NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

RBCA Tier 1
At
Petroleum Release Sites

(NDEQ TIER 1 REPORT FORMS)

FACILITY NAME:	*Federal Office Building*
NDEQ SPILL NO.:	*UG #050393-NM-1110*
NDEQ IIS NO.:	*61642*
COMPLETION DATE:	*November 14, 2003*
PREPARED BY:	*Jerrett J. Domling - SCS Engineers*
REVIEWED BY:	*David E. Brewer, R.G. - SCS Engineers*

NDEQ RBCA TIER 1 REPORT FORMS

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	All maps submitted must include a bar scale, legend, north arrow, location of all known soil borings and monitoring wells, and date of map, where appropriate.	
1.	Topographic Map	☑
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OTHER ATTACHMENTS:

_____

_____

NDEQ RBCA TIER 1 REPORT	FORM NO. 1
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

EXECUTIVE SUMMARY

Facility name:	*Federal Office Building*
Facility address:	*106 S. 15th Street* *Omaha, Nebraska 68102*
Status of fuel storage/distribution:	☐ Active ☑ Inactive
Is surface soil contamination present?	☐ Yes ☑ No
Are subsurface soils impacted?	☐ Yes ☑ No
Is ground water impacted?	☐ Yes ☑ No ☐ NA
Has the source(s) of release been identified?	☑ Yes ☐ No
Was free product detected during the Tier 1 investigation?	☐ YES ☑ NO
If yes, was the free product plume fully delineated?	☐ YES ☐ NO *NA*
Were vapors detected in any utilities?	☐ YES ☑ NO
Has surface water been impacted by the release?	☐ YES ☑ NO
Average depth of contamination in subsurface soils:	*NA* ft ###
Shallowest depth to ground water:	*16.11'* ft ☐ Not measured
Average depth to ground water:	*16.38'* ft ☐ Not measured
Distance to nearest drinking water supply well:	*>2000'* ft
Distance to nearest non-potable water supply well:	*>2000'* ft
Distance to nearest downgradient water supply well:	*>2000'* ft
Is there evidence of vertical migration of the contaminant plume?	☐ Yes ☐ No ☑ NA

Statement of Completion & Responsible Party/Consultant Signature Block

The consultant representative acknowledges that this report meets the minimum requirements for a Tier 1 investigation at this petroleum release site, as specified in the Department's Risk-Based Corrective Action (RBCA) at Petroleum Release Sites: Tier 1/Tier 2 Assessments and Reports Guidance Document. Any procedures that differ from the guidance document specifications are noted in the report, were approved by the Department and are accompanied by appropriate documentation. The responsible party acknowledges that they have read (or discussed with their consultant), this site investigation report and are aware of their responsibility for the timely submission to the Department.

David E Brown 1/15/04

Consultant Representative Signature Date Responsible Party Signature Date

ADDITIONAL NOTES

Recommended attachments: None.

NDEQ RBCA TIER 1 REPORT	FORM NO. 2
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineer

FACILITY INFORMATION

Facility name:	*Federal Office Building*
Facility address:	*106 S. 15th Street*
	Omaha, Nebraska 68102
County:	*Douglas*
Legal Location (¼, ¼, ¼, Sec, T, R):	*SW1/4, NE1/4, Sect. 22, T15N, R13E*
Latitude:	*~41.15'33.332"*
Longitude:	*~95.56'10.981"*
Responsible Party:	*U.S. General Services Administration*
Responsible Party's address:	*215 North 17th Street*
	Omaha, NE 68101
Responsible Party's phone number:	*(402) 221-4725*
Property owner:	*U.S. General Services Administration*
Property owner's address:	*215 North 17th Street*
	Omaha, NE 68101
Property owner's phone number:	*(402) 221-4725*
Consulting Firm:	*SCS Engineers*
Consulting Firm Project Manager:	*Mr. David Brewer, R.G.*
Consultant phone number:	*(816) 941-7510*

ADDITIONAL NOTES

Recommended attachments: Topographic map

NDEQ RBCA TIER 1 REPORT	FORM NO. 3
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

RELEASE CHARACTERIZATION

PETROLEUM RELEASE HISTORY

NDEQ Spill Number	Location/Source	Product/Quantity
UG#050393-NM-1110	*West central portion of property/ heating oil storage system.*	*#2 diesel fuel / 2-5,000 gallon tanks*

SOURCE(S) OF RELEASE (Check all that apply)

- ☐ Surface Spills
- ☐ Load Out Racks
- ☑ Piping
- ☐ Dispenser Islands
- ☑ USTs (includes UST overfills)
- ☐ ASTs
- ☐ Unknown
- ☐ Other (specify)

SUBSTANCE(S) RELEASED (Check all that apply)

- ☐ Gasoline
- ☑ Diesel/#2 Fuel Oil
- ☐ Used Oil
- ☐ AV Gas
- ☐ Jet Fuel
- ☐ Kerosene
- ☐ Other Fuel Oil/Heavy Distillate (specify)

Other product (specify)

SUMMARY OF RELEASE

			(Provide explanatory notes below)
Has the source(s) of release been identified?	☑ YES	☐ NO	*South 5,000 gallon tank and associated piping.*
Has the release been abated?	☑ YES	☐ NO	*The 5,000 gallon USTs were removed in October, 1992*
Are surface soils impacted?	☐ YES	☑ NO	
Are subsurface soils impacted?	☑ YES	☐ NO	*Lab analysis of 51,000 ppm recorded during closure.*
Is ground water impacted?	☐ YES	☑ NO	☐ Not sampled, drilled out of contamination
Were vapors detected in any utilities?	☐ YES	☑ NO	
Is surface water impacted?	☐ YES	☑ NO	
Has a sensitive habitat/resource been impacted?	☐ YES	☑ NO	

ADDITIONAL NOTES

Recommended attachments: None.

NDEQ RBCA TIER 1 REPORT	FORM NO. 4
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

UNDERGROUND AND/OR ABOVEGROUND STORAGE TANK DESCRIPTION

A site map showing tank number(s), piping runs, dispensers, and/or load out racks is required.

Tank Number(s)	Product (last stored)	Capacity (gallons)	Active Yes	Active No	Installation Date	Removal Date (if applicable)	Description of Secondary Containment
001	*heating oil*	*5,000*	☐	☑	*~1958*	*10/9/92*	*NA*
002	*heating oil*	*5,000*	☐	☑	*~1958*	*10/9/92*	*NA*
			☐	☐			
			☐	☐			
			☐	☐			
			☐	☐			
			☐	☐			
			☐	☐			
			☐	☐			

Piping #	Product		Active Yes	Active No	Installation Date	Removal Date (if applicable)	Comment
		NA	☐	☐			
		NA	☐	☐			
		NA	☐	☐			
		NA	☐	☐			

Dispenser #	Product				Installation Date	Removal Date (if applicable)	Comment
		NA	☐	☐			
		NA	☐	☐			
		NA	☐	☐			
		NA	☐	☐			

Load Out Rack #	Product				Installation Date	Removal Date (if applicable)	Comment
		NA	☐	☐			
		NA	☐	☐			

ADDITIONAL NOTES

Recommended attachments: A site map with tank and ancillary equipment location(s).

NDEQ RBCA TIER 1 REPORT	FORM NO. 5
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

LAND USE

☐ Currently operating as a service station or bulk facility. If not, site currently used as: _____

☐ Tanks temporarily out of service	#		from		to
	#		from		to
	#		from		to
☑ Tanks permanently out of service	#	*001*	from	*10/9/92*	to
	#	*002*	from	*10/9/92*	to
	#		from		to
☐ If tanks were ever re-lined, list details for tank number and date of re-lining	#		Date		NA
	#		Date		NA
	#		Date		NA

Current On-site Land Use	
Residential	☐
Commercial	☑

Future On-site Land Use	
Residential	☐
Commercial	☑

Comments: *Justify the choice for future land use.*

The Federal Building is located within the central business district in the City of Omaha. The site is surrounded by various businesses, elevated office complexes, and multi-story parking structures.

Off-site Land Use (within 500 feet - at a minimum, state whether residential, agricultural, commercial, or sensitive population center)

North: *Commercial business use*

Northeast: *Commercial business use*

Northwest: *Commercial business use*

South: *Commercial business use*

Southeast: *Commercial business use*

Southwest: *Commercial business use*

West: *Commercial business use*

East: *Commercial business use*

ADDITIONAL POINT OF EXPOSURE SURVEY

List the distance and direction (downgradient, upgradient, or crossgradient) to these facilities.

	Distance (feet)	Direction
Nearest residential site (≤500 ft):	-	-
Nearest commercial site (≤500 ft):	*300'*	*West*
Nearest habitable building (≤500 ft):	*20'*	*East*
Nearest ecologically sensitive area, e.g., wetland (≤1000 ft):	-	-
Nearest school, hospital, day care, retirement home, etc. (≤500 ft):	*20'*	*20'*

ADDITIONAL NOTES

The nearest habitable building is the Federal Office Building on the property. A day care is located within the building.

