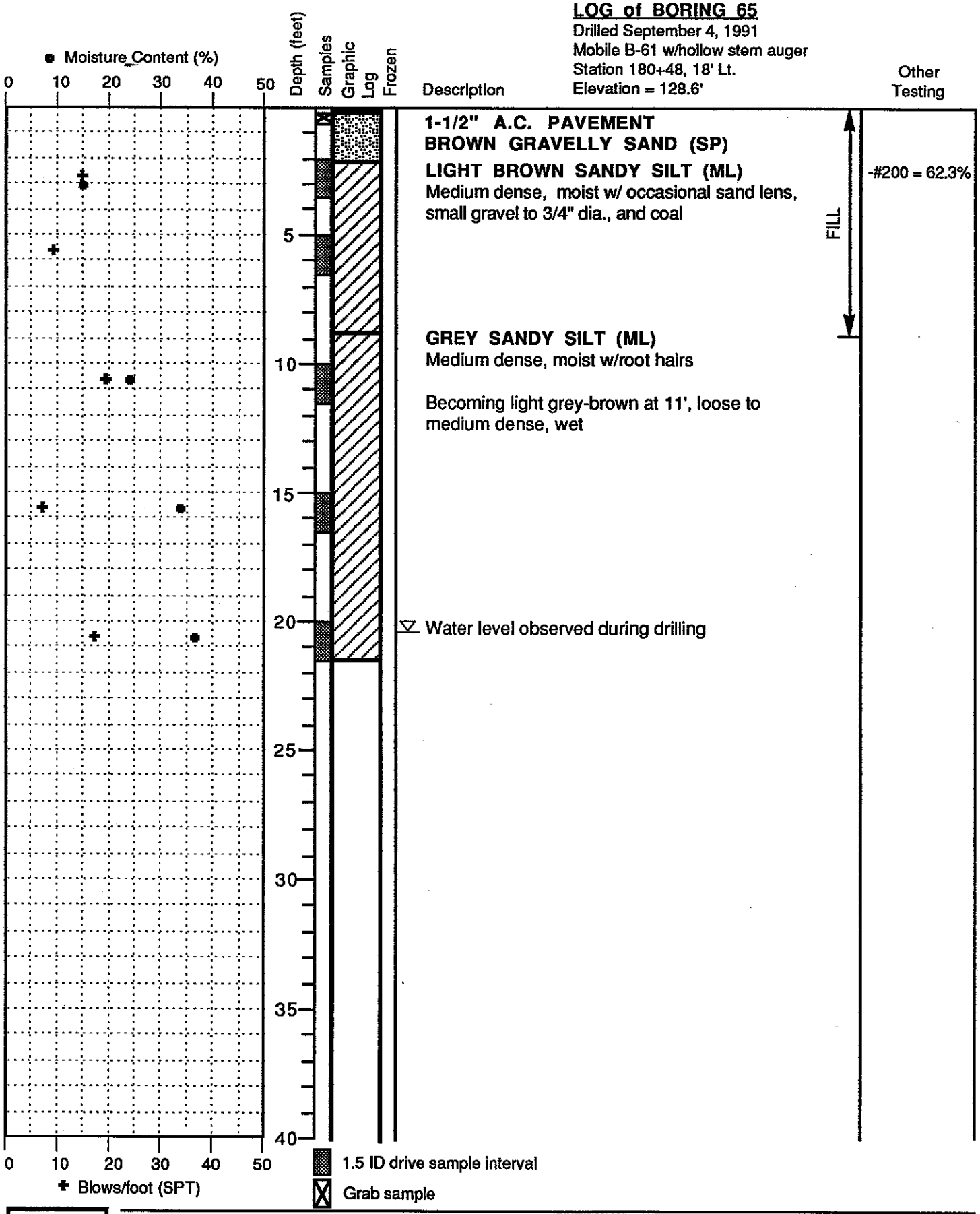


Description	Other Testing
1-1/2" A.C. PAVEMENT	
GREY BROWN SANDY GRAVEL (GP-GM) FILL Moist w/rounded gravel to 3" dia. Refusal, no recovery at 2'	
LIGHT BROWN SAND (SP) Medium dense, wet	
LIGHT BROWN SILTY SAND (SM) Loose to medium dense, wet w/ 1' thick silt lens at 5.5'	SA -#200 = 43.3%
LIGHT BROWN SILTY SAND (SM) Medium dense, wet	
LIGHT BROWN SANDY SILT (ML) Medium dense, wet No free water encountered	

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Job No.: 4005.40
Date: November 1991

LOG of BORING 64
Kenai Spur Highway
Soldotna to Kenai, Alaska

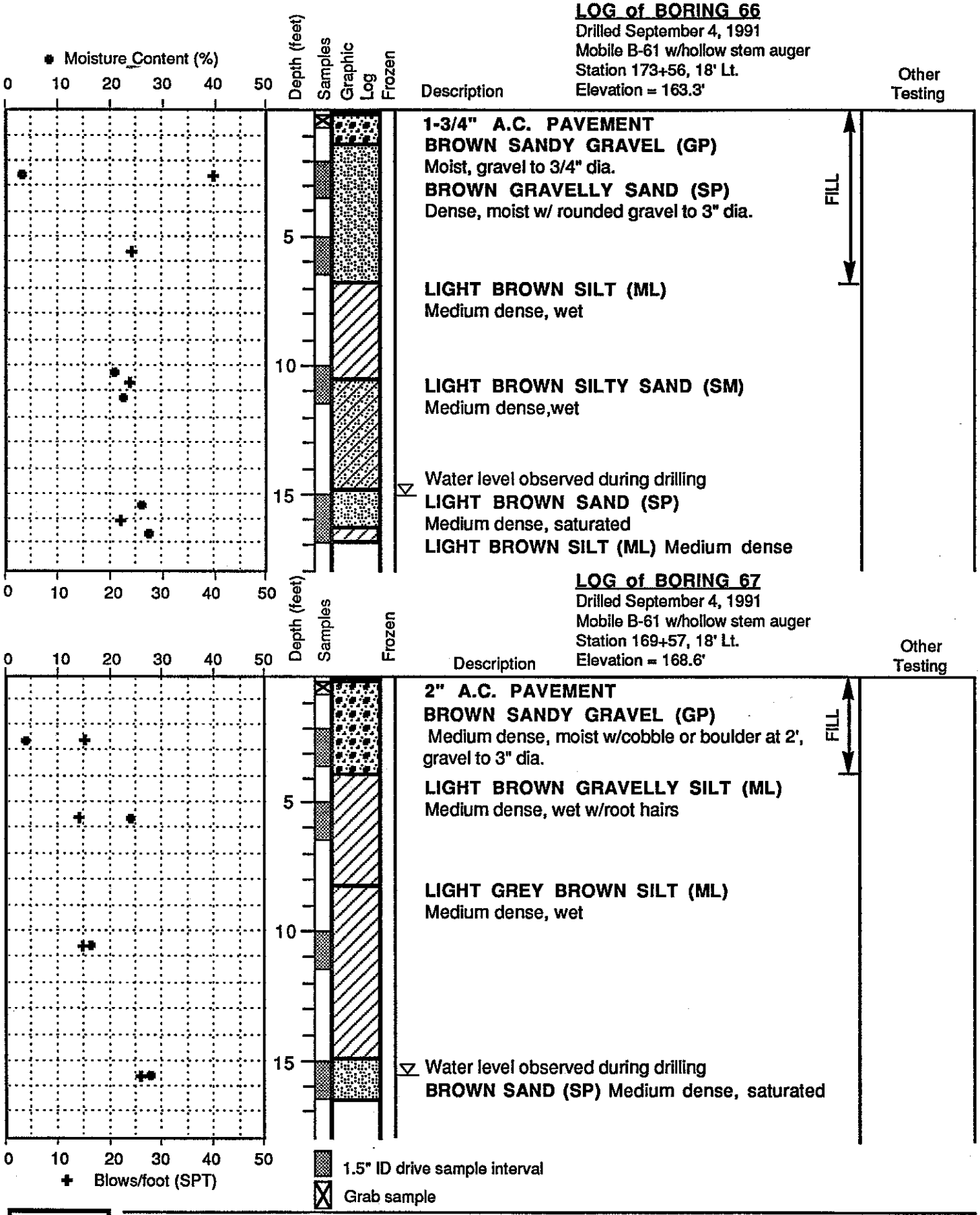
Plate
A-40



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Job No.: 4005.40
Date: November 1991

LOG of BORING 65
Kenai Spur Highway
Soldotna to Kenai, Alaska

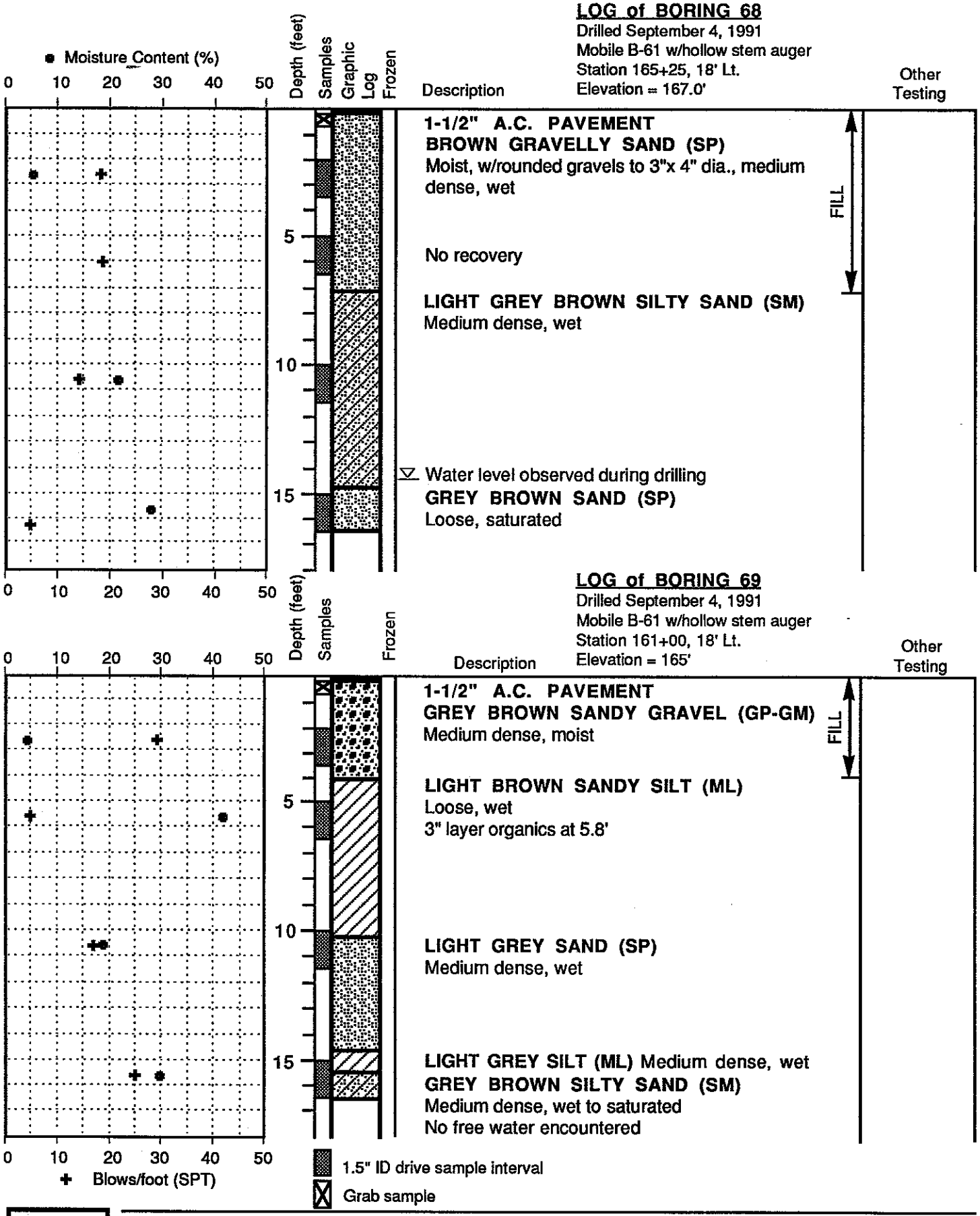
Plate
A-41



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Date : November 1991

LOGS of BORINGS 66 and 67
Kenai Spur Highway
Soldotna to Kenai, Alaska

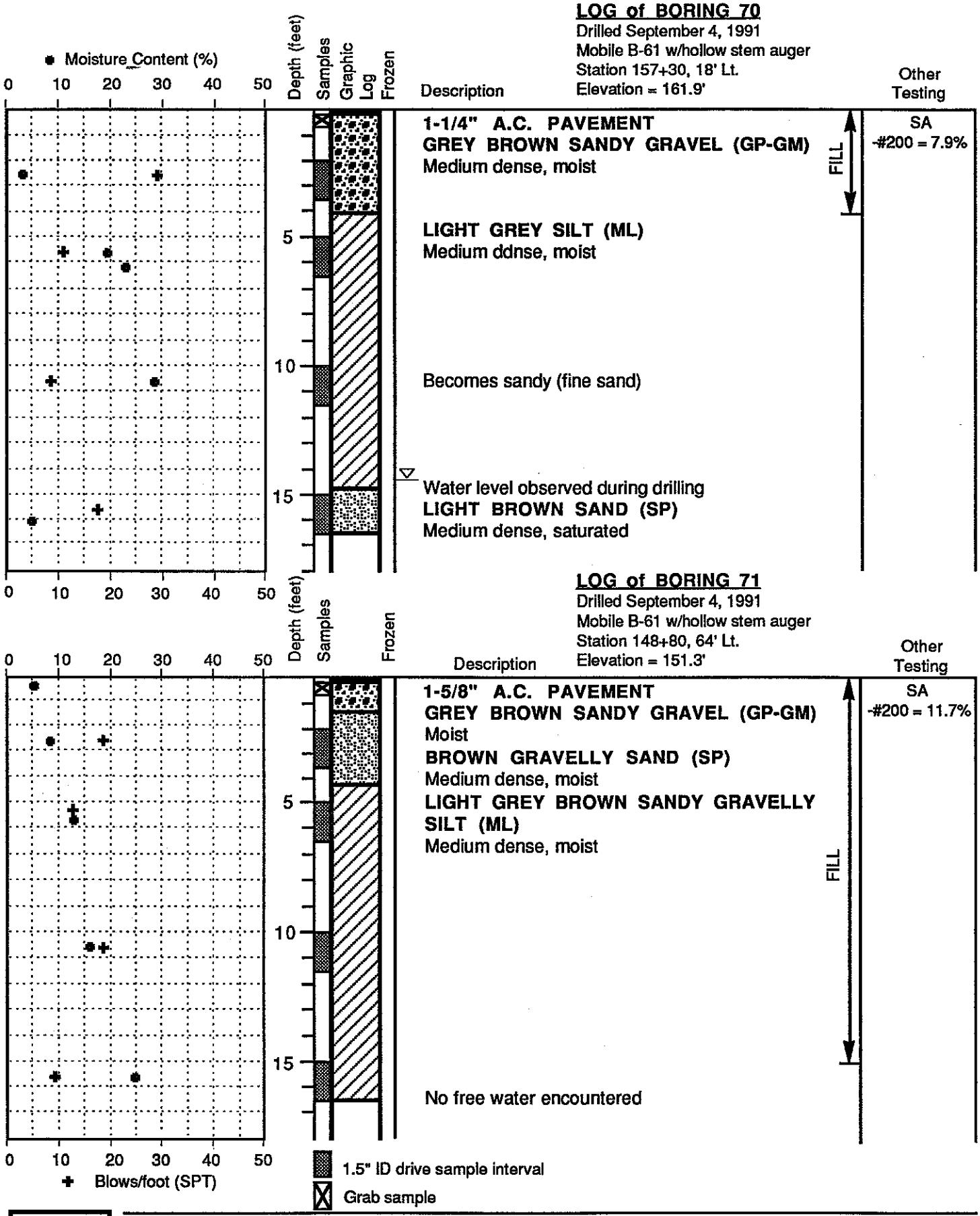
Plate
A-42



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 68 and 69
Kenai Spur Highway
Soldotna to Kenai, Alaska

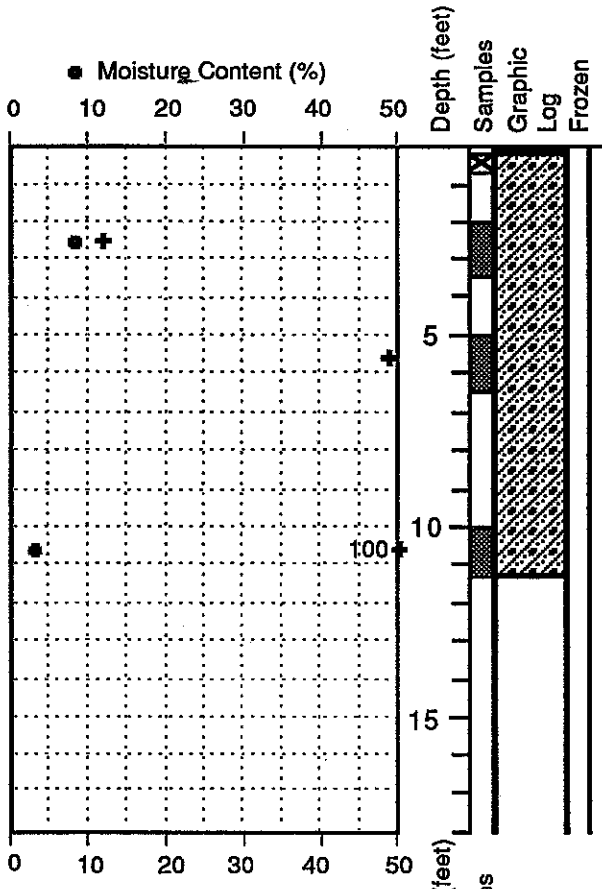
Plate
A-43



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 70 and 71
Kenai Spur Highway
Soldotna to Kenai, Alaska

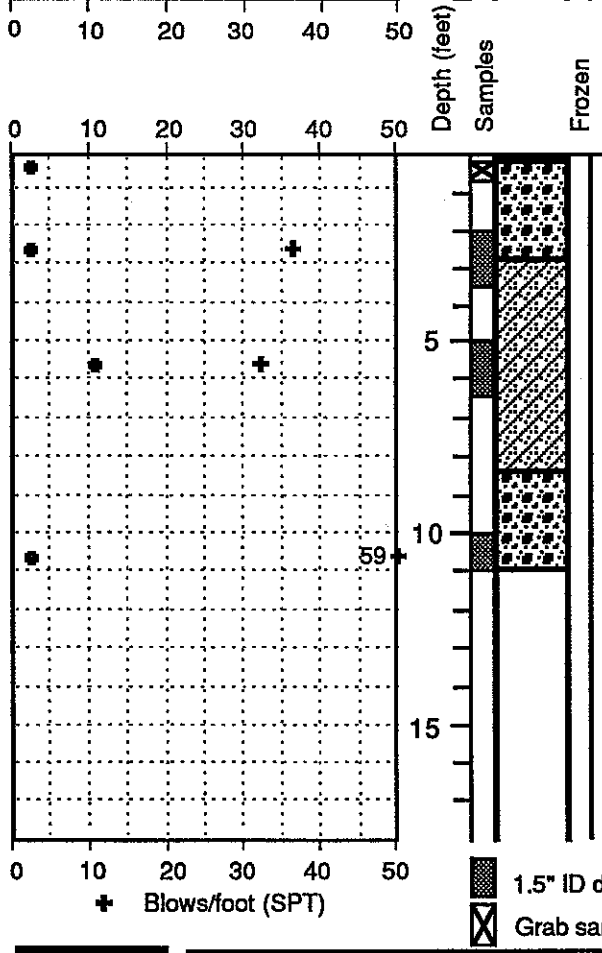
Plate
A-44



LOG of BORING 72

Drilled September 4, 1991
Mobile B-61 w/hollow stem auger
Station 96+18, 18' Lt.
Elevation = 91.4'

Description	Other Testing
1-3/8" A.C. PAVEMENT **GREY BROWN SILTY SANDY GRAVEL (GM)** Medium dense becoming very dense, moist w/rounded gravel to 3/4" dia.	SA -#200 = 22.2%
Occasional rounded gravel to 2.5"	
No free water encountered	



LOG of BORING 73

Drilled September 4, 1991
Mobile B-61 w/hollow stem auger
Station 89+00, 26' Lt.
Elevation = 95'

Description	Other Testing
A.C. PAVEMENT **GREY SANDY GRAVEL (GP-GM)** Dense, moist **LIGHT BROWN SILTY SAND (SM)** Dense, moist w/occasional gravel	FILL SA -#200 = 7.1%
LIGHT BROWN SANDY GRAVEL (GP) Very dense, moist w/rounded gravel to 2.5" dia. No free water encountered	

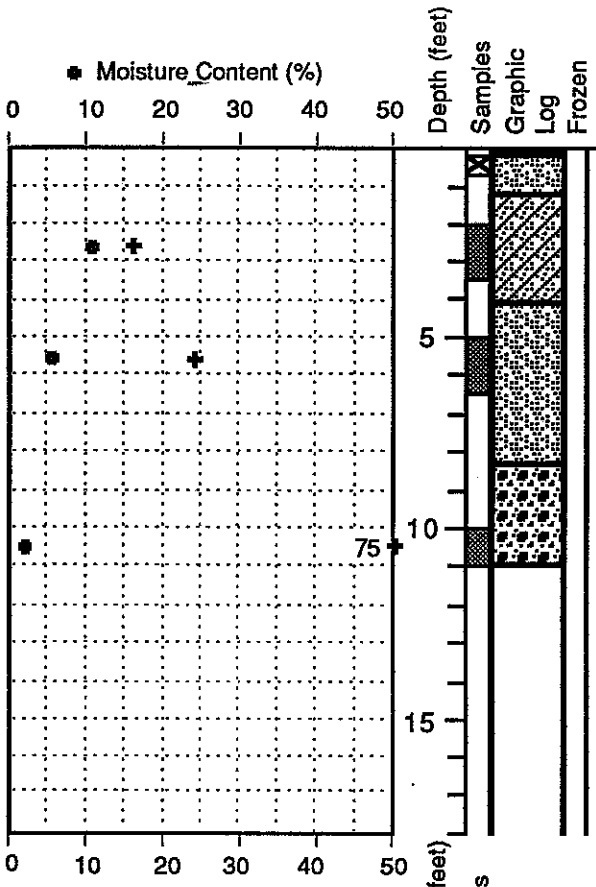
1.5" ID drive sample interval

Grab sample

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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 72 and 73
Kenai Spur Highway
Soldotna to Kenai, Alaska

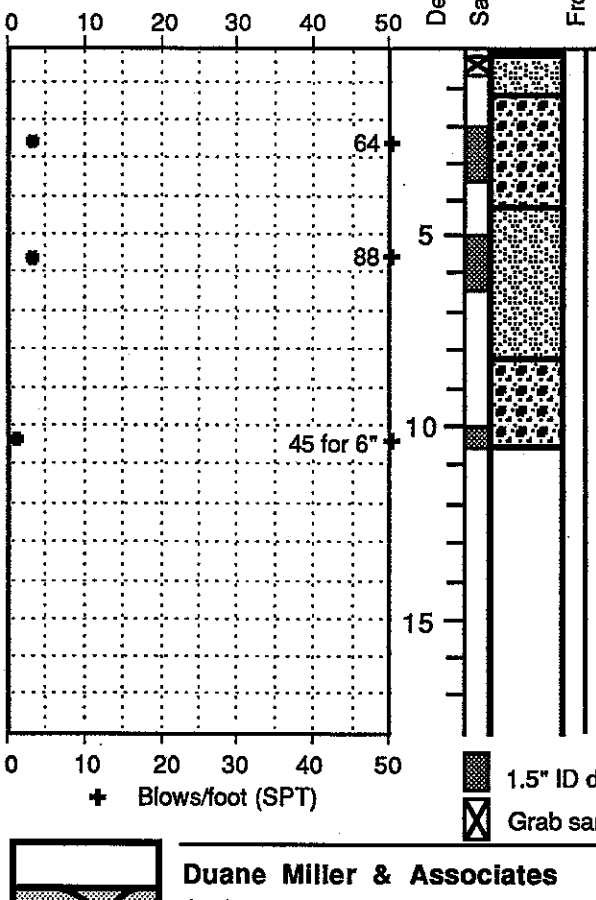
Plate
A-45



LOG of BORING 74

Drilled September 5, 1991
Mobile B-61 w/hollow stem auger
Station 82+39, 17' Lt.
Elevation = 93.3'

Description	Other Testing
1-1/8" A.C. PAVEMENT **BROWN GRAVELLY SAND (SP)** Moist w/rounded gravel to 1" dia. **LIGHT BROWN SILTY GRAVELLY SAND (SM)** Medium dense, wet **BROWN GRAVELLY SAND (SP)** Medium dense, moist w/rounded gravel to 1" dia. **GREY SANDY GRAVEL (GP)** Very dense, moist w/subrounded gravel to 1.5" dia. No free water encountered	-#200 = 32.3%



LOG of BORING 75

Drilled September 5, 1991
Mobile B-61 w/hollow stem auger
Station 72+85, 27' Lt.
Elevation = 87.4'

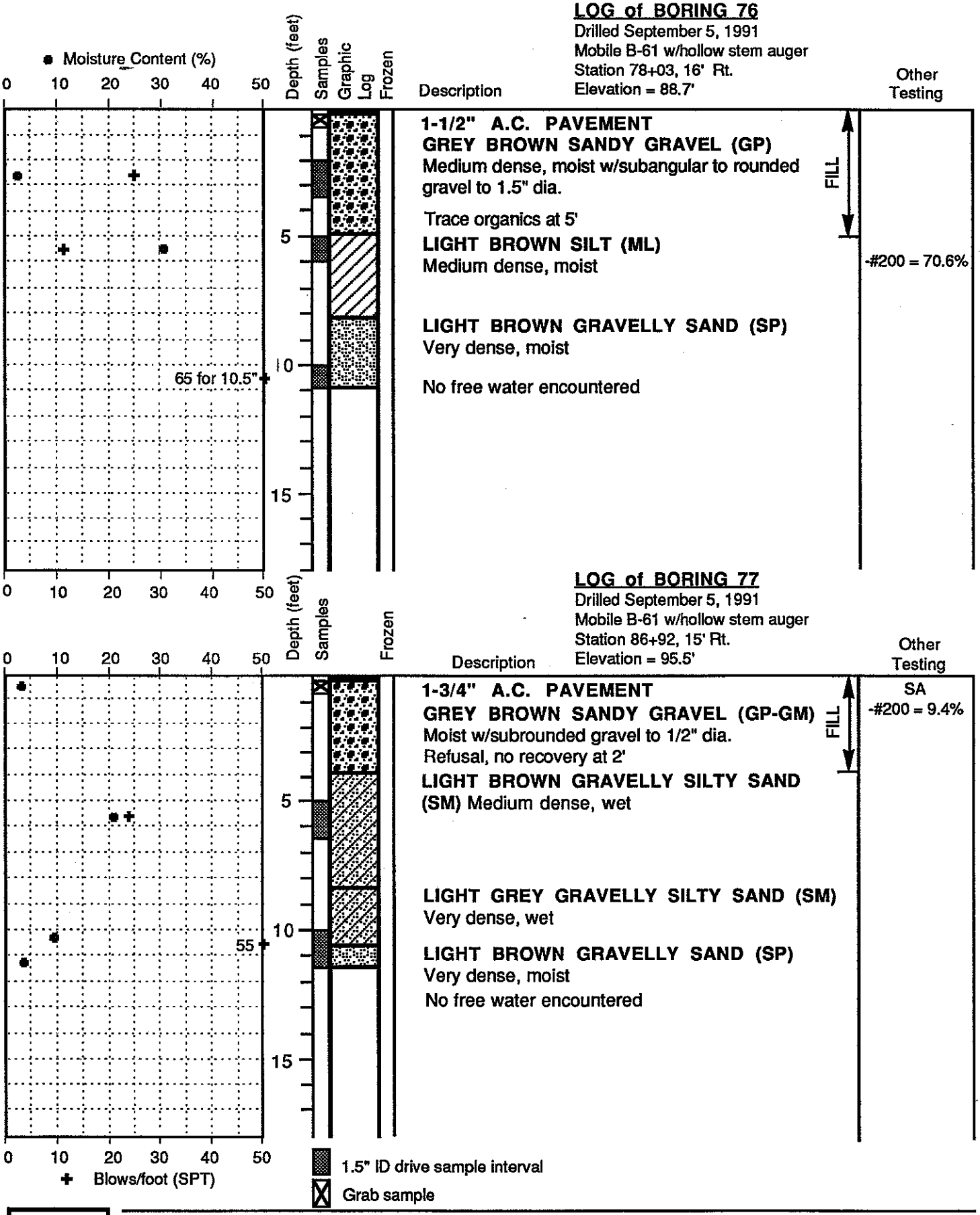
Description	Other Testing
A.C. PAVEMENT **BROWN GRAVELLY SAND (SP)** Moist w/subrounded gravel to 3/4" dia. **GREY SANDY GRAVEL (GP)** Very dense, moist w/subrounded and rounded gravel to 3" dia. **GREY GRAVELLY SAND (SP)** Very dense, moist **GREY SANDY GRAVEL (GP)** Very dense, moist to dry No free water encountered	

1.5" ID drive sample interval
Grab sample

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Date : November 1991

LOGS of BORINGS 74 and 75
Kenai Spur Highway
Soldotna to Kenai, Alaska

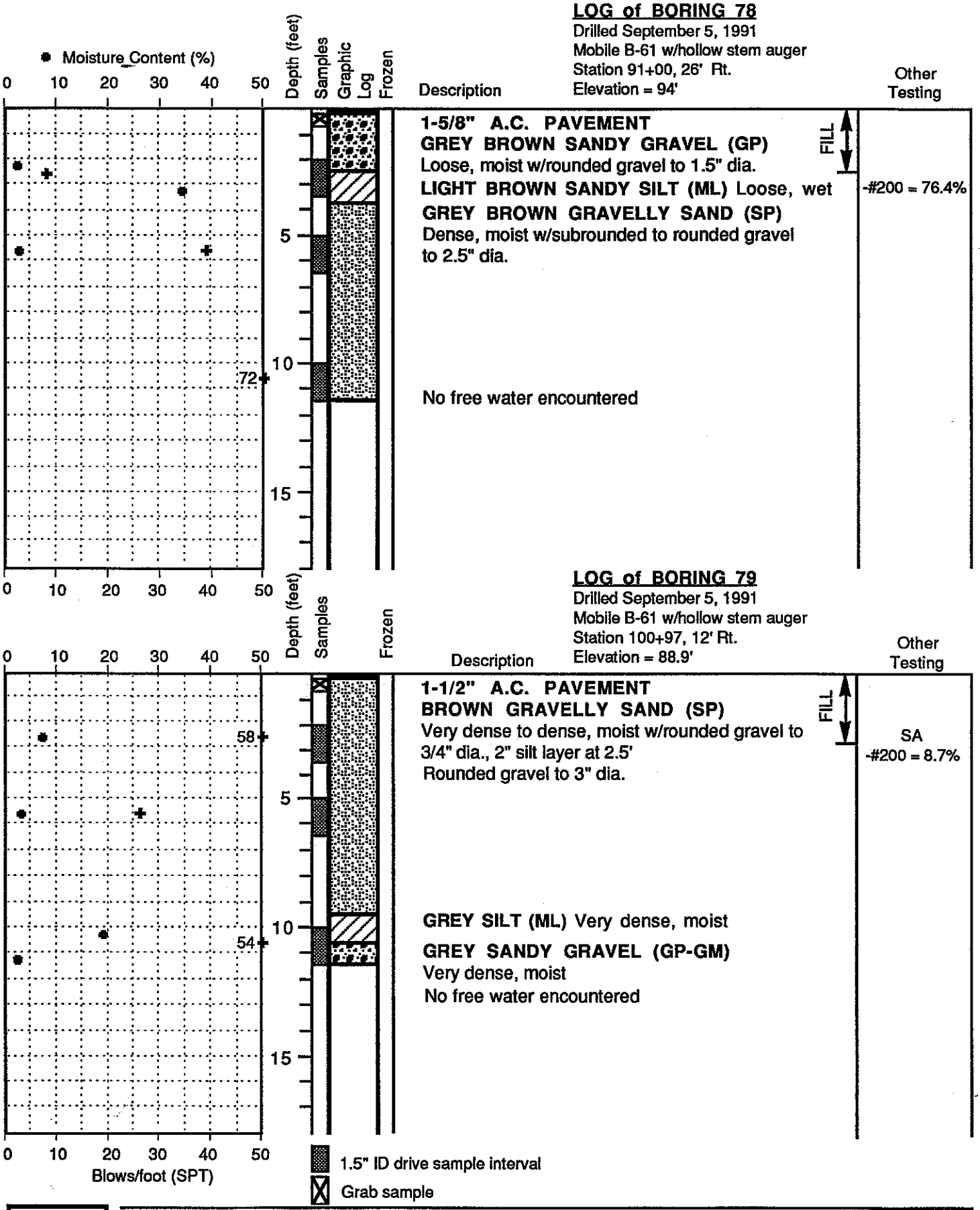
Plate
A-46



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LOGS of BORINGS 76 and 77
Kenai Spur Highway
Soldotna to Kenai, Alaska

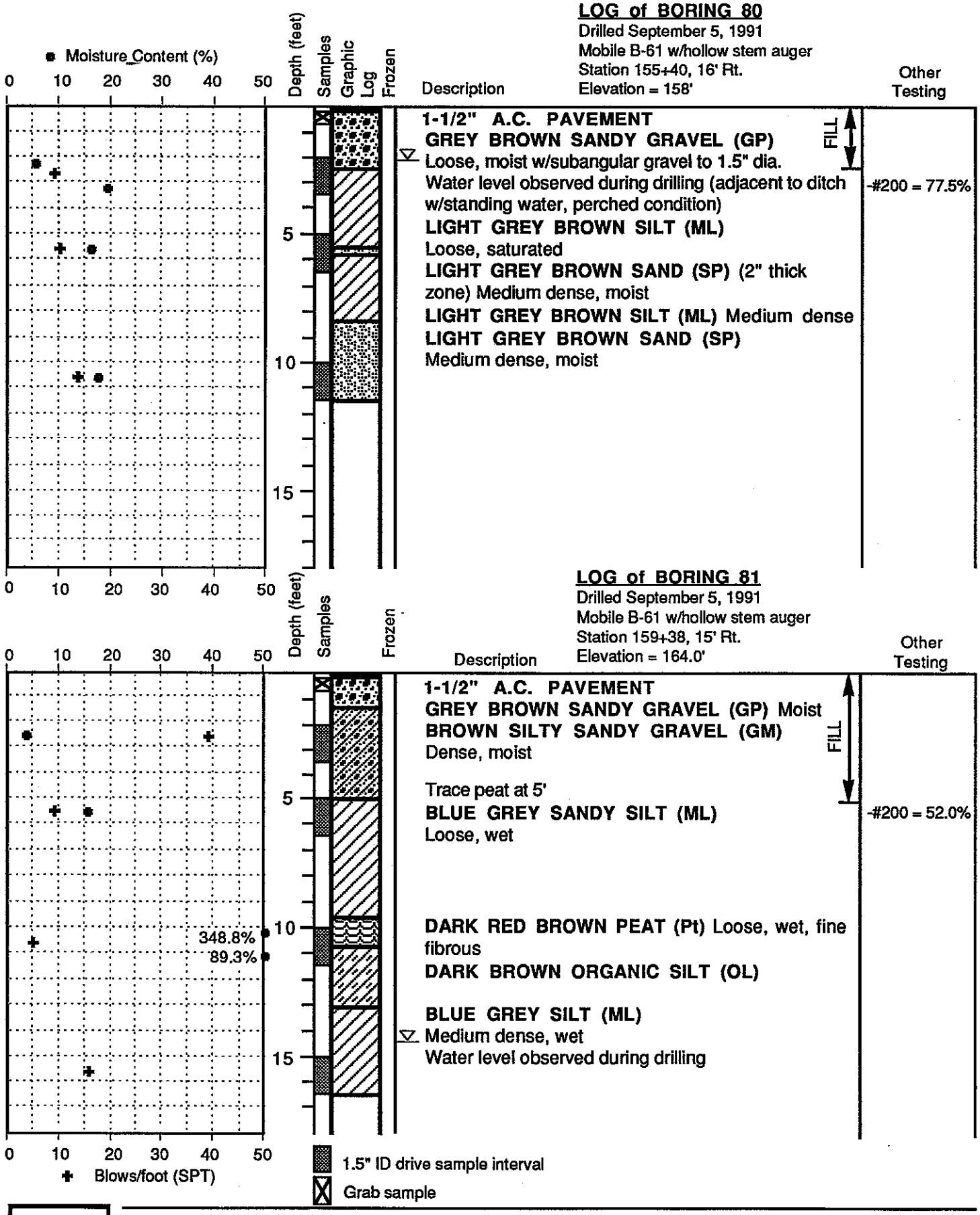
Plate
A-47



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 78 and 79
Kenai Spur Highway
Soldotna to Kenai, Alaska

