Preferred Id: 15562

Interest Name: Metro Transit Garage Barrel

Address1: 2100 Mtc Rd

City: Richfield

State: MN

Zip: 55450

Phone: NO CORE PI PH.

Interest Remarks Date and Time Printed: 1/29/2008 13:11:50

11/24/03: Leak from an underground line at the MTC shop that was pumping from a 50 gallon above ground barrel. Lube grease is almost a solid at room temp. PM in touch with RP, will fill in the details and also update PI details screen. (SAH)
9/21/07 AJE: site transferred to AJE.

1/22/08 AJE: file review

Metro Transit had a leak in a 55 gallon drum. The drum contained grease, which is/was more of a solid than a liquid.

released product to soil. area is commercial. contained on property, and the release was contained. soil borings completed along the release area.

GME consultants performed nine soil borings to define the extent and magnitude of the release. borings ranged from 4'-10' bgs. sand on site. soil boring logs included.

no evidence of grease, odors, or stainings in borings. no headspace readings during soil borings (2.0 ppm was highest headspace). however, no samples were submitted for lab analysis.

this pipeline was abandoned, and the grease will be supplied through an overhead line in the future (above ground).

No GW was encountered. Grease is likely immobile, and not a vapor or GW risk. Site is located near the M/SP Airport, and near a clover highway ramp. No receptors, no risk. recommend closure.

Metro Transit

November 5, 2003

Stacey Van Patten
Minnesota Pollution Control Agency
520Lafayette Road North
St. Paul, MN 55155

RE: South Garage Grease leak

Dear Ms. Van Patten:

I am enclosing a subsurface exploration report and findings as completed by GME Consultants. The contractor under the director of Metro Transit tried to locate the grease that was released.

If you have any questions, please call me at 612-349-7680.

Sincerely,

John Bryan
Facility System Engineer

Enclosure

JB/bah

GME CONSULTANTS, INC.
CONSULTING ENGINEERS
14000 21st Ave. No. / Minneapolis, MN 55447
Phone (763) 559-1859 / Fax (763) 559-0720

October 23, 2003

Mr. John Bryan
Metro Transit
560 6th Avenue North
Minneapolis, Minnesota 55411

GME Project No. 10650

RE: Report of Environmental subsurface exploration for the Metro Transit South Garage in Richfield, Minnesota

Dear Mr. Bryan:

In accordance with your September 11, 2003 authorization of our proposal dated September 2, 2003, we have completed our environmental subsurface exploration for this site. This report represents our final instrument of services outlined in that contract. Below we summarize the project, present the data we have gathered, and conclude with our recommendations.

Project Description

The Metro Transit South Garage is located at 2100 MTC Road in Richfield, Minnesota. You estimate that 50 gallons of grease was released to the subsurface below the concrete slab at the above facility through a pipe breach. You said that this release was reported to the Minnesota Pollution Control Agency (MPCA) within 24 hours of its occurrence. You requested that we conduct a subsurface exploration to assess this release.

Scope of Services

Our scope of services were limited to the following elements as per our proposal dated September 2, 2003.

1. Advance 10 borings each up to 10 feet deep, and sampling continuously by the direct push method; concrete coring was also requested at the time of drilling.

2. Observe and log the recovered soil samples.

3. Prepare soil samples for possible submission to a fixed laboratory for analysis of oil and grease.

4. Seal all of the borings in accordance with Minnesota Rules, Chapter 4725.

5. Prepare this report.

We contracted Thein Well Company (Thein) to advance the probes. Thein cleared public utilities through Gopher State One Call. You also authorized us to contract a private utility locator to clear private utilities and to attempt to locate the pipe breach using a fault indicator. We contracted Submeter Locating and Mapping (Submeter) to provide this service. We and you chose the probe locations based on where the pipe bends and on Submeter's recommendations.

Exploration Results

On September 12, 2003, our Environmental Engineer and Scientist met you, Thein and Submeter at the site. Together, we observed the first probe near a location identified as the most likely spot for the breach as indicated by Submeter using a fault indicator. Upon removal of the 3-inch diameter concrete core, we did not observe any grease on the soil just below the slab. Soil was then sampled in this probe and the results are shown on the attached log. Subsequently, our Environmental Scientist observed the advancement of eight additional probes.

Thein advanced the push probes at the locations shown on the attached diagram. The probe depths ranged from 4 to 10 feet deep and were generally east of the inspection pit in the vicinity of the gear lube, grease, and drain oil pipes. The concrete slab ranged from 5 to 7 inches thick, and is underlain by brown fine to medium sand. The push probe sampler met refusal in probes 7, 8 and 9 at depths of 4 feet. The borings were sealed with neat cement grout according to the Minnesota Rules, Chapter 4725.