Recommended attachments: Site map with detailed land use in the vicinity of the site, Area map.

NDEQ RBCA TIER 1 REPORT	FORM NO. 6a
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

GROUND WATER USE

List the distance (feet) and direction (downgradient, upgradient, or crossgradient) to these wells. For all wells listed below, provide the required information in Form 6b.

Current

	YES	NO	IN USE	NOT USED	Distance	Direction
Potable Water Supply Wells						
Domestic drinking (≤1000 ft):	☐	☑	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
Public/Municipal (≤2000 ft)::	☐	☑	☐	☐		
–	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
Stock watering (≤1000 ft):	☐	☑	☐	☐		
Nearest Non-potable water well:						
Lawn irrigation well (≤500 ft):	☐	☑	☐	☐		
Industrial supply (≤1000 ft):	☐	☑	☐	☐		
Agricultural (≤1000 ft):	☐	☑	☐	☐		
Nearest Other Use (explain in Notes):	☐	☐	☐	☑	*250'*	*Northeast*

Future

	YES	NO
Potable Water Supply Wells		
Domestic drinking (≤1000 ft):	☐	☑
	☐	☐
	☐	☐
	☐	☐
	☐	☐
Public/Municipal (≤2000 ft):	☐	☑
	☐	☐
	☐	☐
	☐	☐
	☐	☐
Stock watering (≤1000 ft):	☐	☑
Nearest Non-potable water well:		
Lawn irrigation well (≤500 ft):	☐	☑
Industrial supply (≤1000 ft):	☐	☑
Agricultural (≤1000 ft):	☐	☑
Nearest Other (explain in Notes):	☐	☐

SURFACE WATER USE

List the distance (feet) and direction (downgradient, upgradient, or crossgradient) to these water bodies.

Current

	YES	NO	IN USE	NOT USED	Distance	Direction
Potable Use						
Domestic Use (≤1000 ft):	☐	☑	☐	☐		
Public/Municipal supply (≤2000 ft):	☐	☑	☐	☐		
Non-potable water use (≤1000 ft):						
Industrial supply:	☐	☑	☐	☐		
Agriculture:	☐	☑	☐	☐		
Recreational:	☐	☑	☐	☐		
Other (explain in Notes):	☐	☑	☐	☐		

Future

	YES	NO
Potable Use		
Domestic Use (≤1000 ft):	☐	☑
Public/Municipal supply (≤2000 ft):	☐	☑
Non-potable water use (≤1000 ft):		
Industrial supply:	☐	☑
Agriculture:	☐	☑
Recreational:	☐	☑
Other (explain in Notes):	☐	☑

	YES	NO
Are there visible indications of stressed vegetation or habitats on or near the surface water body that may be the result of a chemical release?	☐	☐

NOTES

- Justify choice for future ground water use; also indicate if water supply well may have some influence over vertical migration of plume.
- Justify choice for future surface water use and type of water body.

Monitoring wells located approximately 250' northeast of the Subject Site were identified on the NDNR database. The wells were installed in 2000 and 2001 and currently have an active status. Due to low groundwater quantity and quality in this area; future domestic, commercial, and industrial use of groundwater is not anticipated.

Recommended attachments: Area map with well locations within the distances provided above.

NDEQ RBCA TIER 1 REPORT	FORM NO. 6b
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Eng

WATER SUPPLY WELL LOCATION INFORMATION

List all wells located within the distances for the categories requested.

Well Designation	Well Owner	Legal Location or Address
None Identified	--	--

City Utility Superintendent: _____ Telephone Number: _____

City Water Superintendent: _____ Telephone Number: _____

NOTES:

Provide location information of all water supply wells documented in Report Form 6a on area map.

Well location may be street property address or legal description.

Use well designation as map label. Include well locations on site map.

Recommended Attachment(s): Well logs and installation information.

NDEQ RBCA TIER 1 REPORT	FORM NO. 7
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

ENCLOSED SPACES

Subsurface Utilities:

In the space provided for additional notes, please indicate the location and distance to the nearest utility access point (manhole).

Have the utilities been screened for vapor levels? ☐ YES ☑ NO If YES, attach documentation of vapor monitoring results.

Indicate which of the following utilities currently act as conduits or are potentially liable to become conduits under the columns entitled "Impacted by release," and "Potentially Impacted by Release," respectively.

	Depth [feet]	Construction material	Fill Material	Flow direction	Impacted by release	Potentially impacted by release
☐ Sanitary sewer						
☐ Covered storm sewer						
☐ Open ditch						
☑ Water line	*4-6'*	*Unknown*	*Soil*	*West*	*No*	*No*
☑ Gas line	*4-6'*	*Unknown*	*Soil*		*No*	*No*
☐ Electric line						
☑ Telephone line	*Unknown*	*Unknown*	*Soil*		*No*	*No*
Other:						
☑ *Fiber optic comm.*	*~5'*	*Conc. Encased*	*Soil*			
☐						

BUILDINGS

(Provide the indicated information for any on-site and adjacent property structures, present within 200 feet of the site.)

Building Location	Direction (Cross, Down, Upgradient)	Distance from source area(s)	Use	Basement or other subgrade present? (e.g. crawl space, daylight room) Type of structure	Depth (ft bgl)
SWC 15th & Dodge	*Subject Site*	*20'E*	*Federal office building*	*Basement*	*~10'*
NWC 15th & Douglas	*Crossgradient*	*80' S*	*Parking garage*	*Lower level parking*	*~10'*
NEC 15th & Douglas	*Downgradient*	*150' E*	*U.P. offices (under const.)*	*Basement*	*Unknown*
NWC 15th & Dodge	*Upgradient*	*150' N*	*Parking garage*	*Lower level parking*	*~10'*
NEC 15th & Dodge	*Crossgradient*	*250' NE*	*Office building*	*Basement*	*~10'*
NWC 16th & Douglas	*Upgradient*	*350' W*	*First National Bank*	*Unknown*	*Unknown*

ADDITIONAL NOTES

The nearest utility access point was a removable cover over a utility vault located in the alley south of the federal building.

Recommended attachments: Site map with locations of utilities, tanks and ancillary equipment and USTs.

NDEQ RBCA TIER 1 REPORT	FORM NO. 8
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

CHRONOLOGY OF EVENTS

Date	*Instructions: Starting with the oldest event, describe site activities related to spill events, including location, type, and estimated volume of materials stored or released, tank and/or ancillary equipment removals, time and duration of release, and affected media (e.g. soil, ground water, etc.). Describe monitoring well installation and soil boring activities. Provide names, positions, and phone numbers of persons providing information as it pertains to this report. Also discuss past corrective action efforts as appropriate. Document any variances in work from the RBCA Guidance Document. (Use additional sheets as necessary)*
9/24/92	***An Application for Permit to Permanently Close a UST was submitted to the Nebraska State Fire Marshal Flammable Liquid Storage Tank Division. General Excavating, a licensed closure contractor, has been retained to remove 2-5,000 gallon heating oil USTs.***
9/29/92	***The Underground Storage Tank Division of the City of Omaha issued a permit to close 2-5000 gallon USTs (Tank #001 and #002). According to information reviewed on the permit the tanks were 34 years old at the time of removal and were used to store heating oil.***
10/9/92	***2-5,000 gallon heating oil USTs and associated piping were removed from the property. The tanks were removed by General Excavating of Lincoln, Nebraska and site assessment during the closure activities was performed by HWS Technologies. The tanks measured 6 feet in diameter and were 24 feet in length. The tanks were placed on a bed of sand and backfilled with sand. Some corrosion was noted on the tank shells, and no holes were found. Field analysis of soils was performed with a HNU - Model P1-101 and laboratory analysis was provided by HWST Lab in Lincoln, Nebraska. Field and laboratory analysis indicated no contamination present under the northern-most UST. However, contamination was identified (50 ppm in the field and 51,000 ppm in the lab) under piping and the southern-most UST. No overexcavation was completed as part of the UST closure.***
10/24/03	***SCS Engineers was retained by GSA to conduct a voluntary investigation, in compliance with RBCA Tier 1 Regulations, at the Federal building located at 106 S. 15th St., Omaha, Nebraska. Four soil borings were advanced utilizing 4 1/4" hollow stem augers. Continuous sampling was conducted and monitoring wells were installed following bore hole advancement. No odor or visual discoloration indicating impact of the subsurface soils was noted during drilling and sampling activities. Field headspace readings ranged from 0-3 ppm. This is anticipated to be background level for moderately organic soils. 2-inch diameter PVC monitoring wells were constructed with 10' lengths of 0.010" slot screen. Well pack was extended to an elevation approximately 2' higher than the elevation of the top of the well screen. Chip bentonite was placed and hydrated from well pack to the surface. Soil and water samples were collected according to***
	State of Nebraska guidelines. Samples were shipped under chain-of-custody to STL Chicago for laboratory analysis.