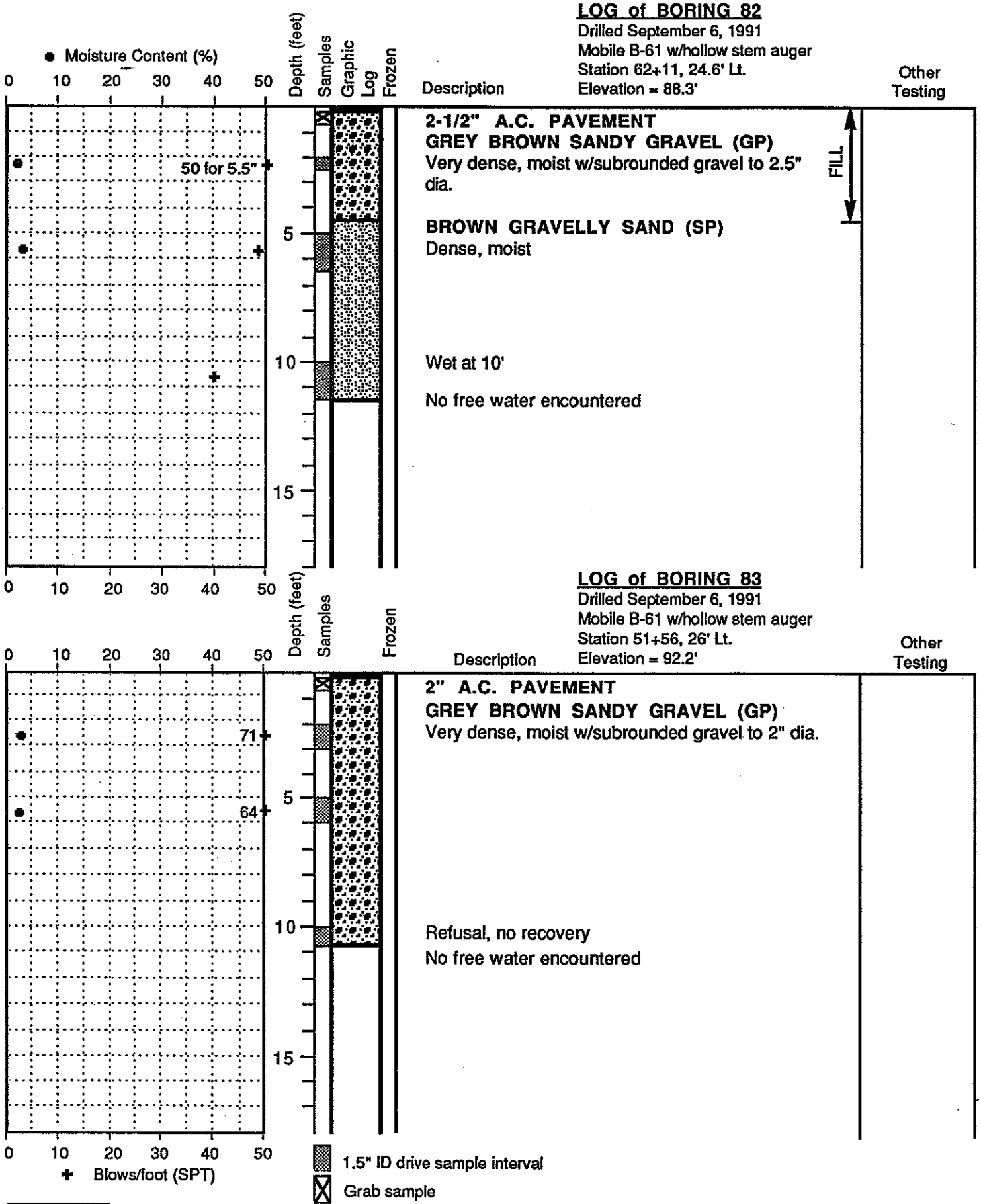
Plate
A-48



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 80 and 81
Kenai Spur Highway
Soldotna to Kenai, Alaska

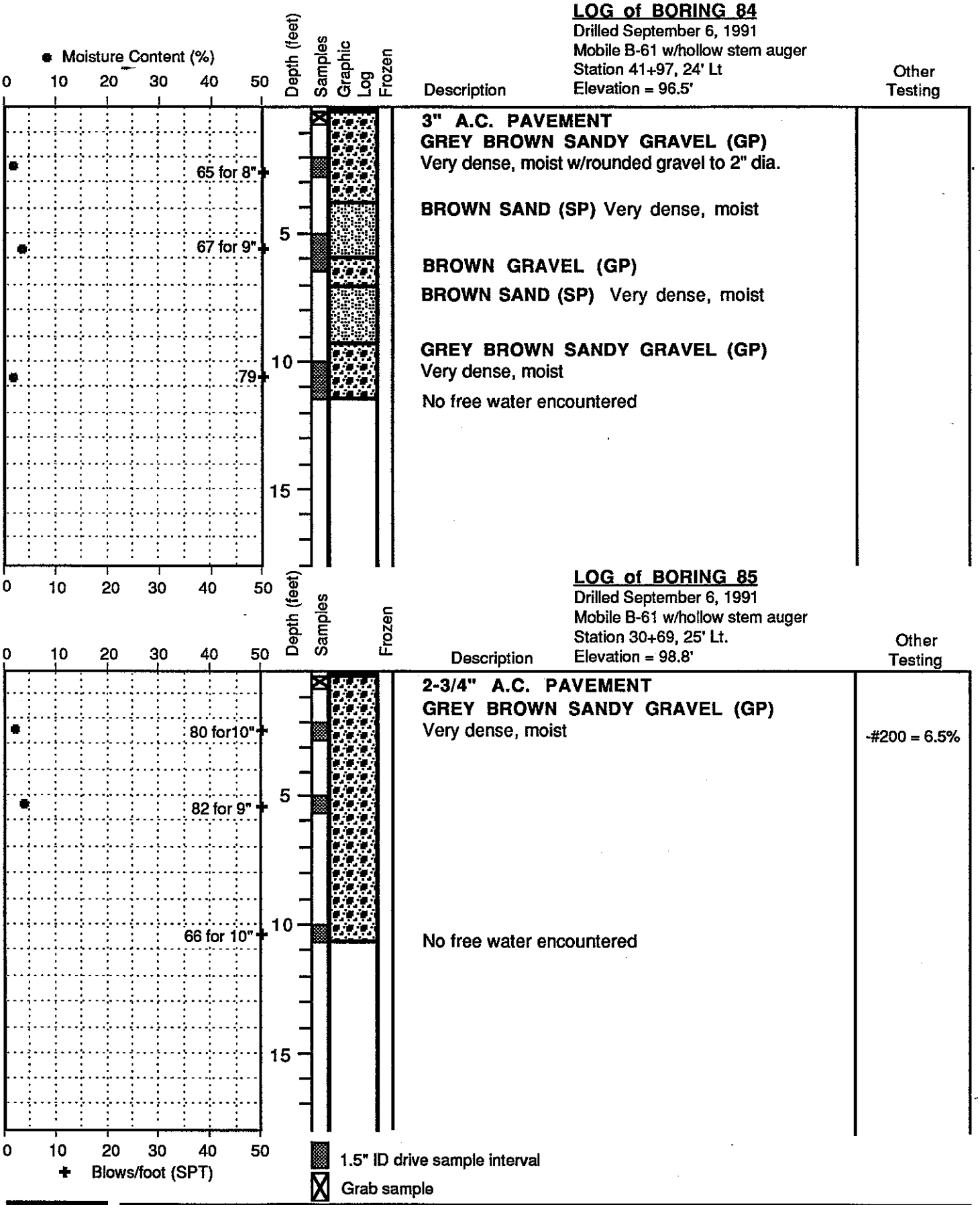
Plate
A-49



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 82 and 83
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-50



LOG of BORING 84

Drilled September 6, 1991
Mobile B-61 w/hollow stem auger
Station 41+97, 24' Lt
Elevation = 96.5'

Description

3" A.C. PAVEMENT
GREY BROWN SANDY GRAVEL (GP)
Very dense, moist w/rounded gravel to 2" dia.

BROWN SAND (SP) Very dense, moist

BROWN GRAVEL (GP)

BROWN SAND (SP) Very dense, moist

GREY BROWN SANDY GRAVEL (GP)
Very dense, moist

No free water encountered

Other Testing

LOG of BORING 85

Drilled September 6, 1991
Mobile B-61 w/hollow stem auger
Station 30+69, 25' Lt.
Elevation = 98.8'

Description

2-3/4" A.C. PAVEMENT
GREY BROWN SANDY GRAVEL (GP)
Very dense, moist

No free water encountered

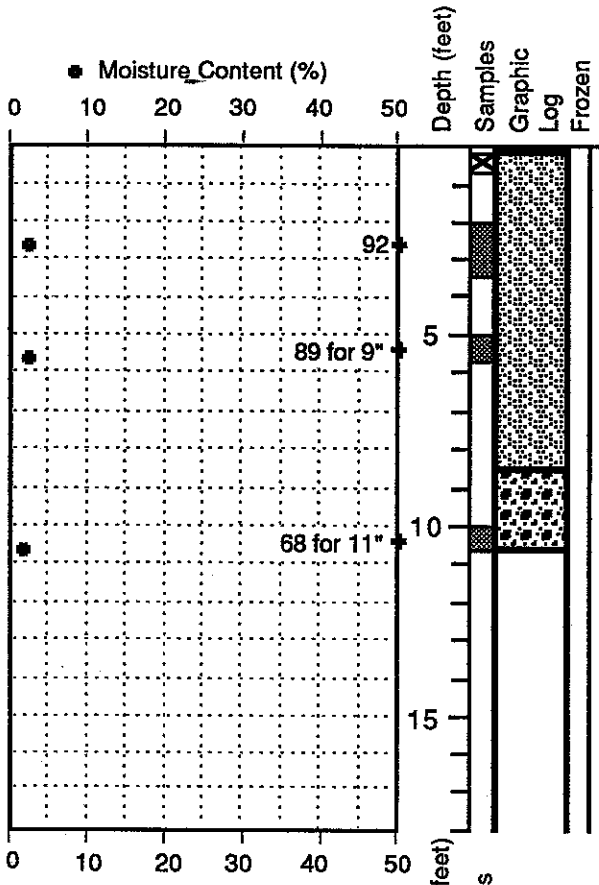
Other Testing

-#200 = 6.5%

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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 84 and 85
Kenai Spur Highway
Soldotna to Kenai, Alaska

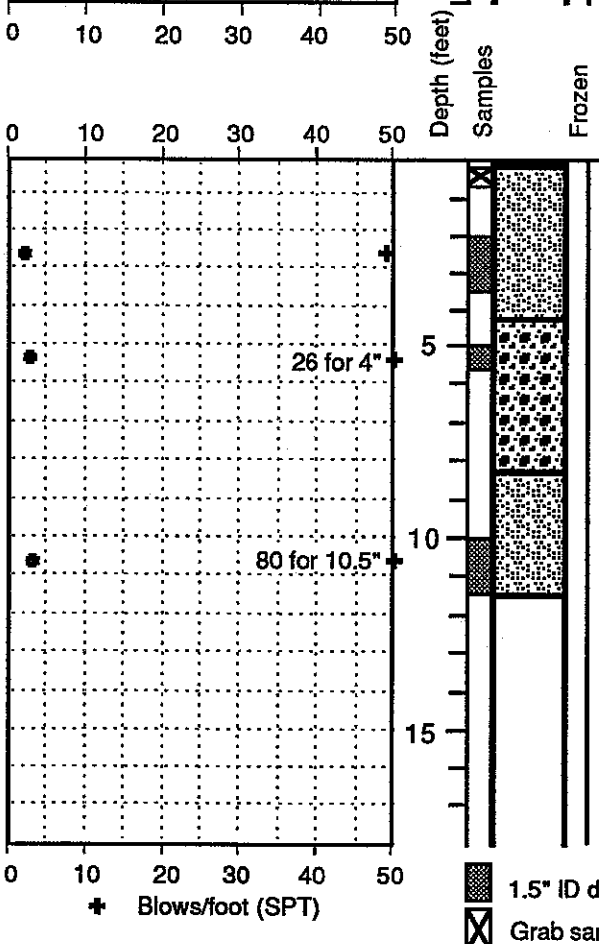
Plate
A-51



LOG of BORING 86

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 22+00, 26' Lt.
Elevation = 100.0'

Description	Other Testing
3" A.C. PAVEMENT **GREY BROWN GRAVELLY SAND (SP)** Very dense, moist w/increasing gravel at 1', rounded gravel to 1.5" dia. Gravel to 2.5" dia. **GREY SANDY GRAVEL (GP)** Very dense, moist No free water encountered	



LOG of BORING 87

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 12+95, 26' Lt.
Elevation = 90.8'

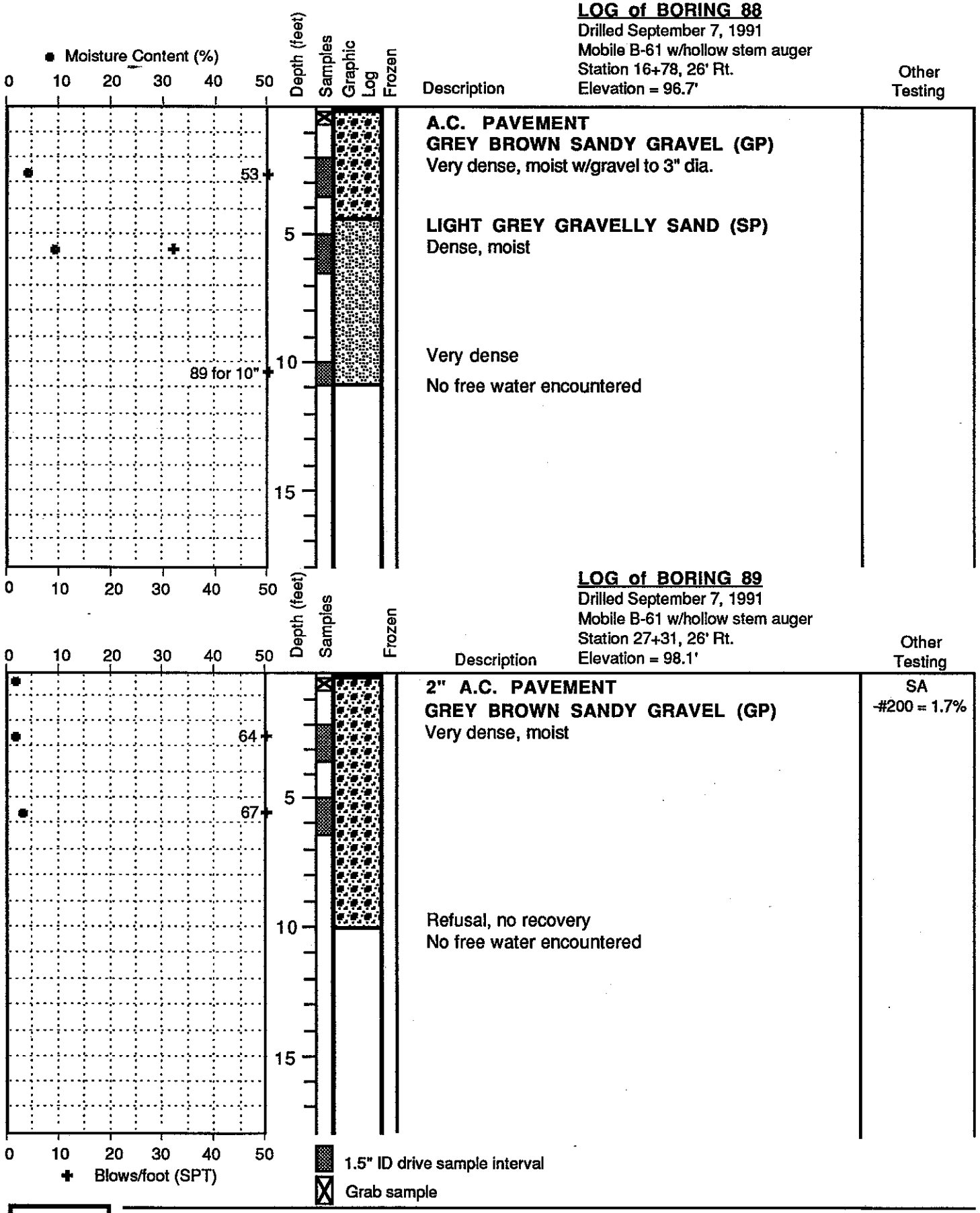
Description	Other Testing
2-1/2" A.C. PAVEMENT **GREY BROWN GRAVELLY SAND (SP)** Dense, moist	-#200 = 5.8%
GREY SANDY GRAVEL (GP) Very dense, moist	
GREY BROWN GRAVELLY SAND (SP) Very dense, moist	
No free water encountered	

1.5" ID drive sample interval
Grab sample

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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 86 and 87
Kenai Spur Highway
Soldotna to Kenai, Alaska

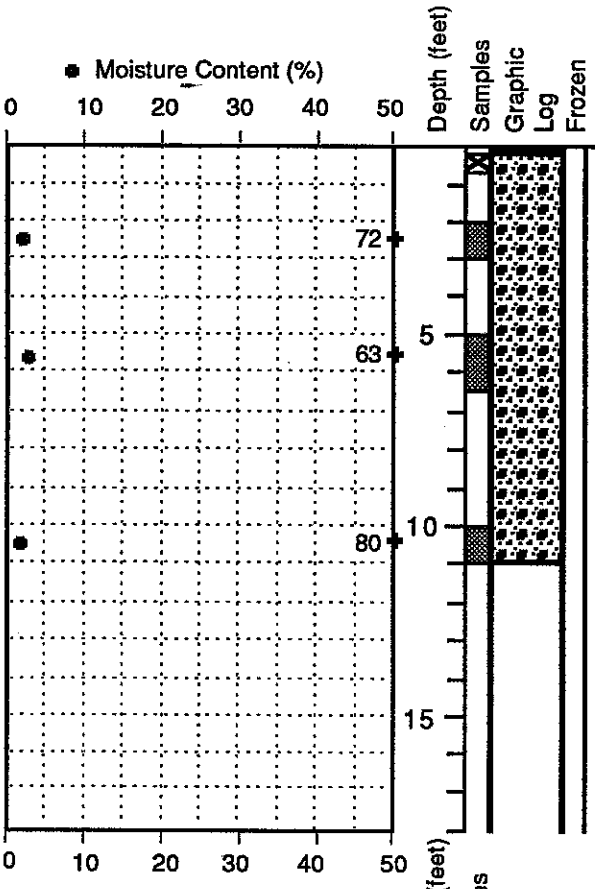
Plate
A-52



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 88 and 89
Kenai Spur Highway
Soldotna to Kenai, Alaska

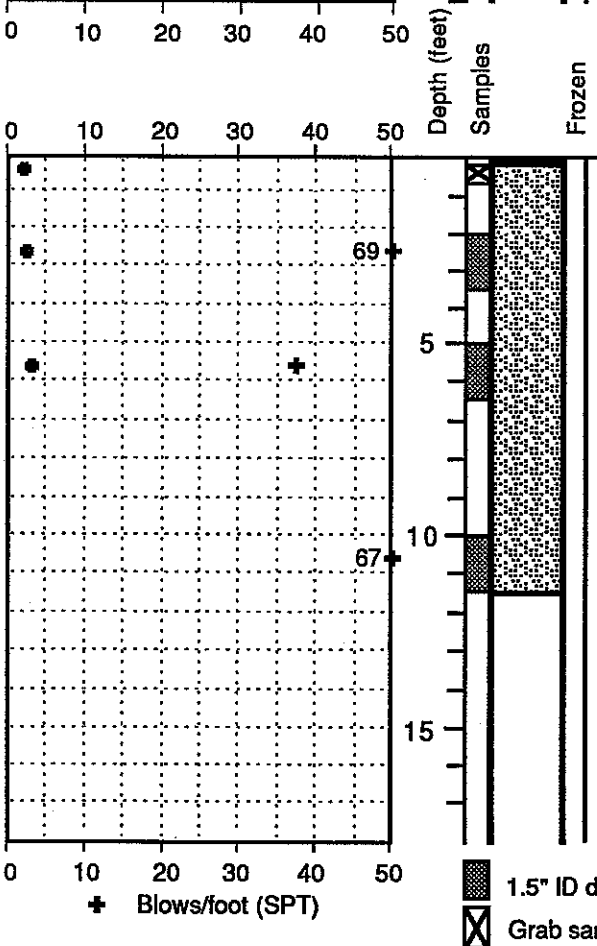
Plate
A-53



LOG of BORING 90

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 37+13, 27' Rt.
Elevation = 98.0'

Description	Other Testing
3" A.C. PAVEMENT **GREY BROWN SANDY GRAVEL (GP)** Very dense, moist No free water encountered	



LOG of BORING 91

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 47+48, 27' Rt.
Elevation = 95.8'

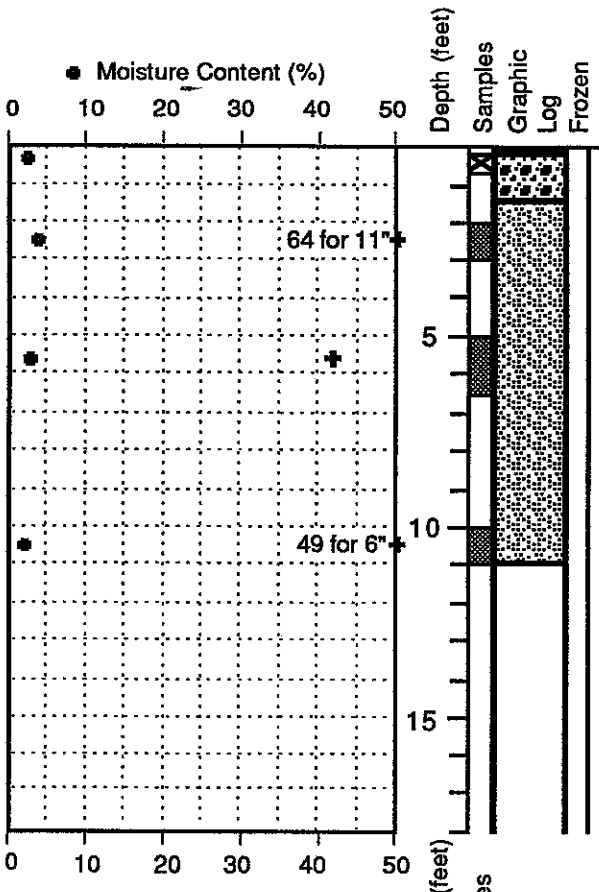
Description	Other Testing
3-1/4" A.C. PAVEMENT **GREY BROWN GRAVELLY SAND (SP)** Very dense, moist w/rounded gravel to 2" dia. No free water encountered	-#200 = 7.5%

1.5" ID drive sample interval
Grab sample

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 90 and 91
Kenai Spur Highway
Soldotna to Kenai, Alaska

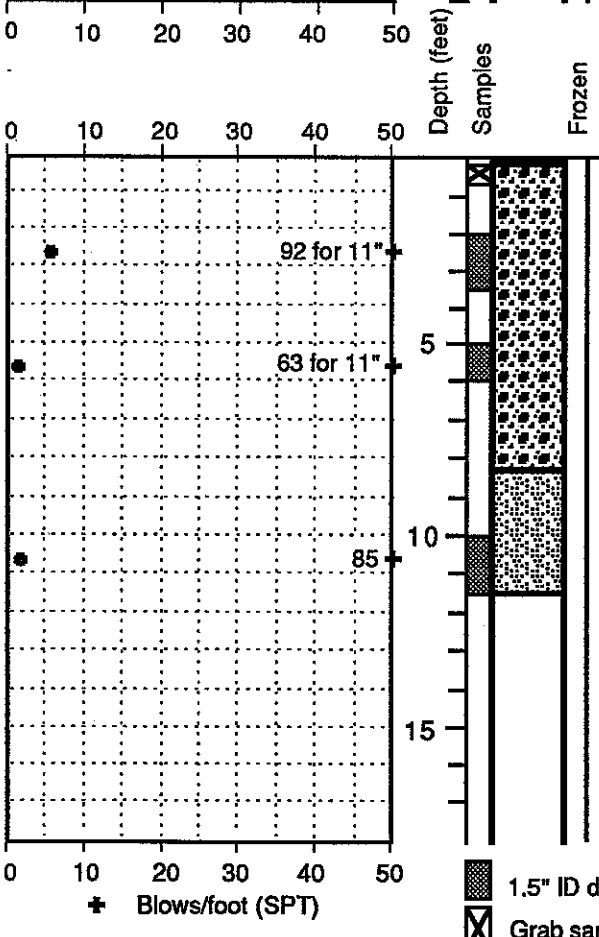
Plate
A-54



LOG of BORING 92

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 57+10, 3' Rt.
Elevation = 92.9'

Description	Other Testing
3" A.C. PAVEMENT	SA
GREY BROWN SANDY GRAVEL (GP-GM)	-#200 = 9.1%
Moist	
GREY GRAVELLY SAND (SP)	
Very dense, moist	
Dark grey	Gs = 2.70
No free water encountered	



LOG of BORING 93

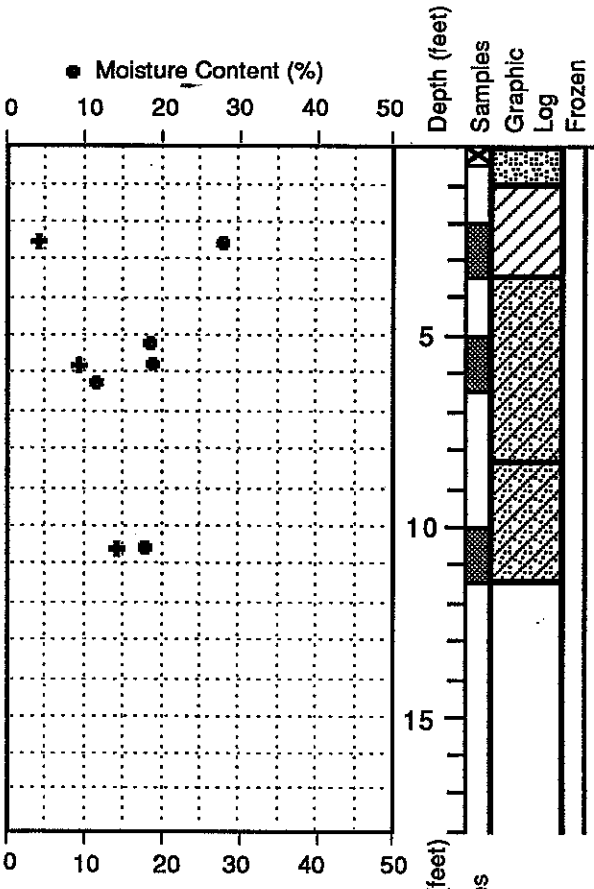
Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 66+93, 27' Rt.
Elevation = 88.1'

Description	Other Testing
3-1/2" A.C. PAVEMENT	
BROWN SANDY GRAVEL (GP)	
Very dense, moist w/rounded gravel to 2.5" dia.	
Dark grey	
Light grey	
DARK GREY GRAVELLY SAND (SP)	
Very dense, moist	
No free water encountered	

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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 92 and 93
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-55



LOG of BORING 94

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 114+84, 2' Lt.
Elevation = 87.6'

Description

Other Testing

FILL

BROWN GRAVELLY SAND (SP)
w/grass roots

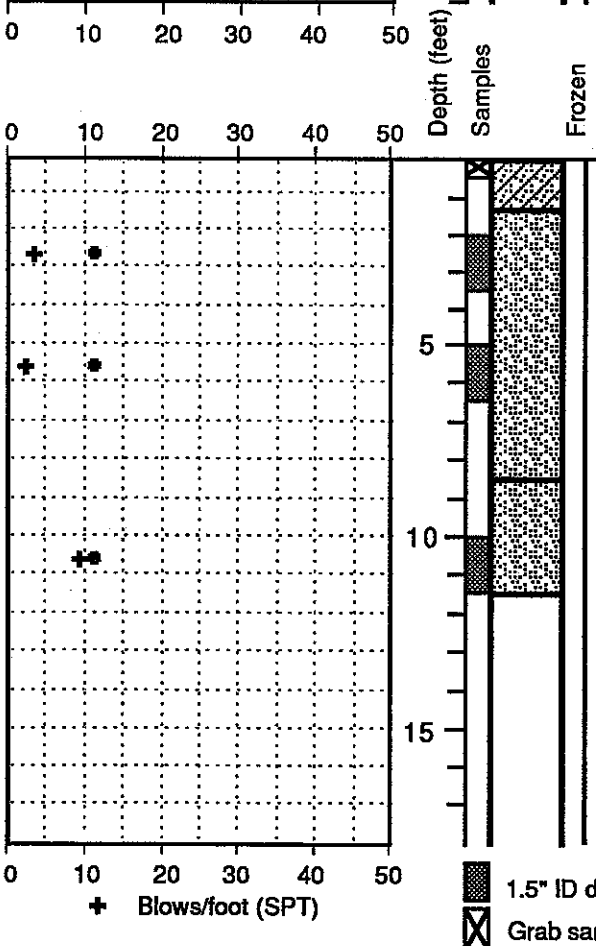
LIGHT BROWN SILT (ML) Loose, wet

-#200 = 85.0%

LIGHT BROWN SILTY SAND (SM)
Loose, wet

LIGHT GREY BROWN SILTY SAND (SM)
Medium dense, saturated

No free water encountered



LOG of BORING 95

Drilled September 7, 1991
Mobile B-61 w/hollow stem auger
Station 317+32, 47' Lt.
Elevation = 61.3'

Description

Other Testing

LIGHT BROWN SILTY SAND (SM) Moist

LIGHT BROWN FINE SAND (SP)
Loose, moist w/root hairs

LIGHT GREY SAND (SP)
Loose, moist

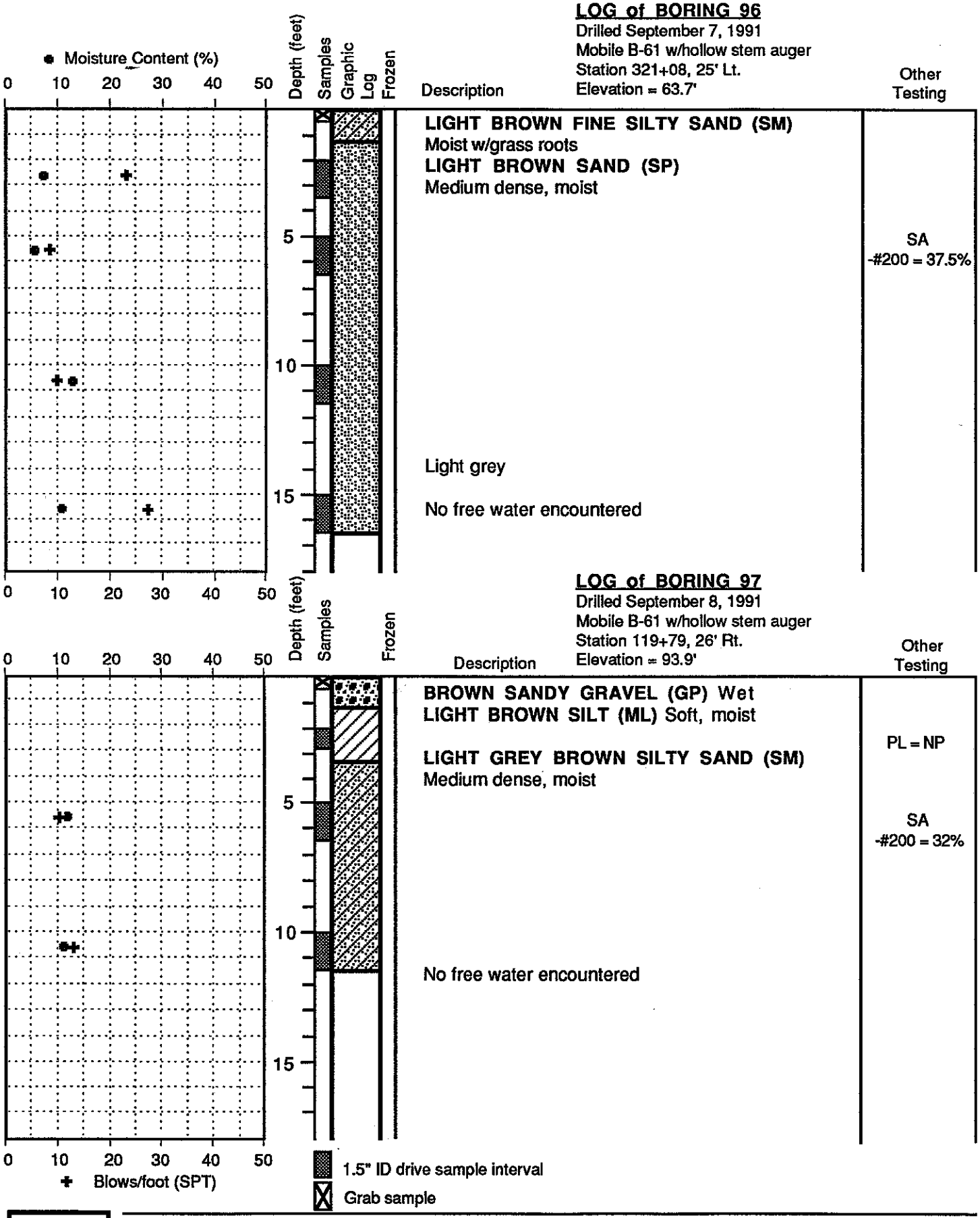
No free water encountered

▓ 1.5" ID drive sample interval
⊠ Grab sample

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 94 and 95
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-56



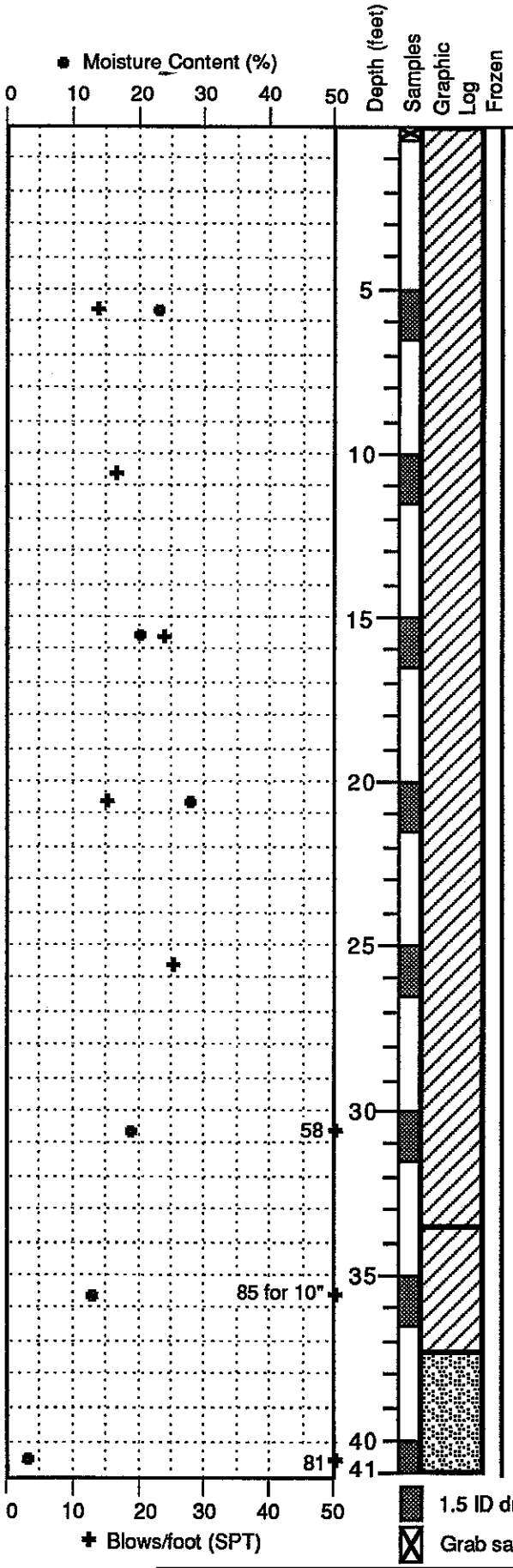
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 96 and 97
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-57

LOG of BORING 98

Drilled September 8, 1991
Mobile B-61 w/hollow stem auger
Station 131+60, 128' Rt.
Elevation = 158.6'



Description	Other Testing
LIGHT BROWN SILT (ML) Medium dense, moist	
	-#200 = 85.6%
Grades to grey	
Dark grey silt (ML)	Gs = 2.53
Very dense	-#200 = 99.4%
LIGHT GREY BROWN SANDY SILT (ML) Very dense, moist	SA -#200 = 44.1%
LIGHT GREY BROWN SAND (SP) Very dense, moist	
Set .5" diameter slotted PVC to BH No free water encountered	

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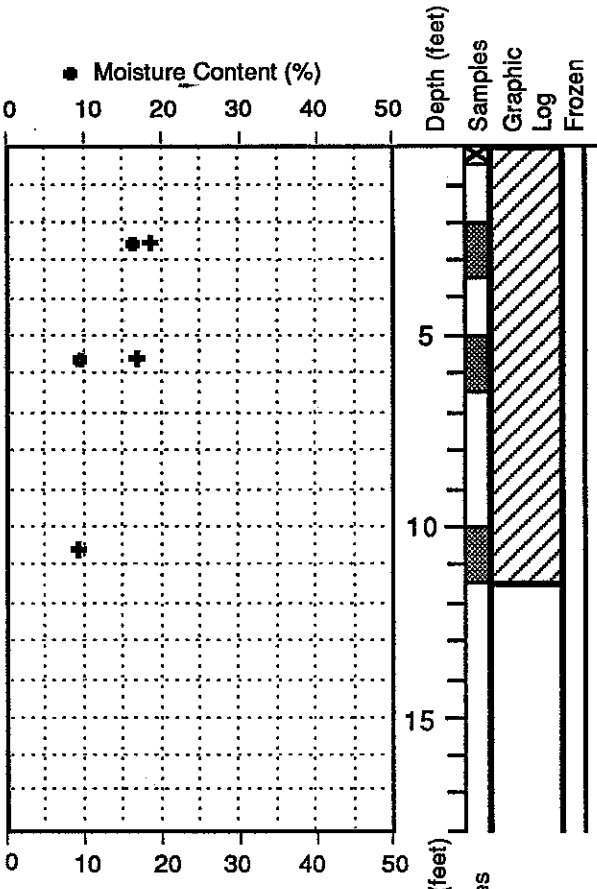
Job No.: 4005.40
Date: November 1991