We did not observe evidence of grease or other petroleum odors or staining in any of the probes. We field screened the soil "headspace" at each 4-foot interval using a photoionization detector (PID) fitted with a 10.6 eV lamp following MPCA bag headspace

guidelines. The PID did not register any readings above background levels. Based on our observations and field measurements, we did not submit soil samples for laboratory analysis.

Conclusions and Recommendations

We did not observe evidence of grease in the nine probes that we advanced at the site. The probe locations were chosen at areas adjacent to the line where it bends or at a possible fault identified by Submeter. In order to locate the grease, several additional probes or trenching may be required; significant concrete repair could be needed following such work. Non-destructive testing such as a radar imaging survey could also be attempted, but may not give conclusive results; destructive testing would be required to verify any imaging results.

To prevent a future release through this line, you stated that you will be abandoning the pipe. You said that grease shall be supplied to the inspection pit via an exposed overhead line in the future. You showed us that this pipe was the last underground grease line in service to the inspection pit.

Because the grease that was released is highly viscous at room temperature, it is our opinion that it is likely immobile underneath the slab at this time. Also, due to its heavy nature we do not foresee a current or future vapor hazard associated with the grease, nor do we anticipate groundwater interaction; we did not observe groundwater in our probes or evidence of soil mottling.

We recommend that you forward a copy of this letter to the MPCA Project Manager assigned to this spill. We would recommend that MPCA consider closing the spill file based on the above observations and apparent lack of risk associated with the impacts.

The conclusions in this letter present our professional opinions, and have been prepared in accordance with the current level practice for our profession, and using normally available sources of information. No warranty, express or implied, is presented in this letter with respect to the environmental conditions on this site.

We appreciate the opportunity to be of service to you. If you have questions regarding this letter, please contact us.

Sincerely,

GME CONSULTANTS, INC.

Michelle L. Hosfield

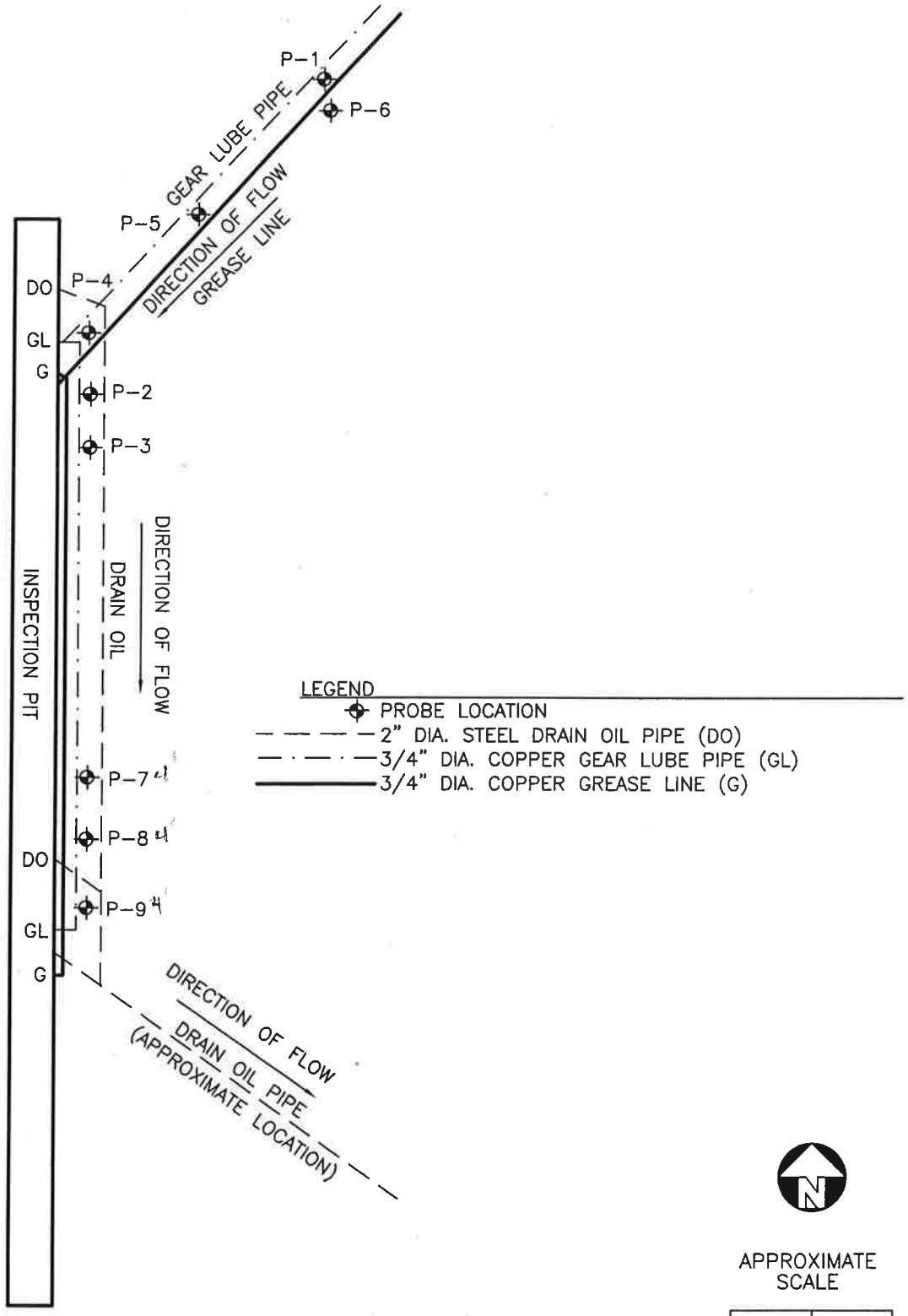
Michelle L. Hosfield
Environmental Scientist