Recommended attachments: None.

NDEQ RBCA TIER 1 REPORT	FORM NO. 9
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
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SITE STRATIGRAPHY AND HYDROGEOLOGY

STRATIGRAPHY OF THE SITE

Depth [feet]	Unified Soil Classification	Type of Soil
0-12'	*CL*	*Pavement over various depths of clay fill material*
12'-24'	*CL*	*Loess clays with sand content up to 40% near static water levels*

Predominant soil type: *Loess clay, CL*

Depth [feet]	Type of Bedrock & Geological Formation (where applicable) (discuss rock properties and features, e.g. fractures)
-	--

HYDROGEOLOGY OF THE SATURATED IMPACTED ZONE

Range of ground water level fluctuations, *(if known)*, [ft bgl]:	*Unknown*			
Average depth to water table/static water level:	*16.38'*			
Flow direction:	*Northeast*			
Hydraulic gradient (i) [ft/ft]:	*.008*			
Hydraulic conductivity *(from Table 4-2 of NDEQ RBCA Guidance Document)* (K) [ft/day]	*10*			
Porosity (n) [0.30 for sands, 0.35 for silts/clays]	*0.35*			
Seepage velocity (K x i/n) [calculated]:	**0.23**	ft/day	**2542.9**	cm/year

ADDITIONAL NOTES

Recommended attachments: Relevant cross-sections and soil boring logs.

NDEQ RBCA TIER 1 REPORT	FORM NO. 10
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
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ANALYTICAL DATA SUMMARY FOR SURFACE SOIL (Soil sample depth between 0-3 feet bgl; All concentrations in mg/kg)

☑ **NOT APPLICABLE FOR THIS SITE**

Sample No.						Arithmetic Average	Maximum	Ratio (Maximum/ Arithmetic Average) *
Sampling Date								
Sample Depth (ft)								
ORGANIC CHEMICALS ANALYSES								
Benzene								
Toluene								
Ethylbenzene								
Xylenes (total)								
n-Hexane								
Methyl-tert-butyl-ether (MTBE)								
TOTAL EXTRACTABLE HYDROCARBONS ANALYSES								
TEH (as diesel)								
TEH (as waste oil)								
TEH (as kerosene)								
TEH as								
TEH as								
TEH as								
OTHER ANALYTES								

NOTE:

Provide any laboratory analytical data sheets not previously submitted to the Department.

Non-detects can be expressed as ND, BDL, etc.

*** : If the ratio is high (for example >10) there may be a hot spot and additional investigation/evaluation may be warranted. In such circumstances, contact the Department.**

Recommended Attachments: Site map showing location(s) of surface soil sample(s), chemical concentration maps, laboratory analysis reports, and chain of custody.

NDEQ RBCA TIER 1 REPORT

FORM NO. 11

NDEQ SPILL NO.: UG #050393-NM-1110

NDEQ IIS NO.: 61642

COMPLETION DATE: 14-Nov-03

PREPARED BY: Jerrett J. Domling - SCS Engineers

ANALYTICAL DATA SUMMARY FOR SUBSURFACE SOIL (Soil sample depth greater than 3 ft bgl; All concentrations in mg/kg.)

MW / SB No.	*MW-1*			*MW-1*			*MW-2*			*MW-2*			Arithmetic Average	Maximum	Ratio (Maximum/ Arithmetic Average) *
Sampling Date	*10/25/03*			*10/25/03*			*10/25/03*			*10/25/03*					
Sample Depth (ft)	*2-4'*	*BGL*		*14-16'*	*BGL*		*6-8'*	*BGL*		*12-14'*	*BGL*				
ORGANIC CHEMICALS ANALYSES															
Benzene		*<RL*			*<RL*			*<RL*			*<RL*				
Toluene		*<RL*			*<RL*			*<RL*			*<RL*				
Ethylbenzene		*<RL*			*<RL*			*<RL*			*<RL*				
Xylenes (total)		*<RL*			*<RL*			*<RL*			*<RL*				
n-Hexane															
Methyl-tert-butyl-ether (MTBE)															
TOTAL EXTRACTABLE HYDROCARBONS ANALYSES															
TEH (as diesel)		*<RL*			*<RL*			*<RL*			*<RL*		12	12	1.00
TEH (as waste oil)															
TEH (as kerosene)															
TEH as															
TEH as															
TEH as															
OTHER ANALYTES															

NOTE:

Provide any laboratory analytical data sheets not previously submitted to the Department. Add additional sheets as needed.

Non-detects can be expressed as ND, BDL, etc.

*** : If the ratio is high (for example >10) there may be a hot spot and additional investigation/evaluation may be warranted. In such circumstances, contact the Department.**

Recommended Attachments: Site map showing location(s) of subsurface soil sample(s), chemical concentration maps, laboratory analysis report(s), chain of custody, and boring logs.

NDEQ RBCA TIER 1 REPORT	FORM NO. 11
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
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ANALYTICAL DATA SUMMARY FOR SUBSURFACE SOIL (Soil sample depth greater than 3 ft bgl; All concentrations in mg/kg.)

MW / SB No.	*MW-3*			*MW-3*			*MW-4*			*MW-4*			Arithmetic Average	Maximum	Ratio (Maximum/ Arithmetic Average) *
Sampling Date	*10/25/02*			*10/25/03*			*10/24/03*			*10/24/03*					
Sample Depth (ft)	*8-10'*	*BGL*		*14-16'*	*BGL*		*4-6'*	*BGL*		*10-12'*	*BGL*				
ORGANIC CHEMICALS ANALYSES															
Benzene		*<RL*			*<RL*			*<RL*			*<RL*				
Toluene		*<RL*			*<RL*			*<RL*			*<RL*				
Ethylbenzene		*<RL*			*<RL*			*<RL*			*<RL*				
Xylenes (total)		*<RL*			*<RL*			*<RL*			*<RL*				
n-Hexane															
Methyl-tert-butyl-ether (MTBE)															
TOTAL EXTRACTABLE HYDROCARBONS ANALYSES															
TEH (as diesel)		*<RL*			*<RL*			*<RL*			*12*		**12**	**12**	**1.00**
TEH (as waste oil)															
TEH (as kerosene)															
TEH as															
TEH as															
TEH as															
OTHER ANALYTES															

NOTE:

Provide any laboratory analytical data sheets not previously submitted to the Department. Add additional sheets as needed.

Non-detects can be expressed as ND, BDL, etc.

*** : If the ratio is high (for example >10) there may be a hot spot and additional investigation/evaluation may be warranted. In such circumstances, contact the Department.**

Recommended Attachments: Site map showing location(s) of subsurface soil sample(s), chemical concentration maps, laboratory analysis report(s), chain of custody, and boring logs.

NDEQ RBCA TIER 1 REPORT

FORM NO. 12

NDEQ SPILL NO.: UG #050393-NM-1110 | **NDEQ IIS NO.: 61642**

COMPLETION DATE: 14-Nov-03 | **PREPARED BY: Jerrett J. Domling - SCS Engineers**

ANALYTICAL DATA SUMMARY FOR GROUND WATER (All concentrations in mg/L)

☐ NOT APPLICABLE FOR THIS SITE

Monitoring Well Number	*MW-1*	*MW-2*	*MW-3*	*MW-4*				Arithmetic Average	Maximum	Ratio of Maximum and Average *
Installation Date	*10/25/03*	*10/25/03*	*10/25/03*	*10/24/03*						
Screen Interval (feet below datum)	*13-23'*	*10-20'*	*11-21'*	*14-24'*						
Water Level (feet below datum)	*16.11'*	*16.59'*	*16.58'*	*16.22'*						
Last Sampling Event	*10/25/03*	*10/25/03*	*10/25/03*	*10/24/03*						
TOTAL ORGANICS ANALYSES										
Benzene	*<RL*	*<RL*	*<RL*	*<RL*						
Toluene	*<RL*	*<RL*	*<RL*	*<RL*						
Ethylbenzene	*<RL*	*<RL*	*<RL*	*<RL*						
Xylenes (total)	*<RL*	*<RL*	*<RL*	*<RL*						
n-Hexane										
Methyl-tert-butyl-ether (MTBE)										
TOTAL EXTRACTABLE HYDROCARBON ANALYSIS										
TEH (as diesel)	*<RL*	*<RL*	*<RL*	*<RL*						
TEH (as waste oil)										
TEH (as kerosene)										
TEH as										
TEH as										
TEH as										
OTHER ANALYTES										

NOTE: Provide any laboratory analytical data sheets not previously submitted to the Department. Add additional sheets as needed.

*** : If the ratio is high (for example >10) there may be a hot spot and additional investigation/evaluation may be warranted. In such circumstances, contact the Department.**

Recommended Attachment: Site map showing location(s) of monitoring well(s), chemical concentration maps, laboratory analysis report(s), chain of custody, boring logs, and monitoring well schematics.