LOG of BORING 98
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-58

LOG of BORING 99

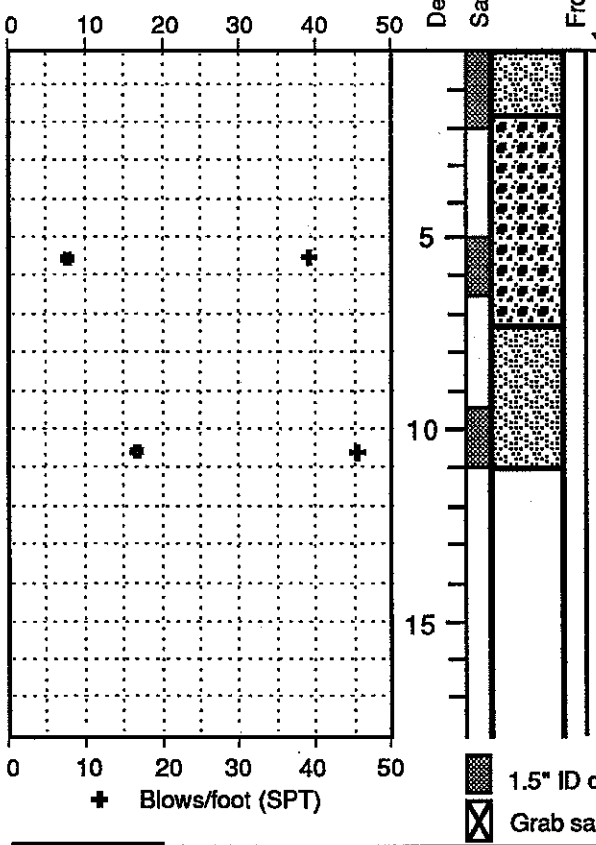
Drilled September 8, 1991
Mobile B-61 w/hollow stem auger
Station 146+08, 47' Lt.
Elevation = 156.2'



Description	Other Testing
ORANGE BROWN SANDY SILT (ML) Medium dense, moist to wet	-#200 = 81.1%
Becomes grey brown	
Moist w/very fine sand	
Wet, no sand	
No free water encountered	

LOG of BORING 100

Drilled September 9, 1991
Mobile B-61 w/hollow stem auger
Station 332+12, 109' Lt.
Elevation = 28.2'



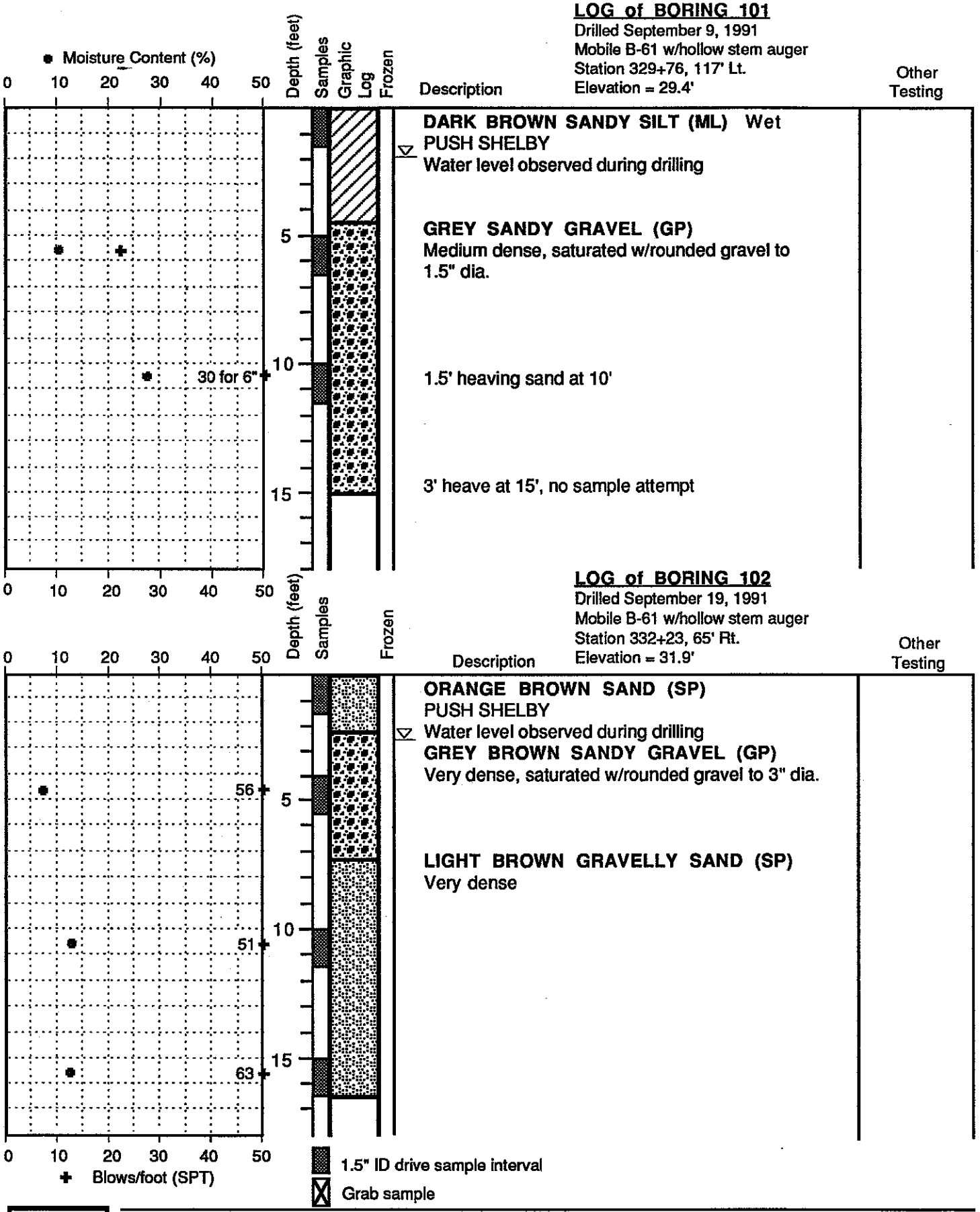
Description	Other Testing
Water level observed during drilling	
BROWN GRAVELLY SILTY SAND (SP-SM) Loose, saturated	
PUSH SHELBY	
LIGHT GREY SANDY GRAVEL (GP) Dense, saturated	
BROWN GRAVELLY SAND (SP) Dense, wet	
12" heave at 9.5'	
No free water encountered	

▒ 1.5" ID drive sample interval
⊠ Grab sample

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 99 and 100
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-59



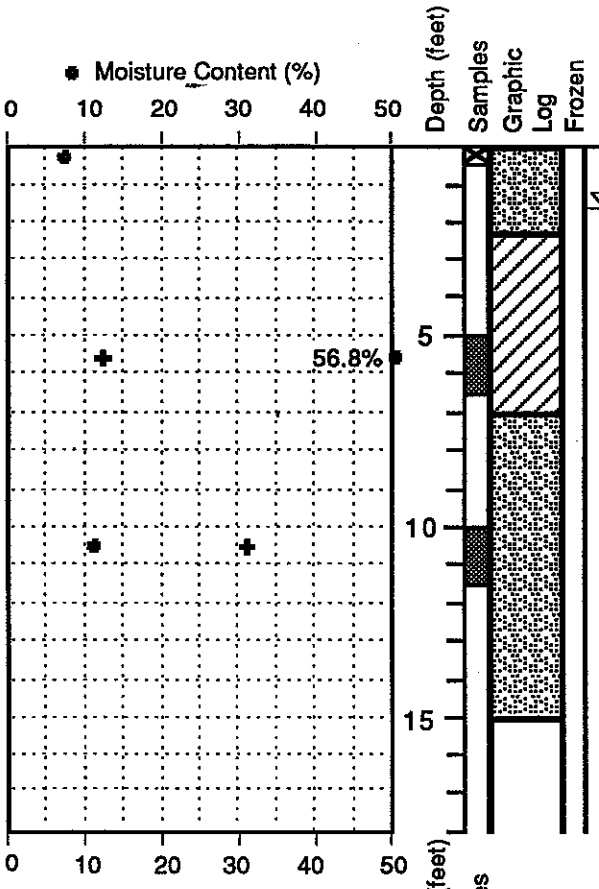
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 101 and 102
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-60

LOG of BORING 103

Drilled September 9, 1991
Mobile B-61 w/hollow stem auger
Station 329+68, 144' Rt.
Elevation = 31.4'



Description

GREY GRAVELLY SAND (SP) Wet
Water level observed during drilling
DARK BROWN GRAVELLY SANDY SILT (ML)
With abundant organics

GREY GRAVELLY SAND (SP)
Medium dense, saturated

3' heave at 15', no sample attempt

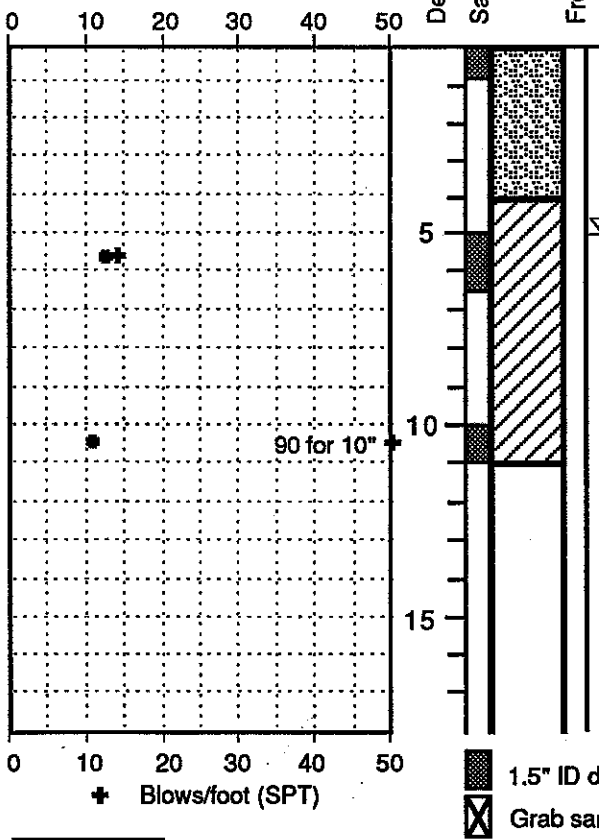
Other Testing

-#200 = 7.7%

PL = NP

LOG of BORING 104

Drilled September 10, 1991
Mobile B-61 w/hollow stem auger
Station 247+42, 77' Lt.
Elevation = 75.0'



Description

LIGHT BROWN SAND (SP) Moist
PUSH SHELBY

Water level observed after drilling
LIGHT BROWN GRAVELLY SANDY SILT (ML)
Medium dense, saturated

Very densse

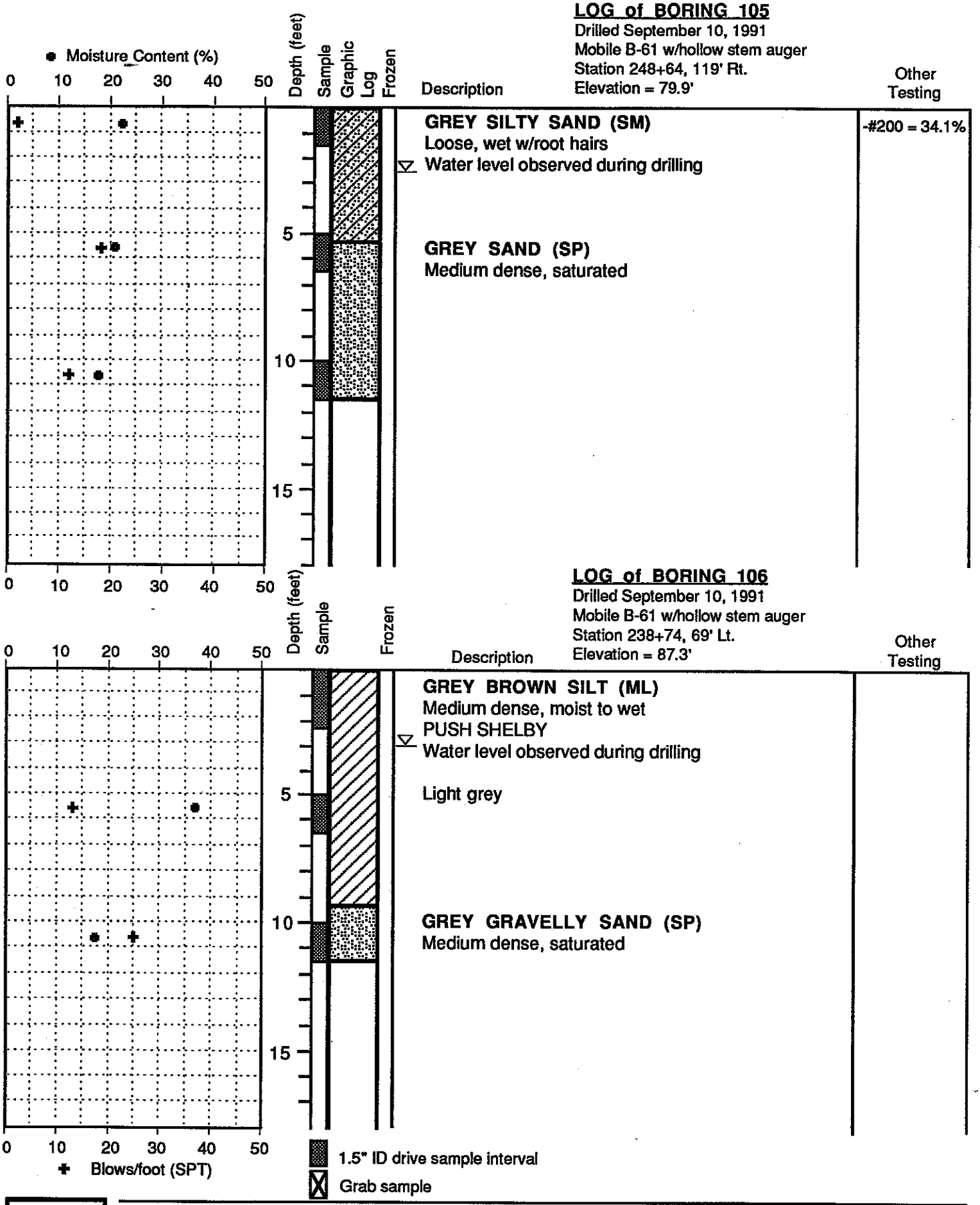
Other Testing

1.5" ID drive sample interval
Grab sample

Duane Miller & Associates
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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 103 and 104
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-61



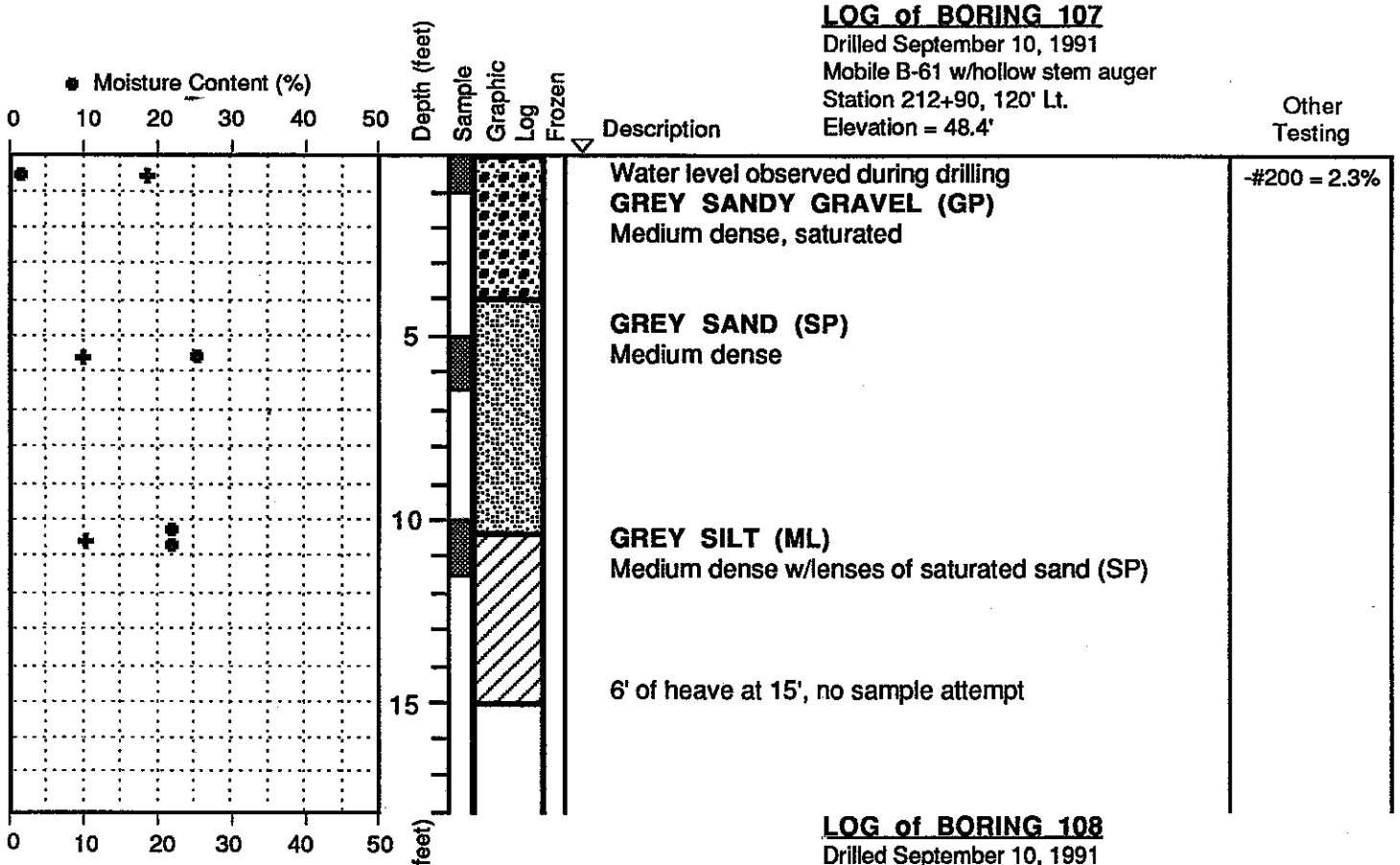
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 105 and 106
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-62

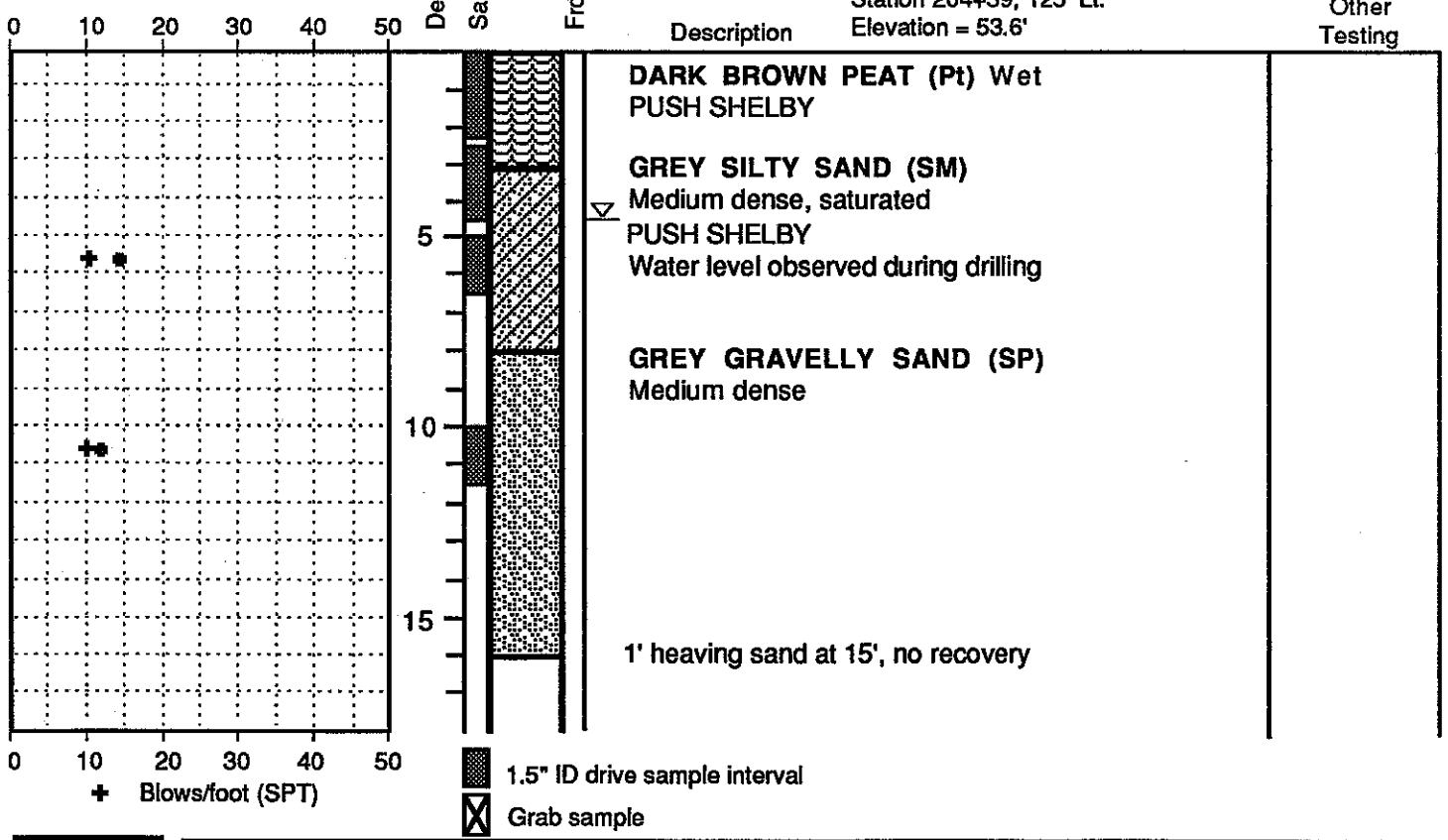
LOG of BORING 107

Drilled September 10, 1991
Mobile B-61 w/hollow stem auger
Station 212+90, 120' Lt.
Elevation = 48.4'



LOG of BORING 108

Drilled September 10, 1991
Mobile B-61 w/hollow stem auger
Station 204+39, 125' Lt.
Elevation = 53.6'



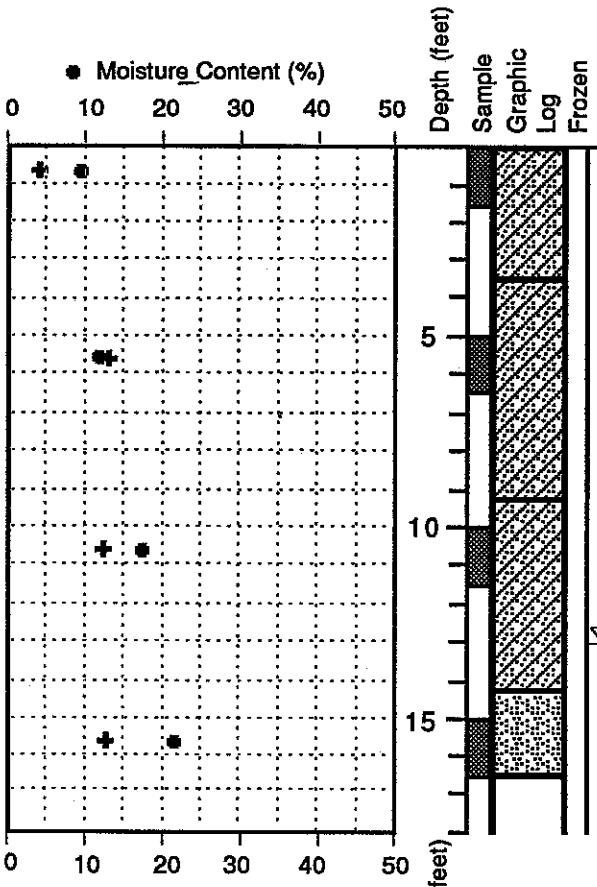
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 107 and 108
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-63

LOG of BORING 109

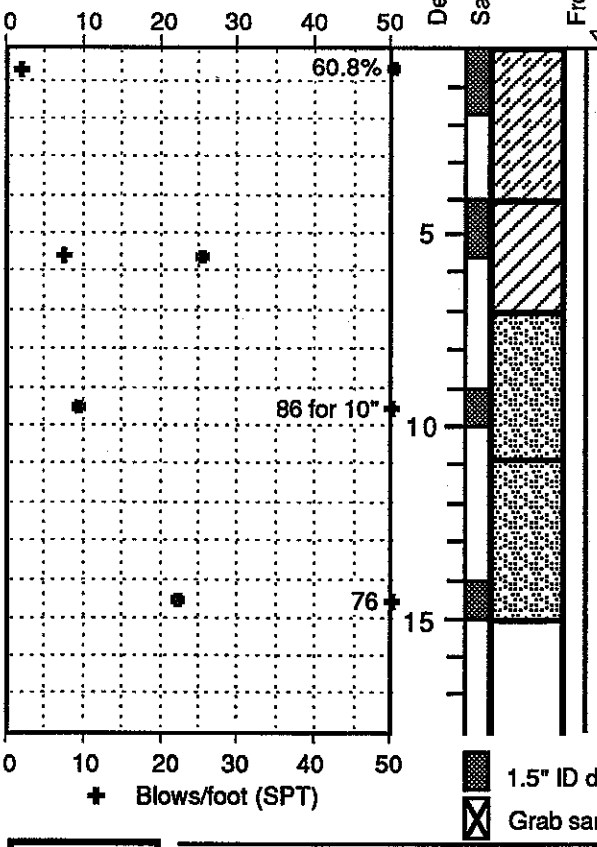
Drilled September 11, 1991
Mobile B-61 w/hollow stem auger
Station 212+64, 132' Rt.
Elevation = 66.2'



Description	Other Testing
BROWN SILTY SAND (SM) Loose to medium dense, moist (FILL)	SA -#200 = 25.0%
BROWN SILTY SAND (SM) Medium dense, moist	
DARK GREY SILTY SAND (SM) Medium dense, wet	
Water level observed during drilling	
DARK GREY SAND (SP) Medium dense, saturated	

LOG of BORING 110

Drilled September 11, 1991
Mobile B-61 w/hollow stem auger
Station 185+82, 133' Rt.
Elevation = 97.5'



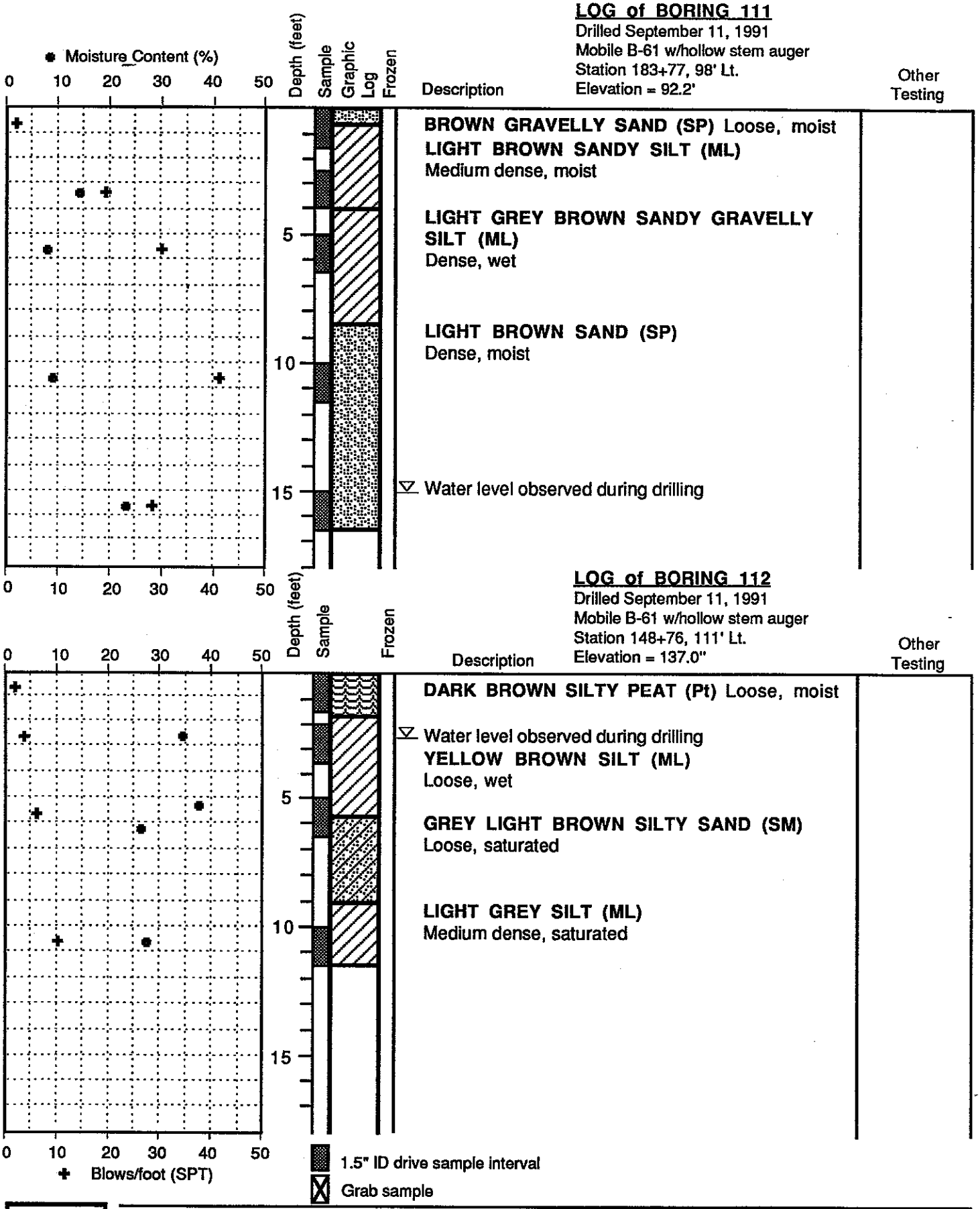
Description	Other Testing
Water level observed during drilling	-#200 = 85.8% PL = NP
DARK BROWN ORGANIC SILT (OL) Loose, saturated	
BROWN GRAVELLY SANDY SILT (ML) Loose to medium dense, saturated	
BROWN GRAVELLY SAND (SP) Very dense	
BROWN SAND (SP) Very dense, medium grained	

1.5" ID drive sample interval
Grab sample

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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 109 and 110
Kenai Spur Highway
Soldotna to Kenai, Alaska

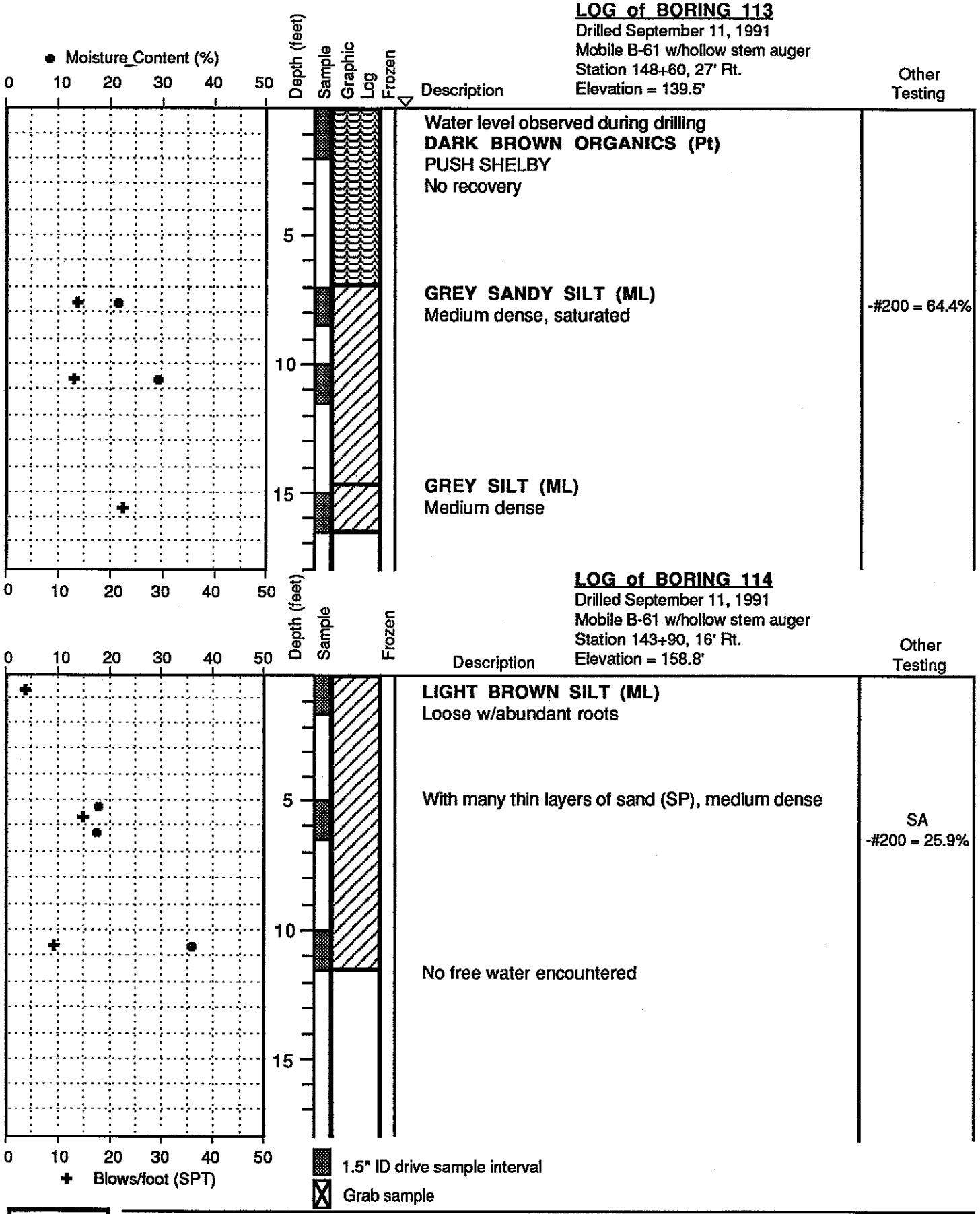
Plate
A-64



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Date : November 1991

LOGS of BORINGS 111 and 112
Kenai Spur Highway
Soldotna to Kenai, Alaska

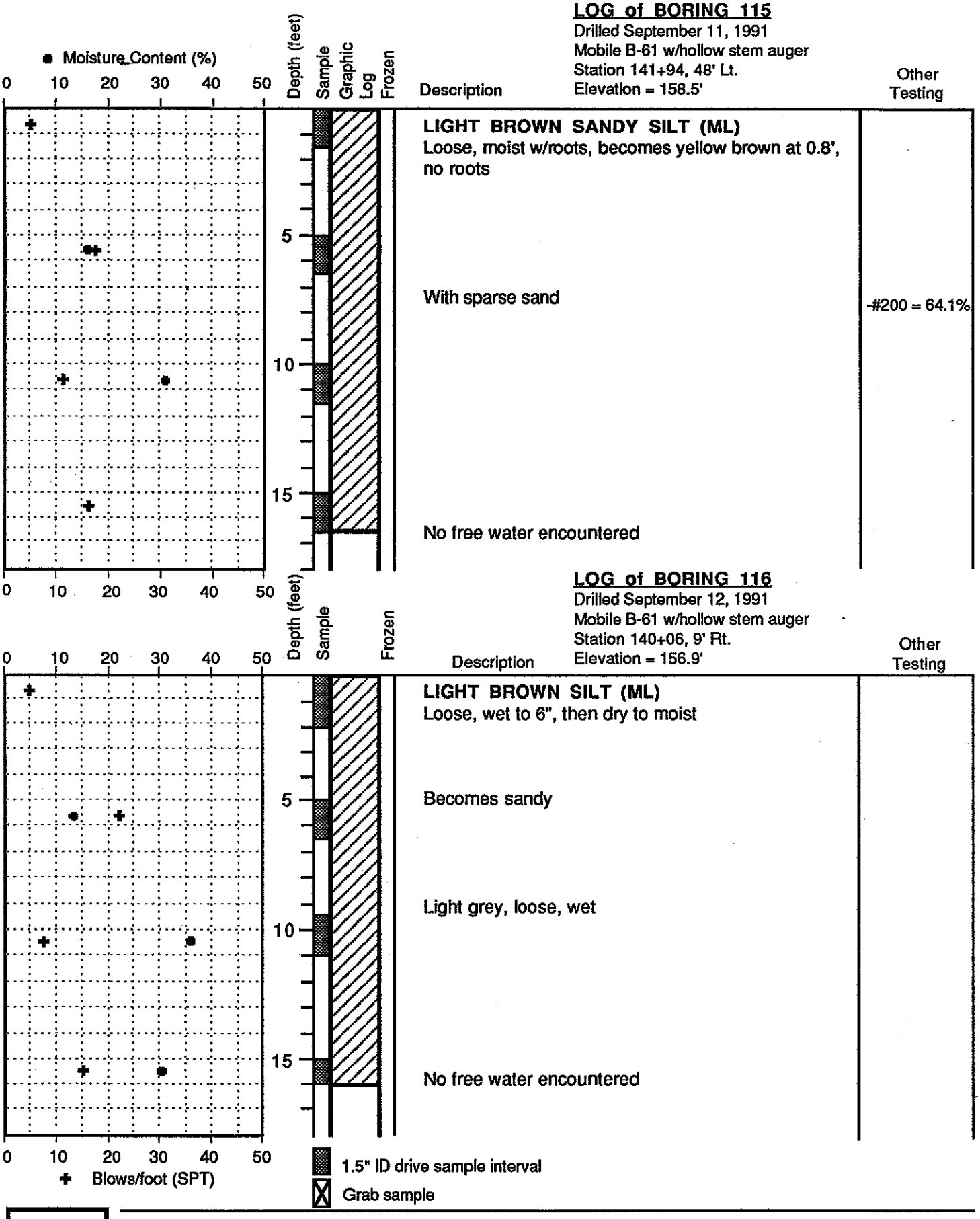
Plate
A-65



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Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 113 and 114
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-66