Richard W. Pennings

Richard W. Pennings, P.E.
Environmental Engineer

Enclosures: Probe Location Diagram
Probe Logs

MLH:ccc
W:\MLH\10650 Ltr Rpt.Ccc.Doc



NOTE: PIPE LINE LAYOUTS AND DESCRIPTIONS BASED ON A RELATIVE SKETCH PROVIDED BY METRO TRANSIT.

10650.dwg

GME CONSULTANTS, INC.

Geotechnical •Materials •Environmental
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APPROXIMATE PROBE LOCATION DIAGRAM

METRO TRANSIT SOUTH GARAGE
RICHFIELD, MINNESOTA

MGC	MLH	OCT 03	GME Project No. 10650

LOG OF PROBE 1

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.4	Concrete		
	2PP			Brown fine to medium SAND, trace gravel - (SP)	1.4	
				End of boring at 4 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 2

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.7	Concrete		
	2PP			Brown fine to medium SAND - (SP)	1.8	
5	3PP		7.0		1.4	
	4PP			Light brown fine SAND - (SP)	2.0	
10				End of boring at 10 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 3

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP		4.0	Brown fine to medium SAND - (SP)	1.3	
5	3PP			Light brown fine SAND - (SP)	1.3	
				End of boring at 8 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — ○ — 1 2 3 4 5

WATER CONTENT % — ● —

STANDARD PENETRATION (BLOWS/FOOT) — ⊗ — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 4

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP			Brown fine to medium SAND - (SP)	1.8	
5	3PP		6.0		1.8	
				Light brown fine SAND - (SP)		
				End of boring at 8 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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Minneapolis, MN 55447
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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 5

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP			Brown fine to medium SAND, trace gravel - (SP)	1.3	
5	3PP		7.0		1.4	
				Light brown fine SAND - (SP)		
				End of boring at 8 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — ○ — 1 2 3 4 5

WATER CONTENT % — ● —

STANDARD PENETRATION (BLOWS/FOOT) — ⊗ — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 6

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP			Brown fine to medium SAND, trace gravel - (SP)	0.6	
5	3PP		7.0		0.3	
				Light brown fine SAND - (SP)		
				End of boring at 8 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 7

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)	UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) 1 2 3 4 5 / WATER CONTENT % / STANDARD PENETRATION (BLOWS/FOOT) 10 20 30 40 50
	1CORE		0.6	Concrete			
	2PP			Brown fine to medium SAND, trace gravel, trace pieces of concrete at 2 feet - (SP)	0.5		
				Probe refusal at 4 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million			

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 8

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP			Brown fine to medium SAND - (SP)	0.7	
				Probe refusal at 4 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.

LOG OF PROBE 9

PROJECT	SITE
Metro Transit South Garage	Richfield, Minnesota
CLIENT	ARCHITECT-ENGINEER
Metro Transit	

DEPTH, FEET	SAMPLE NUMBER AND TYPE	WATER LEVEL	STRATA CHANGE, FEET	DESCRIPTION OF MATERIAL / SURFACE ELEVATION	Special Test Results PID READINGS (ppm)	N-VALUE (BLOWS/FT.)
	1CORE		0.6	Concrete		
	2PP			Brown fine to medium SAND - (SP)	0.7	
				Probe refusal at 4 feet Geoprobe to full depth Borehole backfilled with neat cement grout PID= Photoionization Detector ppm= parts per million		

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.^{2} (Qp) — 1 2 3 4 5

WATER CONTENT %

STANDARD PENETRATION (BLOWS/FOOT) — 10 20 30 40 50

WATER LEVEL OBSERVATIONS	
W.L.	Groundwater not encountered while
W.L.	drilling or after geoprobe removal
W.L.	

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BORING STARTED	9/12/03		
BORING COMPLETED	9/12/03		
RIG	Geoprobe	DRILLER	Thein
DRAWN	MLH	APPROVED	RWP
JOB #	10650	SHEET	1 of 1

The stratification lines represent approximate boundaries between soil types; insitu the transition may be gradual.