NDEQ RBCA TIER 1 REPORT	FORM NO.13
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

FREE PRODUCT

Has free product been found at the site? ☐ YES ☑ NO

(Note if NO, proceed to the next report form)

Has free product been found in any utility? ☐ YES ☐ NO

Has the free product plume been delineated? ☐ YES ☐ NO

Shallowest depth to free product:

Type of free product released:

Number of monitoring wells currently at the site:

List the monitoring wells containing free product:

Specify the well ID and maximum free product thickness:

Feet Date:

VAPOR ASSESSMENT

Location	Utility Screened	PID/FID (ppm)	Combustible Gas (% LEL)

REMEDIATION

Has free product removal been initiated? ☐ YES ☐ NO

If YES, specify method of removal (bailer, pump, etc.)?

Frequency of removal (continuously, weekly, etc.):

Total number of recovery events to date:

Total amount of purge-water recovered:

Total amount of free product recovered:

Date of latest free product report submittal:

ADDITIONAL NOTES

Recommended attachments: Free product thickness maps as appropriate.

NDEQ RBCA TIER 1 REPORT	FORM NO. 14
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers

REFERENCES AND PROTOCOLS

Nebraska Department of Environmental Quality, Environmental Guidance Document, Risk-Based Corrective Action (RBCA) at Petroleum Release Sites: Tier 1 Assessments and Reports, February, 2002

State of Nebraska, Department of Health an Human Services Regulation and Licensure, Title 178, Chapter 12 - Regulations Governing Water Well Construction, Pump Installation, and Water Well Decommissioning Standards.

City of Omaha, Underground Storage Tank Division, Permit to Close USTs, September 29, 1992.

Nebraska State Fire Marshal, Flammable Liquid Storage Tank Division, Application for Permit to Permanently Close Tank, September 24, 1992

Nebraska State Fire Marshal, Underground Storage Tank Division, Closure Assessment Report prepared by HWS Technologies, October 9, 1992.

NDEQ RBCA TIER 1 REPORT	NDEQ INTERNAL USE ONLY	FORM NO. 15a
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642	
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers	

SITE CONCEPTUAL EXPOSURE SCENARIO - PRELIMINARY INFORMATION

LAND USE

1. Is a residential building located within 500 ft of the site? ☐ Yes ☐ No

PATHWAYS

2. Soil impacts:
   - 2a. Is the surface soil (depth range 0 to 3 ft bgl) impacted? ☐ Yes ☐ No
   - 2b. Is the subsurface soil (depth greater than 3 ft bgl) impacted? ☐ Yes ☐ No
3. Is ground water impacted? ☐ Not applicable ☐ Yes ☐ No

General Information

Provide the following:

Ground water seepage velocity (ft/day) 0.23

If RAC-1, designation is based on:

☐ Well Location

☐ Wellhead Protection Area

GROUND WATER INGESTION/ SOIL LEACHING TO GROUND WATER

(This pathway is not complete when ground water is not impacted or when this pathway is not applicable.)

4. Ground water seepage velocity. ☐ < 0.1 ft/day ☐ ≥ 0.1 ft/day
5. Type of water. ☐ Drinking water ☐ Non-Drinking water
6. Presence of water wells.
   - 6a. Is a water well present within 750 feet of the site? ☐ Yes ☐ No
   - 6b. If yes, provide the distance to the nearest water well. *500* feet
7. Remedial Action Class. ☐ RAC-1 ☐ RAC-2 ☐ RAC-3
8. Thickness of unsaturated zone. ☐ 0-50 feet ☐ > 50 feet

Comments

ENCLOSED SPACE VAPOR INHALATION

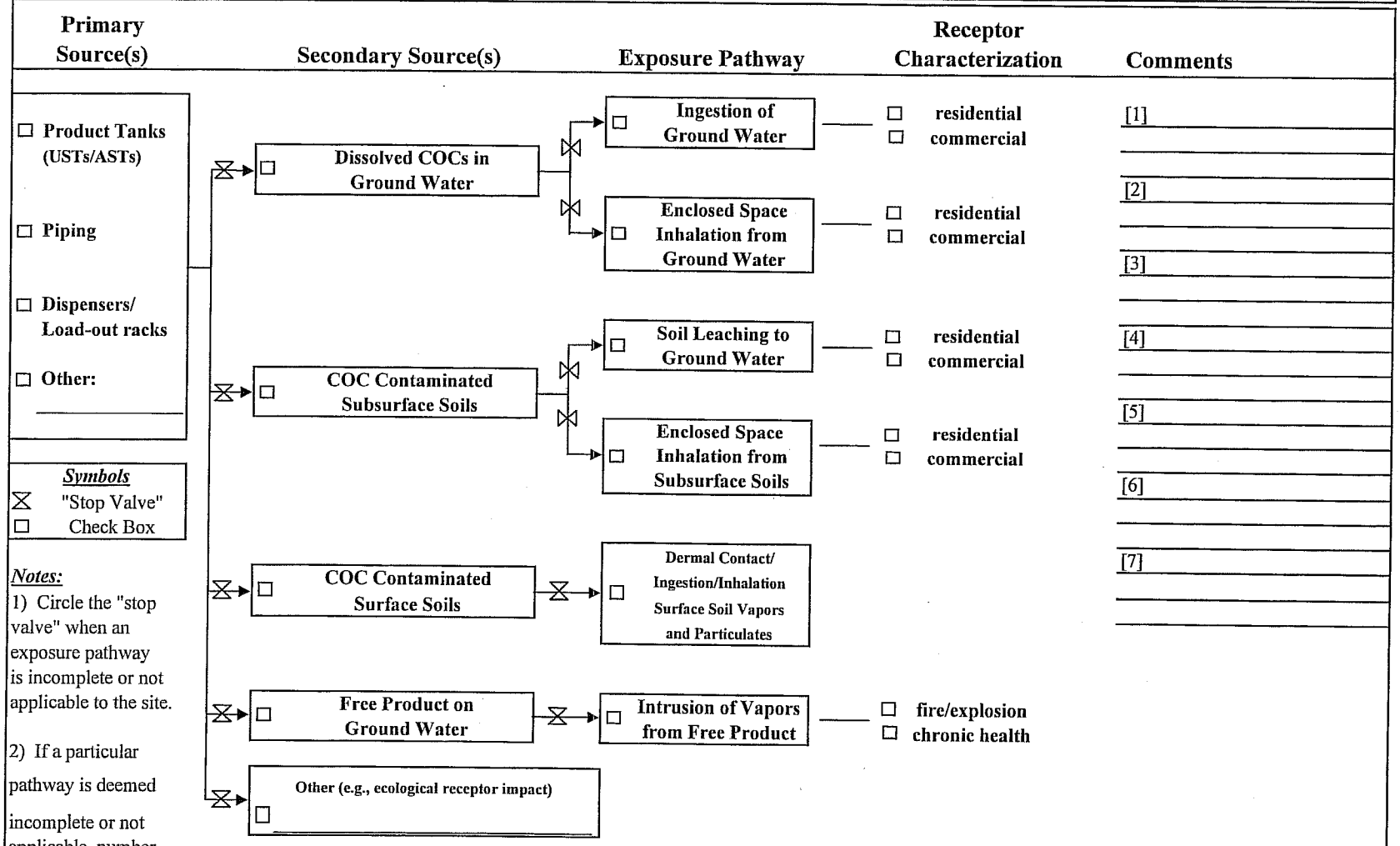
9. Soil pathway. *(This pathway is not complete when soil is not impacted.)*
   - 9a. Is a building present over the impacted soil? ☐ Yes ☐ No
   - 9b. Indicate the predominant subsurface soil type in the vadose zone. ☐ Sands ☐ Silts/Clays
   - 9c. Indicate the vertical interval between the contamination and structure.* ☐ < 3 feet ☐ 3 - 6 feet ☐ 6 - 15 feet
10. Ground water pathway. *(This pathway is not complete when ground water is not impacted or when this pathway is not applicable.)*
   - 10a. Is a building present over the impacted ground water? ☐ Yes ☐ No
   - 10b. Indicate the predominant subsurface soil type in the vadose zone. ☐ Sands ☐ Silts/Clays
   - 10c. Indicate the vertical interval between the contamination and structure.* ☐ < 3 feet ☐ 3 - 6 feet ☐ 6 - 15 feet

NOTE:

* In case no building is present, indicate the depth to contamination from ground surface. In cases where the groundwater or contaminant mass is more than 15 feet below the structure, leave all checkboxes unchecked.

NDEQ RBCA TIER 1 REPORT	NDEQ INTERNAL USE ONLY	FORM NO. 15b
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642	
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers	

Site Conceptual Exposure Scenario Worksheet



Notes:

1) Circle the "stop valve" when an exposure pathway is incomplete or not applicable to the site.

2) If a particular pathway is deemed incomplete or not applicable, number the stop valve and provide the rationale for this decision in the corresponding number in the Comments section.

3) Complete the pathways as appropriate by using the check boxes.