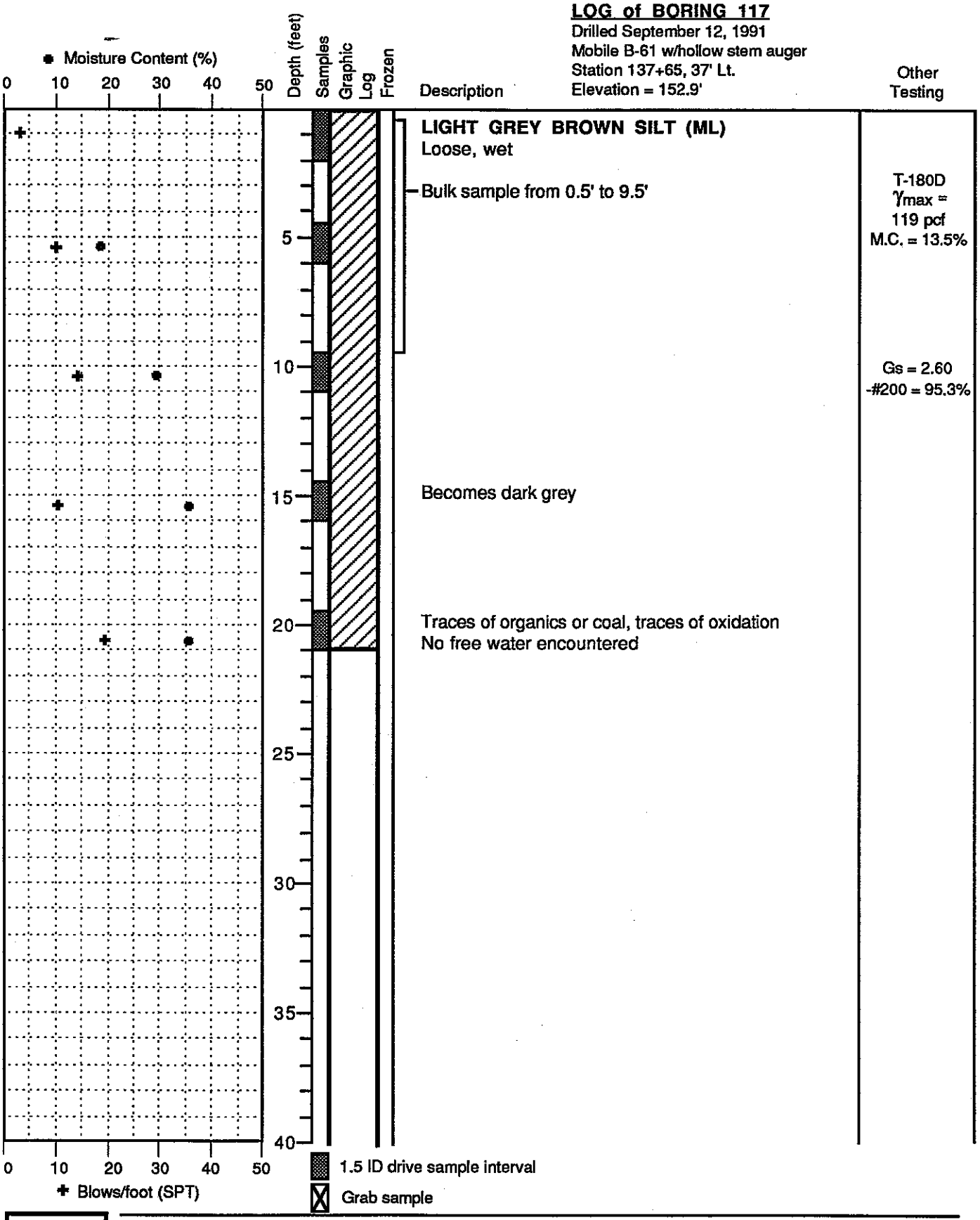
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 115 and 116
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-67

LOG of BORING 117

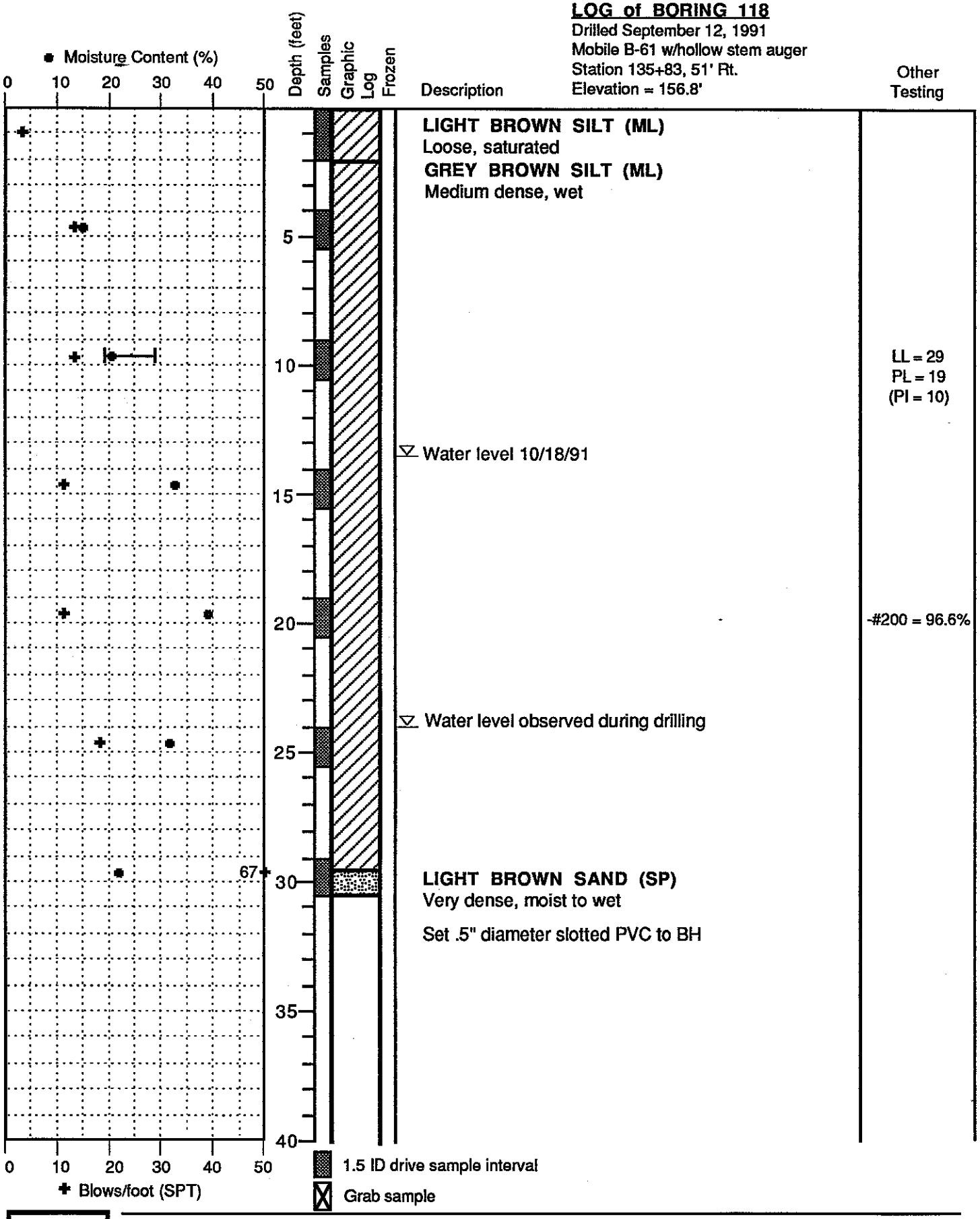
Drilled September 12, 1991
Mobile B-61 w/hollow stem auger
Station 137+65, 37' Lt.
Elevation = 152.9'



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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 117
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-68



LOG of BORING 118
Drilled September 12, 1991
Mobile B-61 w/hollow stem auger
Station 135+83, 51' Rt.
Elevation = 156.8'

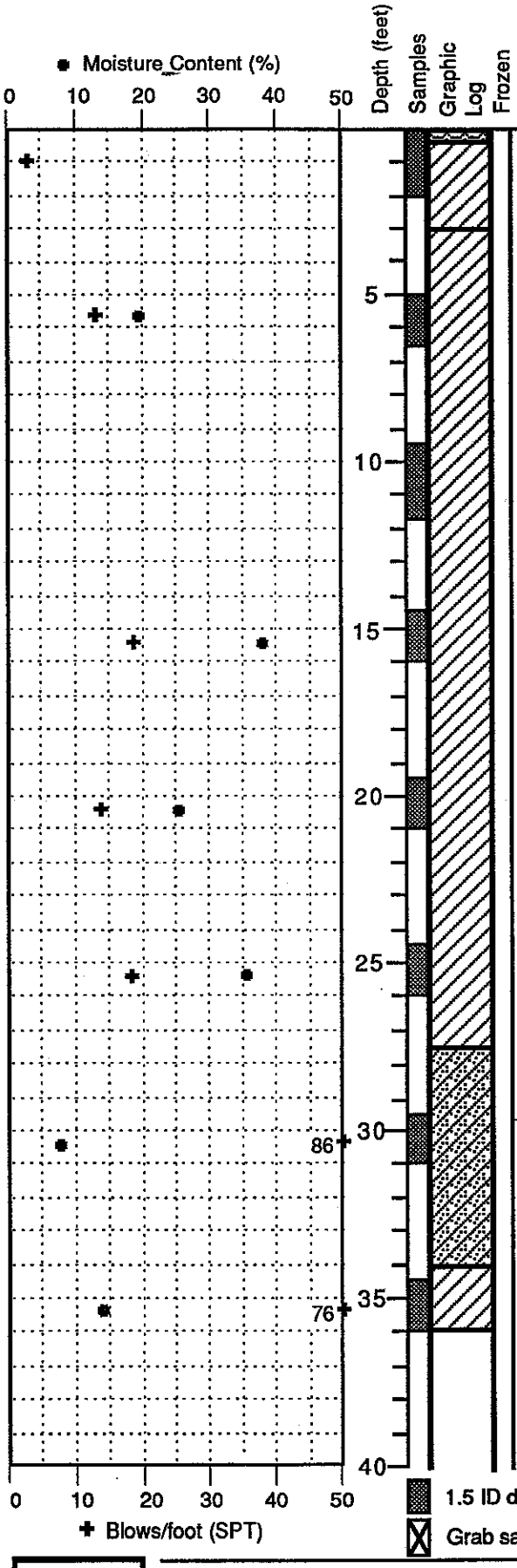
Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date: November 1991

LOG of BORING 118
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-69

LOG of BORING 119

Drilled September 12, 1991
Mobile B-61 w/hollow stem auger
Station 133+72, 33' Lt.
Elevation = 157.6'

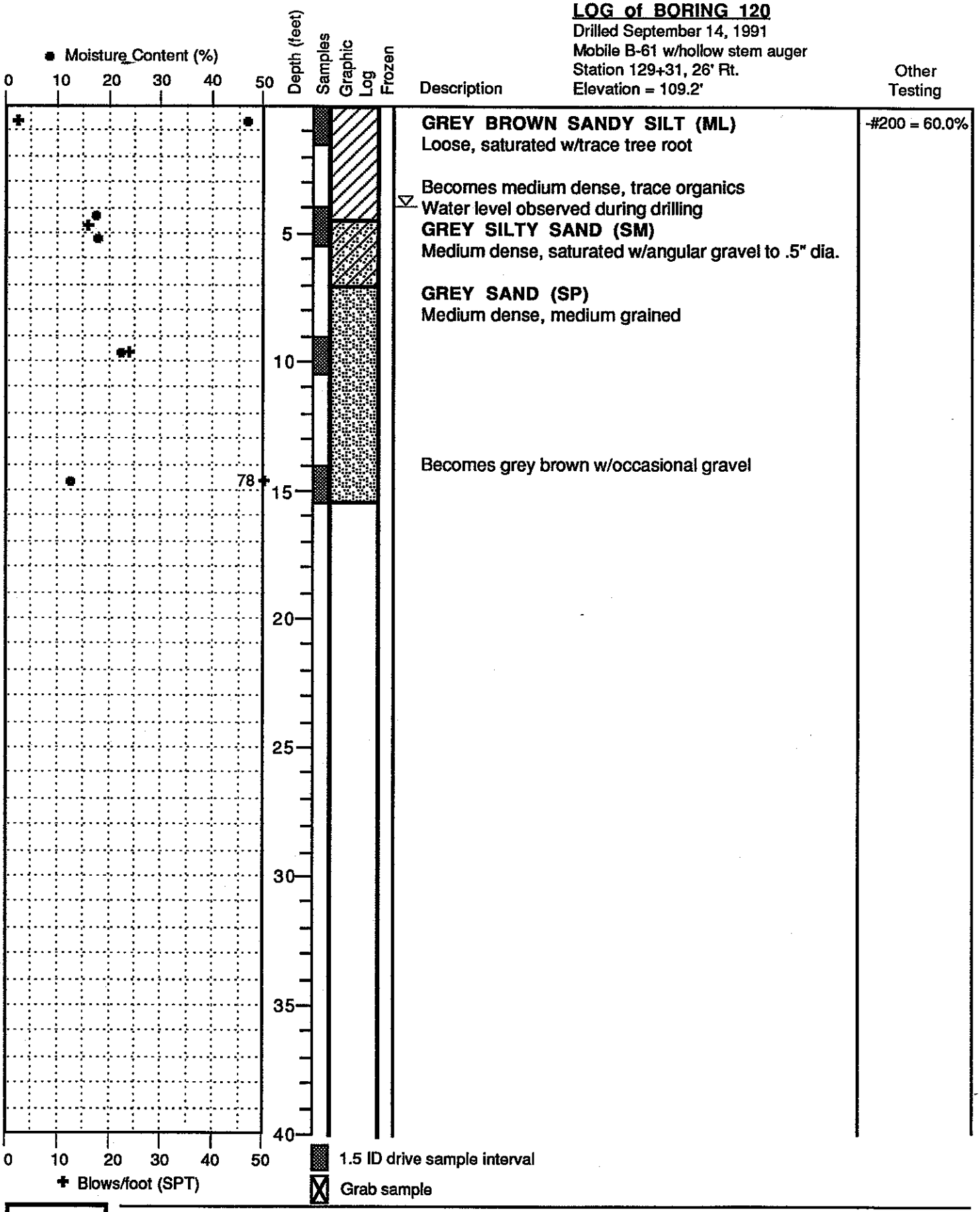


Description	Other Testing
PEAT (Pt) Duff	
LIGHT YELLOW BROWN SILT (ML)	
Loose, moist	
LIGHT GREY BROWN SILT (ML)	
Medium dense, wet	
PUSH SHELBY	
1" sand seam, medium grained at 20'	-#200 = 96.7%
	SA
	-#200 = 94.7%
GREY SILTY SAND (SM)	
Very dense, moist w/lenses of silt (ML)	
Water level observed 10/18/91	SA
	-#200 = 21.7%
w/gravel from 32'	
LIGHT GREY BROWN SANDY SILT (ML)	
Very dense, moist	
Set 0.5" diameter slotted PVC to BH	
No free water encountered during drilling	
Lost 15' of auger when pulling out of hole	

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Date: November 1991

LOG of BORING 119
Kenai Spur Highway
Soldotna to Kenai, Alaska

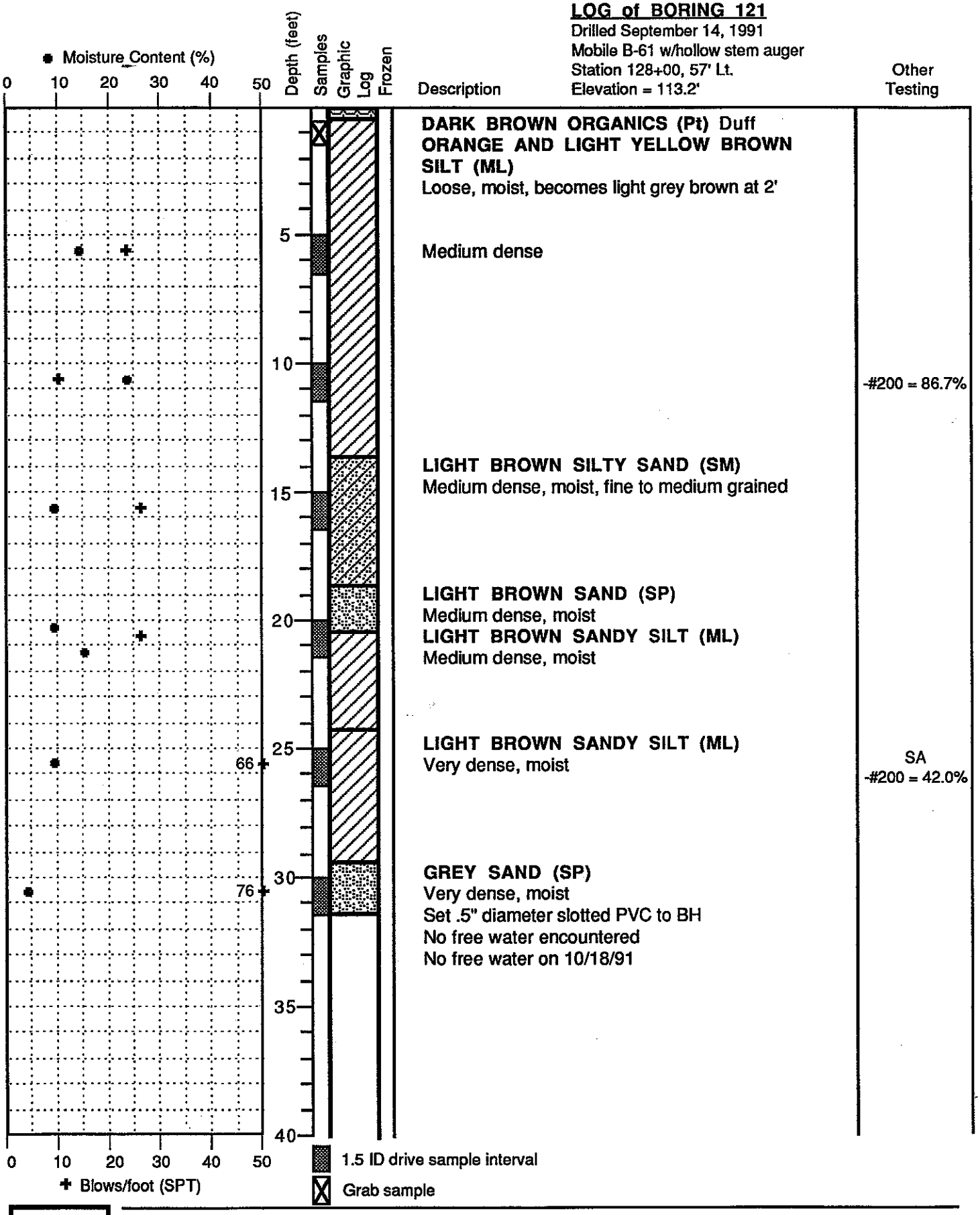
Plate
A-70



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Date: November 1991

LOG of BORING 120
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-71



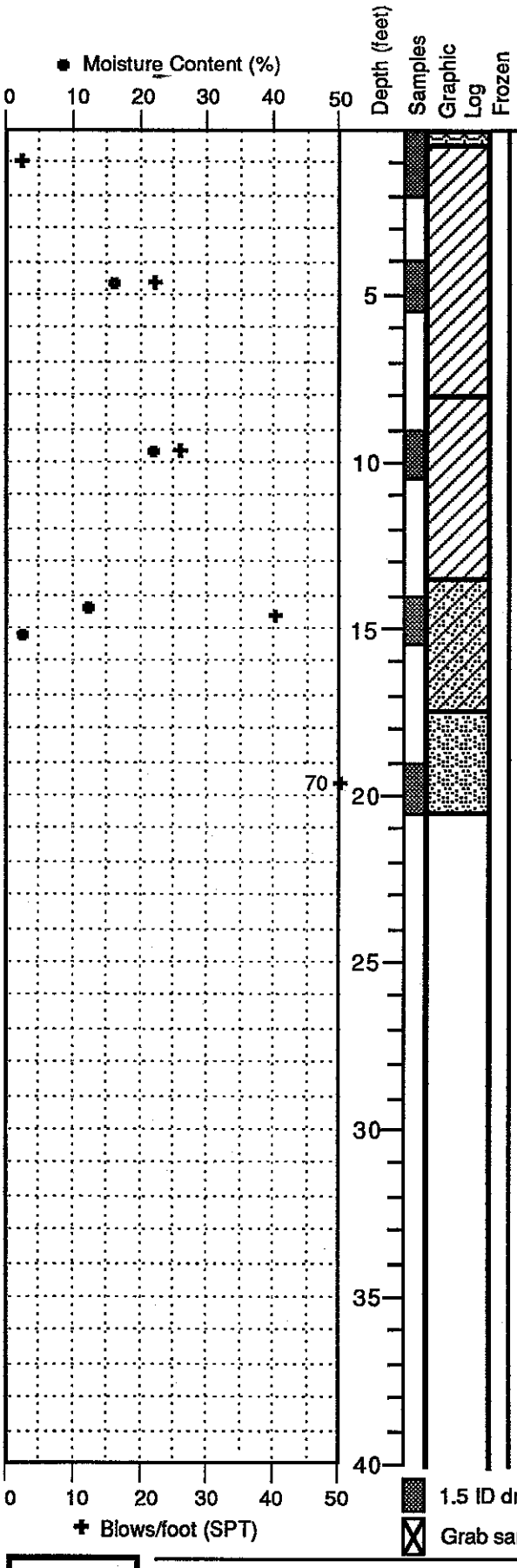
LOG of BORING 121

Drilled September 14, 1991
Mobile B-61 w/hollow stem auger
Station 128+00, 57' Lt.
Elevation = 113.2'

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Job No.: 4005.40
Date: November 1991

LOG of BORING 121
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-72



LOG of BORING 122

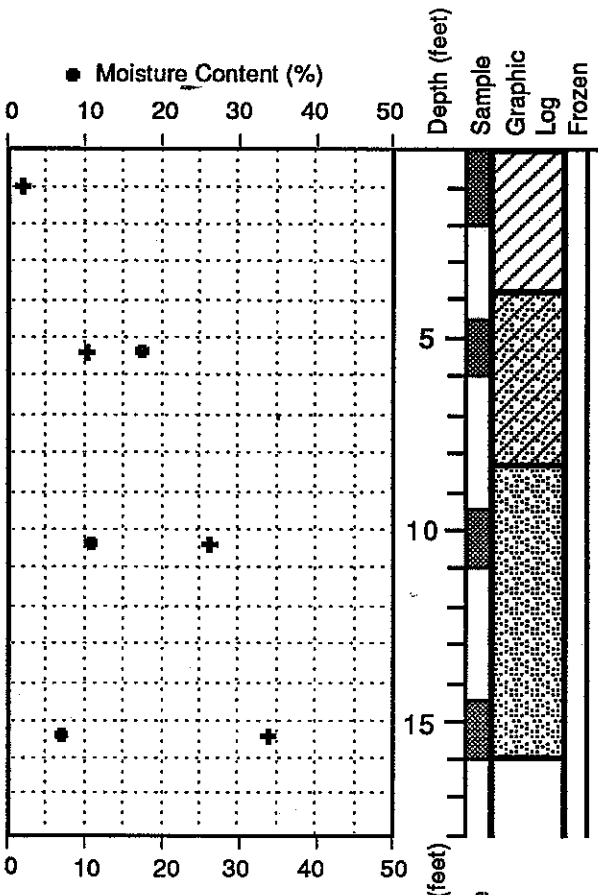
Drilled September 14, 1991
Mobile B-61 w/hollow stem auger
Station 126+50, 37' Rt.
Elevation = 131'

Description	Other Testing
DARK BROWN ORGANICS (Pt) Duff **ORANGE BROWN TO LIGHT GREY BROWN SILT (ML)** Loose, wet w/root hairs upper 8"	
LIGHT BROWN SANDY SILT (ML) Medium dense, moist, fine grained	-#200 = 37.3%
LIGHT GREY BROWN INTERLAYERED SILTY SAND (SM) AND SAND (SP) Dense, moist	
COARSE AND FINE GREY SAND (SP) Very dense, moist Set .5" diameter slotted PVC to BH No free water encountered No free water on 10/18/91	

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Job No.: 4005.40
Date: November 1991

LOG of BORING 122
Kenai Spur Highway
Soldotna to Kenai, Alaska

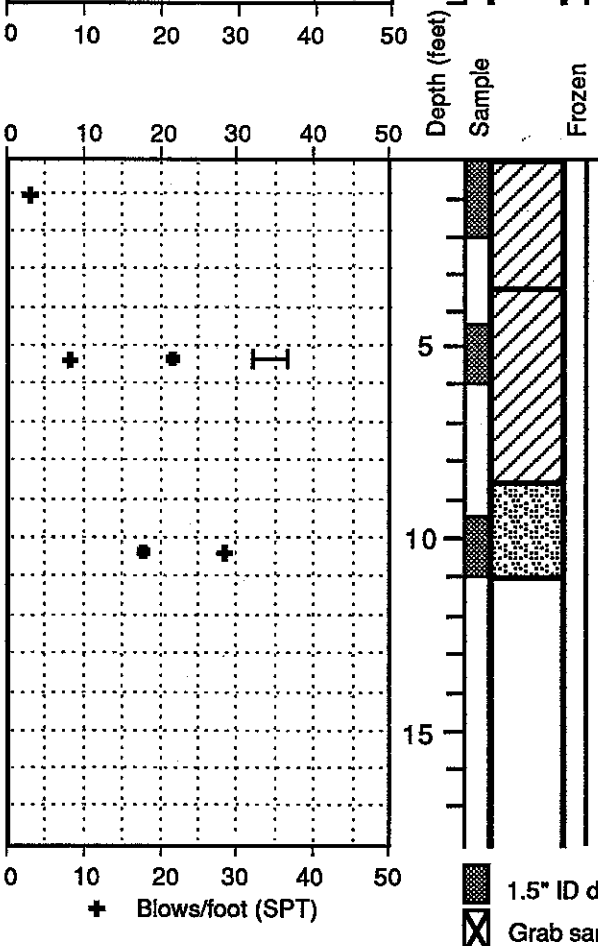
Plate
A-73



LOG of BORING 123

Drilled September 14, 1991
Mobile B-61 w/hollow stem auger
Station 124+75, 11' Lt.
Elevation = 100'

Description	Other Testing
YELLOW BROWN SANDY SILT (ML) Loose, wet	
LIGHT GREY SILTY SAND (SM) Medium dense, wet, medium grained	-#200 = 13.7%
LIGHT GREY SAND (SP) Medium dense, moist	
No free water encountered	



LOG of BORING 124

Drilled September 14, 1991
Mobile B-61 w/hollow stem auger
Station 109+88, 2' Lt.
Elevation = 89.8'

Description	Other Testing
LIGHT YELLOW BROWN SILT (ML) Loose, wet	
LIGHT GREY BROWN SILT (ML) Loose	LL = 36 PL = 32 (PI = 4)
GREY BROWN SAND (SP) Medium dense, wet Set .5" diameter slotted PVC to BH No free water encountered No free water on 10/18/91	

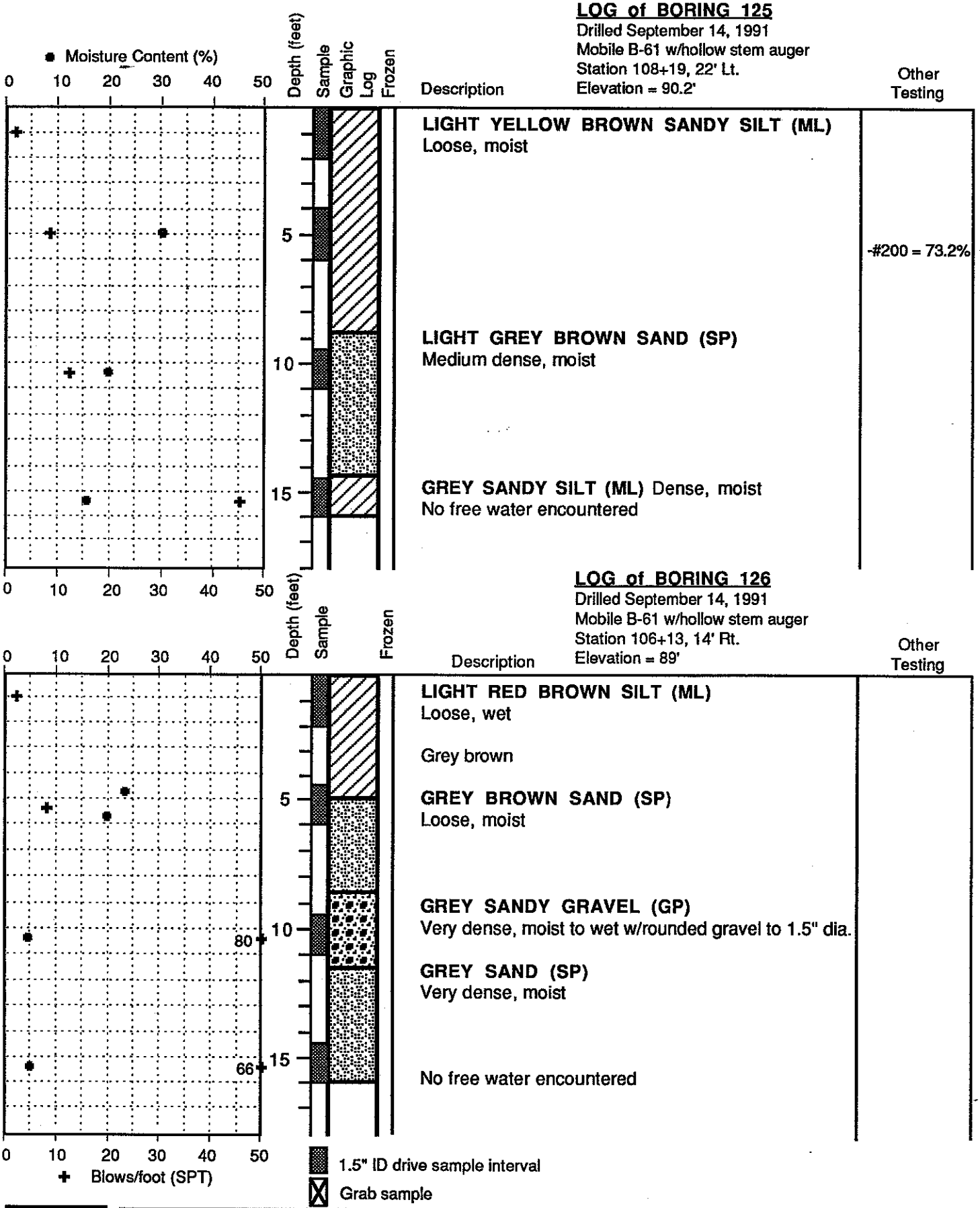
1.5" ID drive sample interval

Grab sample

Duane Miller & Associates
Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 123 and 124
Kenai Spur Highway
Soldotna to Kenai, Alaska

Plate
A-74

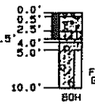


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Arctic & Geotechnical Engineering
Job No.: 4005.40
Date : November 1991

LOGS of BORINGS 125 and 126
Kenai Spur Highway
Soldotna to Kenai, Alaska

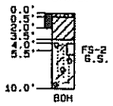
Plate
A-75

T.H. 1
Sta. 433+70 (Approx.), 62'Lt. Existing ℄.
2/6/91



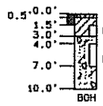
0.0'-0.5' Brown Sandy Gravel, with Cobbles. Fill.
0.5'-2.5' Brown Gravelly Sand. Fill. Damp.
2.5'-3.5' Brown Silty Organic.
3.5'-4.0' Brown Silt. Wet.
4.0'-10.0' Brown SlightlySilty Sand, with occasional Gravel.
Wet 8'-9', saturated 9'-10'.
A-3(0), LL=NV, PI=NP.
Gravel= 5%, Sand= 87%, Silt= 8%.

T.H. 2
Sta. 435+90 (Approx.), 60'Lt. Existing ℄.
2/6/91



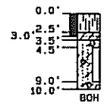
0.0'-0.5' Brown Silty Organic, with roots.
0.5'-3.5' Brown Silt. Wet.
3.5'-10.0' Brown Silty Sand, with occasional Gravel.
M.C.= 8.0%
**Gravel= 6%, Sand= 76%, Silt= 18%.
Dry to damp to 8', wet 8'-9', saturated 9'-10'.

T.H. 3
Sta. 438+70 (Approx.), 90'Lt. Existing ℄.
2/6/91



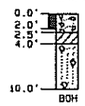
0.0'-0.5' Brown Silty Organic.
0.0'-3.0' Brown Silt. Damp to wet.
M.C.= 29.1%, Org.= 4.6%.
3.0'-10.0' Brown Slightly Silty Sand, with occasional Gravel.
M.C.= 4.6%
**Gravel= 4%, Sand= 80%, Silt= 8%.
Dry to damp to 8'.
Wet 8'-9', saturated 9'+.

T.H. 4
Sta. 441+60 (Approx.), 60'Lt. Existing ℄.
2/6/91



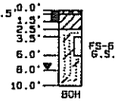
0.0'-2.5' Brown Organic.
2.5'-3.5' Brown Sandy Silt. Damp to wet.
3.5'-10.0' Brown Slightly Silty Sand, with occasional Gravel.
Dry to damp to 8', wet 8'-9', saturated 9'+.
A-3(0), LL=NV, PI=NP.
Gravel= 8%, Sand= 83%, Silt= 9%.

T.H. 5
Sta. 445+00 (Approx.), 90'Lt. Existing ℄.
2/6/91



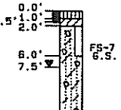
0.0'-2.5' Brown Sandy Gravel to Gravelly Sand. Fill.
2.5'-4.0' Brown Silt. Wet.
4.0'-10.0' Brown Sand, with occasional Gravel.
Dry to damp to 7.5', wet 7.5'-8.5', saturated 8.5'+.

T.H. 6
Sta. 447+50 (Approx.), 60'Lt. Existing ℄.
2/6/91



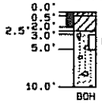
0.0'-0.5' Brown Silty Organic.
0.5'-2.5' Brown Silt. Saturated.
2.5'-10.0' Brown Slightly Silty Sand. Wet to 7.5', saturated 7.5'+.
**M.C.= 22.0%
Gravel= 2%, Sand=90%, Silt= 8%.

T.H. 7
Sta. 449+70 (Approx.), 40'Lt. Existing ℄.
2/7/91



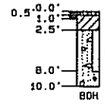
0.0'-1.0' Dark Brown Organic.
1.0'-2.0' Brown Silt. Wet.
2.0'-15.0' Brown Slightly Silty Sand, with Gravel
A-2-4(0), LL=NV, PI=NP.
Gravel= 8%, Sand= 80%, Silt=12%.
Dry to damp to 5', damp to wet 5'-7', saturated 7'+.

T.H. 8
Sta. 451+50 (Approx.), 65'Lt. Existing ℄.
2/7/91



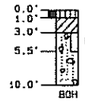
0.0'-0.5' Dark Brown Silty Organic, w/ roots.
0.5'-2.5' Brown Silt. Damp.
2.5'-10.0' Brown Sand, with Gravel.
M.C.= 3.8%
Dry to damp to 8', wet 8'-10'.

T.H. 9
Sta. 454+00 (Approx.), 60'Lt. Existing ℄.
2/7/91



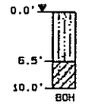
0.0'-0.5' Brown Silty Organic.
0.5'-2.5' Brown Silt.
2.5'-10.0' Brown Sand, with Gravel.
Dry to damp to 7', wet 7'-10'.
A-3(0), LL=NV, PI=NP, Organic= 1.8%.
Gravel= 4%, Sand= 90%, Silt= 6%.

T.H. 10
Sta. 457+00 (Approx.), 40'Lt. Proposed ℄.
2/7/91



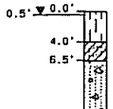
0.0'-1.0' Dark Brown Organic.
1.0'-3.0' Brown Silt. Damp to wet.
3.0'-10.0' Brown Sand, with Gravel.
M.C.= 4.7%
Dry to damp to 7', wet to saturated 7'+.

T.H. 11
Sta. 459+70 (Approx.), 20'Lt. Proposed ℄.
2/7/91



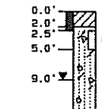
0.0'-6.5' Dark Brown Organic. Fine Fibrous Peat, with sand. Saturated
6.5'-10.0' Gray Sandy Silt. Saturated.

T.H. 12
Sta. 463+00 (Approx.), Proposed ℄.
2/8/91



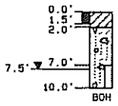
0.0'-4.0' Brown Organic. Fine Fibrous Peat. Saturated.
4.0'-6.5' Gray Sandy Silt to Silt with Sand. Saturated.
6.5'-15.0' Brown Sand, with Gravel. Saturated.

T.H. 13
Sta. 466+50 (Approx.), 62'Lt. Existing ℄.
2/9/91



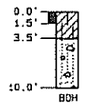
*0.0'-2.0' Brown Silt.
2.0'-15.0' Brown Slightly Silty Sand, with Gravel.
M.C.= 3.9%
**Gravel= 6%, Sand= 83%, Silt= 11%.
Dry to 6', damp 6'-7.5', wet 7.5'-9', saturated 9+.

T.H. 14
Sta. 468+50 (Approx.), 55'Lt. Existing ℄.
2/9/91



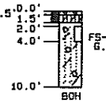
*0.0'-2.0' Brown Silt.
2.0'-10.0' Brown Sand, with Gravel. With Sandy Silt lenses 6'-7'.
Dry to damp to 7', wet 7'-7.5', saturated 7.5'+.
A-3(0), LL=NV, PI=NP.
Gravel= 1%, Sand= 93%, Silt= 6%.

T.H. 15
Sta. 471+75 (Approx.), 60'Lt. Existing ℄.
2/9/91



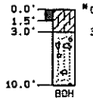
0.0'-3.5' Brown Organic Silt. Waste material from old berm.
3.5'-10.0' Brown Sand, with Gravel.
Dry to 5', damp 5'-7', wet 7'-10'.

T.H. 16
Sta. 474+50 (Approx.), 60'Lt. Existing ℄.
2/9/91



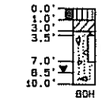
0.0'-0.5' Brown Sandy Gravel. Fill.
0.5'-1.5' Orange Brown Organic Silt.
1.5'-10.0' Brown Slightly Silty Sand, with Gravel.
M.C.= 3.7%, Organic= 1.6%.
**Gravel= 6%, Sand= 85%, Silt= 9%.
Dry to 6.5', damp 6.5'-7.5', wet 7.5'-10'.

T.H. 17
Sta. 476+00 (Approx.), 65'Lt. Existing ℄.
2/9/91



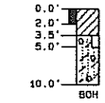
*0.0'-3.0' Brown Organic Silt.
3.0'-10.0' Brown Sand, with Gravel.
Dry to 6.0', damp 6'-8.5', wet 8.5'-10'.

T.H. 18
Sta. 478+00 (Approx.), 55'Lt. Existing ℄.
2/9/91



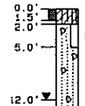
0.0'-1.5' Dark Brown Organic.
1.5'-3.0' Brown Silt. Damp to wet.
3.0'-10.0' Brown Sand. with Gravel.
A-3(0), LL=NV, PI=NP, Organic= 2.0%.
Gravel= 1%, Sand= 93%, Silt= 6%.
Dry to 6', damp 6'-7.5', wet 7.5'-8.5', saturated 8.5'+.

T.H. 19
Sta. 480+00 (Approx.), 30'Lt. Existing ℄.
2/11/91



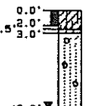
0.0'-3.5' Brown Silt, with Wood and Gravel. Fill.
3.5'-10.0' Brown Silty Sand, with Gravel.
M.C.= 6.0%
**Gravel= 8%, Sand= 78%, Silt= 14%.
Dry to 8', wet 8'-10'.

T.H. 20
Sta. 482+00 (Approx.), 73'Lt. Existing ℄.
2/11/91



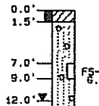
0.0'-2.0' Organic Silt, mixed Organics and Silt in berm.
2.0'-15.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP, Organic= 1.8%.
Gravel= 3%, Sand= 91%, Silt= 6%.
Dry to 6', damp 6.-8', wet 8'-12', saturated 12'+.

T.H. 21
Sta. 485+00 (Approx.), 75'Lt. Existing ℄.
2/11/91



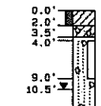
0.0'-2.5' Brown Organic Silt.
2.5'-3.0' Brown Silty Sand. Damp.
3.0'-15.0' Brown Sand, with Gravel.
Dry to 7', damp 7'-8', wet 8'-13', saturated 13'+.

T.H. 22
Sta. 488+00 (Approx.), 55'Lt. Existing ℄.
2/11/91



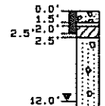
*0.0'-1.5' Brown Silt.
1.5'-15.0' Brown Sand, with Gravel
Dry to 7', damp 7'-10', wet 10'-12', saturated 12'+.
M.C.= 14.3%
**Gravel= 5%, Sand= 89%, Silt= 6%.

T.H. 23
Sat. 490+50 (Approx.), 60'Lt. Existing ℄.
2/11/91



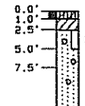
*0.0'-2.0' Brown Silt.
2.0'-3.5' Brown Sandy Silt, with Gravel.
Dry to damp.
3.5'-15.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP, Organic= 1.9%.
Gravel= 2%, Sand= 94%, Silt= 4%.
Dry to 7', damp 7'-8', wet 8'-10.5', saturated 10.5'+.

T.H. 24
Sta. 493+50 (Approx.), 60'Lt. Existing ℄.
2/11/91



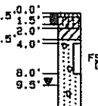
0.0'-1.5' Brown Sandy Gravel. Fill.
1.5'-2.0' Brown Sand, with Gravel. Fill. Dry to 2'.
2.0'-3.5' Brown Silt.
3.5'-15.0' Brown Sand, with Gravel.
Dry to 7', damp 7'-9.5', wet 9.5'-12', saturated 12'+.

T.H. 25
Sta. 495+00 (Approx.), 60'Lt. Existing ℄.
2/11/91



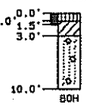
0.0'-1.0' Dark Brown Silty Organic, with roots.
1.0'-2.5' Brown Silt.
2.5'-15.0' Brown Sand, with Gravel.
M.C.= 5.7%
**Gravel= 5%, Sand= 89%, Silt= 6%.
Organic Sand lense 5'-6'.
Dry to 5', damp 5'-6', wet 6'-7.5', saturated 7.5'+.

T.H. 26
Sta. 499+50 (Approx.), 60'Lt. Existing ℄.
2/11/91



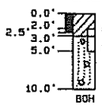
0.0'-0.5' Dark Brown Organic, with roots.
0.5'-2.0' Brown Organic Silt, with roots.
2.0'-3.5' Light Brown Silt. Damp to wet.
3.5'-15.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP, Organic= 1.6%
Gravel= 5%, Sand= 90%, Silt= 5%.
Dry to 7', damp 7'-8', wet 8'-9.5', saturated 9.5'+.

T.H. 27
Sta. 503+00 (Approx.), 60'Lt. Existing ℄.
2/11/91



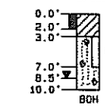
0.0'-1.0' Dark Brown Organic, with roots.
1.0'-3.0' Brown Silt. Damp to wet.
3.0'-10.0' Brown Sand, with Gravel.
Dry to 7', damp 7'-8', wet 8'-10.0'.

T.H. 28
Sta. 505+00 (Approx.), 52'Lt. Existing ℄.
2/12/91



*0.0'-3.0' Brown Silt, with roots.
M.C.= 20.9%, Organic= 3.5%.
3.0'-10.0' Brown Sand, with Gravel.
M.C.=3.1%
**Gravel= 5%, Sand= 90%, Silt= 5%.
Dry to 8', damp to wet 8'-10'.

T.H. 29
Sta. 509+00 (Approx.), 60'Lt. Existing ℄.
2/12/91



*0.0'-3.0' Brown Silt.
3.0'-10.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP, Organic= 1.8%.
Gravel= 7%, Sand= 88%, Silt= 5.0%.
Dry to 7', damp 7'-8.5', saturated 8.5'+.

*Organics previously stripped.

**The sampler used to take these samples has a inside diameter of 1.4", therefore soil particles with a diameter larger than 1.4" were not recovered in the sample, see boring logs for a field description of the soil.



BAR SCALE

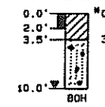
STATE OF ALASKA
DEPARTMEMT OF TRANSPORTATION
AND
PUBLIC FACILITIES

KENAI SPUR ROAD PHASE 1

TEST HOLE LOGS
TEST HOLES 1 - 29

SCALE VERT: 1"= 10' HORZ: None	DESIGNED: T.O.	DRAWN: N.I.	SHEET 1 OF 5
	CHECKED:	DATE:	

T.H. 30
Sta. 512+00 (Approx.), 60'Lt. Existing ℄.
2/12/91

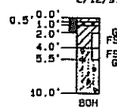


*0.0'-3.5' Brown Silt, with roots.

3.5'-10.0' Brown Sand, with Gravel.

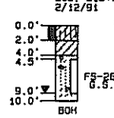
Dry to 8'0', damp 8'-8.5', wet 8.5'-10'.

T.H. 31
Sta. 515+00 (Approx.), 60'Lt. Existing ℄.
2/12/91



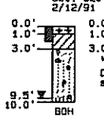
*0.0'-0.5' Brown Silt. Fill.
0.5'-1.0' Brown Sand, with Gravel. Fill.
1.0'-4.0' Brown Silt.
Wet to saturated 1'-2', damp to wet 2'-4'.
H.C.= 17.9%, Organics= 3.7%.
4.0'-10.0' Brown Slightly Silty Sand, with Gravel.
**H.C.= 4.4%
**Gravel= 9%, Sand= 83%, Silt= 8%.
Damp 4'-7', wet 7'-10'.

T.H. 32
Sta. 518+00 (Approx.), 60'Lt. Existing ℄.
2/12/91



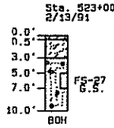
*0.0'-2.0' Brown Silt, with Organics.
2.0'-4.0' Tan Silt. Damp to wet.
4.0'-10.0' Brown Sand, with Gravel.
Dry to 5', damp 5'-7', wet 7'-9'.
A-3(0), LL=NV, PI=NP.
Gravel= 5%, Sand= 90%, Silt= 5%.
Saturated 9'+.

T.H. 33
Sat. 520+50 (Approx.), 40'Lt. Existing ℄.
2/12/91



0.0'-1.0' Brown Gravelly Sand, fill.
1.0'-3.0' Brown Silt.
3.0'-10.0' Brown Sand, with Gravel, with Organics 9'-10'.
Dry to 7', damp 7'-8.5', wet 8.5'-9.5', saturated 9.5'+.

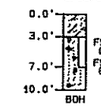
T.H. 34
Sta. 523+00 (Approx.), 35'Lt. Existing ℄.
2/13/91



0.0'-0.5' Brown Silt.
0.5'-3.0' Brown Sand, with Silt balls. Disturbed.
3.0'-10.0' Brown Sand, with Gravel.

H.C.= 7.6%
Dry to 7', damp 7'-8.5', wet 8.5'-10'.

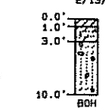
T.H. 35
Sta. 526+00 (Approx.), 45'Lt. Existing ℄.
2/13/91



0.0'-3.0' Brown Sand, with Silt balls. Disturbed.
3.0'-10.0' Brown Sand, with Gravel.
H.C.=5.9%

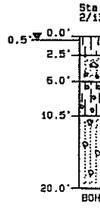
A-3(0), LL=NV, PI=NP, H.C.= 5.9%.
Gravel= 3%, Sand= 91%, Silt= 6%, Organic= 2.0%
Dry to 8', damp 8'-10'.

T.H. 36
Sta. 529+00 (Approx.), 45'Lt. Existing ℄.
2/13/91



0.0'-1.0' Brown Silt.
1.0'-3.0' Brown Sand, with Silt. Disturbed.
3.0'-10.0' Brown Sand, with Gravel.
Dry to damp to 10'.

T.H. 37
Sta. 532+00 (Approx.), 120'Lt. Existing ℄.
2/13/91



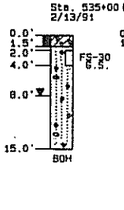
0.0'-2.5' Organics, with wood. Saturated.

2.5'-6.0' Brown Gravelly Sand. Saturated.

6.0'- 10.5' Dark Brown Organic, with Pebble Gravel.

10.5'-20.0' Brown Gravelly Sand. Saturated.

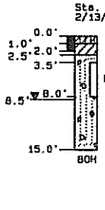
T.H. 38
Sta. 535+00 (Approx.), 42'Lt. Existing ℄.
2/13/91



0.0'-1.5' Gravelly Silt, Disturbed, fill.
1.5'-15.0' Brown Sand, with Gravel.
H.C.= 5.6%

Dry to damp to 7', wet 7'-8', saturated 8'+.

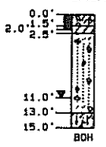
T.H. 39
Sta. 538+00 (Approx.), 60'Lt. Existing ℄.
2/13/91



*0.0'-1.0' Dark Brown Organic Silt.
1.0'-2.5' Brown Silt.
2.5'-15.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP.
Gravel= 3%, Sand= 91%, Silt= 4%.
Dry to 6', damp 6'-8', wet 8'-8.5', saturated 8.5'+.

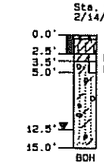
T.H. 40
Sta. 541+00 (Approx.), 75'Lt. Existing ℄.
3/13/91



0.0'-1.5' Brown Silty Sandy Gravel. Fill.
1.5'-2.5' Brown Silt.
2.5'-13.0' Brown Sand, with Gravel.
Dry to 5.5', damp 5.5'-9', wet 9'-11', saturated 11'+.

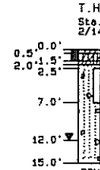
13.0'-15.0' Brown Organic Silty Sand. Saturated.

T.H. 41
Sta. 544+00 (Approx.), 65'Lt. Existing ℄.
2/14/91



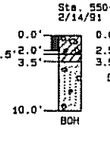
0.0'-0.5' Brown sandy Gravel. Fill.
0.5'-2.5' Dark Brown Organic Silt.
2.5'-3.5' Tan Silt. Damp.
H.C.= 16.0%
3.5'-15.0' Brown Slightly Silty Sand, with Gravel.
**H.C.= 3.7%
**Sand= 92%, Silt= 8%.
Dry to damp to 10', wet 10'-12.5, Saturated 12.5'+.

T.H. 42
Sta. 547+00 (Approx.), 45'Lt. Existing ℄.
2/14/91



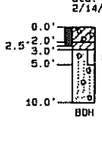
0.0'-0.5' Brown Sandy Silty Gravel. Fill.
0.5'-1.5' Brown Silt, with Organics.
1.5'-2.0' Tan Silt.
2.0'-15.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP.
Gravel= 1%, Sand= 95%, Silt= 4%.
Dry to 7', damp 7'-10', wet 10'-12', Saturated 12'+.

T.H. 43
Sta. 550+00 (Approx.), 45'Lt. Existing ℄.
2/14/91



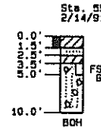
0.0'-2.5' Brown Gravelly Silt. Disturbed.
2.5'-3.5' Tan Silt. Damp.
3.5'-10.0' Brown Sand, with Gravel.
Dry to 5', damp 5'-10'.

T.H. 44
Sta. 553+00 (Approx.), 45'Lt. Existing ℄.
2/14/91



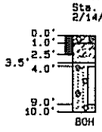
0.0'-2.0' Brown Silt, with Gravel and wood.
2.0'-3.0' Tan Silt.
3.0'-10.0' Brown Sand, with Gravel.
With Silty Sand lense 7'-8'.
H.C.= 3.7%
**Gravel= 3%, Sand= 91%, Silt= 6%.
Dry to 5', damp 5'-10'.

T.H. 45
Sta. 556+00 (Approx.), 50'Lt. Existing ℄.
2/14/91



0.0'-1.5' Brown Silt.
1.5'-2.5' Brown Sand, Dry.
2.5'-3.5' Tan Silt. Damp.
3.5'-10.0' Brown Sand, with Gravel.
H.C.= 3.9%
**Gravel= 7%, Sand=87%, Silt= 6%.
Dry to 7', damp 7'-10'.

T.H. 46
Sta. 559+00 (Approx.), 45'Lt. Existing ℄.
2/14/91

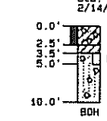


0.0'-1.0' Brown Silt, with Gravel.
1.0'-3.5' Brown Silty Sand, Disturbed.

3.5'-10.0' Brown Sand, with Gravel.
A-3(0), LL=NV, PI=NP.
Gravel= 10%, Sand= 86%, Silt= 4%.

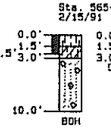
Dry to 7', damp 7'-10'.

T.H. 47
Sta. 562+00 (Approx.), 50'Lt. Existing ℄.
2/14/91



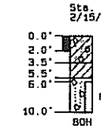
0.0'-2.5' Brown Sandy Silt, with Gravel. Disturbed.
2.5'-3.5' Brown Silt. Damp.
3.5'-10.0' Brown Sand, with Gravel..
Dry to damp.
H.C.= 3.9%

T.H. 48
Sta. 565+00 (Approx.), 90'Lt. Existing ℄.
2/15/91



0.0'-1.5' Dark Brown Organic, with roots.
1.5'-3.0' Brown Organic Silt.
3.0'-10.0' Brown Sand, with Gravel.
Dry to damp.

T.H. 49
Sta. 568+00 (Approx.), 39'Lt. Existing ℄.
2/15/91



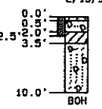
0.0'-3.5' Brown Gravelly Sandy Silt. Disturbed.

3.5'-5.5' Tan Silt. Damp.

5.5'-10.0' Brown Sand, with Gravel.

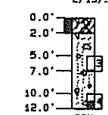
A-3(0), LL=NV, PI=NP.
Gravel= 5%, Sand= 95%, Silt= 3%.

T.H. 50
Sta. 571+00 (Approx.), 48'Lt. Existing ℄.
2/15/91



0.0'-0.5' Brown Silt.
0.5'-2.0' Brown Sandy Gravel. Fill.
2.0'-3.5' Brown Silt.
3.5'-10.0' Brown Sand, with Gravel.
Dry to damp.

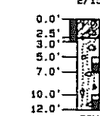
T.H. 51
Sta. 571+00 (Approx.), 48'Rt. Existing ℄.
2/15/91



0.0'-2.0' Brown Sandy Gravelly Silt. Disturbed.
2.0'-12.0' Brown Sand, with Gravel.
Dry to damp to 10', wet 10'-12'.
H.C.= 7.1%

H.C.= 8.5%

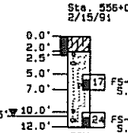
T.H. 52
Sta. 574+00 (Approx.), 48'Rt. Existing ℄.
2/15/91



0.0'-2.5' Brown Sandy Gravelly Silt. Disturbed fill.
2.5'-12.0' Brown Sand, with Gravel.
Dry to damp to 11', wet to saturated 11'-12'.
H.C.= 3.9%
**Gravel= 17%, Sand= 79%, Silt= 4%.

H.C.= 12.0%
**Gravel= 8%, Sand= 88%, Silt= 4%.

T.H. 53
Sta. 577+00 (Approx.), 42'Rt. Existing ℄.
2/15/91

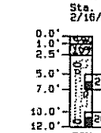


0.0'-2.0' Dark Brown Organic Silt.
2.0'-12.0' Brown Sand, with Gravel.
Dry to damp to 10.5', saturated 10.5+.

H.C.= 3.1%
**Gravel= 30%, Sand= 66%, Silt= 4%.

H.C.= 23.6%
**Sand= 95%, Silt= 5%.

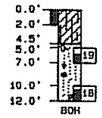
T.H. 54
Sta. 581+00 (Approx.), 50'Rt. Existing ℄.
2/16/91



0.0'-1.0' Dark Brown Silty Sandy Gravel. Fill.
1.0'-2.5' Brown Silty Gravel.
2.5'-12.0' Brown Sand, with Gravel.
Dry to 11', wet to saturated 11'-12'.
H.C.= 4.7%
**Gravel= 6%, Sand= 89%, Silt= 5%.

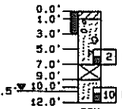
H.C.= 19.6%

T.H. 55
Sta. 546+00 (Approx.), 50'Rt. Existing ℄.
2/20/91



*0.0'-4.5' Brown Organic Silt.
Wet to saturated.
4.5'-12.0' Brown Sand, with Gravel.
Dry to damp to 11.5'.
A-3(0), LL=NV, PI=NP, H.C.= 3.9%.
Gravel= 3%, Sand= 93%, Silt= 4%.
Wet 11.5'-12'.
H.C.= 35.7%
Gravel= 2%, Sand= 93%, Silt= 5%.

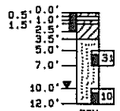
T.H. 56
Sta. 541+00 (Approx.), 55'Rt. Existing ℄.
2/20/91



*0.0'-1.0' Brown Silt.
1.0'-7.0' Brown Silty Sand, with Gravel.
Dry to damp to 9.5', wet 9.5'-10.5', Saturated 10.5%-12'.
9.0'-12.0' Brown Sand.
A-2-4(0), LL=NV, PI=NP, H.C.= 12.8%.
Gravel= 11%, Sand= 67%, Silt= 22%.

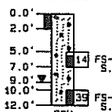
Gravel= 2%, Sand= 93%, Silt= 5%.

T.H. 57
Sta. 537+50 (Approx.), 45'Rt. Existing ℄.
2/20/91



*0.0'-0.5' Brown Silt.
0.5'-1.0' Brown Sand.
1.0'-1.5' Brown Sandy Silt.
May have been disturbed from surface to 1.5'.
1.5'-3.5' Brown Silt.
3.5'-12.0' Brown Sand to Slightly Silty Sand.
A-3(0), LL=NV, PI=NP, H.C.= 3.7%.
Gravel= 7%, Sand= 89%, Silt= 4%.
Dry to damp to 10'.
Gravel= 1%, Sand= 92%, Silt= 7%.
Saturated 10'-12'.

T.H. 58
Sta. 532+50 (Approx.), 50'Rt. Existing ℄.
2/20/91



*0.0'-12.0' Brown Sand, with Gravel.
Dry to damp to 8'.

A-3(0), H.C.= 22.1%
Gravel= 1%, Sand= 95%, Silt= 4%.
Wet 8'-9', Saturated 9'-12'.
Gravel= 1%, Sand= 94%, Silt= 5%.



BAR SCALE

*Organics previously stripped.

**The sampler used to take these samples has an inside diameter of 1.4", therefore soil particles with a diameter larger than 1.4" were not recovered in the sample. See boring logs for a field description of the soil.

STATE OF ALASKA
DEPARTMEMT OF TRANSPORTATION
AND
PUBLIC FACILITIES

KENAI SPUR ROAD PHASE-1
TEST HOLE LOGS
TEST HOLES 30-58

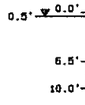
SCALE	DESIGNED: T.O.	DRAWN: N.I.	SHEET 2 OF 5
VERT: 1"= 10' HORZ: None	CHECKED:	DATE:	

T.H. 59
Sta. 532+00 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-1.5' Brown Organic
1.5'-3.0' Gray Brown Gravelly Sand. Damp to wet.

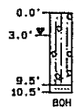
T.H. 60
Sta. 531+75 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-6.5' Dark Brown Organic, with Sand and Gravel.

6.5'-10.0' Brown Sand. Saturated.

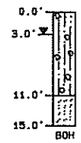
T.H. 61
Sta. 531+50 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-9.5' Dark Brown Organic, with Sand and Gravel. Saturated.

9.5'-10.5' Brown Sand. Saturated.

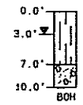
T.H. 62
Sta. 531+25 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-11.0' Dark Brown Organic, with sand and Gravel. Fine, Fibrous. Saturated.

11.0'-15.0' Brown Sand. Saturated.

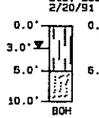
T.H. 63
Sta. 531+00 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-7.0' Dark Brown Organic. Fine, Fibrous.

7.0'-10.0' Brown Sand, with Gravel. Saturated.

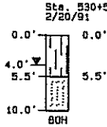
T.H. 64
Sta. 530+75 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-6.0' Brown Organic. Fine, Fibrous. Saturated.

6.0'-10.0' Brown Sand. Saturated.

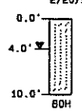
T.H. 65
Sta. 530+50 (Approx.), 60'Rt. Existing ℄.
2/20/91



0.0'-5.5' Brown Organic, with roots. Saturated.

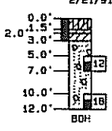
5.5'-10.0' Brown Sand. Saturated.

T.H. 66
Sta. 530+25 (Approx.), 55'Rt. Existing ℄.
2/20/91



0.0'-10.0' Brown Sand. Saturated.

T.H. 67
Sta. 528+00 (Approx.), 53'Rt. Existing ℄.
2/21/91

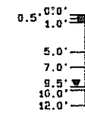


*0.0'-1.5' Brown Organic Silt.
1.5'-2.0' Brown Silty Sand.
2.0'-3.0' Brown Silt.
3.0'-10.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 4.6%.
Gravel= 0%, Sand= 87%, Silt= 4%.
Dry to damp to 9.5', wet 9.5'-12'.

M.C.= 19.7%
Gravel= 3%, Sand= 93%, Silt= 4%.

T.H. 68
Sta. 523+00 (Approx.), 44'Rt. Existing ℄.
2/21/91

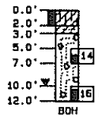


0.0'-0.5' Brown Silt, with roots.
0.5'-12.0' Brown Sand, with Gravel. Dry to damp to 9', wet 9'-9.5', saturated 9.5+.

M.C.= 5.0%
Gravel= 5%, Sand= 91%, Silt= 4%.

Sand= 96%, Silt= 4%.

T.H. 69
Sta. 518+00 (Approx.), 50'Rt. Existing ℄.
2/21/91

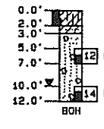


*0.0'-2.0' Brown Organic Silt.
2.0'-3.0' Brown Sandy Silt to Silty Sand. Dry to damp.
3.0'-12.0' Brown Sand, with Gravel.

M.C.= 4.8%
Gravel= 9%, Sand= 86%, Silt= 5%.
Dry to damp to 9', wet 9'-10', saturated 10'+.

A-3(0), LL=NV, PI=NP.
Gravel= 3%, Sand= 93%, Silt= 4%.

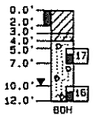
T.H. 70
Sta. 513+00 (Approx.), 48'Rt. Existing ℄.
2/21/91



*0.0'-2.0' Brown Organic Silt.
2.0'-3.0' Brown Sandy Silt to Silty Sand. Dry to damp.
3.0'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 7.7%.
Gravel= 1%, Sand= 94%, Silt= 6%.
Dry to damp to 9', wet 9'-10', saturated 10'+.
Sand= 94%, Silt= 4%.

T.H. 71
Sta. 508+00 (Approx.), 60'Rt. Existing ℄.
2/21/91



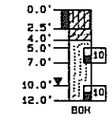
*0.0'-3.0' Brown Sand.

3.0'-4.0' Brown Sandy Silt to Silty Sand.
4.0'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 3.8'.
Gravel= 8%, Sand= 87%, Silt= 5%.
Dry to damp to 9', wet 9'-10', saturated 10'-12'+.

A-3(0), LL=NV, PI=NP.
Gravel= 1%, Sand= 93%, Silt= 6%.

T.H. 72
Sta. 503+00 (Approx.), 60'Rt. Existing ℄.
2/21/91

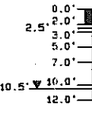


*0.0'-2.5' Brown Organic Silt.
2.5'-4.0' Tan Silty Sand to Sandy Silt.
4.0'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 6.1%.
Gravel= 15%, Sand= 78%, Silt= 6%.
Dry to damp to 9', wet 9'-10', saturated 10'+.

A-3(0), LL=NV, PI=NP.
Gravel= 1%, Sand= 95%, Silt= 4%.

T.H. 73
Sta. 498+00 (Approx.), 60'Rt. Existing ℄.
2/22/91

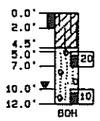


*0.0'-2.5' Organic Silt, with roots.
2.5'-3.0' Tan Silty Sand to Sandy Silt. Dry to damp.
3.0'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 4.1%.
Gravel= 10%, Sand= 85%, Silt= 5%.
Dry to damp to 9', wet 9'-10, saturated 10.5'+.

A-3(0), LL=NV, PI=NP.
Gravel= 2%, Sand= 94%, Silt= 4%.

T.H. 74
Sta. 493+00 (Approx.), 60'Rt. Existing ℄.
2/22/91



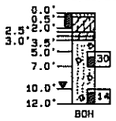
*0.0'-4.5' Brown Organic Silt. Saturated upon thaw.

4.5'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 6.0%.
Gravel= 4%, Sand= 92%, Silt= 4%.
Dry to damp to 9', wet 9'-10', saturated 10'+.

A-3(0), LL=NV, PI=NP.
Gravel= 4%, Sand= 93%, Silt= 3%.

T.H. 75
Sta. 488+00 (Approx.), 30'Rt. Existing ℄.
2/22/91

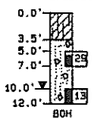


0.0'-0.5' Dark Brown Organic.
0.0'-2.5' Brown Organic Silt.
2.5'-3.0' Orange Brown Silt. Saturated.
3.0'-3.5' Tan Silty Sand. Dry to damp.
3.5'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 8.8%.
Gravel= 4%, Sand= 92%, Silt= 4%.
Dry to damp to 5', wet 5.0'-10.5', saturated 10.5+.

A-3(0), LL=NV, PI=NP.
Gravel= 2%, Sand= 95%, Silt= 3%.

T.H.76
Sta. 483+00 (Approx.), 40'Rt. Existing ℄.
2/22/91



*0.0'-3.5' Brown Organic Silt, with roots.

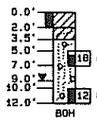
3.5'-12.0' Brown Sand, with Gravel. With two thin Organic lenses at 11'.

A-3(0), LL=NV, PI=NP, M.C.= 16.1%.
Gravel= 4%, Sand= 92%, Silt= 4%.

Wet 3.5'-7', Saturated 7'+.

Gravel= 1%, Sand= 94%, Silt= 5%.

T.H. 77
Sta. 478+00 (Approx.), 65'Rt. Existing ℄.
2/22/91



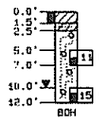
0.0'-2.0' Brown Organic Silt, with Gravel top 6".
2.0'-3.5' Tan Sandy Silt. Dry to damp.
3.5'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 4.5'.
Gravel= 4%, Sand= 92%, Silt= 4%.

Damp 3.5'-7', wet 7'-9', Saturated 9'+.

Gravel= 7%, Sand= 90%, Silt=3%.

T.H. 78
Sta. 473+00 (Approx.), 35'Rt. Existing ℄.
2/23/91



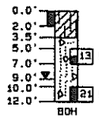
*0.0'-1.5' Brown Silt
1.5'-2.5' Tan Sandy Silt. Damp to wet.
2.5'-12.0' Brown Sand, with Gravel. Dry to damp to 9'.

A-3(0), LL=NV, PI=NP, M.C.= 2.3%.
Gravel= 4%, Sand= 93%, Silt= 3%.

Wet 9'-10', saturated 10'+.

Gravel= 5%, Sand= 92%, Silt= 3%.

T.H. 79
Sta. 468+00 (Approx.), 60'Rt. Existing ℄.
2/23/91



*0.0'-3.5' Brown Organic Silt.

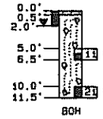
3.5'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 15.0%.
Gravel= 4%, Sand= 93%, Silt= 3%.

Damp to 6', wet 6'-9', Saturated 9'+.

Gravel= 3%, Sand= 93%, Silt= 4%.

T.H. 80
Sta. 463+00 (Approx.), 60'Rt. Existing ℄.
2/26/91

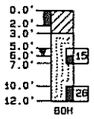


*0.0'-0.5' Brown Silt.
0.5'-11.5' Brown Sand, with Gravel. Wet 0.5'-2', saturated 2'+.

Sample not tested.

Sample not tested.

T.H. 81
Sta. 458+00 (Approx.), 50'Rt. Existing ℄.
2/26/91

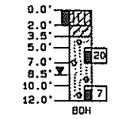


*0.0'-3.0' Brown Silt, with roots. Saturated and dilatent below frost.
3.0'-12.0' Brown Sand, with Gravel. Wet 3'-6', saturated 6'-12'.

A-3(0), LL=NV, PI=NP, M.C.= 22.0%.
Gravel= 3%, Sand= 94%, Silt= 3%.

Sample not tested.

T.H. 82
Sta. 453+50 (Approx.), 35'Rt. Existing ℄.
2/26/91



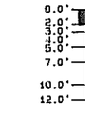
*0.0'-2.0' Brown Organic Silt.
2.0'-3.5' Tan Silt, with sand. Wet.
3.5'-12.0' Brown Sand, with Gravel. Dry to damp to 7', wet 7'-8.5'.

A-3(0), LL=NV, PI=NP, M.C.= 10.1%.
Gravel= 1%, Sand= 96%, Silt= 3%.

Saturated 8.5'+.

Sample not tested.

T.H. 83
Sta. 449+00 (Approx.), 38'Rt. Existing ℄.
2/27/91



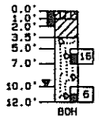
*0.0'-3.0' Brown Organic Silt.

3.0'-12.0' Brown Sand, with Gravel. Wet 3'-4', saturated 4'+.

A-i-b(0), LL=NV, PI=NP.
Gravel= 18%, Sand= 79%, Silt=3%.

Sample not tested.

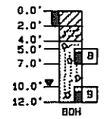
T.H. 84
Sta. 444+00 (Approx.), 38'Rt. Existing ℄.
2/27/91



0.0'-1.0' Dark Brown Organic Silt. with roots.
1.0'-3.5' Brown Silt.
3.5'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, PI=NP, M.C.= 6.9%.
Gravel= 6%, Sand= 91%, Silt= 3%.
Damp to wet 3.5'-9', wet 9' to 10', saturated 10'+.
Sample not tested.

T.H. 85
Sta. 439+00 (Approx.), 70'Rt. Existing ℄.
2/27/91



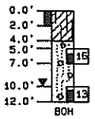
*0.0'-2.0' Brown Silt.
2.0'-4.0' Tan Sady Silt. Damp.
4.0'-12.0' Brown Sand, with Gravel.

Sample not tested.

Dry to damp to 8', wet 8'-10', saturated 10'+.

Sample not tested.

T.H. 86
Sta. 434+00 (Approx.), 35'Rt. Existing ℄.
2/27/91

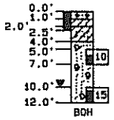


*0.0'-4.0' Brown Organic Silt, with roots.

4.0'-12.0' Brown Sand, with Gravel.

A-3(0), LL=NV, LPI=NP, M.C.= 4.7%.
Gravel= 7%, Sand= 88%, Silt= 5%.
Dry to damp to 7', wet 7'-10', saturated 10'+.
Sample not tested.

T.H. 87
Sta. 428+50 (Approx.), 60'Rt. Existing ℄.
2/27/91



0.0'-1.0' Brown Sandy Gravel. Fill.
1.0'-2.0' Brown Silt.
2.0'-4.0' Tan Sandy Silt. Damp to wet.
4.0'-12.0' Brown Sand, with Gravel.

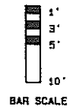
Sample not tested.

Dry to damp to 8', wet 8'-10', saturated 10'+.

Sample not tested.

*Organics previously stripped.

**The sampler used to take these samples has an inside diameter of 1.4", therefore soil particles with a diameter larger than 1.4" were not recovered in the sample. See boring logs for a field description of the soil.



STATE OF ALASKA
DEPARTMEMT OF TRANSPORTATION
AND
PUBLIC FACILITIES

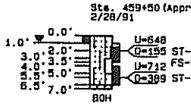
KENAI SPUR ROAD PHASE-1

TEST HOLE LOGS
TEST HOLES 59-87

SCALE	DESIGNED: T.O.	DRAWN: N.I.	SHEET 3 OF 5
VERT: 1"= 10' HORZ: None	CHECKED:	DATE:	

T.H. 88

Sta. 459+50 (Approx.), 20'Lt. Proposed ℄.
2/28/91



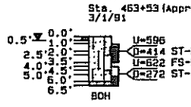
0.0'-6.5' Black Organic Peat, fine, fibrous. With Sand. Saturated.

G.S. H.C.= 202.4%

6.5'-7.0' Gray Sandy Silt to Silty Sand.

T.H. 89

Sta. 463+53 (Approx.), 50'Lt. Proposed ℄.
3/1/91



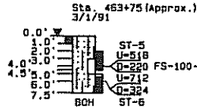
0.0'-6.0' Black Organic Peat, fine, fibrous. With wood and Sand.

G.S. H.C.= 513.8%

6.0'-6.5' Gray Sandy Silt. Saturated.