Site Information

Site Name:

Location/City:

NDEQ RBCA TIER 1 REPORT	NDEQ INTERNAL USE ONLY	FORM NO. 16a - RESIDENTIAL EXPOSURE
NDEQ SPILL NO.: UG #050393-NM-1110		NDEQ IIS NO.: 61642
COMPLETION DATE: 14-Nov-03		PREPARED BY: Jerrett J. Domling - SCS Engineers

COMPARISON OF TIER 1 RBSLs WITH REPRESENTATIVE CONCENTRATIONS - RESIDENTIAL EXPOSURE

CHEMICALS OF CONCERN	GROUND WATER INGESTION			SOIL LEACHING TO GROUND WATER			ENCLOSED SPACE INHALATION					
	Ingestion of impacted ground water by resident		NC	Soil Source Cconcentration Protective of POE		NC	Inhalation of vapors from contaminated ground water		NC	Inhalation of vapors from contaminated soil		NC
	Representative Concentration [mg/L]	RBSLs [mg/L]	E/NE	Representative Concentration [mg/kg]	RBSLs [mg/kg]	E/NE	Representative Concentration [mg/L]	RBSLs [mg/L]	E/NE	Representative Concentration [mg/kg]	RBSLs [mg/kg]	E/NE
TOTAL ORGANICS ANALYSES												
Benzene												
Toluene												
Ethylbenzene												
Xylenes (total)												
n-Hexane												
Methyl-tert-butyl-ether (MTBE)												
TOTAL EXTRACTABLE HYDROCARBON ANALYSIS												
TEH (as diesel)												
TEH (as waste oil)												
TEH (as kerosene)												
TEH as												
TEH as												
TEH as												
OTHER ANALYTES												

NOTES:

Enter the representative concentration above. Use of maximum concentrations is required for Ground Water Ingestion and Soil Leaching to Ground Water pathways. Average concentrations are allowed for Enclosed Space Inhalation pathways from contaminated soil and ground water.

E: Representative on-site concentration exceeds Tier 1 RBSLs

NE: Representative on-site concentration does not exceed Tier 1 RBSLs

C/NC: Complete/Not Complete Pathway

>Sol: The selected risk level is not exceeded for all possible dissolved levels.

>Sat: The selected target level is not exceeded for all possible saturated levels in soil.

NDEQ RBCA TIER 1 REPORT	NDEQ INTERNAL USE ONLY	FORM NO. 17a
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642	
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers	

TIER 1 CONCLUSIONS AND RECOMMENDATIONS

☐ **Site Closure**

An evaluation of the RBCA Tier 1 Investigation Report for the above referenced site has been completed. The report indicates that the appropriate COCs have been evaluated and do not exceed the risk-based screening levels (RBSLs) for any of the exposure pathways.

(Check all of the following that apply.)

☐ Laboratory analyses did not detect any petroleum contaminants in the surface soil sediments.

☐ Laboratory analyses did not detect any petroleum contaminants in the source area subsurface soils.

☐ Laboratory analyses did not detect any petroleum contaminants in ground water.

☐ Ground water was impacted by this release. Other than the city/area newspaper, the public notice will be sent to:

- ☐ HHHS (Domestic, Municipal, or WHP)
- ☐ Local Utility Superintendent (Municipal or WHP)
- ☐ Private Well Owners (Only Domestic)
- ☐ Other _____

☐ Monitoring wells are present and have to be abandoned.

☐ Permanent monitoring wells are not present at this site.

Comments

_____

☐ **Additional Actions Required**

An evaluation of the RBCA Tier 1 Investigation Report for the above referenced site has been completed. The report indicates that the appropriate COCs have been evaluated and exceed the risk-based screening levels (RBSLs) for one or more exposure pathways.

(Check all of the following that apply.)

☐ Failed the following pathways:

- ☐ Ground Water-Ingestion
- ☐ Soil Leaching to Ground Water
- ☐ Ground Water Vapors
- ☐ Subsurface Soil Vapors
- ☐ Surface Soils
- ☐ Other (e.g., surface water impact): _____

☐ Proceed to Tier 2 Investigation

☐ Removal/treatment of contaminated surface soils to Tier 1 RBSLs

☐ Implementation of immediate mitigative remedial actions

☐ Other:

_____

Comments

_____

Supervisor's initials are necessary only for proposed site closure.

Project Manager Initials: _____ Date: _____

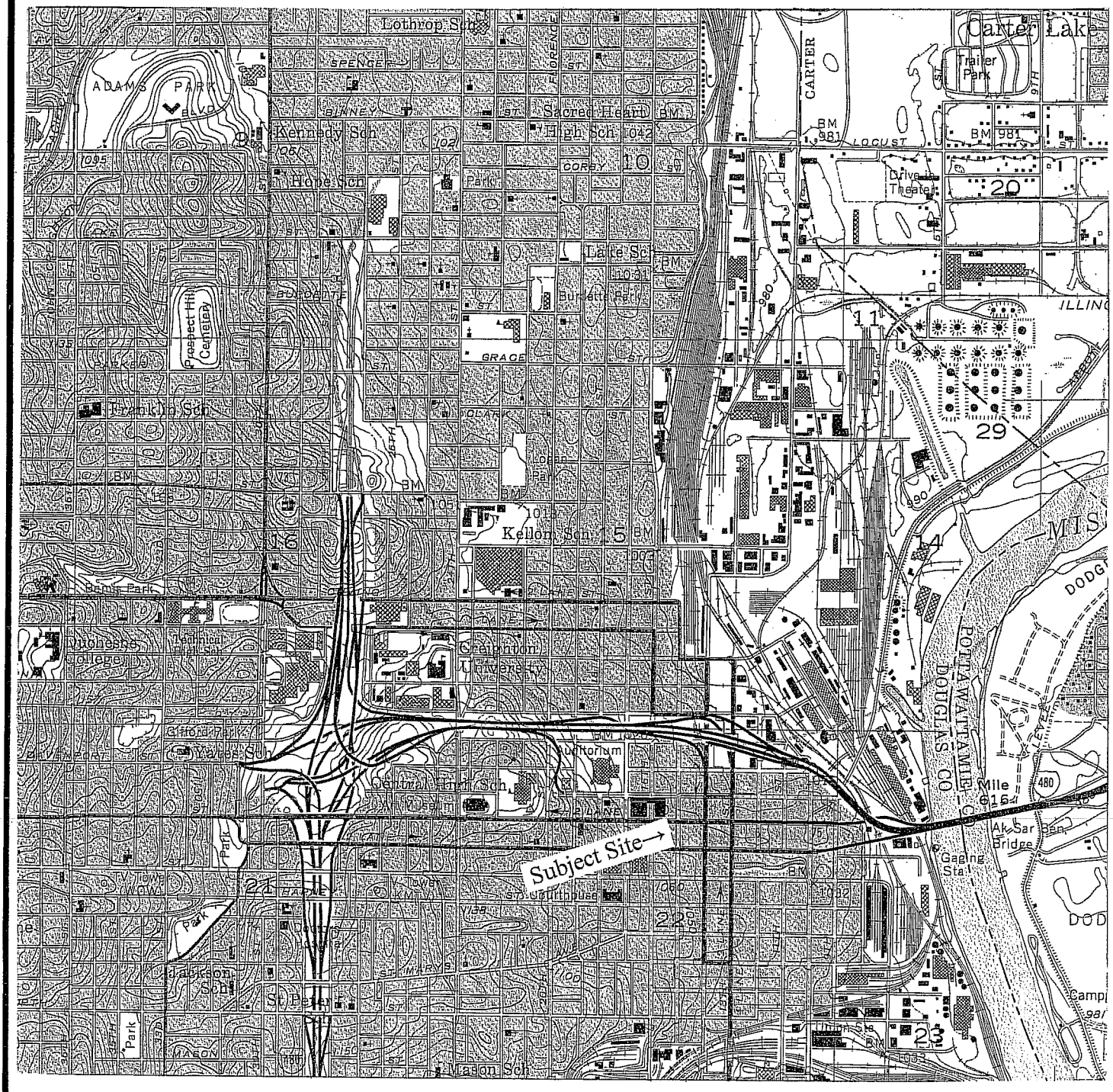
Unit Supervisor Initials: _____ Date: _____

Section Supervisor Initials: _____ Date: _____

For Supervisor review, attach Report Form Nos. 15a, 15b, 16a, 16b, and 16c, unless no contamination was detected.