T.H. 90

Sta. 463+75 (Approx.), 15'Lt. Proposed ℄.
3/1/91



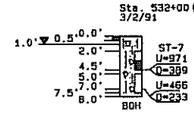
0.0'-7.5' Dark Brown Sandy Organic, amorphous Peat. Saturated

G.S. H.C.= 175.4%

7.5'+ Gray Sandy Silt. Saturated.

T.H. 91

Sta. 532+00 (Approx.), 115'Lt. Existing ℄.
3/2/91

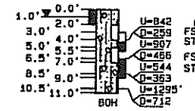


0.0'-8.0' Brown Sandy Organic, with Sand and Gravelly Sand lenses.

Attempted ST-8 from 5'-8', no sample taken due to Sand and Gravelly Sand lenses.

T.H. 92

Sta. 531+25 (Approx.), 63'Rt. Existing ℄.
3/2/91



0.0'-11.0' Dark Brown Organic, fine fibrous Peat, Saturated. With sand and occasional Gravel.

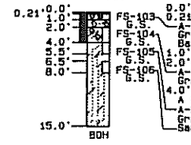
G.S. Sample not tested.

FS-102-G.S. Sample not tested.

11'+ Brown Sand Saturated.

T.H. 93

Sta. 573+00 (Approx.), 28'Lt. Existing ℄.
3/4/91



0.0'-0.21' Asphalt (2.5").

0.21'-1.0' Brown Slightly Silty Sandy Gravel.
A-1-a(0), LL=NV, PI=NP, H.C.= 3.5%.
Gravel= 57%, Sand= 33%, Silt= 10%.

Base course, 1" minus.

1.0'-2.0' Brown Sandy Gravel, 1.5" minus.

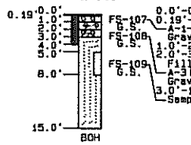
2.0'-4.0' Brown Slightly Silty Gravelly Sand.
A-1-b(0), LL=NV, PI=NP.
Gravel= 20%, Sand= 70%, Silt= 10%.

4.0'-15.0' Light Brown Slightly Silty Sand. A fine Sand. Dry to damp to 15'.
A-3(0), LL=NV, PI=NP.
Gravel= 15%, Sand= 76%, Silt= 9%.

Sample not tested.

T.H. 94

Sta. 562+00 (Approx.), 24'Rt. Existing ℄.
3/4/91



0.0'-0.19' Asphalt (2.25").

0.19'-1.0' Brown Sandy Gravel. Base course.
A-1-a(0), LL=NV, PI=NP, H.C.= 2.6%.
Gravel= 55%, Sand= 30%, Silt= 5%.

1.0'-3.0' Brown Sandy Gravel. Mostly 2" minus.

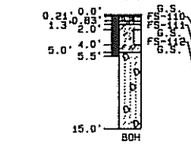
2.0'-3.0' Brown Slightly Silty Gravelly Sand. Fill. Dry.
A-3(0), LL=NV, PI=NP, H.C.= 3.4%.
Gravel= 10%, Sand= 83%, Silt= 7%.

3.0'-15.0' Tan Sand. Dry to damp to 15'.

Sample not tested.

T.H. 95

Sta. 545+00 (Approx.), 9'Rt. Existing ℄.
3/4/91



0.0'-0.21' Asphalt (2.5").

0.21'-0.83' Brown Slightly Silty Sandy Gravel. Mostly 1" minus. Base.
A-1-a(0), LL=NV, PI=NP, H.C.= 2.9%.
Gravel= 57%, Sand= 36%, Silt= 7%.

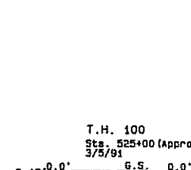
0.83'-1.3' Gray Brown Slightly Silty Gravelly Sand. Mostly 2" minus.
A-1-b(0), LL=NV, PI=NP, H.C.= 3.4%.
Gravel= 44%, Sand= 45%, Silt= 11%.

1.3'-5.0' Brown Silty Sand. Fill.
A-2-4(0), LL=NV, PI=NP, H.C.= 6.1%.
Gravel= 9%, Sand= 73%, Silt= 18%.

5.0'-15.0' Tan Sand, with Gravel. A fine sand. Dry 5'-10', damp 10'-14', wet 14'-15'.

T.H. 96

Sta. 540+00 (Approx.), 12'Rt. Existing ℄.
3/4/91



0.0'-0.15' Asphalt (1.75").

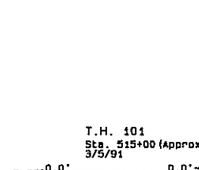
0.15'-1.0' Brown Slightly Silty Sandy Gravel. Mostly 1" minus. Base.
A-1-b(0), LL=NV, PI=NP.
Gravel= 51%, Sand= 39%, Silt= 10%.

1.0'-4.0' Brown Slightly Silty Gravelly Sand. Fill. Damp.
A-3(0), LL=NV, PI=NP, H.C.= 4.5%.
Gravel= 22%, Sand= 69%, Silt= 9%.

4.0'-15.0' Tan Slithtly Silty Sand. A fine Sand. Dry to 10'. damp 10'-12.5'. wet 12.5'-15'.
A-2-4(0), LL=NV, PI=NP, H.C.= 5.1%.
Gravel= 14%, Sand= 75%, Silt= 11%.

T.H. 97

Sta. 535+00 (Approx.), 12'Rt. Existing ℄.
3/4/91



0.0'-0.19' Asphalt (2.25").

0.19'-0.66' Brown Sandy Gravel. Base.
Mostly 1.5" minus.
H.C.= 2.0%

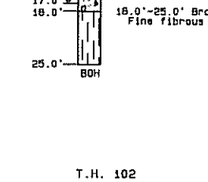
0.66'-1.5' Gray Brown Sandy Gravel, with Silt.

1.5'-5.5' Slightly Silty Sand. Fill. Damp.
A-2-4(0), LL=NV, PI=NP, H.C.= 4.7%
Gravel= 16%, Sand= 73%, Silt= 11%.

5.5'-15.0' Brown Sand. Damp 5.5'-10', wet 10'-13', Saturated 13'-15'.

T.H. 98

Sta. 531+50 (Approx.), 25'Rt. Existing ℄.
3/4/91



0.0'-0.21' Asphalt (2.5").

0.21'-1.3' Brown Sandy Gravel. Mostly 1" minus.

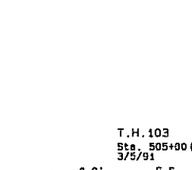
1.3'-10.0' Brown Sand, with Gravel. Fill. Dry to 5', damp 5'-10'

10.0'-18.0' Brown Gravelly Sand. Fill. Damp 10'-15', wet 15'-17', Saturated 17'+.

18.0'-25.0' Brown Organic. Saturated. Fine fibrous Peat.

T.H. 99

Sta. 530+00 (Approx.), 12'Lt. Existing ℄.
3/5/91



0.0'-0.19' Asphalt (2.25").

0.19'-0.5' Brown Sandy Gravel. Base. Mostly 1" minus.

0.5'-1.3' Gray Brown Slightly Silty Sandy Gravel. Mostly 2" minus.
A-1-a(0), LL=NV, PI=NP, H.C.= 3.7%.
Gravel= 53%, Sand= 38%, Silt= 9%.

1.3'-4.0' Brown Sand. Fill.
A-3(0), LL=NV, PI=NP, H.C.= 3.4%.
Gravel= 9%, Sand= 85%, Silt= 6%.

4.0'-6.5' Brown Slightly Silty Gravelly Sand. Fill.
A-1-b(0), LL=NV, PI=NP, H.C.= 4.1%.
Gravel= 35%, Sand= 53%, Silt= 12%.

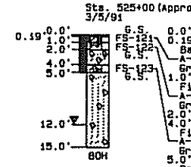
6.5'-7.5' Brown Sandy Silt. Slightly frozen. Wet upon thaw.

7.5'-11.0' Brown Gravelly Sand. Dry to damp.

11.0'-15.0' Brown Sand. Dry to damp to 13.5'. Saturated 13.5+.

T.H. 100

Sta. 525+00 (Approx.), 10'Rt. Existing ℄.
3/5/91



0.0'-0.19' Asphalt (2.25").

0.19'-1.0' Brown Slightly Silty Sandy Gravel. Base. Mostly 1" minus.
A-1-a(0), LL=NV, PI=NP, H.C.= 3.1%.
Gravel= 57%, Sand= 36%, Silt= 7%.

1.0'-2.0' Brown Slightly Silty Gravelly Sand. Fill.
A-3(0), LL=NV, PI=NP, H.C.= 2.3%.
Gravel= 23%, Sand= 70%, Silt= 7%.

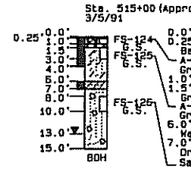
2.0'-4.0' Brown Gravelly Sand. Fill.

4.0'-5.0' Brown Slightly Silty Gravelly Sand Fill.
A-3(0), LL=NV, PI=NP.
Gravel= 28%, Sand= 62%, Silt= 10%.

5.0'-15.0' Brown Sand, with Gravel. Dry to damp to 10', wet 10'-12', Saturated 12'+.

T.H. 101

Sta. 515+00 (Approx.), 12'Rt. Existing ℄.
3/5/91



0.0'-0.25' Asphalt (3").

0.25'-1.0' Brown Slightly Silty Sandy Gravel. Base. Mostly 1" minus.
A-1-a(0), LL=NV, PI=NP, H.C.= 4.0%.
Gravel= 59%, Sand= 31%, Silt= 10%.

1.0'-1.5' Brown Sandy Gravel. Fill. Mostly 1.5" minus.

1.5'-6.0' Brown Slightly Silty Sand, with Gravel. Fill.
A-3(0), LL=NV, PI=NP, H.C.= 3.1%.
Gravel= 15%, Sand= 77%, Silt= 8%.

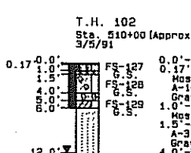
6.0'-7.0' Brown Sandy Silt. Slightly frozen. Wet upon thaw.

7.0'-15.0' Brown Sand, with Gravel. Dry to damp to 12', wet 12'-13', saturated 13'+.

Sample not tested.

T.H. 102

Sta. 510+00 (Approx.), 12'Rt. Existing ℄.
3/5/91



0.0'-0.17' Asphalt (2").

0.17'-1.0' Brown Sandy Gravel. Base. Mostly 1" minus.
A-1-a(0), LL=NV, PI=NP, H.C.= 3.8%.
Gravel= 55%, Sand= 36%, Silt= 9%.

1.0'-1.5' Gray Brown Sandy Gravel. Fill. Mostly 2" minus.

1.5'-4.0' Brown Sand, with Gravel. Fill.
A-3(0), LL=NV, PI=NP, H.C.= 3.7%.
Gravel= 14%, Sand= 78%, Silt= 8%.

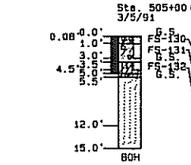
4.0'-5.0' Brown Gravelly Sand. Fill.

5.0'-6.0' Brown Sandy Silt , With frozen Silt balls and visible ice crystals.
A-4(0), LL=NV, PI=NP, H.C.= 15.6%.
Gravel= 18%, Sand= 36%, Silt= 46%.

6.0'-15.0' Brown Sand. Dry to damp to 10', wet 10'-12', Saturated 12'+.

T.H.103

Sta. 505+00 (Approx.), 9'Lt. Existing ℄.
3/5/91



0.0'-0.08' Asphalt (1").

No base course.

0.08'-1.0' Gray Brown Slightly Silty Sandy Gravel. Mostly 2" minus.
A-1-a(0), LL=NV, PI=NP, H.C.= 2.7%.
Gravel= 63%, Sand= 28%, Silt= 9%.

1.0'-3.5' Brown Slightly Silty Gravelly Sand. Fill.
A-3(0), LL=NV, PI=NP, H.C.= 4.3%.
Gravel= 25%, Sand= 66%, Silt= 9%.

3.5'-5.0' Brown Organic Sandy Silt. With visible ice 3.5'-4.5'.
A-4(0), LL= 29, PI=NP, Organic= 7.6%.
Gravel= 8%, Sand= 22%, Silt= 70%.

5.0'-5.5' Brown Sandy Silt. Damp.

5.5'-15.0' Brown Sand. Dry to damp to 8', wet 8'-12', saturated 12'+.

M AASHTO Classification may be inappropriate due to Organic content.

1'
3'
5'
10'

BAR SCALE

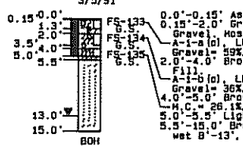
STATE OF ALASKA
DEPARTMEMT OF TRANSPORTATION
AND
PUBLIC FACILITIES

KENAI SPUR ROAD PHASE-1

TEST HOLE LOGS
TEST HOLES 88-103

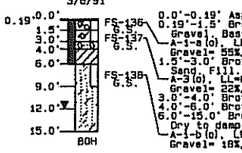
SCALE	DESIGNED: T.O.	DRAWN: N.I.	SHEET 4 OF 5
VERT: 1"= 10' HORZ: NONE	CHECKED:	DATE:	

T.H. 104
Sta. 500+00 (Approx.), 10'Rt. Existing ℄.
3/5/91



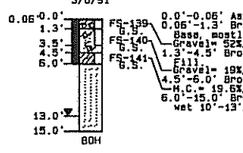
0.0'-0.15' Asphalt (1.75").
0.15'-2.0' Gray Brown Slightly Silty Sandy Gravel, Mostly 2" minus.
A-1-a (0), LL=NV, PI=NP, H.C.= 2.9%.
Gravel= 59%, Sand= 32%, Silt= 9%.
2.0'-4.0' Brown Slightly Silty Gravelly Sand. Fill.
A-1-b (0), LL=NV, PI=NP, H.C.= 3.3%.
Gravel= 36%, Sand= 54%, Silt= 10%.
4.0'-5.0' Brown Organic Silt, With visible ice.
H.C.= 26.1%, Organic= 5.1%.
5.0'-5.5' Light Brown Sandy Silt. Damp.
5.5'-15.0' Brown Sand. Dry to damp to 8', wet 8'-13', saturated 13'+.

T.H. 105
Sta. 495+00 (Approx.), 8'Lt. Existing ℄.
3/6/91



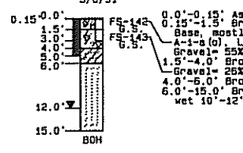
0.0'-0.19' Asphalt (2.25").
0.19'-1.5' Brown Slightly Silty Sandy Gravel, Base, mostly 1.5" minus.
A-1-a (0), LL=NV, PI=NP, H.C.= 37.6%.
Gravel= 55%, Sand= 36%, Silt= 9%.
1.5'-3.0' Brown Slightly Silty Gravelly Sand, Fill.
A-3 (0), LL=NV, PI=NP.
Gravel= 22%, Sand= 68%, Silt= 10%.
3.0'-4.0' Brown Sandy Gravel, Fill.
4.0'-6.0' Brown Silt, with visible ice.
6.0'-15.0' Brown Slightly Silty Sand. Dry to damp to 10', wet 10'-12', saturated 12'+.
A-1-b (0), LL=NV, PI=NP.
Gravel= 18%, Sand= 74%, Silt= 8%.

T.H. 106
Sta. 490+00 (Approx.), 9'Lt. Existing ℄.
3/6/91



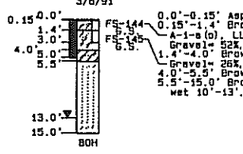
0.0'-0.08' Asphalt (0.75").
0.08'-1.3' Brown Slightly Silty Sandy Gravel. Base, mostly 1.5" minus.
Gravel= 52%, Sand= 37%, Silt= 11%.
1.3'-4.5' Brown Slightly Silty Gravelly Sand. Fill.
Gravel= 19%, Sand= 73%, Silt= 8%.
4.5'-6.0' Brown Sandy Silt.
H.C.= 19.6%, Organic= 4.5%.
6.0'-15.0' Brown Sand. Dry to damp to 10', wet 10'-13', saturated 13'+.

T.H. 107
Sta. 485+00 (Approx.), 12'Rt. Existing ℄.
3/6/91



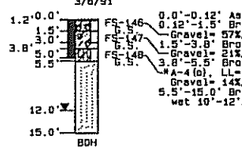
0.0'-0.15' Asphalt (1.75").
0.15'-1.5' Brown Slightly Silty Sandy Gravel. Base, mostly 1.5" minus.
A-1-a (0), LL=NV, PI=NP.
Gravel= 55%, Sand= 34%, Silt= 11%.
1.5'-4.0' Brown Slightly Silty Gravelly Sand. Fill.
Gravel= 26%, Sand= 66%, Silt= 8%.
4.0'-6.0' Brown Sandy Silt to Silty Sand.
6.0'-15.0' Brown Sand. Dry to damp to 10', wet 10'-12', saturated 12'+.

T.H. 108
Sta. 480+00 (Approx.), 9'Lt. Existing ℄.
3/6/91



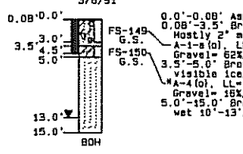
0.0'-0.15' Asphalt (1.75").
0.15'-1.4' Brown Slightly Silty Sandy Gravel. Base.
A-1-a (0), LL=NV, PI=NP.
Gravel= 52%, Sand= 37%, Silt= 11%.
1.4'-4.0' Brown Slightly Silty Gravelly Sand. Fill.
Gravel= 26%, Sand= 63%, Silt= 11%.
4.0'-5.5' Brown Sandy Silt. Slightly frozen.
5.5'-15.0' Brown Sand. Dry to damp to 10', wet 10'-13', saturated 13'+.

T.H. 109
Sta. 476+00 (Approx.), 12'Rt. Existing ℄.
3/6/91



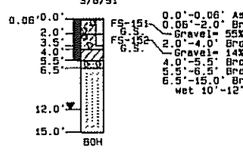
0.0'-0.12' Asphalt (1.5").
0.12'-1.5' Brown Slightly Silty Sandy Gravel. Base.
Gravel= 57%, Sand= 34%, Silt= 9%.
1.5'-3.8' Brown Slightly Silty Gravelly Sand. Fill.
Gravel= 21%, Sand= 70%, Silt= 9%.
3.8'-5.5' Brown Organic Sandy Silt.
A-4 (0), LL= 29, PI=NP, Organic= 7.4%.
Gravel= 14%, Sand= 34%, Silt= 52%.
5.5'-15.0' Brown Sand. Dry to damp to 10', wet 10'-12', saturated 12'+.

T.H. 110
Sta. 470+00 (Approx.), 9'Lt. Existing ℄.
3/6/91



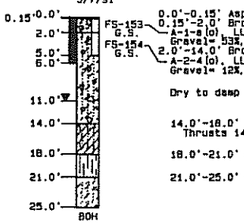
0.0'-0.08' Asphalt (1").
0.08'-3.5' Brown Slightly Silty Sandy Gravel. Fill.
Mostly 2" minus.
A-1-a (0), LL=NV, PI=NP.
Gravel= 62%, Sand= 30%, Silt= 8%.
3.5'-5.0' Brown Organic Sandy Silt. With visible ice, slow drilling.
A-4 (0), LL= 34, PI=NP, Organic= 9.6%.
Gravel= 16%, Sand= 27%, Silt=57%.
5.0'-15.0' Brown Sand. Dry to damp to 10', wet 10'-13', saturated 13'+.

T.H. 111
Sta. 466+00 (Approx.), 11'Lt. Existing ℄.
3/6/91



0.0'-0.08' Asphalt (0.75").
0.08'-2.0' Brown Slightly Silty Sandy Gravel.
Gravel= 55%, Sand= 35%, Silt= 10%.
2.0'-4.0' Brown Slightly Silty Gravelly Sand. Fill.
Gravel= 14%, Sand= 78%, Silt= 8%.
4.0'-5.5' Brown Silt, with visible ice.
5.5'-6.5' Brown Gravelly Sand.
6.5'-15.0' Brown Sand. Dry to damp to 10', wet 10'-12', saturated 12'+.

T.H. 112
Sta. 464+50 (Approx.), 20'Lt. Existing ℄.
3/7/91



0.0'-0.15' Asphalt (1.75").
0.15'-2.0' Brown Slightly Silty Sandy Gravel.
A-1-a (0), LL=NV, PI=NP.
Gravel= 53%, Sand= 37%, Silt= 10%.
2.0'-14.0' Brown Silty Sand, with Gravel. Fill.
A-2-4 (0), LL=NV, PI=NP.
Gravel= 12%, Sand= 73%, Silt= 15%.

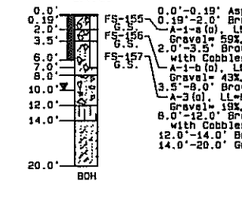
Dry to damp to 10', wet 10'-11', saturated 11'+.

14.0'-18.0' Brown Organic Sandy Silt. Saturated. Thrusts 14'-18'.

18.0'-21.0' Brown Organic. Peat. Damp to wet.

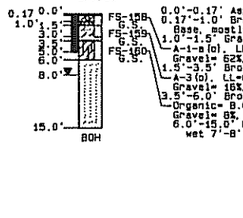
21.0'-25.0' Gray Brown Silty Sand. Saturated.

T.H. 113
Sta. 459+50 (Approx.), 20'Lt. Existing ℄.
3/7/91



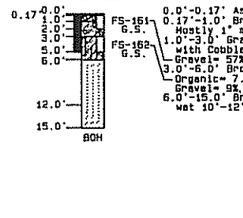
0.0'-0.19' Asphalt (2.25").
0.19'-2.0' Brown Slightly Silty Sandy Gravel.
A-1-a (0), LL=NV, PI=NP.
Gravel= 59%, Sand= 30%, Silt= 11%.
2.0'-3.5' Brown Slightly Silty Gravelly Sand, with Cobbles. Fill.
A-1-b (0), LL=NV, PI=NP.
Gravel= 43%, Sand= 47%, Silt= 10%.
3.5'-8.0' Brown Slightly Silty Sand, with Gravel. Fill.
8.0'-12.0' Brown Sandy Gravel to Gravelly Sand, with Cobbles. Fill. Wet to 10', saturated 10'+.
12.0'-14.0' Brown Organic. Peat, fibrous. Saturated.
14.0'-20.0' Gray Silty Sand. Saturated.

T.H. 114
Sta. 451+50 (Approx.), 8'Rt. Existing ℄.
3/7/91



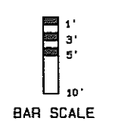
0.0'-0.17' Asphalt (2").
0.17'-1.0' Brown Slightly Silty Sandy Gravel. Base, mostly 1" minus.
1.0'-1.5' Gray Brown Sandy Gravel, Mostly 1.5" minus.
A-1-a (0), LL=NV, PI=NP.
Gravel= 62%, Sand= 30%, Silt= 8%.
1.5'-3.5' Brown Slightly Silty Sand. With Gravel. Fill.
A-3 (0), LL=NV, PI=NP.
Gravel= 16%, Sand= 77%, Silt= 7%.
3.5'-6.0' Brown Organic Silt.
Organic= 8.0%, H.C.= 39.3%.
Gravel= 8%, Sand= 19%, Silt= 73%.
6.0'-15.0' Brown Sand. Dry to damp to 7', wet 7'-8' saturated 8'+.

T.H. 115
Sta. 435+00 (Approx.), 8'Rt. Existing ℄.
3/7/91



0.0'-0.17' Asphalt (2").
0.17'-1.0' Brown Slightly Silty Sandy Gravel, Mostly 1" minus.
1.0'-3.0' Gray Brown Slightly Silty Sandy Gravel, with Cobbles.
Gravel= 57%, Sand= 34%, Silt= 9%.
3.0'-6.0' Brown Organic Sandy Silt, with visible ice.
Organic= 7.7%
Gravel= 9%, Sand= 30%, Silt= 61%.
6.0'-15.0' Brown Sand. Dry to damp to 10', wet 10'-12', saturated 12'+.

*AASHTO Classification may be inappropriate due to Organic content.



BAR SCALE

STATE OF ALASKA
DEPARTMEMT OF TRANSPORTATION
AND
PUBLIC FACILITIES

KENAI SPUR ROAD PHASE-1

TEST HOLE LOGS
TEST HOLES 104-115

SCALE	DESIGNED: T.O.	DRAWN: N.I.	SHEET 5 OF 5
VERT: 1"= 10' HORZ: None	CHECKED:	DATE:	

Kenai Spur Road - Sample Data by Boring Number

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
7	10	163+00	DM&A	1	0.1 ft	2.3%		GP						5%	Sieve
7	10	163+00	DM&A	1	2.0 ft		20	GP							
7	10	163+00	DM&A	1	5.0 ft	25.2%	6	ML			NP			69%	Sieve
7	10	163+00	DM&A	1	10.0 ft	15.1%	20	ML							
7	10	163+00	DM&A	1	15.0 ft	27.6%	17	ML							
7	10	167+43	DM&A	2	0.1 ft	2.4%	grab	GP-GM		18%	17%	1%		6%	Sieve
7	10	167+43	DM&A	2	2.0 ft	2.9%	17	GP							
7	10	167+43	DM&A	2	5.0 ft	17.4%	7	ML							
7	10	167+43	DM&A	2	10.0 ft	24.5%	13	SM							
7	10	167+43	DM&A	2	15.0 ft	28.5%	15	SM							
7	10	171+56	DM&A	3	0.1 ft	3.1%	grab	SP							
7	10	171+56	DM&A	3	2.0 ft	3.1%	58	GP-GM						9%	Sieve
7	10	171+56	DM&A	3	5.0 ft	4.9%	19	GP							
7	10	171+56	DM&A	3	10.0 ft	19.9%	7	ML							
7	10	171+56	DM&A	3	15.0 ft	22.5%	16	ML							
7	10	175+53	DM&A	4	0.1 ft	2.8%	grab	GM							
7	10	175+53	DM&A	4	2.0 ft	3.1%	58	GP-GM							
7	10	175+53	DM&A	4	5.0 ft		39	GP-GM							
7	10	175+53	DM&A	4	10.0 ft	24.5%	20	SM							
7	10	175+53	DM&A	4	15.0 ft	20.6%	24	SM							
8	11	184+50	DM&A	5	2.0 ft	3.9%	11	GP-GM							
8	11	184+50	DM&A	5	5.0 ft	14.4%	10	ML							
8	11	184+50	DM&A	5	10.0 ft	10.9%	31	ML							
8	11	192+94	DM&A	6	0.1 ft	3.4%	grab	GP-GM							
8	11	192+94	DM&A	6	5.0 ft	7.6%	11	SM						16.3%	
8	11	192+94	DM&A	6	10.0 ft	8.4%	18	SP						3%	Sieve
8	11	192+94	DM&A	6	15.0 ft	9.2%	17	SP							
8	11	192+94	DM&A	6	20.0 ft	30.7%	15	ML							
8	11	192+94	DM&A	6	25.0 ft	27.0%	19	ML							
8	11	196+91	DM&A	7	0.1 ft	2.5%	grab	GP-GM							
8	11	196+91	DM&A	7	5.0 ft	9.3%	16	SP-SM						7%	Sieve
8	11	196+91	DM&A	7	10.0 ft	8.1%	19	SP-SM						5.1%	
8	11	196+91	DM&A	7	16.0 ft	23.1%	15	ML							
8	11	196+91	DM&A	7	20.0 ft	30.4%		ML							
8	11	196+91	DM&A	7	21.0 ft	33.6%	10	ML							
8	11	196+91	DM&A	7	25.0 ft	28.3%	9	ML							
8	11	200+80	DM&A	8	0.1 ft	5.7%	grab	GP-GM							
8	11	200+80	DM&A	8	2.0 ft	17.7%	12	ML						61.6%	
8	11	200+80	DM&A	8	5.0 ft	6.5%	9	SP							
8	11	200+80	DM&A	8	10.0 ft	27.2%		ML							
8	11	200+80	DM&A	8	11.0 ft	11.9%	12	SM							
8	11	200+80	DM&A	8	15.0 ft	11.5%	16	SM							
8	11	209+99	DM&A	9	0.1 ft	5.5%	grab	GP							
8	11	209+99	DM&A	9	2.0 ft	5.5%	12	SP							
8	11	209+99	DM&A	9	5.0 ft	6.5%	4	SM							
8	11	209+99	DM&A	9	10.0 ft	5.4%	14	SM							
9	12	218+93	DM&A	10	0.1 ft	2.1%	grab	GP-GM							
9	12	218+93	DM&A	10	2.0 ft	4.1%	13	SP						4%	Sieve
9	12	218+93	DM&A	10	5.0 ft	3.7%	13	SP							
9	12	218+93	DM&A	10	10.0 ft	13.5%	24	SP							
9	12	224+46	DM&A	11	0.1 ft		grab	GP							
9	12	224+46	DM&A	11	2.0 ft	2.7%	17	GP							
9	12	224+46	DM&A	11	5.0 ft	45.6%	9	ML			NP			70%	Sieve
9	12	224+46	DM&A	11	10.0 ft	3.8%	25	SP							
9	12	228+37	DM&A	12	0.1 ft	2.0%	grab	GP-GM							
9	12	228+37	DM&A	12	2.0 ft	2.7%	26	SP							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
9	12	228+37	DM&A	12	5.0 ft	5.2%	20	SP							
9	12	228+37	DM&A	12	10.0 ft	3.7%	24	SP							
9	12	238+97	DM&A	13	5.0 ft	5.8%	16	GM							
9	12	238+97	DM&A	13	10.0 ft	6.4%		SM							
9	12	238+97	DM&A	13	10.5 ft	22.6%	13	ML							
9	12	238+97	DM&A	13	15.0 ft	12.8%	100	SM							
9	12	238+97	DM&A	13	20.0 ft	14.3%	35	SM							
10	13	245+44	DM&A	14	0.1 ft	2.3%	grab	GP-GM							
10	13	245+44	DM&A	14	2.0 ft	4.9%	22	GP-GM							
10	13	245+44	DM&A	14	5.0 ft	8.1%	48	SM						22.8%	
10	13	245+44	DM&A	14	10.0 ft	2.3%		SM							
10	13	245+44	DM&A	14	10.8 ft	5.5%	74	SP							
10	13	255+13	DM&A	15	0.1 ft	4.3%	grab	GP-GM							
10	13	255+13	DM&A	15	2.0 ft	4.4%	72	GP-GM							
10	13	255+13	DM&A	15	5.0 ft	10.2%	27	SM							
10	13	255+13	DM&A	15	10.0 ft	26.1%	13	ML							
10	13	264+93	DM&A	16	0.1 ft	2.4%	grab	GP-GM							
10	13	264+93	DM&A	16	2.0 ft	3.1%	20	GP-GM							
10	13	264+93	DM&A	16	5.0 ft	15.0%	10	SM							
10	13	264+93	DM&A	16	10.0 ft	4.4%	24	SP							
11	14	274+50	DM&A	17	0.1 ft	3.8%	grab	GP-GM						6%	Sieve
11	14	274+50	DM&A	17	2.0 ft	2.6%	18	SP-SM						6.6%	
11	14	274+50	DM&A	17	5.0 ft		53	SP							
11	14	274+50	DM&A	17	10.0 ft			OL							
11	14	274+50	DM&A	17	10.2 ft	5.5%	50	SP							
11	14	285+98	DM&A	18	0.1 ft	2.5%	grab	GP-GM							
11	14	285+98	DM&A	18	2.0 ft	3.8%	16	SM							
11	14	285+98	DM&A	18	5.0 ft	21.0%		SM							
11	14	285+98	DM&A	18	5.5 ft	4.7%	41	SP							
11	14	285+98	DM&A	18	10.0 ft	22.4%	20	SM							
11	14	295+37	DM&A	19	0.1 ft	2.5%	grab	GP-GM							
11	14	295+37	DM&A	19	2.0 ft	4.1%	15	GP-GM							
11	14	295+37	DM&A	19	5.0 ft	20.8%		ML							
11	14	295+37	DM&A	19	5.6 ft	7.4%	16	SM							
11	14	295+37	DM&A	19	10.0 ft	5.7%	32	SP							
12	15	305+23	DM&A	20	0.1 ft	3.1%	grab	GP-GM							
12	15	305+23	DM&A	20	2.0 ft	3.9%	16	GP-GM						11.1%	
12	15	305+23	DM&A	20	5.0 ft	32.6%	38	SM							
12	15	315+53	DM&A	21	0.1 ft	2.8%	grab	GP-GM							
12	15	315+53	DM&A	21	2.0 ft	7.2%	25	GM							
12	15	315+53	DM&A	21	5.0 ft	18.6%	7	ML						76%	Sieve
12	15	315+53	DM&A	21	10.0 ft	8.1%	14	ML							
12	15	319+06	DM&A	22	0.1 ft	2.0%	grab	GP-GM							
12	15	319+06	DM&A	22	2.0 ft	2.1%	31	SP-SM						7.2%	
12	15	319+06	DM&A	22	5.0 ft		26	SP							
12	15	319+06	DM&A	22	10.0 ft	10.2%	9	SM							
12	15	319+06	DM&A	22	15.0 ft	11.8%	19	SM							
12	15	323+70	DM&A	23	0.1 ft	1.8%	grab	GP-GM							
12	15	323+70	DM&A	23	2.0 ft	6.4%	22	SM						34%	Sieve
12	15	323+70	DM&A	23	5.0 ft	6.1%	12	SM						25.0%	
12	15	323+70	DM&A	23	10.0 ft	9.9%	14	SM							
12	15	323+70	DM&A	23	15.0 ft	7.7%	20	SM							
13	16	329+00	DM&A	24	0.1 ft	2.1%	grab	GP-GM							
13	16	329+00	DM&A	24	2.0 ft	3.2%	22	GP-GM							
13	16	329+00	DM&A	24	5.0 ft	5.3%	31	SP							
13	16	329+00	DM&A	24	10.0 ft	3.5%	10	SP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
13	16	339+20	DM&A	25	2.0 ft	2.4%	16	GP-GM						8.0%	
13	16	339+20	DM&A	25	5.0 ft	36.8%	3	SM							
13	16	339+20	DM&A	25	10.0 ft	21.9%	37	SM							
13	16	349+49	DM&A	26	0.1 ft	0.9%	grab	GP-GM							
13	16	349+49	DM&A	26	2.0 ft	2.6%		GP-GM							
13	16	349+49	DM&A	26	2.5 ft	2.3%	11	SP-SM						3%	Sieve
13	16	349+49	DM&A	26	5.0 ft	12.4%	14	SP-SM							
13	16	349+49	DM&A	26	10.0 ft	29.2%	8	ML							
14	17	359+00	DM&A	27	0.1 ft	1.9%	grab	GP-GM							
14	17	359+00	DM&A	27	2.0 ft	2.5%	19	SP							
14	17	359+00	DM&A	27	5.0 ft		18	SP							
14	17	359+00	DM&A	27	10.0 ft	22.7%	8	ML							
14	17	362+52	DM&A	28	0.1 ft	1.3%	grab	GP-GM							
14	17	362+52	DM&A	28	2.0 ft	5.6%	37	GM						14.6%	
14	17	362+52	DM&A	28	5.0 ft	7.1%	38	SP-SM							
14	17	362+52	DM&A	28	10.0 ft	41.9%		ML							
14	17	362+52	DM&A	28	10.3 ft	95.0%		Pt							
14	17	362+52	DM&A	28	10.6 ft	31.6%	12	ML							
14	17	369+52	DM&A	29	0.1 ft	2.7%	grab	GP-GM							
14	17	369+52	DM&A	29	2.0 ft	3.7%	19	GP-GM							
14	17	369+52	DM&A	29	5.0 ft	27.9%	7	ML							
14	17	369+52	DM&A	29	10.0 ft	30.6%	7	ML							
15	18	379+02	DM&A	30	0.1 ft	2.0%	grab	GP-GM							
15	18	379+02	DM&A	30	2.0 ft	3.8%	24	SP							
15	18	379+02	DM&A	30	5.0 ft	10.8%	17	SM							
15	18	379+02	DM&A	30	10.0 ft	29.1%	3	ML							
15	18	384+83	DM&A	31	0.1 ft	3.0%	grab	GP-GM							
15	18	384+83	DM&A	31	2.0 ft	3.4%	54	SP-SM						10%	Sieve
15	18	384+83	DM&A	31	5.0 ft	4.3%	12	SP							
15	18	384+83	DM&A	31	10.0 ft	25.8%	8	ML							
15	18	394+40	DM&A	32	0.1 ft	2.0%	grab	GP-GM							
15	18	394+40	DM&A	32	2.0 ft	3.1%	47	SP-SM						8.0%	
15	18	394+40	DM&A	32	5.0 ft	2.3%	39	SP-SM							
15	18	394+40	DM&A	32	10.0 ft		8	ML							
16	19	404+33	DM&A	33	0.1 ft		grab	GP-GM							
16	19	404+33	DM&A	33	2.0 ft	2.2%	63	GP-GM							
16	19	404+33	DM&A	33	5.0 ft	1.1%	13	GP-GM							
16	19	404+33	DM&A	33	10.0 ft	17.7%	6	SM							
16	19	414+27	DM&A	34	0.1 ft	2.0%	grab	GP-GM							
16	19	414+27	DM&A	34	2.0 ft	4.3%	39	SM							
16	19	414+27	DM&A	34	5.0 ft	6.1%	19	GP							
16	19	414+27	DM&A	34	11.0 ft		3	SM							
16	19	419+51	DM&A	35	0.1 ft	2.2%	grab	GP-GM							
16	19	419+51	DM&A	35	2.0 ft	3.0%	21	GP-GM							
16	19	419+51	DM&A	35	5.0 ft	3.3%	15	GP-GM							
16	19	419+51	DM&A	35	10.0 ft	42.6%		OL							
16	19	419+51	DM&A	35	10.5 ft	175.1%	6	Pt							
16	19	419+51	DM&A	35	15.0 ft	24.6%	20	SM							
16	19	423+58	DM&A	36	0.1 ft	2.7%	grab	GP-GM							
16	19	423+58	DM&A	36	5.0 ft	4.5%	36	SP						4.3%	
16	19	423+58	DM&A	36	10.0 ft	23.3%	18	SP							
16	19	423+58	DM&A	36	15.0 ft	21.5%	24	SP							
16	19	427+62	DM&A	37	0.1 ft	2.3%	grab	GP-GM							
16	19	427+62	DM&A	37	2.0 ft	3.5%	12	GP-GM							
16	19	427+62	DM&A	37	5.0 ft	9.5%	21	SM							
16	19	427+62	DM&A	37	10.0 ft	23.1%	30	SP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
16	19	427+62	DM&A	37	15.0 ft	21.3%	24	SP							
16	19	425+59	DM&A	38	0.1 ft	2.4%	grab	GP-GM							
16	19	425+59	DM&A	38	2.0 ft	2.7%	11	GP-GM							
16	19	425+59	DM&A	38	5.0 ft	7.4%	27	SP-SM						13%	Sieve
16	19	425+59	DM&A	38	10.0 ft	22.0%	18	SP							
16	19	425+59	DM&A	38	15.0 ft	20.1%	18	SP							
16	19	423+21	DM&A	39	0.1 ft	2.1%	grab	GP-GM						5%	Sieve
16	19	423+21	DM&A	39	2.0 ft	2.0%	28	GM							
16	19	423+21	DM&A	39	5.0 ft	4.1%	15	SP						3.0%	
16	19	423+21	DM&A	39	10.0 ft	20.7%	12	SP							
16	19	423+21	DM&A	39	15.0 ft	24.5%	37	SP							
16	19	409+24	DM&A	40	0.1 ft	2.0%	grab	GP-GM							
16	19	409+24	DM&A	40	2.0 ft	3.7%	42	GP-GM							
16	19	409+24	DM&A	40	5.0 ft	11.9%	7	SP							
16	19	409+24	DM&A	40	10.0 ft	235.3%	4	Pt							
16	19	409+24	DM&A	40	15.0 ft	25.1%	34	SM							
15	18	399+20	DM&A	41	0.1 ft	1.7%	grab	GP-GM							
15	18	399+20	DM&A	41	2.0 ft	3.1%	32	SM							
15	18	399+20	DM&A	41	5.0 ft		14	SM							
15	18	399+20	DM&A	41	10.0 ft	22.6%	18	ML							
15	18	390+19	DM&A	42	0.1 ft	2.7%	grab	GP-GM							
15	18	390+19	DM&A	42	2.0 ft	4.4%	63	SM							
15	18	390+19	DM&A	42	5.0 ft	5.7%	18	SM							
15	18	390+19	DM&A	42	10.0 ft	27.4%	9	ML							
15	18	380+37	DM&A	43	0.1 ft	2.3%	grab	GP							
15	18	380+37	DM&A	43	2.0 ft	4.6%	32	GP-GM						11.1%	
15	18	380+37	DM&A	43	5.0 ft	7.8%	17	GP-GM							
15	18	380+37	DM&A	43	10.0 ft	9.4%	20	GP							
14	17	374+56	DM&A	44	0.1 ft	2.3%	grab	GP-GM							
14	17	374+56	DM&A	44	2.0 ft	2.7%		GP-GM							
14	17	374+56	DM&A	44	2.7 ft	2.3%	15	SP							
14	17	374+56	DM&A	44	5.0 ft	20.9%	8	ML					2.51		
14	17	374+56	DM&A	44	10.0 ft	29.4%	10	ML							
14	17	364+67	DM&A	45	0.1 ft	3.1%	grab	GP-GM							
14	17	364+67	DM&A	45	2.0 ft	3.6%		GP-GM						8.5%	
14	17	364+67	DM&A	45	2.8 ft	2.9%	18	SP							
14	17	364+67	DM&A	45	5.0 ft		13	SP							
14	17	364+67	DM&A	45	10.0 ft	32.3%	8	ML							
14	17	354+64	DM&A	46	0.1 ft	2.6%	grab	GP-GM							
14	17	354+64	DM&A	46	2.0 ft	2.8%	14	SP							
14	17	354+64	DM&A	46	5.0 ft	4.6%	15	SM							
14	17	354+64	DM&A	46	10.0 ft	28.7%	9	ML							
13	16	344+30	DM&A	47	0.1 ft	3.1%	grab	GP-GM							
13	16	344+30	DM&A	47	2.0 ft	4.0%	17	GM						13.3%	
13	16	344+30	DM&A	47	5.0 ft	43.3%	14	SM							
13	16	344+30	DM&A	47	10.0 ft	29.1%	19	ML							
13	16	334+97	DM&A	48	0.1 ft	2.2%	grab	GP-GM							
13	16	334+97	DM&A	48	2.0 ft	7.5%	11	GP-GM							
13	16	334+97	DM&A	48	5.0 ft	21.3%	24	SM							
13	16	334+97	DM&A	48	10.0 ft	11.8%	52	GP							
13	16	334+97	DM&A	48	20.0 ft	11.9%	52	GM							
13	16	334+97	DM&A	48	21.0 ft	21.9%		ML							
13	16	325+65	DM&A	49	0.1 ft	3.1%	grab	GP-GM							
13	16	325+65	DM&A	49	2.0 ft	3.9%	19	GP-GM						11%	Sieve
13	16	325+65	DM&A	49	5.0 ft	12.1%	10	SM					2.59		
13	16	325+65	DM&A	49	10.0 ft	17.9%	20	ML							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
12	15	310+24	DM&A	50	0.1 ft	2.1%	grab	GP-GM							
12	15	310+24	DM&A	50	2.0 ft	4.0%	19	SP							
12	15	310+24	DM&A	50	5.0 ft	8.5%	18	ML							
12	15	310+24	DM&A	50	10.0 ft	20.0%	12	ML							
12	15	300+35	DM&A	51	0.1 ft	2.4%	grab	GP-GM							
12	15	300+35	DM&A	51	2.0 ft	5.5%	34	GP-GM							
12	15	300+35	DM&A	51	5.0 ft	4.5%	19	GM							
12	15	300+35	DM&A	51	10.0 ft	3.5%	40	GM							
11	14	290+48	DM&A	52	0.1 ft	2.8%	grab	GP-GM							
11	14	290+48	DM&A	52	2.0 ft	2.2%	12	GP-GM							
11	14	290+48	DM&A	52	5.0 ft	2.8%	29	SP							
11	14	290+48	DM&A	52	10.0 ft	17.7%	18	SM							
11	14	280+42	DM&A	53	0.1 ft	2.9%	grab	GP-GM							
11	14	280+42	DM&A	53	2.0 ft	2.7%	14	GP-GM						8.0%	
11	14	280+42	DM&A	53	5.0 ft	10.9%	17	SM							
11	14	280+42	DM&A	53	10.0 ft	9.6%	8	SM							
11	14	269+25	DM&A	54	0.1 ft	2.6%	grab	GP-GM							
11	14	269+25	DM&A	54	2.0 ft	1.8%	15	GP-GM						6.3%	
11	14	269+25	DM&A	54	5.0 ft	14.9%		ML							
11	14	269+25	DM&A	54	5.2 ft	4.2%	24	SM							
11	14	269+25	DM&A	54	10.0 ft	4.0%	21	SP							
10	13	259+59	DM&A	55	0.1 ft	3.0%	grab	GP-GM						7%	Sieve
10	13	259+59	DM&A	55	2.0 ft	6.9%	13	SM						26.4%	
10	13	259+59	DM&A	55	5.0 ft	24.1%		ML							
10	13	259+59	DM&A	55	5.4 ft	15.0%	7	SM							
10	13	259+59	DM&A	55	10.0 ft	4.1%	33	SM							
10	13	242+33	DM&A	56	0.1 ft	2.5%	grab	GP-GM							
10	13	242+33	DM&A	56	2.0 ft	8.7%	12	SM							
10	13	242+33	DM&A	56	5.2 ft	31.4%	11	ML							
10	13	242+33	DM&A	56	10.0 ft	19.5%	22	ML							
10	13	242+33	DM&A	56	15.0 ft	17.6%		ML							
10	13	242+33	DM&A	56	16.0 ft	21.2%	27	SP							
10	13	242+33	DM&A	56	20.0 ft	24.7%		SM							
10	13	242+33	DM&A	56	20.3 ft	11.7%	100	SM							
9	12	233+69	DM&A	57	0.1 ft	2.4%	grab	GP-GM							
9	12	233+69	DM&A	57	2.0 ft	4.9%	26	SP-SM						7.7%	
9	12	233+69	DM&A	57	5.0 ft	4.7%	18	SP							
9	12	233+69	DM&A	57	10.0 ft	6.6%	23	SP							
9	12	226+40	DM&A	58	0.1 ft	2.9%	grab	GP-GM						9%	Sieve
9	12	226+40	DM&A	58	2.0 ft	3.5%	16	SM							
9	12	226+40	DM&A	58	5.0 ft	28.9%	15	ML							
9	12	226+40	DM&A	58	10.0 ft	4.9%	23	SP							
9	12	222+27	DM&A	59	0.1 ft	3.0%	grab	GPGM						9%	Sieve
9	12	222+27	DM&A	59	2.0 ft	3.1%		SM							
9	12	222+27	DM&A	59	2.3 ft	15.0%	11	SP							
9	12	222+27	DM&A	59	5.0 ft	4.7%	27	SP							
9	12	222+27	DM&A	59	10.0 ft	5.3%	22	SP							
9	12	212+85	DM&A	60	0.1 ft	2.6%	grab	GP-GM							
9	12	212+85	DM&A	60	2.0 ft	2.9%	49	SM							
9	12	212+85	DM&A	60	5.0 ft	2.9%	56	SM							
9	12	212+85	DM&A	60	10.0 ft	5.6%	27	SM							
9	12	212+85	DM&A	60	15.0 ft	10.8%	21	ML							
8	11	205+00	DM&A	61	0.1 ft	2.7%	grab	GP-GM							
8	11	205+00	DM&A	61	2.0 ft	3.5%	24	SP						4%	Sieve
8	11	205+00	DM&A	61	5.0 ft	4.5%	23	SP							
8	11	205+00	DM&A	61	10.0 ft	2.8%	18	SP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
8	11	198+84	DM&A	62	0.1 ft	2.9%	grab	SP-SM							
8	11	198+84	DM&A	62	2.0 ft	2.9%		GP-GM							
8	11	198+84	DM&A	62	2.3 ft	8.2%	20	SM						26.1%	
8	11	198+84	DM&A	62	5.0 ft	20.3%	6	SM							
8	11	198+84	DM&A	62	10.0 ft	31.3%	10	ML		34%	22%	12%		97%	Sieve
8	11	198+84	DM&A	62	15.0 ft	17.7%	22	ML							
8	11	198+84	DM&A	62	20.0 ft	20.5%	20	ML							
8	11	194+92	DM&A	63	0.1 ft	2.9%	grab	GP-GM							
8	11	194+92	DM&A	63	2.0 ft	6.9%		SP-SM							
8	11	194+92	DM&A	63	2.4 ft	5.2%	19	SP-SM							
8	11	194+92	DM&A	63	5.0 ft	10.1%	12	SP-SM							
8	11	194+92	DM&A	63	10.0 ft	5.1%	20	ML							
8	11	194+92	DM&A	63	15.0 ft	8.4%	18	ML							
8	11	194+92	DM&A	63	20.0 ft	8.7%	15	SM							
8	11	194+92	DM&A	63	25.0 ft	26.5%	17	ML							
8	11	190+99	DM&A	64	0.1 ft	3.0%	grab	GP-GM							
8	11	190+99	DM&A	64	5.0 ft	19.5%	9	SM						43%	Sieve
8	11	190+99	DM&A	64	10.0 ft	26.7%	10	SM							
8	11	190+99	DM&A	64	15.0 ft	29.0%	12	ML							
7	10	180+48	DM&A	65	0.1 ft		grab	GP-GM							
7	10	180+48	DM&A	65	2.0 ft	15.0%	15	ML						62.3%	
7	10	180+48	DM&A	65	5.0 ft		9	ML							
7	10	180+48	DM&A	65	10.0 ft	19.4%	24	ML							
7	10	180+48	DM&A	65	15.0 ft	34.1%	7	ML							
7	10	180+48	DM&A	65	20.0 ft	36.4%	17	ML							
7	10	173+56	DM&A	66	0.1 ft		grab	GP							
7	10	173+56	DM&A	66	2.0 ft	3.6%	40	SP							
7	10	173+56	DM&A	66	5.0 ft		24	SP							
7	10	173+56	DM&A	66	10.0 ft	20.4%		ML							
7	10	173+56	DM&A	66	10.6 ft	22.6%	24	SM							
7	10	173+56	DM&A	66	15.0 ft	26.8%		SP							
7	10	173+56	DM&A	66	16.4 ft	27.2%	22	ML							
7	10	169+57	DM&A	67	0.1 ft		grab	GP							
7	10	169+57	DM&A	67	3.0 ft	4.6%	15	GP							
7	10	169+57	DM&A	67	5.0 ft	24.2%	14	ML							
7	10	169+57	DM&A	67	10.0 ft	16.3%	15	ML							
7	10	169+57	DM&A	67	15.0 ft	27.2%	26	SP							
7	10	165+25	DM&A	68	0.1 ft		grab	SP							
7	10	165+25	DM&A	68	2.0 ft	5.1%	18	SP							
7	10	165+25	DM&A	68	5.0 ft		18	SP							
7	10	165+25	DM&A	68	10.0 ft	21.6%	14	SM							
7	10	165+25	DM&A	68	15.0 ft	27.9%	5	SP							
7	10	161+00	DM&A	69	0.1 ft		grab	GP-GM							
7	10	161+00	DM&A	69	2.0 ft	4.7%	29	GP-GM						8.3%	
7	10	161+00	DM&A	69	5.0 ft	41.7%	5	ML						70%	Sieve
7	10	161+00	DM&A	69	10.2 ft	18.5%	17	SP							
7	10	161+00	DM&A	69	15.0 ft	29.6%	25	ML							
7	10	157+30	DM&A	70	0.1 ft		grab	GP-GM							
7	10	157+30	DM&A	70	2.0 ft	3.4%	29	GP-GM						8%	Sieve
7	10	157+30	DM&A	70	5.0 ft	19.6%	11	ML							
7	10	157+30	DM&A	70	10.0 ft	28.9%	8	ML							
7	10	157+30	DM&A	70	15.0 ft		17	SP							
6	9	148+80	DM&A	71	0.1 ft	5.4%	grab	GP-GM						6%	Sieve
6	9	148+80	DM&A	71	2.0 ft	8.0%	18	SP							
6	9	148+80	DM&A	71	5.0 ft	13.3%	13	ML							
6	9	148+80	DM&A	71	10.0 ft	16.1%	18	ML							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
6	9	148+80	DM&A	71	15.0 ft	24.5%	9	ML							
4	7	96+18	DM&A	72	0.1 ft		grab	GM							
4	7	96+18	DM&A	72	2.0 ft	8.0%	12	GM						22.2%	
4	7	96+18	DM&A	72	5.0 ft		48	GM							
4	7	96+18	DM&A	72	10.0 ft	3.0%	100	GM							
4	7	89+00	DM&A	73	0.1 ft	2.6%	grab	GP-GM						7%	Sieve
4	7	89+00	DM&A	73	2.0 ft	2.5%	36	GP-GM							
4	7	89+00	DM&A	73	5.0 ft	10.4%	32	SM							
4	7	89+00	DM&A	73	10.0 ft	2.4%	59	GP							
3	6	82+39	DM&A	74	0.1 ft		grab	GP							
3	6	82+39	DM&A	74	2.0 ft	10.9%	16	SM						32.3%	
3	6	82+39	DM&A	74	5.0 ft	5.6%	24	SP							
3	6	82+39	DM&A	74	10.0 ft	2.0%	75	GP							
3	6	72+85	DM&A	75	0.1 ft		grab								
3	6	72+85	DM&A	75	2.0 ft	3.1%	64	GP							
3	6	72+85	DM&A	75	5.0 ft	3.3%	88	SP							
3	6	72+85	DM&A	75	10.0 ft	1.6%	90	GP							
3	6	78+03	DM&A	76	0.1 ft		grab								
3	6	78+03	DM&A	76	2.0 ft	2.4%	25	GP							
3	6	78+03	DM&A	76	5.0 ft	30.8%	11	ML						70.6%	
3	6	78+03	DM&A	76	10.0 ft		90	SP							
4	7	86+92	DM&A	77	0.1 ft	3.3%	grab	GP-GM						9%	Sieve
4	7	86+92	DM&A	77	5.0 ft	20.1%	24	SM							
4	7	86+92	DM&A	77	10.0 ft	9.9%		SM							
4	7	86+92	DM&A	77	10.5 ft	3.8%	55	SP							
4	7	91+00	DM&A	78	0.1 ft		grab	GP							
4	7	91+00	DM&A	78	2.0 ft	2.9%		GP							
4	7	91+00	DM&A	78	2.6 ft	34.1%	8	ML						76.4%	
4	7	91+00	DM&A	78	5.0 ft	3.2%	39	SP							
4	7	91+00	DM&A	78	10.0 ft		72	SP							
4	7	100+97	DM&A	79	0.1 ft		grab	SP							
4	7	100+97	DM&A	79	2.0 ft	7.4%	58	GP-GM						9%	Sieve
4	7	100+97	DM&A	79	5.0 ft	3.9%	26	SP							
4	7	100+97	DM&A	79	10.0 ft	19.2%		ML							
4	7	100+97	DM&A	79	10.5 ft	2.3%	54	GP-GM							
7	10	155+40	DM&A	80	0.1 ft		grab	GP							
7	10	155+40	DM&A	80	2.0 ft	5.7%		GP							
7	10	155+40	DM&A	80	2.4 ft	19.9%	9	ML						77.5%	
7	10	155+40	DM&A	80	5.0 ft	16.3%	10	ML							
7	10	155+40	DM&A	80	10.0 ft	17.9%	14	SP							
7	10	159+38	DM&A	81	0.1 ft		grab	GP							
7	10	159+38	DM&A	81	2.0 ft	4.1%	39	GM							
7	10	159+38	DM&A	81	5.0 ft	15.2%	9	ML						52.0%	
7	10	159+38	DM&A	81	10.0 ft	348.8%		Pt							
7	10	159+38	DM&A	81	10.7 ft	89.3%	5	OL							
7	10	159+38	DM&A	81	15.0 ft		16	ML							
3	6	62+11	DM&A	82	0.1 ft		grab	GP							
3	6	62+11	DM&A	82	2.0 ft	2.4%	90	GP							
3	6	62+11	DM&A	82	5.0 ft	3.4%	48	SP							
3	6	62+11	DM&A	82	10.0 ft		40	SP							
2	5	51+56	DM&A	83	0.1 ft		grab	GP							
2	5	51+56	DM&A	83	2.0 ft	3.6%	71	GP							
2	5	51+56	DM&A	83	5.0 ft	2.5%	64	GP							
2	5	51+56	DM&A	83	10.0 ft										
2	5	41+97	DM&A	84	0.1 ft		grab	GP							
2	5	41+97	DM&A	84	0.1 ft		grab	GP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
2	5	41+97	DM&A	84	2.0 ft	1.8%	90	GP							
2	5	41+97	DM&A	84	5.0 ft	3.9%	90	SP							
2	5	41+97	DM&A	84	10.0 ft	1.8%	79	GP							
1	4	30+69	DM&A	85	2.0 ft	2.0%	90	GP-GM						6.5%	
1	4	30+69	DM&A	85	5.0 ft	4.1%	90	GP							
1	4	30+69	DM&A	85	10.0 ft		90	GP							
1	4	22+00	DM&A	86	0.1 ft		grab	SP							
1	4	22+00	DM&A	86	2.0 ft	2.5%	92	SP							
1	4	22+00	DM&A	86	5.0 ft	2.4%	90	SP							
1	4	22+00	DM&A	86	10.0 ft	2.0%	90	GP							
1	4	12+95	DM&A	87	0.1 ft		grab	SP							
1	4	12+95	DM&A	87	2.0 ft	2.0%	49	SP-SM						5.8%	
1	4	12+95	DM&A	87	5.0 ft	2.5%	75	GP							
1	4	12+95	DM&A	87	10.0 ft	3.1%	90	SP							
1	4	16+78	DM&A	88	0.1 ft		grab	GP							
1	4	16+78	DM&A	88	2.0 ft	4.7%	53	GP							
1	4	16+78	DM&A	88	5.0 ft	9.3%	32	SP							
1	4	16+78	DM&A	88	10.0 ft		90	SP							
1	4	27+31	DM&A	89	0.2 ft	1.8%	grab	GP						2%	Sieve
1	4	27+31	DM&A	89	2.0 ft	1.9%	64	GP							
1	4	27+31	DM&A	89	5.0 ft	3.4%	67	GP							
2	5	37+13	DM&A	90	0.2 ft		grab	GP							
2	5	37+13	DM&A	90	2.0 ft	2.0%	72	GP							
2	5	37+13	DM&A	90	5.0 ft	3.1%	63	GP							
2	5	37+13	DM&A	90	10.0 ft	1.6%	80	GP							
2	5	47+48	DM&A	91	0.2 ft	2.1%	grab	SP-SM						7.5%	
2	5	47+48	DM&A	91	2.0 ft	2.4%	69	SP							
2	5	47+48	DM&A	91	5.0 ft	3.5%	37	SP							
2	5	47+48	DM&A	91	10.0 ft		67	SP							
2	5	57+10	DM&A	92	0.2 ft	2.2%	grab	GP-GM						6%	Sieve
2	5	57+10	DM&A	92	2.0 ft	4.2%	70	SP							
2	5	57+10	DM&A	92	5.0 ft	3.2%	42	SP					2.70		
2	5	57+10	DM&A	92	10.0 ft	2.1%	90	SP							
3	6	66+93	DM&A	93	0.2 ft		grab	GP							
3	6	66+93	DM&A	93	2.0 ft	5.9%	90	GP							
3	6	66+93	DM&A	93	5.0 ft	1.5%	70	GP							
3	6	66+93	DM&A	93	10.0 ft	2.0%	85	SP							
5	8	114+84	DM&A	94	0.1 ft		grab	SP							
5	8	114+84	DM&A	94	2.0 ft	27.6%	4	ML						85.0%	
5	8	114+84	DM&A	94	5.0 ft	18.3%		SM							
5	8	114+84	DM&A	94	5.5 ft	18.8%	9	SM							
5	8	114+84	DM&A	94	6.0 ft	11.4%		SM							
5	8	114+84	DM&A	94	10.0 ft	17.3%	14	SM							
12	15	317+32	DM&A	95	0.1 ft		grab	SM							
12	15	317+32	DM&A	95	2.0 ft	11.0%	3	SP							
12	15	317+32	DM&A	95	5.0 ft	11.1%	2	SP							
12	15	317+32	DM&A	95	10.0 ft	10.7%	9	SP							
12	15	321+08	DM&A	96	0.1 ft		grab	SM							
12	15	321+08	DM&A	96	2.0 ft	7.1%	23	SP							
12	15	321+08	DM&A	96	5.0 ft	5.5%	8	ML						38%	Sieve
12	15	321+08	DM&A	96	10.0 ft	13.0%	10	SP							
12	15	321+08	DM&A	96	15.0 ft	10.5%	27	SP							
5	8	119+79	DM&A	97	0.1 ft		grab	GP							
5	8	119+79	DM&A	97	2.0 ft		push	ML							
5	8	119+79	DM&A	97	5.0 ft	11.3%	10	SM						32%	Sieve
5	8	119+79	DM&A	97	10.0 ft	11.4%	13	SM							

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
6	9	131+60	DM&A	98	0.1 ft		grab	ML							
6	9	131+60	DM&A	98	5.0 ft	22.8%	14	ML						85.6%	
6	9	131+60	DM&A	98	10.0 ft		16	ML							
6	9	131+60	DM&A	98	15.0 ft	20.2%	24	ML							
6	9	131+60	DM&A	98	20.0 ft	27.9%	15	ML					2.53		
6	9	131+60	DM&A	98	25.0 ft		25	ML							
6	9	131+60	DM&A	98	30.0 ft	18.9%	58	ML						99.4%	
6	9	131+60	DM&A	98	35.0 ft	13.1%	90	ML						44%	Sieve
6	9	131+60	DM&A	98	40.0 ft	3.7%	81	SP							
6	9	146+08	DM&A	99	0.1 ft		grab	ML							
6	9	146+08	DM&A	99	2.0 ft	16.8%	18	ML						81.1%	
6	9	146+08	DM&A	99	5.0 ft	9.2%	17	ML							
6	9	146+08	DM&A	99	10.0 ft		9	ML							
13	16	332+12	DM&A	100	0.1 ft		push	SP-SM							
13	16	332+12	DM&A	100	5.0 ft	7.4%	39	GP							
13	16	332+12	DM&A	100	9.5 ft	16.8%	45	SP							
13	16	329+76	DM&A	101	0.1 ft		push	ML							
13	16	329+76	DM&A	101	5.0 ft	10.7%	22	GP							
13	16	329+76	DM&A	101	10.0 ft	27.4%	60	SP							
13	16	332+23	DM&A	102	0.0 ft		push	SP							
13	16	332+23	DM&A	102	4.0 ft	7.1%	56	GP							
13	16	332+23	DM&A	102	10.0 ft	13.3%	51	SP							
13	16	332+23	DM&A	102	15.0 ft	12.2%	63	SP							
13	16	329+68	DM&A	103	0.0 ft	7.2%	grab	SP-SM						7.7%	
13	16	329+68	DM&A	103	0.0 ft		push	SP							
13	16	329+68	DM&A	103	5.0 ft	56.8%	12	ML			NP				
13	16	329+68	DM&A	103	10.0 ft	11.0%	31	SP							
10	13	247+42	DM&A	104	5.0 ft	13.2%	14	ML							
10	13	247+42	DM&A	104	10.0 ft	10.9%	90	ML							
10	13	248+64	DM&A	105	0.0 ft	22.0%	2	SM						34.1%	
10	13	248+64	DM&A	105	5.0 ft	20.6%	17	SM							
10	13	248+64	DM&A	105	10.0 ft	17.4%	12	SP							
9	12	238+74	DM&A	106	0.0 ft		push	ML							
9	12	238+74	DM&A	106	5.0 ft	36.5%	13	ML							
9	12	238+74	DM&A	106	10.0 ft	17.0%	25	SP							
9	12	212+90	DM&A	107	0.0 ft	1.5%	18	GP						2.3%	
9	12	212+90	DM&A	107	4.0 ft	25.3%	10	SP							
9	12	212+90	DM&A	107	10.0 ft	21.3%		SP							
9	12	212+90	DM&A	107	10.6 ft	21.9%	10	ML							
8	11	204+39	DM&A	108	0.0 ft		push	Pt							
8	11	204+39	DM&A	108	2.0 ft		push	SM							
8	11	204+39	DM&A	108	5.0 ft	14.7%	10	SM							
8	11	204+39	DM&A	108	10.0 ft	11.5%	10	SP							
9	12	212+64	DM&A	109	0.0 ft	9.5%	4	SM						25%	Sieve
9	12	212+64	DM&A	109	5.0 ft	12.8%	13	SM							
9	12	212+64	DM&A	109	10.0 ft	17.0%	12	SM							
9	12	212+64	DM&A	109	15.0 ft	21.6%	13	SP							
8	11	185+82	DM&A	110	0.0 ft	60.8%	2	OL			NP			85.8%	
8	11	185+82	DM&A	110	4.0 ft	25.2%	7	ML							
8	11	185+82	DM&A	110	9.0 ft	9.6%	90	SP							
8	11	185+82	DM&A	110	14.0 ft	22.4%	76	SP							
8	11	183+77	DM&A	111	0.0 ft		2	SP							
8	11	183+77	DM&A	111	2.5 ft	14.1%	19	ML							
8	11	183+77	DM&A	111	5.0 ft	7.6%	30	ML							
8	11	183+77	DM&A	111	10.0 ft	9.0%	41	SP							
8	11	183+77	DM&A	111	15.0 ft	23.2%	28	SP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
6	9	148+76	DM&A	112	0.0 ft		2	Pt							
6	9	148+76	DM&A	112	2.0 ft	34.9%	4	ML							
6	9	148+76	DM&A	112	5.0 ft	37.5%		ML							
6	9	148+76	DM&A	112	5.7 ft	26.1%	6	SM							
6	9	148+76	DM&A	112	10.0 ft	27.2%	10	ML							
6	9	148+60	DM&A	113	7.0 ft	21.0%	14	ML						64.4%	
6	9	148+60	DM&A	113	10.0 ft	29.1%	13	ML							
6	9	148+60	DM&A	113	15.0 ft		22	ML							
6	9	143+90	DM&A	114	0.0 ft		4	ML							
6	9	143+90	DM&A	114	5.0 ft	17.5%		SM						26%	Sieve
6	9	143+90	DM&A	114	5.5 ft	17.2%	15	ML							
6	9	143+90	DM&A	114	10.0 ft	35.6%	9	ML							
6	9	141+94	DM&A	115	0.0 ft		5	ML							
6	9	141+94	DM&A	115	5.0 ft	16.3%	17	ML						64.1%	
6	9	141+94	DM&A	115	10.0 ft	31.0%	11	ML							
6	9	141+94	DM&A	115	15.0 ft		16	ML							
6	9	140+06	DM&A	116	0.0 ft		5	ML							
6	9	140+06	DM&A	116	5.0 ft	13.7%	22	ML							
6	9	140+06	DM&A	116	9.5 ft	35.8%	7	ML							
6	9	140+06	DM&A	116	14.5 ft	30.1%	15	ML							
6	9	137+65	DM&A	117	0.0 ft		3	ML							
6	9	137+65	DM&A	117	4.5 ft	18.6%	10	ML							
6	9	137+65	DM&A	117	9.5 ft	29.4%	14	ML					2.60	71%	Sieve
6	9	137+65	DM&A	117	14.5 ft	35.4%	10	ML							
6	9	137+65	DM&A	117	19.5 ft	35.5%	19	ML							
6	9	135+83	DM&A	118	0.0 ft		3	ML							
6	9	135+83	DM&A	118	4.0 ft	15.0%	13	ML							
6	9	135+83	DM&A	118	9.0 ft	20.6%	13	ML		29%	19%	10%			
6	9	135+83	DM&A	118	14.0 ft	32.3%	11	ML							
6	9	135+83	DM&A	118	19.0 ft	38.5%	11	ML						96.6%	
6	9	135+83	DM&A	118	24.0 ft	31.6%	18	ML							
6	9	135+83	DM&A	118	29.0 ft	21.1%	67	ML							
6	9	133+72	DM&A	119	0.0 ft		3	ML							
6	9	133+72	DM&A	119	5.0 ft	19.8%	13	ML							
6	9	133+72	DM&A	119	9.5 ft		push	ML							
6	9	133+72	DM&A	119	14.5 ft	37.4%	18	ML						96.7%	
6	9	133+72	DM&A	119	19.5 ft	25.7%	14	ML							
6	9	133+72	DM&A	119	24.5 ft	35.3%	18	ML						95%	Sieve
6	9	133+72	DM&A	119	29.5 ft	7.8%	86	SM						22%	Sieve
6	9	133+72	DM&A	119	34.5 ft	14.0%	76	ML							
5	8	129+31	DM&A	120	0.0 ft	46.3%	2	ML						60.0%	
5	8	129+31	DM&A	120	4.0 ft	17.0%		ML							
5	8	129+31	DM&A	120	4.5 ft	17.7%	16	SM							
5	8	129+31	DM&A	120	9.0 ft	23.6%	24	SP							
5	8	129+31	DM&A	120	14.0 ft	12.4%	78	SP							
5	8	128+00	DM&A	121	0.0 ft		grab	ML							
5	8	128+00	DM&A	121	5.0 ft	14.9%	23	ML							
5	8	128+00	DM&A	121	10.0 ft	23.7%	10	ML						86.7%	
5	8	128+00	DM&A	121	15.0 ft	9.1%	26	SM							
5	8	128+00	DM&A	121	20.0 ft	9.8%		SP							
5	8	128+00	DM&A	121	20.4 ft	15.7%	26	ML							
5	8	128+00	DM&A	121	25.0 ft	9.4%	66	ML						42%	Sieve
5	8	128+00	DM&A	121	30.0 ft	4.1%	76	SP							
5	8	126+50	DM&A	122	0.0 ft		2	ML							
5	8	126+50	DM&A	122	4.0 ft	16.1%	22	ML							
5	8	126+50	DM&A	122	9.0 ft	22.1%	26	ML						37.3%	

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
5	8	126+50	DM&A	122	14.5 ft	12.6%	40	SM							
5	8	126+50	DM&A	122	14.9 ft	2.8%		SP							
5	8	126+50	DM&A	122	19.0 ft		70	SP							
5	8	124+75	DM&A	123	0.0 ft		2	ML							
5	8	124+75	DM&A	123	4.5 ft	17.4%	10	SM						13.7%	
5	8	124+75	DM&A	123	9.5 ft	10.4%	26	SP							
5	8	124+75	DM&A	123	14.5 ft	6.7%	34	SP							
5	8	109+88	DM&A	124	0.0 ft		3	ML							
5	8	109+88	DM&A	124	4.5 ft	21.1%	8	ML		36%	32%	4%			
5	8	109+88	DM&A	124	9.5 ft	17.9%	28	SP							
5	8	108+19	DM&A	125	0.0 ft		2	ML							
5	8	108+19	DM&A	125	4.5 ft	30.5%	8	ML						73.2%	
5	8	108+19	DM&A	125	9.5 ft	19.7%	12	SP							
5	8	108+19	DM&A	125	14.5 ft	15.9%	45	ML							
5	8	106+13	DM&A	126	0.0 ft		2	ML							
5	8	106+13	DM&A	126	4.5 ft	23.5%		ML							
5	8	106+13	DM&A	126	5.0 ft	19.7%	8	SP							
5	8	106+13	DM&A	126	9.5 ft	4.8%	80	GP							
5	8	106+13	DM&A	126	14.5 ft	5.0%	66	SP							
17	20	433+83	DOTPF	1	5.0 ft			SP-SM						8%	Sieve
17	20	436+19	DOTPF	2	4.0 ft	6.0%		SM						18%	Sieve
17	20	438+60	DOTPF	3	1.5 ft	29.1%		ML	4.5%						
17	20	438+60	DOTPF	3	4.0 ft	4.6%		SP-SM						8%	Sieve
17	20	441+80	DOTPF	4	4.5 ft			SP-SM						9%	Sieve
17	20	447+60	DOTPF	6	3.5 ft	22.0%		SP-SM						8%	Sieve
17	20	449+70	DOTPF	7	2.0 ft			SP-SM	2.0%					12%	Sieve
17	20	451+50	DOTPF	8	3.0 ft	3.8%		SP-SM							
17	20	454+00	DOTPF	9	2.5 ft			SP-SM						6%	Sieve
18	22	457+60	DOTPF	10	3.0 ft	4.7%		SP							
18	22	466+80	DOTPF	13	2.5 ft	3.9%		SP-SM						11%	Sieve
18	22	468+80	DOTPF	14	7.0 ft			SP-SM						6%	Sieve
18	22	474+20	DOTPF	16	2.0 ft	3.7%		SP-SM	1.6%					9%	Sieve
18	22	478+50	DOTPF	18	3.5 ft			SP-SM						6%	Sieve
18	24	480+00	DOTPF	19	3.5 ft	6.0%		SM						14%	Sieve
19	25	484+60	DOTPF	20	2.0 ft			SP-SM	1.8%					6%	Sieve
19	25	490+20	DOTPF	22	7.0 ft	14.3%		SP-SM						6%	Sieve
19	25	493+00	DOTPF	23	4.0 ft			SP						4%	Sieve
19	25	497+50	DOTPF	25	2.5 ft	5.7%		SP-SM						6%	Sieve
19	25	501+60	DOTPF	26	4.0 ft			SP-SM	1.8%					5%	Sieve
19	25	506+05	DOTPF	28	2.0 ft	20.9%		ML	3.5%						
19	25	506+05	DOTPF	28	3.0 ft	3.1%		SP-SM						5%	Sieve
20	28	509+80	DOTPF	29	3.0 ft			SP-SM	1.8%					5%	Sieve
20	28	515+55	DOTPF	31	2.0 ft	17.9%		ML	3.7%						
20	28	515+55	DOTPF	31	4.0 ft	4.4%		SP-SM						8%	Sieve
20	28	518+00	DOTPF	32	4.5 ft			SP-SM						5%	Sieve
20	28	523+90	DOTPF	34	5.0 ft	7.6%		SP							
20	28	526+90	DOTPF	35	3.0 ft	5.9%		SP							
20	28	526+90	DOTPF	35	5.0 ft			SP-SM	2.0%					6%	Sieve
21	31	535+00	DOTPF	38	2.0 ft	5.6%		SP							
21	31	538+00	DOTPF	39	3.5 ft			SP						4%	Sieve
21	31	544+00	DOTPF	41	2.5 ft	16.0%		ML							
21	31	544+00	DOTPF	41	3.5 ft	3.7%		SP-SM						8%	Sieve
21	31	547+00	DOTPF	42	2.5 ft			SP						4%	Sieve
21	31	553+00	DOTPF	44	3.0 ft	3.7%		SP-SM						6%	Sieve
21	31	556+00	DOTPF	45	3.5 ft	3.9%		SP-SM						6%	Sieve
21	31	559+00	DOTPF	46	4.0 ft			SP						4%	Sieve