NDEQ RBCA TIER 1 REPORT	NDEQ INTERNAL USE ONLY	FORM NO. 17b
NDEQ SPILL NO.: UG #050393-NM-1110	NDEQ IIS NO.: 61642	
COMPLETION DATE: 14-Nov-03	PREPARED BY: Jerrett J. Domling - SCS Engineers	

TIER 1 CONCLUSIONS AND RECOMMENDATIONS - ADDITIONAL NOTES



TOPOGRAPHIC MAP

Omaha North Quadrangle, Nebraska-Iowa, 7.5 Minute Series

SCALE 1:24 000

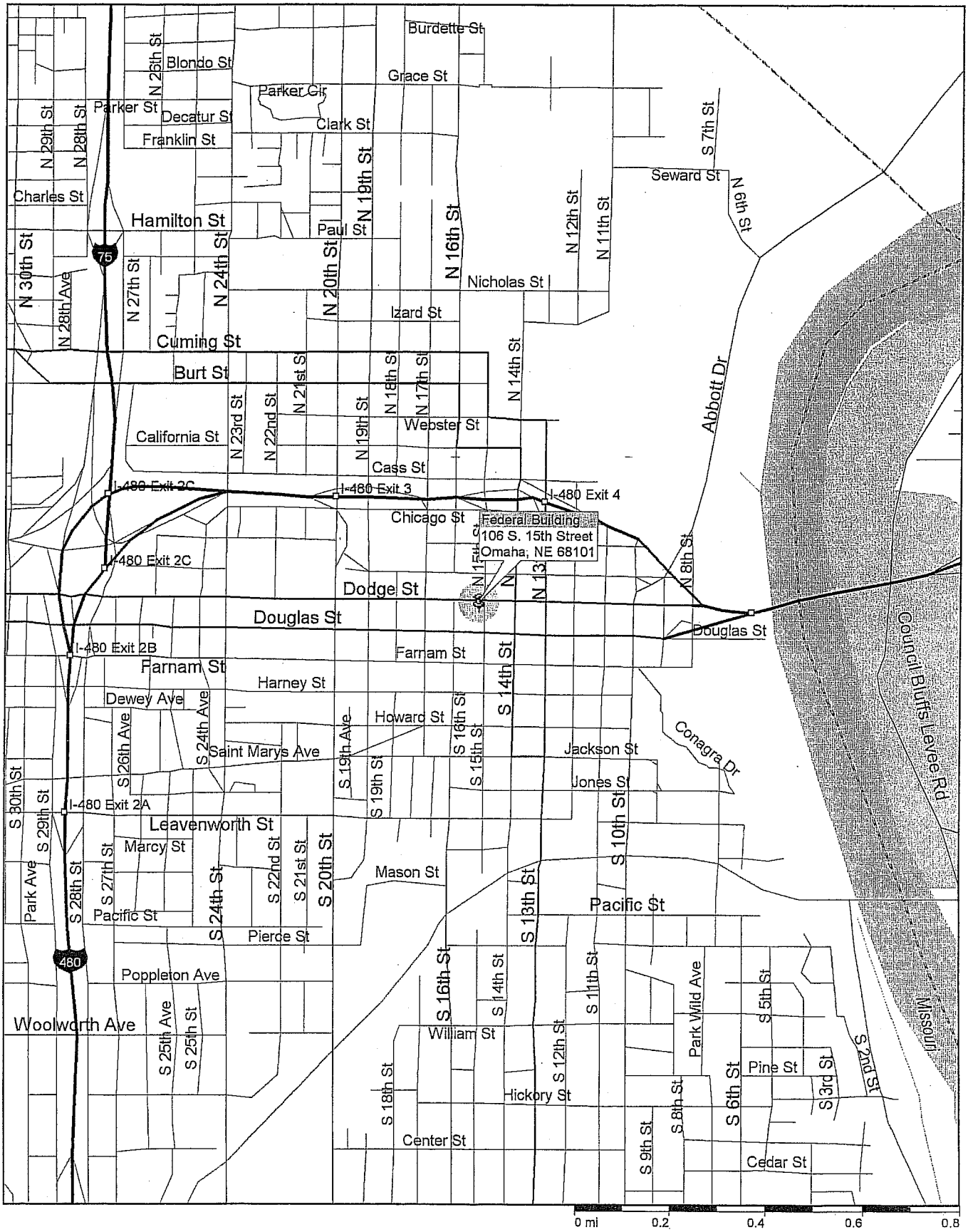
1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

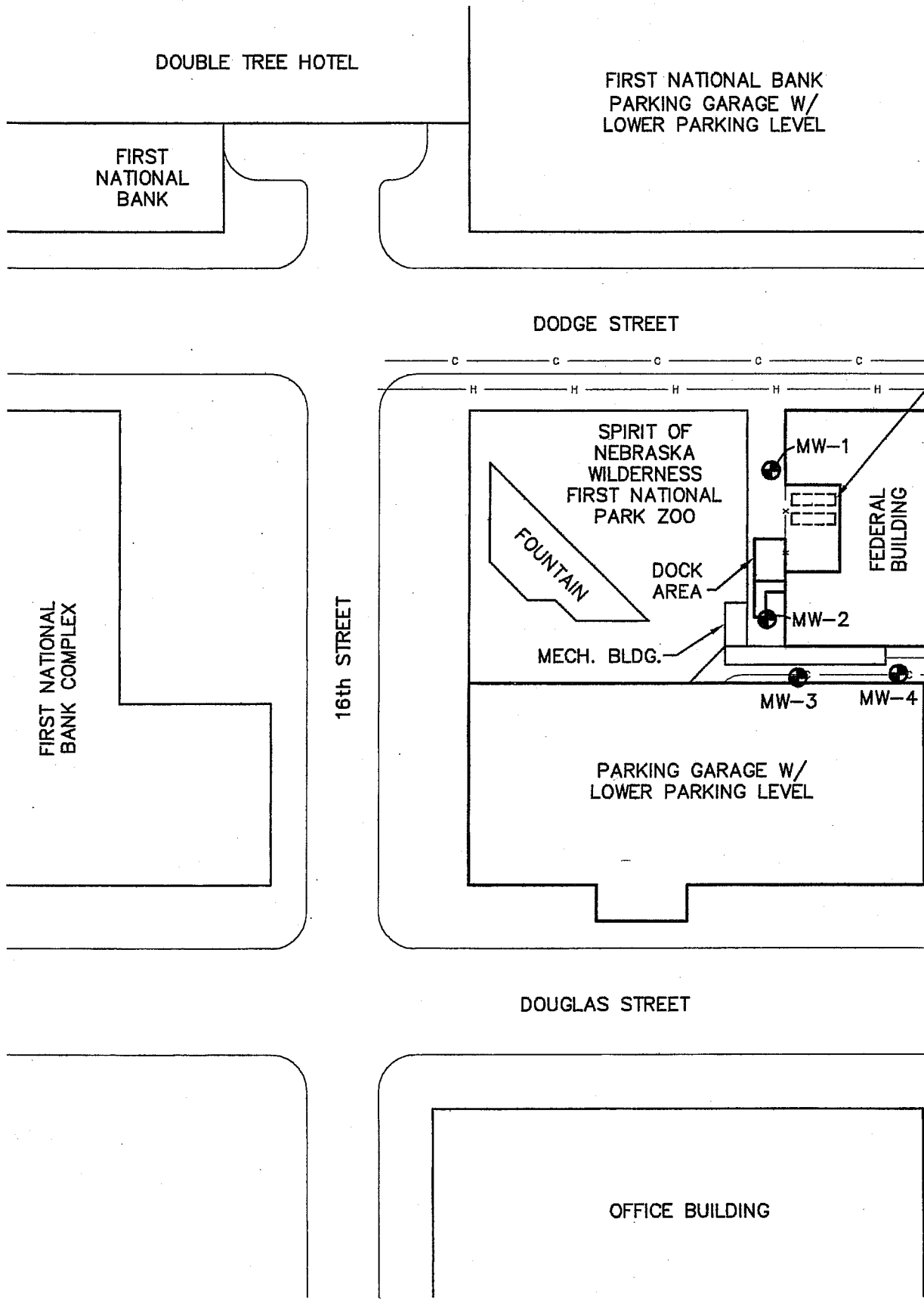
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SCS ENGINEERS



Voluntary Tier 1 Investigation Federal Office Building 106 S. 15th Street, Omaha, Nebraska SCS #02200070.07 UG #050393-NM-1110 October 2003	FIGURE 1 AREA MAP



D:\P2D-Dwgs\DWGS\HAZARDS\02\200070.07\ 200070.07-10.dwg 1=1 11-17-03

SCS ENGINEERS **DRILLING LOG**

Boring/Monitoring Well Identification: MW-1	Facility: Federal Building
Date: 10/25/2003	106 S. 15th Street
Sampling Method: Continuous	Omaha, Nebraska
Drilling Method: 4 1/4" Hollow Stem Augers	Driller: T. Whittney
Boring Diameter: 8" Drilling Contractor: GSI	Geologist: Jerrett Domling (SCS)