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
22	34	562+00	DOTPF	47	3.5 ft	3.9%		SP							
22	33	568+00	DOTPF	49	6.0 ft			SP						3%	Sieve
22	34	571+00	DOTPF	51	5.0 ft	7.1%	3	SP							
22	34	571+00	DOTPF	51	10.0 ft	8.5%	4	SP							
22	34	561+00	DOTPF	52	5.0 ft	5.3%	8	SP						4%	Sieve
22	34	561+00	DOTPF	52	10.0 ft	12.0%	15	SP						4%	Sieve
21	32	556+00	DOTPF	53	5.0 ft	3.1%	17	SP						4%	Sieve
21	32	556+00	DOTPF	53	10.0 ft	23.6%	24	SP-SM						5%	Sieve
21	32	551+00	DOTPF	54	5.0 ft	4.7%	21	SP-SM						5%	Sieve
21	32	551+00	DOTPF	54	10.0 ft	19.6%	20	SP							
21	32	546+00	DOTPF	55	5.0 ft	3.9%	19	SP						4%	Sieve
21	32	546+00	DOTPF	55	10.0 ft	35.7%	18	SP-SM	7.7%					5%	Sieve
21	32	541+00	DOTPF	56	5.0 ft	12.8%	2	SM						22%	Sieve
21	32	541+00	DOTPF	56	10.0 ft		10	SP-SM						5%	Sieve
21	32	537+50	DOTPF	57	5.0 ft	3.7%	31	SP						4%	Sieve
21	32	537+50	DOTPF	57	10.0 ft		10	SP-SM						7%	Sieve
20	30	533+25	DOTPF	58	5.0 ft	22.1%	14	SP						4%	Sieve
20	30	533+25	DOTPF	58	10.0 ft		39	SP-SM						5%	Sieve
20	29	528+80	DOTPF	67	5.0 ft	4.6%	12	SP						4%	Sieve
20	29	528+80	DOTPF	67	10.0 ft	19.7%	18	SP						4%	Sieve
20	29	523+90	DOTPF	68	5.0 ft	5.5%	8	SP						4%	Sieve
20	29	523+90	DOTPF	68	10.0 ft		8	SP						4%	Sieve
20	29	518+00	DOTPF	69	5.0 ft	4.8%	14	SP-SM						5%	Sieve
20	29	518+00	DOTPF	69	10.0 ft		16	SP						4%	Sieve
20	29	513+70	DOTPF	70	5.0 ft	7.7%	12	SP-SM						5%	Sieve
20	29	513+70	DOTPF	70	10.0 ft		14	SP						4%	Sieve
19	27	508+20	DOTPF	71	5.0 ft	3.8%	17	SP-SM						5%	Sieve
19	27	508+20	DOTPF	71	10.0 ft		16	SP-SM						6%	Sieve
19	27	503+40	DOTPF	72	5.0 ft	6.1%	10	SP-SM						6%	Sieve
19	27	503+40	DOTPF	72	10.0 ft		10	SP						4%	Sieve
19	26	498+10	DOTPF	73	5.0 ft	4.1%	15	SP-SM						5%	Sieve
19	26	498+10	DOTPF	73	10.0 ft		17	SP						4%	Sieve
19	26	495+75	DOTPF	74	5.0 ft	6.0%	20	SP						4%	Sieve
19	26	495+75	DOTPF	74	10.0 ft		10	SP						3%	Sieve
19	26	490+70	DOTPF	75	5.0 ft	8.8%	30	SP						4%	Sieve
19	26	490+70	DOTPF	75	10.0 ft		14	SP						3%	Sieve
19	26	485+80	DOTPF	76	5.0 ft	16.1%	29	SP						4%	Sieve
19	26	485+80	DOTPF	76	10.0 ft		13	SP-SM						5%	Sieve
18	24	478+60	DOTPF	77	5.0 ft	4.5%	18	SP						4%	Sieve
18	24	478+60	DOTPF	77	10.0 ft		12	SP						3%	Sieve
18	23	473+60	DOTPF	78	5.0 ft	2.3%	11	SP						3%	Sieve
18	23	473+60	DOTPF	78	10.0 ft		15	SP						3%	Sieve
18	23	468+30	DOTPF	79	5.0 ft	16.0%	13	SP						3%	Sieve
18	23	468+30	DOTPF	79	10.0 ft		21	SP						4%	Sieve
18	23	463+65	DOTPF	80	5.0 ft		11	SP							
18	23	463+65	DOTPF	80	10.0 ft		21	SP							
18	23	458+50	DOTPF	81	5.0 ft	22.0%	15	SP						3%	Sieve
18	23	458+50	DOTPF	81	10.0 ft		26	SP							
17	21	453+75	DOTPF	82	5.0 ft	10.1%	20	SP						3%	Sieve
17	21	453+75	DOTPF	82	10.0 ft		7	SP							
17	21	449+00	DOTPF	83	5.0 ft		8	SP						3%	Sieve
17	21	449+00	DOTPF	83	10.0 ft		9	SP							
17	21	444+40	DOTPF	84	5.0 ft	6.9%	16	SP						3%	Sieve
17	21	444+40	DOTPF	84	10.0 ft		6	SP-SM						5%	Sieve
17	21	439+00	DOTPF	85	5.0 ft		8	SP							
17	21	439+00	DOTPF	85	10.0 ft		9	SP							

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P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
17	21	434+20	DOTPF	86	5.0 ft	4.7%	16	SP							
17	21	434+20	DOTPF	86	10.0 ft		13	SP							
16	19	428+50	DOTPF	87	5.0 ft		10	SP							
16	19	428+50	DOTPF	87	10.0 ft		15	SP							
18	24	459+50	DOTPF	88	2.0 ft	202.4%		Pt							
18	22	463+55	DOTPF	89	2.0 ft	513.8%		Pt							
18	24	463+75	DOTPF	90	2.0 ft	175.4%		Pt							
20	29	532+15	DOTPF	92	2.0 ft			Pt							
20	29	532+15	DOTPF	92	5.0 ft			Pt							
22	33	573+00	DOTPF	93	0.0 ft	3.9%		GP-GM						10%	Sieve
22	33	573+00	DOTPF	93	4.0 ft	26.1%		SP-SM	5.1%					10%	Sieve
22	33	573+00	DOTPF	93	4.0 ft			SP-SM						9%	Sieve
22	33	573+00	DOTPF	93	6.5 ft			SP-SM							
22	33	561+00	DOTPF	94	0.2 ft	2.6%		GP-GM						5%	Sieve
22	33	561+00	DOTPF	94	2.0 ft	3.4%		SP-SM						7%	Sieve
22	33	561+00	DOTPF	94	5.0 ft			GP-GM						7%	Sieve
21	32	545+00	DOTPF	95	0.2 ft	2.9%		GP-GM							
21	32	545+00	DOTPF	95	0.8 ft	3.4%		SP-SM						11%	Sieve
21	32	545+00	DOTPF	95	2.0 ft	6.1%		SM						18%	Sieve
21	32	540+00	DOTPF	96	0.2 ft	2.8%		GP-GM						10%	Sieve
21	32	540+00	DOTPF	96	1.0 ft	4.5%		SP-SM						9%	Sieve
21	32	540+00	DOTPF	96	2.0 ft	5.1%		SP-SM						11%	Sieve
21	32	535+00	DOTPF	97	0.2 ft	2.0%		GP							
21	32	535+00	DOTPF	97	1.5 ft	4.7%		SP-SM						11%	Sieve
20	28	530+90	DOTPF	99	0.5 ft	3.7%		GP-GM						9%	Sieve
20	28	530+90	DOTPF	99	1.5 ft	3.4%		SP-SM						6%	Sieve
20	28	530+90	DOTPF	99	4.0 ft	4.1%		SP-SM						12%	Sieve
20	29	525+60	DOTPF	100	0.2 ft	3.1%		GP-GM						7%	Sieve
20	29	525+60	DOTPF	100	1.0 ft	2.3%		SP-SM						7%	Sieve
20	29	525+60	DOTPF	100	4.0 ft			SP-SM						10%	Sieve
20	29	515+55	DOTPF	101	0.3 ft	4.0%		GP-GM						10%	Sieve
20	29	515+55	DOTPF	101	1.5 ft	3.1%		SP-SM						8%	Sieve
20	29	515+55	DOTPF	101	8.0 ft			SP							
20	29	511+00	DOTPF	102	0.2 ft	3.8%		GP-GM						9%	Sieve
20	29	511+00	DOTPF	102	1.5 ft	3.7%		SP-SM						8%	Sieve
20	29	511+00	DOTPF	102	5.0 ft	15.6%		ML						46%	Sieve
19	26	505+05	DOTPF	103	0.1 ft	2.7%		GP-GM						9%	Sieve
19	26	505+05	DOTPF	103	1.0 ft	4.3%		SP-SM						9%	Sieve
19	26	505+05	DOTPF	103	3.5 ft			ML	7.6%					70%	Sieve
19	26	502+10	DOTPF	104	0.2 ft	2.9%		GP-GM						9%	Sieve
19	26	502+10	DOTPF	104	2.0 ft	3.3%		SP-SM						10%	Sieve
19	26	502+10	DOTPF	104	4.0 ft			GP-GM						9%	Sieve
19	27	497+50	DOTPF	105	0.2 ft	37.6%		GM							
19	27	497+50	DOTPF	105	1.5 ft			SP-SM						10%	Sieve
19	27	497+50	DOTPF	105	6.0 ft			SP-SM						8%	Sieve
19	27	492+60	DOTPF	106	0.1 ft			GP-GM						11%	Sieve
19	27	492+60	DOTPF	106	1.3 ft			SP-SM						8%	Sieve
19	27	492+60	DOTPF	106	4.5 ft	19.6%		ML	4.5%					38%	Sieve
19	26	487+70	DOTPF	107	0.2 ft			GP-GM						11%	Sieve
19	26	487+70	DOTPF	107	1.5 ft			SP-SM						8%	Sieve
18	23	480+30	DOTPF	108	0.2 ft			GP-GM						11%	Sieve
18	23	480+30	DOTPF	108	1.4 ft			SP-SM						11%	Sieve
18	23	476+60	DOTPF	109	0.1 ft			GP-GM						9%	Sieve
18	23	476+60	DOTPF	109	1.5 ft			SP-SM						9%	Sieve
18	23	476+60	DOTPF	109	3.8 ft			ML	7.4%					52%	Sieve
18	23	470+15	DOTPF	110	0.1 ft			GP-GM						8%	Sieve

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Plate	Station	by	Boring	Top	Moisture	N /ft	USCS*	OLI	LL	PL	PI	Gs	#200	Sieve
18	23	470+15	DOTPF	110	4.5 ft			OL	9.6%					57%	Sieve
18	24	466+50	DOTPF	111	0.1 ft			GP-GM						10%	Sieve
18	24	466+50	DOTPF	111	2.0 ft			SP-SM						8%	Sieve
18	23	464+75	DOTPF	112	0.2 ft			GP-GM						10%	Sieve
18	23	464+75	DOTPF	112	2.0 ft			SM						15%	Sieve
18	23	459+50	DOTPF	113	0.2 ft			GP-GM						11%	Sieve
18	23	459+50	DOTPF	113	2.0 ft			SP-SM						10%	Sieve
18	23	459+50	DOTPF	113	3.5 ft			SP-SM						9%	Sieve
17	21	451+70	DOTPF	114	0.2 ft			GP-GM						8%	Sieve
17	21	451+70	DOTPF	114	1.5 ft			SP-SM						7%	Sieve
17	21	451+70	DOTPF	114	3.5 ft	39.3%		ML	8.0%					73%	Sieve
17	21	435+10	DOTPF	115	0.2 ft			GP-GM						9%	Sieve
17	21	435+10	DOTPF	115	3.0 ft			ML	7.7%					61%	Sieve
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
			Count =	741	741	582	492		17	4	4	4	5	216	167

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.

* USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Boring for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
7	163+00	DM&A	1	0.1 ft	Fill	paved	2.3%	GP	100%	95%	83%	59%	48%	33%	24%	19%	14%		9%	7%	4.9%		
7	167+43	DM&A	2	0.1 ft	Fill	paved	2.4%	GP-GM		100%	94%	78%	69%	46%	33%	23%	16%		10%	7%	5.7%	4%	
7	171+56	DM&A	3	2.0 ft	Fill	paved	3.1%	GP-GM			100%	86%	79%	60%	44%	34%	26%		18%	13%	9.2%		
11	274+50	DM&A	17	0.1 ft	Fill	paved	3.8%	GP-GM	100%	97%	97%	78%	64%	41%	28%	21%	16%		11%	8%	5.6%		
13	349+49	DM&A	26	2.5 ft	Fill	paved	2.3%	SP-SM		100%	97%	93%	90%	80%	72%	66%	54%		24%	8%	3.3%		
16	423+21	DM&A	39	0.1 ft	Fill	paved	2.1%	GP-GM	100%	93%	90%	70%	60%	39%	27%	21%	16%		10%	7%	5.1%		
13	325+65	DM&A	49	2.0 ft	Fill	paved	3.9%	GP-GM	100%	95%	81%	71%	63%	51%	43%	38%	33%		27%	23%	11.2%	3%	
10	259+59	DM&A	55	0.1 ft	Fill	paved	3.0%	GP-GM	100%	98%	91%	75%	66%	51%	39%	30%	21%		14%	10%	7.4%		
9	226+40	DM&A	58	0.1 ft	Fill	paved	2.9%	GP-GM	100%	98%	95%	75%	67%	51%	39%	32%	24%		16%	11%	8.7%		
9	222+27	DM&A	59	0.1 ft	Fill	paved	3.0%	GPGM		100%	96%	78%	67%	50%	39%	32%	25%		17%	12%	9.4%		
8	205+00	DM&A	61	2.0 ft	Fill	paved	3.5%	SP			100%	99%	98%	96%	95%	94%	83%		39%	12%	4.1%		
7	157+30	DM&A	70	2.0 ft	Fill	paved	3.4%	GP-GM	100%	94%	94%	83%	75%	57%	43%	32%	24%		16%	11%	7.9%		
6	148+80	DM&A	71	0.1 ft	Fill	paved	5.4%	GP-GM		100%	94%	78%	68%	50%	36%	26%	18%		11%	8%	5.6%		
4	89+00	DM&A	73	0.1 ft	Fill	paved	2.6%	GP-GM	100%	95%	85%	60%	54%	41%	31%	25%	20%		14%	10%	7.1%		
4	86+92	DM&A	77	0.1 ft	Fill	paved	3.3%	GP-GM	100%	96%	93%	75%	69%	53%	40%	32%	24%		17%	12%	9.4%		
4	100+97	DM&A	79	2.0 ft	Fill	paved	7.4%	GP-GM		100%	92%	81%	72%	60%	52%	46%	37%		20%	12%	8.7%		
1	27+31	DM&A	89	0.2 ft	Fill	paved	1.8%	GP		100%	96%	75%	61%	36%	21%	13%	9%		5%	3%	1.7%		
2	57+10	DM&A	92	0.2 ft	Fill	paved	2.2%	GP-GM		100%	95%	75%	62%	42%	29%	21%	15%		10%	8%	6.3%		
22	573+00	DOTPF	93	0.0 ft	Fill	paved	3.9%	GP-GM			100%	94%	84%	62%	43%		26%	21%			10.0%		
22	561+00	DOTPF	94	0.2 ft	Fill	paved	2.6%	GP-GM		100%	97%	85%	73%	50%	35%		18%	14%			5.0%		
22	561+00	DOTPF	94	2.0 ft	Fill	paved	3.4%	SP-SM			100%	99%	98%	95%	90%		67%	44%			7.0%		
21	545+00	DOTPF	95	0.8 ft	Fill	paved	3.4%	SP-SM	100%	99%	98%	94%	89%	72%	56%		39%	30%			11.0%		
21	545+00	DOTPF	95	2.0 ft	Fill	paved	6.1%	SM				100%	99%	95%	91%		72%	53%			18.0%		
21	540+00	DOTPF	96	0.2 ft	Fill	paved	2.8%	GP-GM			100%	93%	87%	67%	49%		31%	24%			10.0%		
21	540+00	DOTPF	96	1.0 ft	Fill	paved	4.5%	SP-SM		100%	98%	94%	92%	85%	78%		56%	37%			9.0%		
21	540+00	DOTPF	96	2.0 ft	Fill	paved	5.1%	SP-SM		100%	99%	98%	96%	92%	86%		62%	43%			11.0%		
21	535+00	DOTPF	97	1.5 ft	Fill	paved	4.7%	SP-SM			100%	99%	97%	91%	84%		57%	38%			11.0%		
20	530+90	DOTPF	99	0.5 ft	Fill	paved	3.7%	GP-GM	100%	99%	96%	89%	81%	64%	47%		26%	21%			9.0%		
20	530+90	DOTPF	99	1.5 ft	Fill	paved	3.4%	SP-SM			100%	98%	98%	95%	91%		50%	32%			6.0%		
20	530+90	DOTPF	99	4.0 ft	Fill	paved	4.1%	SP-SM		100%	97%	93%	88%	76%	65%		46%	32%			12.0%		
20	525+60	DOTPF	100	0.2 ft	Fill	paved	3.1%	GP-GM			100%	95%	87%	63%	43%		24%	18%			7.0%		
20	525+60	DOTPF	100	1.0 ft	Fill	paved	2.3%	SP-SM			100%	98%	96%	86%	77%		56%	34%			7.0%		
20	525+60	DOTPF	100	4.0 ft	Fill	paved		SP-SM			100%	90%	93%	54%	72%		56%	35%			10.0%		
20	515+55	DOTPF	101	0.3 ft	Fill	paved	4.0%	GP-GM			100%	93%	85%	61%	41%		26%	21%			10.0%		
20	515+55	DOTPF	101	1.5 ft	Fill	paved	3.1%	SP-SM		100%	99%	99%	98%	92%	85%		55%	33%			8.0%		
20	511+00	DOTPF	102	0.2 ft	Fill	paved	3.8%	GP-GM		100%	99%	96%	88%	66%	45%		24%	19%			9.0%		
20	511+00	DOTPF	102	1.5 ft	Fill	paved	3.7%	SP-SM			100%	99%	97%	92%	86%		62%	39%			8.0%		
19	505+05	DOTPF	103	0.1 ft	Fill	paved	2.7%	GP-GM		100%	99%	88%	77%	55%	37%		21%	17%			9.0%		
19	505+05	DOTPF	103	1.0 ft	Fill	paved	4.3%	SP-SM			100%	96%	93%	84%	75%		52%	36%			9.0%		
19	502+10	DOTPF	104	0.2 ft	Fill	paved	2.9%	GP-GM		100%	98%	90%	81%	59%	41%		23%	18%			9.0%		
19	502+10	DOTPF	104	2.0 ft	Fill	paved	3.3%	SP-SM			100%	96%	91%	78%	64%		41%	29%			10.0%		
19	497+50	DOTPF	105	1.5 ft	Fill	paved		SP-SM			100%	97%	94%	86%	78%		57%	38%			10.0%		
19	492+60	DOTPF	106	0.1 ft	Fill	paved		GP-GM	100%	99%	98%	89%	81%	61%	48%		28%	22%			11.0%		

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Boring for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
19	492+60	DOTPF	106	1.3 ft	Fill	paved		SP-SM			100%	98%	96%	89%	81%		58%	38%			8.0%		
19	487+70	DOTPF	107	0.2 ft	Fill	paved		GP-GM		100%	99%	91%	82%	60%	45%		26%	21%			11.0%		
19	487+70	DOTPF	107	1.5 ft	Fill	paved		SP-SM			100%	96%	92%	83%	74%		51%	34%			8.0%		
18	480+30	DOTPF	108	0.2 ft	Fill	paved		GP-GM		100%	98%	91%	83%	63%	48%		28%	22%			11.0%		
18	480+30	DOTPF	108	1.4 ft	Fill	paved		SP-SM			100%	96%	93%	83%	74%		56%	40%			11.0%		
18	476+60	DOTPF	109	0.1 ft	Fill	paved		GP-GM		100%	99%	89%	80%	58%	43%		24%	19%			9.0%		
18	476+60	DOTPF	109	1.5 ft	Fill	paved		SP-SM			100%	98%	95%	86%	79%		58%	39%			9.0%		
18	470+15	DOTPF	110	0.1 ft	Fill	paved		GP-GM	100%	98%	94%	81%	71%	49%	38%		23%	17%			8.0%		
18	466+50	DOTPF	111	0.1 ft	Fill	paved		GP-GM	100%	99%	98%	89%	80%	59%	45%		26%	20%			10.0%		
18	466+50	DOTPF	111	2.0 ft	Fill	paved		SP-SM			100%	97%	96%	92%	86%		64%	42%			8.0%		
18	464+75	DOTPF	112	0.2 ft	Fill	paved		GP-GM		100%	98%	88%	79%	58%	47%		30%	24%			10.0%		
18	464+75	DOTPF	112	2.0 ft	Fill	paved		SM			100%	98%	96%	92%	88%		68%	45%			15.0%		
18	459+50	DOTPF	113	0.2 ft	Fill	paved		GP-GM		100%	98%	86%	76%	53%	41%		26%	21%			11.0%		
18	459+50	DOTPF	113	2.0 ft	Fill	paved		SP-SM	100%	95%	90%	81%	75%	64%	57%		43%	32%			10.0%		
18	459+50	DOTPF	113	3.5 ft	Fill	paved		SP-SM		100%	99%	96%	93%	85%	81%		61%	39%			9.0%		
17	451+70	DOTPF	114	0.2 ft	Fill	paved		GP-GM		100%	97%	86%	76%	52%	38%		21%	16%			8.0%		
17	451+70	DOTPF	114	1.5 ft	Fill	paved		SP-SM			100%	97%	96%	90%	84%		61%	35%			7.0%		
17	435+10	DOTPF	115	0.2 ft	Fill	paved		GP-GM	100%	99%	96%	86%	78%	56%	43%		25%	19%			9.0%		
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
Count of Fill samples =			61				40		16	38	60	61	61	61	61	18	61	43	18	18	61	200%	0%
Average for Fill samples =			1.0	ft			3.5%		100%	99%	97%	88%	82%	67%	56%	34%	38%	30%	16%	10%	8.7%		
Minimum for Fill samples =			0.0	ft			1.8%		100%	93%	81%	59%	48%	33%	21%	13%	9%	14%	5%	3%	1.7%		
Maximum for Fill samples =			4.0	ft			7.4%		100%	100%	100%	100%	99%	96%	95%	94%	83%	53%	39%	23%	18.0%		

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Boring for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
7	163+00	DM&A	1	5.0 ft		paved	25.2%	ML	100%	100%	100%	97%	96%	95%	94%	92%	90%		84%	78%	69.2%	36%	5%
8	192+94	DM&A	6	10.0 ft		paved	8.4%	SP								100%	91%		23%	6%	3.4%		
8	196+91	DM&A	7	5.0 ft		paved	9.3%	SP-SM								100%	98%		90%	35%	7.3%		
9	218+93	DM&A	10	2.0 ft		paved	4.1%	SP					100%	99%	98%	96%	83%		39%	11%	3.6%		
9	224+46	DM&A	11	5.0 ft		paved	45.6%	ML					100%	100%	99%	99%	96%		88%	80%	69.8%	33%	4%
12	315+53	DM&A	21	5.0 ft		paved	18.6%	ML					100%	100%	99%	99%	98%		96%	93%	75.5%	21%	
12	323+70	DM&A	23	2.0 ft		paved	6.4%	SM	100%	92%	80%	79%	79%	76%	74%	73%	71%		68%	63%	34.0%	6%	
15	384+83	DM&A	31	2.0 ft		paved	3.4%	SP-SM	100%	90%	90%	81%	77%	65%	58%	52%	41%		23%	15%	9.8%	5%	
16	425+59	DM&A	38	5.0 ft		paved	7.4%	SP-SM		100%	91%	89%	89%	84%	80%	74%	54%		22%	15%	13.3%	6%	
8	198+84	DM&A	62	10.0 ft		paved	31.3%	ML					100%	100%	100%	100%	99%		99%	98%	96.7%	84%	22%
8	190+99	DM&A	64	5.0 ft		paved	19.5%	ML					100%	100%	99%	99%	93%		72%	55%	43.3%		
7	161+00	DM&A	69	5.0 ft		paved	41.7%	ML					100%	99%	98%	96%	92%		86%	79%	70.3%	33%	
12	321+08	DM&A	96	5.0 ft			5.5%	ML							100%	100%	99%		98%	91%	37.5%	2%	
5	119+79	DM&A	97	5.0 ft			11.3%	SM			100%	97%	96%	95%	93%	91%	82%		55%	38%	32.0%	22%	
6	131+60	DM&A	98	35.0 ft			13.1%	ML			100%	99%	99%	98%	97%	96%	96%		94%	75%	44.1%		
9	212+64	DM&A	109	0.0 ft			9.5%	SM			100%	94%	92%	88%	82%	77%	70%		53%	36%	25.0%		
6	143+90	DM&A	114	5.0 ft			17.5%	SM						100%	100%	98%	92%		72%	44%	25.9%		
6	137+65	DM&A	117	9.5 ft			29.4%	ML			100%	99%	98%	94%	90%	87%	85%		81%	77%	70.7%	46%	12%
6	133+72	DM&A	119	24.5 ft			35.3%	ML							100%	100%	99%		97%	96%	94.7%	85%	17%
6	133+72	DM&A	119	29.5 ft			7.8%	SM				100%	99%	98%	96%	93%	89%		77%	38%	21.7%		
5	128+00	DM&A	121	25.0 ft			9.4%	ML							100%	100%	99%		91%	71%	42.0%	13%	
17	433+83	DOTPF	1	5.0 ft				SP-SM				100%	98%	97%	95%		66%	36%			8.0%		
17	436+19	DOTPF	2	4.0 ft			6.0%	SM			100%	99%	98%	96%	94%		72%	55%			18.0%		
17	438+60	DOTPF	3	4.0 ft			4.6%	SP-SM					100%	98%	96%		83%	56%			8.0%		
17	441+80	DOTPF	4	4.5 ft				SP-SM			100%	98%	97%	95%	92%		58%	34%			9.0%		
17	447+60	DOTPF	6	3.5 ft			22.0%	SP-SM					100%	99%	98%		78%	53%			8.0%		
17	449+70	DOTPF	7	2.0 ft				SP-SM			100%	99%	97%	94%	92%		73%	47%			12.0%		
17	454+00	DOTPF	9	2.5 ft				SP-SM				100%	99%	98%	96%		71%	38%			6.0%		
18	466+80	DOTPF	13	2.5 ft			3.9%	SP-SM			100%	99%	98%	97%	94%		65%	35%			11.0%		
18	468+80	DOTPF	14	7.0 ft				SP-SM						100%	99%		78%	55%			6.0%		
18	474+20	DOTPF	16	2.0 ft			3.7%	SP-SM			100%	99%	99%	96%	94%		72%	54%			9.0%		
18	478+50	DOTPF	18	3.5 ft				SP-SM						100%	99%		91%	75%			6.0%		
18	480+00	DOTPF	19	3.5 ft			6.0%	SM		100%	99%	98%	98%	96%	92%		66%	44%			14.0%		
19	484+60	DOTPF	20	2.0 ft				SP-SM					100%	99%	97%		65%	35%			6.0%		
19	490+20	DOTPF	22	7.0 ft			14.3%	SP-SM					100%	98%	95%		67%	40%			6.0%		
19	493+00	DOTPF	23	4.0 ft				SP					100%	99%	98%		75%	47%			4.0%		
19	497+50	DOTPF	25	2.5 ft			5.7%	SP-SM				100%	99%	98%	95%		73%	47%			6.0%		
19	501+60	DOTPF	26	4.0 ft				SP-SM					100%	98%	95%		60%	28%			5.0%		
19	506+05	DOTPF	28	3.0 ft			3.1%	SP-SM					100%	98%	95%		67%	37%			5.0%		
20	509+80	DOTPF	29	3.0 ft				SP-SM					100%	97%	93%		65%	36%			5.0%		
20	515+55	DOTPF	31	4.0 ft			4.4%	SP-SM			100%	99%	99%	96%	91%		55%	36%			8.0%		
20	518+00	DOTPF	32	4.5 ft				SP-SM				100%	99%	98%	95%		58%	33%			5.0%		
20	526+90	DOTPF	35	5.0 ft				SP-SM					100%	98%	97%		75%	47%			6.0%		

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

Kenai Spur Road - Sample Data by Boring for Fill and Native Soils

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
21	538+00	DOTPF	39	3.5 ft				SP				100%	99%	97%	95%		65%	33%			4.0%		
21	544+00	DOTPF	41	3.5 ft			3.7%	SP-SM							100%		85%	54%			8.0%		
21	547+00	DOTPF	42	2.5 ft				SP					100%	99%	99%		81%	47%			4.0%		
21	553+00	DOTPF	44	3.0 ft			3.7%	SP-SM				100%	99%	98%	97%		71%	48%			6.0%		
21	556+00	DOTPF	45	3.5 ft			3.9%	SP-SM			100%	99%	99%	96%	93%		44%	25%			6.0%		
21	559+00	DOTPF	46	4.0 ft				SP			100%	99%	98%	94%	90%		58%	30%			4.0%		
22	568+00	DOTPF	49	6.0 ft				SP					100%	98%	95%		70%	45%			3.0%		
22	561+00	DOTPF	52	5.0 ft			5.3%	SP		100%	96%		94%	89%	83%		59%	36%			4.0%		
22	561+00	DOTPF	52	10.0 ft			12.0%	SP		100%	98%		97%	95%	92%		54%	26%			4.0%		
21	556+00	DOTPF	53	5.0 ft			3.1%	SP			100%	93%	91%	83%	70%		30%	16%			4.0%		
21	556+00	DOTPF	53	10.0 ft			23.6%	SP-SM							100%		85%	50%			5.0%		
21	551+00	DOTPF	54	5.0 ft			4.7%	SP-SM			100%	99%	98%	96%	94%		74%	47%			5.0%		
21	546+00	DOTPF	55	5.0 ft			3.9%	SP					100%	99%	97%		66%	40%			4.0%		
21	546+00	DOTPF	55	10.0 ft			35.7%	SP-SM					100%	99%	98%		55%	25%			5.0%		
21	541+00	DOTPF	56	5.0 ft			12.8%	SM		100%	97%	96%	96%	93%	89%		61%	43%			22.0%		
21	541+00	DOTPF	56	10.0 ft				SP-SM			100%	99%	99%	99%	98%		81%	48%			5.0%		
21	537+50	DOTPF	57	5.0 ft			3.7%	SP		100%	98%	98%	97%	95%	93%		71%	39%			4.0%		
21	537+50	DOTPF	57	10.0 ft				SP-SM					100%	99%	99%		81%	50%			7.0%		
20	533+25	DOTPF	58	5.0 ft			22.1%	SP						100%	99%		85%	59%			4.0%		
20	533+25	DOTPF	58	10.0 ft				SP-SM					100%	99%	99%		78%	38%			5.0%		
20	528+80	DOTPF	67	5.0 ft			4.6%	SP			100%		97%	94%	91%		61%	31%			4.0%		
20	528+80	DOTPF	67	10.0 ft			19.7%	SP					100%	99%	97%		75%	43%			4.0%		
20	523+90	DOTPF	68	5.0 ft			5.5%	SP			100%	99%	98%	97%	95%		75%	50%			4.0%		
20	523+90	DOTPF	68	10.0 ft				SP							100%		80%	44%			4.0%		
20	518+00	DOTPF	69	5.0 ft			4.8%	SP-SM			100%	99%	98%	94%	91%		59%	38%			5.0%		
20	518+00	DOTPF	69	10.0 ft				SP					100%	99%	97%		67%	37%			4.0%		
20	513+70	DOTPF	70	5.0 ft			7.7%	SP-SM						100%	99%		88%	61%			5.0%		
20	513+70	DOTPF	70	10.0 ft				SP							100%		81%	46%			4.0%		
19	508+20	DOTPF	71	5.0 ft			3.8%	SP-SM					100%	96%	92%		63%	43%			5.0%		
19	508+20	DOTPF	71	10.0 ft				SP-SM						100%	99%		82%	62%			6.0%		
19	503+40	DOTPF	72	5.0 ft			6.1%	SP-SM		100%	97%	95%	93%	88%	84%		62%	43%			6.0%		
19	503+40	DOTPF	72	10.0 ft				SP						100%	99%		86%	48%			4.0%		
19	498+10	DOTPF	73	5.0 ft			4.1%	SP-SM		100%	98%	97%	95%	93%	90%		54%	25%			5.0%		
19	498+10	DOTPF	73	10.0 ft				SP				100%	99%	99%	98%		67%	29%			4.0%		
19	495+75	DOTPF	74	5.0 ft			6.0%	SP			100%	99%	99%	98%	96%		81%	52%			4.0%		
19	495+75	DOTPF	74	10.0 ft				SP		100%	98%	98%	98%	97%	96%		72%	45%			3.0%		
19	490+70	DOTPF	75	5.0 ft			8.8%	SP				100%	99%	98%	96%		66%	39%			4.0%		
19	490+70	DOTPF	75	10.0 ft				SP					100%	99%	98%		71%	40%			3.0%		
19	485+80	DOTPF	76	5.0 ft			16.1%	SP					100%	99%	96%		59%	30%			4.0%		
19	485+80	DOTPF	76	10.0 ft				SP-SM						100%	99%		74%	51%			5.0%		
18	478+60	DOTPF	77	5.0 ft			4.5%	SP					100%	99%	96%		66%	35%			4.0%		
18	478+60	DOTPF	77	10.0 ft				SP			100%	98%	97%	95%	93%		55%	22%			3.0%		
18	473+60	DOTPF	78	5.0 ft			2.3%	SP				100%	99%	98%	96%		54%	22%			3.0%		

*USCS symbols are used as an abbreviation for DOTPF Textural Classification

P&P	Station	by	Boring	Top	Fill	Setting	Moisture	USCS*	2"	1"	3/4"	1/2"	3/8"	#4	#10	#20	#40	#50	#60	#100	#200	.02mm	.0014mm
18	473+60	DOTPF	78	10.0 ft				SP		100%	99%	99%	99%	97%	95%		63%	36%			3.0%		
18	468+30	DOTPF	79	5.0 ft			16.0%	SP					100%	99%	96%		79%	50%			3.0%		
18	468+30	DOTPF	79	10.0 ft				SP			100%	99%	98%	97%	97%		76%	47%			4.0%		
18	458+50	DOTPF	81	5.0 ft			22.0%	SP					100%	99%	97%		66%	34%			3.0%		
17	453+75	DOTPF	82	5.0 ft			10.1%	SP						100%	99%		84%	42%			3.0%		
17	449+00	DOTPF	83	5.0 ft				SP			100%	98%	95%	89%	82%		45%	24%			3.0%		
17	444+40	DOTPF	84	5.0 ft			6.9%	SP				100%	98%	97%	94%		75%	44%			3.0%		
17	444+40	DOTPF	84	10.0 ft				SP-SM				100%	99%	97%	93%		68%	38%			5.0%		
22	573+00	DOTPF	93	4.0 ft		paved	26.1%	SP-SM		100%	98%	96%	94%	88%	80%		49%	32%			10.0%		
22	573+00	DOTPF	93	4.0 ft		paved		SP-SM			100%	99%	97%	92%	85%		55%	34%			9.0%		
22	561+00	DOTPF	94	5.0 ft		paved		GP-GM			100%	91%	82%	60%	43%		25%	20%			7.0%		
20	511+00	DOTPF	102	5.0 ft		paved	15.6%	ML			100%	98%	94%	88%	82%		69%	60%			46.0%		
19	505+05	DOTPF	103	3.5 ft		paved		ML				100%	99%	97%	92%		84%	80%			70.0%		
19	502+10	DOTPF	104	4.0 ft		paved		GP-GM		100%	99%	91%	84%	62%	45%		25%	19%			9.0%		
19	497+50	DOTPF	105	6.0 ft		paved		SP-SM			100%	98%	95%	89%	82%		42%	23%			8.0%		
19	492+60	DOTPF	106	4.5 ft		paved	19.6%	ML			100%	88%	84%	73%	66%		56%	49%			38.0%		
18	476+60	DOTPF	109	3.8 ft		paved		ML	100%	98%		94%	92%	90%	86%		75%	68%			52.0%		
18	470+15	DOTPF	110	4.5 ft		paved		OL			100%	97%	96%	91%	84%		74%	70%			57.0%		
17	451+70	DOTPF	114	3.5 ft		paved	39.3%	ML			100%	99%	97%	95%	92%		86%	82%			73.0%		
17	435+10	DOTPF	115	3.0 ft		paved		ML			100%	98%	97%	95%	91%		80%	75%			61.0%		
end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end	end
Count of Natural samples =			106				65			16	45	56	88	97	104	21	106	85	21	21	106	13	5
Average for Natural samples =			6.4	ft			12.6%			99%	99%	97%	97%	95%	92%	91%	71%	43%	72%	57%	16.4%	30%	12%
Min. for Natural samples =			0.0	ft			2.3%			90%	80%	79%	77%	60%	43%	52%	25%	16%	22%	6%	3.0%	2%	4%
Max. for Natural samples =			35.0	ft			45.6%			100%	100%	100%	100%	100%	100%	100%	99%	82%	99%	98%	96.7%	85%	22%

* The symbols are used as an abbreviation for the State of Alaska DOTPF classification system.
The symbols are from and will generally correspond to the Unified Soil Classification Sytem.