Depth In Feet	Monitoring Well Construction Detail	Sample	Headspace Field Screening PID (ppm)	Rock Formations, Soil, Color and Classifications Observations
Bolt Elevation 1036.83' (MSL)		Split spoon sampler #		
0	150 lbs. 3/8" chip Bent.	S-1		0-14" Concrete pavement
TOC Elevation 1036.47' (MSL)		S-2	0 ppm	14"-4' CL, dark brown/black clay, fill material, traces of brick fragments, moist, firm, 7.5YR3/2
5		S-3	2 ppm	
Ground Water Elevation (MSL)		S-4	1 ppm	4-10' CL, medium brown clay, moist, firm, 7.5 YR5/4
		S-5	1 ppm	FE staining
10	300 lbs. 10/20 sand	S-6	1 ppm	10-23' CL, native soils, greyish brown loess, rootholes, moist, firm, 10YR5/2
	10' 0.010 Screen	S-7	1 ppm	
15		S-8	2 ppm	v
20				

Bottom of hole @ 23'

Drilling Started: 3:00 Drilling Ended: 4:30 pm

OBSERVATIONS						
WATER (SWL from TOC)	Date:	10/25/03		11/2/03		
	Level:	16.37'		16.11'		

Static Water Level Symbol - v

Soil screened with a Thermo-Industries OVM 580B PID

SCS ENGINEERS — **DRILLING LOG**

Boring/Monitoring Well Identification: MW-2	Facility: Federal Building
Date: 10/25/2003	106 S. 15th Street
Sampling Method: Continuous	Omaha, Nebraska
Drilling Method: 4 1/4" Hollow Stem Augers	Driller: T. Whittney
Boring Diameter: 8" Drilling Contractor: GSI	Geologist: Jerrett Domling (SCS)

Depth In Feet	Monitoring Well Construction Detail	Sample	Headspace Field Screening PID (ppm)	Rock Formations, Soil, Color and Classifications Observations
Bolt Elevation 1037.77' (MSL)		Split spoon sampler #		
TOC Elevation 1037.48' (MSL)	100 lbs. 3/8" chip Bent.	S-1	0 ppm	0-14" Concrete pavement
Ground Water Elevation (MSL)		S-2	0 ppm	14"-4' CL, dark brown/black clay, fill material, traces of brick fragments, moist, firm, 7.5YR3/2
		S-3	0 ppm	4-10' CL, medium brown clay, moist, firm, 7.5 YR5/4
		S-4	0 ppm	
	350 lbs. 10/20 sand	S-5	0 ppm	FE staining
	10' 0.010" Screen	S-6	0 ppm	10-23' CL, native soils, greyish brown loess, rootholes, moist, firm, 10YR5/2
		S-7	0 ppm	Increasing moisture content
				Saturated conditions
				v

Bottom of hole @ 20'

Drilling Started: 9:30 Drilling Ended: 11:30 am

OBSERVATIONS						
WATER (SWL from TOC)	Date:	10/25/03		11/2/03		
	Level:	17.22'		16.59'		

Static Water Level Symbol - v

Soil screened with a Thermo-Industries OVM 580B PID

SCS ENGINEERS **DRILLING LOG**

Boring/Monitoring Well Identification: MW-3	Facility: Federal Building
Date: 10/25/2003	106 S. 15th Street
Sampling Method: Continuous	Omaha, Nebraska
Drilling Method: 4 1/4" Hollow Stem Augers	Driller: T. Whittney
Boring Diameter: 8" Drilling Contractor: GSI	Geologist: Jerrett Domling (SCS)

Depth In Feet	Monitoring Well Construction Detail	Sample	Headspace Field Screening PID (ppm)	Rock Formations, Soil, Color and Classifications Observations
Bolt Elevation 1037.77' (MSL)		Split spoon sampler #		
0	100 lbs. 3/8" chip Bent.	S-1	0 ppm	0-14" Concrete pavement 14"-12' CL, loess derived, fill material, moist, firm, 7.5YR4/3
TOC Elevation 1037.48' (MSL)		S-2	0 ppm	
5		S-3	1 ppm	
Ground Water Elevation (MSL)		S-4	0 ppm	
		S-5	3 ppm	Slight discoloration of soils, traces of brick fragments, increasing moisture content
10	300 lbs. 10/20 sand	S-6	2 ppm	
	10' 0.010 Screen	S-7	2 ppm	
15		S-8	2 ppm	
				v Saturated soils
20				

Bottom of hole @ 21'

Drilling Started: 12:00 Drilling Ended 2:00 pm

OBSERVATIONS						
WATER (SWL from TOC)	Date:	10/25/03	11/2/03			
	Level:	17.13'	16.58'			

Static Water Level Symbol - v

Soil screened with a Thermo-Industries OVM 580B PID

SCS ENGINEERS — **DRILLING LOG**

Boring/Monitoring Well Identification: MW-4	Facility: Federal Building
Date: 10/24/2003	106 S. 15th Street
Sampling Method: Continuous	Omaha, Nebraska
Drilling Method: 4 1/4" Hollow Stem Augers	Driller: T. Whittney
Boring Diameter: 8" Drilling Contractor: GSI	Geologist: Jerrett Domling (SCS)

Depth In Feet	Monitoring Well Construction Detail	Sample	Headspace Field Screening PID (ppm)	Rock Formations, Soil, Color and Classifications Observations
Bolt Elevation 1036.86' (MSL)		Split spoon sampler #		
0	75 lbs 3/8" chip Bent	S-1	0 ppm	0-14" Concrete pavement
TOC Elevation 1036.65' (MSL)		S-2	0 ppm	14"-24' CL, light brown/brown clay, moist, firm, carbon and iron staining
5		S-3	1 ppm	
Ground Water Elevation (MSL)		S-4	0 ppm	Brick and coal fragments, traces of fine/medium sand
		S-5	0 ppm	
10	350 lbs 10/20 sand	S-6	0 ppm	Increasing moisture content, concrete fragments
		S-7	0 ppm	
15	10' 0.010" Screen	S-8	0 ppm	
		S-9	0 ppm	v
20		S-10	0 ppm	Saturated sands ~ 40%

Bottom of hole @ 24'

Drilling Started: 2:30 Drilling Ended: 4:00 pm

OBSERVATIONS						
WATER (SWL from TOC)	Date:	10/24/03		11/2/03		
	Level:	17.90'		16.22'		

Static Water Level Symbol - v

Soil screened with a Thermo-Industries OVM 580B PID

SEVERN TRENT STL

STL Chicago
2417 Bond Street
University Park, IL 60466

Tel: 708 534 5200 Fax: 708 534 5211
www.stl-inc.com

SEVERN TRENT LABORATORIES ANALYTICAL REPORT

JOB NUMBER: 221756

Prepared For:

SCS Engineers, Inc.
10401 Holmes Road
Suite 400
Kansas City, MO 64131

Project: GSA - Lincoln and Omaha, NE

Attention: David Brewer

Date: 11/11/2003

Signature

Date 11-11-03

Name: Eric A. Lang

Title: Project Manager

E-Mail: elang@stl-inc.com

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX..: (708) 534-5211

This Report Contains (38) Pages

STL Chicago
Extractable Hydrocarbon Case Narrative

SCS Engineers, Inc.
GSA – Lincoln and Omaha, NE
Job #: 221756-1 through 13
TPH OA-2

1. The water samples were extracted based on SW846 method 3510. The soil samples were extracted based on SW846 method 3550. The extracts were analyzed for TPH following OA-2 methodologies and SW846 method 8015. An HP5890 gas chromatograph equipped with a flame ionization detector and an Xti-5 column was used for the analysis.

2. All required holding times were met for the extraction and analysis.

3. The method blank was below the reporting limit for DRO.

4. The surrogate compounds used for this analysis were o-Terphenyl and 2-Fluorobiphenyl. All surrogate recoveries were within statistical control limits except 2-Fluorobiphenyl had 105% recovery.

5. All blank spike and blank spike duplicate recoveries and RPD were within statistical control limits. A solution of Diesel Fuel was used for spiking.

6. A matrix spike and a matrix spike duplicate were performed on sample 221756-1 (MW-4 S-3). The matrix spike and matrix spike duplicate recovery and RPD were within statistical control limits.

7. Initial calibration consisted of a 6-point curve of Diesel Fuel. The Diesel Fuel standards were obtained through a vendor. The quantitation windows were based on the entire pattern of the fuel of the highest concentrated standard. Continuing calibration standards were analyzed to verify the calibration during analysis of the samples and were within method control limits.

8. Diesel Fuel as OA-2 was not detected in these samples.

Patti Gibson

Patti Gibson
Organics Section Manager

11/7/03
Date

Severn Trent Laboratories Chicago
GC/MS Case Narrative

URS Corporation
GSA -Omaha
Job Number: 221756
VOA DATA:

1. The sample preparation and analyses were performed within the recommended hold times from the date of collection.

2. All Method Blanks had all target compounds below the reporting limit.

3. The LCS (Laboratory Control Sample) samples had all controlled spike recoveries within the in-house generated QC limits.

4. Matrix Spike/Matrix Spike Duplicate analyses were not performed on this sample set.

5. All volatile samples had surrogate recoveries within the in-house generated QC limits.

6. The samples were prepared using Method 5030. All of the samples were analyzed following SW846 Method 8260B and 8000B. All calibration criteria are met per method or SOP (for minimum R values for certain compounds). The low point in the initial calibration verifies the base reporting limits. The target compounds were quantitated using the initial calibration.

7. All volatile samples had internal standard areas and retention times within the SOP acceptance limits as compared to the corresponding calibration verification standard.

8. The water samples were analyzed using a 25ml purge volume. The soil samples were analyzed using the low-level soil method 5030. The soil results and reporting limits were reported on a dry weight basis.

Jennifer S. O'Gorman
Jennifer S. O'Gorman
GC/MS Dept.

11-10-3
Date

STL Chicago is part of Severn Trent Laboratories, Inc.

SAMPLE INFORMATION
Date: 11/11/2003

Job Number.: 221756
Customer...: SCS Engineers, Inc.
Attn.....: David Brewer

Project Number.....: 20003178
Customer Project ID....: GSA - OMAHA
Project Description....: GSA - Lincoln and Omaha, NE

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
221756-1	MW-4 S-3	Soil	10/24/2003	16:00	10/28/2003	09:30
221756-2	MW-4 S-6	Soil	10/24/2003	16:30	10/28/2003	09:30
221756-3	MW-2 S-4	Soil	10/25/2003	09:30	10/28/2003	09:30
221756-4	MW-2 S-7	Soil	10/25/2003	10:00	10/28/2003	09:30
221756-5	MW-3 S-5	Soil	10/25/2003	13:00	10/28/2003	09:30
221756-6	MW-3 S-8	Soil	10/25/2003	13:30	10/28/2003	09:30
221756-7	MW-1 S-3	Soil	10/25/2003	14:30	10/28/2003	09:30
221756-8	MW-1 S-8	Soil	10/25/2003	14:45	10/28/2003	09:30
221756-9	MW-2	Water	10/25/2003	15:00	10/28/2003	09:30
221756-10	MW-4	Water	10/25/2003	15:45	10/28/2003	09:30
221756-11	MW-3	Water	10/25/2003	16:30	10/28/2003	09:30
221756-12	MW-1	Water	10/25/2003	17:00	10/28/2003	09:30
221756-13	FIELD BLANK	Water	10/25/2003	16:00	10/28/2003	09:30
221756-14	TRIP BLANK	Water	10/24/2003	16:00	10/28/2003	09:30

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-4 S-3
Date Sampled.....: 10/24/2003
Time Sampled.....: 16:00
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-1
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	81.8			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	18.2			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.1	U		3.9	5.1	1.00000	mg/Kg	100773		11/04/03 2027	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0061	U		0.00081	0.0061	1.00000	mg/Kg	100563		11/02/03 1446	jdn
	Toluene, Solid*	0.0061	U		0.0012	0.0061	1.00000	mg/Kg	100563		11/02/03 1446	jdn
	Ethylbenzene, Solid*	0.0061	U		0.0013	0.0061	1.00000	mg/Kg	100563		11/02/03 1446	jdn
	Xylenes (total), Solid*	0.0061	U		0.0035	0.0061	1.00000	mg/Kg	100563		11/02/03 1446	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-4 S-6
Date Sampled.....: 10/24/2003
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-2
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	78.4			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	21.6			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	12			4.1	5.3	1.00000	mg/Kg	100773		11/04/03 2249	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0064	U		0.00084	0.0064	1.00000	mg/Kg	100563		11/02/03 1520	jdn
	Toluene, Solid*	0.0064	U		0.0013	0.0064	1.00000	mg/Kg	100563		11/02/03 1520	jdn
	Ethylbenzene, Solid*	0.0064	U		0.0014	0.0064	1.00000	mg/Kg	100563		11/02/03 1520	jdn
	Xylenes (total), Solid*	0.0064	U		0.0037	0.0064	1.00000	mg/Kg	100563		11/02/03 1520	jdn

* In Description = Dry Wgt.

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Job Number: 221756

LABORATORY TEST RESULTS

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-2 S-4
Date Sampled.....: 10/25/2003
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-3
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	80.1			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	19.9			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.2	U		3.9	5.2	1.00000	mg/Kg	100773		11/05/03 0023	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0062	U		0.00082	0.0062	1.00000	mg/Kg	100563		11/02/03 1548	jdn
	Toluene, Solid*	0.0062	U		0.0012	0.0062	1.00000	mg/Kg	100563		11/02/03 1548	jdn
	Ethylbenzene, Solid*	0.0062	U		0.0014	0.0062	1.00000	mg/Kg	100563		11/02/03 1548	jdn
	Xylenes (total), Solid*	0.0062	U		0.0036	0.0062	1.00000	mg/Kg	100563		11/02/03 1548	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-2 S-7
Date Sampled.....: 10/25/2003
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-4
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	75.3			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	24.7			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.5	U		4.2	5.5	1.00000	mg/Kg	100773		11/05/03 0110	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0066	U		0.00088	0.0066	1.00000	mg/Kg	100563		11/02/03 1615	jdn
	Toluene, Solid*	0.0066	U		0.0013	0.0066	1.00000	mg/Kg	100563		11/02/03 1615	jdn
	Ethylbenzene, Solid*	0.0066	U		0.0015	0.0066	1.00000	mg/Kg	100563		11/02/03 1615	jdn
	Xylenes (total), Solid*	0.0066	U		0.0039	0.0066	1.00000	mg/Kg	100563		11/02/03 1615	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-3 S-5
Date Sampled.....: 10/25/2003
Time Sampled.....: 13:00
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-5
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	80.4			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	19.6			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.9			3.9	5.2	1.00000	mg/Kg	100773		11/05/03 0243	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0062	U		0.00082	0.0062	1.00000	mg/Kg	100563		11/02/03 1643	jdn
	Toluene, Solid*	0.0062	U		0.0012	0.0062	1.00000	mg/Kg	100563		11/02/03 1643	jdn
	Ethylbenzene, Solid*	0.0062	U		0.0014	0.0062	1.00000	mg/Kg	100563		11/02/03 1643	jdn
	Xylenes (total), Solid*	0.0062	U		0.0036	0.0062	1.00000	mg/Kg	100563		11/02/03 1643	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-3 S-8
Date Sampled.....: 10/25/2003
Time Sampled.....: 13:30
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-6
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	79.5			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	20.5			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.3	U		4.0	5.3	1.00000	mg/Kg	100773		11/05/03 0329	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0063	U		0.00083	0.0063	1.00000	mg/Kg	100563		11/02/03 1710	jdn
	Toluene, Solid*	0.0063	U		0.0013	0.0063	1.00000	mg/Kg	100563		11/02/03 1710	jdn
	Ethylbenzene, Solid*	0.0063	U		0.0014	0.0063	1.00000	mg/Kg	100563		11/02/03 1710	jdn
	Xylenes (total), Solid*	0.0063	U		0.0036	0.0063	1.00000	mg/Kg	100563		11/02/03 1710	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-1 S-3
Date Sampled.....: 10/25/2003
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-7
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	77.8			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	22.2			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.2	U		4.0	5.2	1.00000	mg/Kg	100773		11/05/03 0416	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0064	U		0.00085	0.0064	1.00000	mg/Kg	100563		11/02/03 1738	jdn
	Toluene, Solid*	0.0064	U		0.0013	0.0064	1.00000	mg/Kg	100563		11/02/03 1738	jdn
	Ethylbenzene, Solid*	0.0064	U		0.0014	0.0064	1.00000	mg/Kg	100563		11/02/03 1738	jdn
	Xylenes (total), Solid*	0.0064	U		0.0037	0.0064	1.00000	mg/Kg	100563		11/02/03 1738	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-1 S-8
Date Sampled.....: 10/25/2003
Time Sampled.....: 14:45
Sample Matrix.....: Soil

Laboratory Sample ID: 221756-8
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	74.4			0.10	0.10	1	%	100098		10/29/03 1905	pfk
	% Moisture, Solid	25.6			0.10	0.10	1	%	100098		10/29/03 1905	pfk
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2, Solid*	5.6	U		4.3	5.6	1.00000	mg/Kg	100773		11/05/03 0502	mgk
8260B	Volatile Organics											
	Benzene, Solid*	0.0067	U		0.00089	0.0067	1.00000	mg/Kg	100563		11/02/03 1805	jdn
	Toluene, Solid*	0.0067	U		0.0013	0.0067	1.00000	mg/Kg	100563		11/02/03 1805	jdn
	Ethylbenzene, Solid*	0.0067	U		0.0015	0.0067	1.00000	mg/Kg	100563		11/02/03 1805	jdn
	Xylenes (total), Solid*	0.0067	U		0.0039	0.0067	1.00000	mg/Kg	100563		11/02/03 1805	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-2
Date Sampled.....: 10/25/2003
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 221756-9
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2	0.12	U		0.081	0.12	1.00000	mg/L	100773		11/04/03 1408	mgk
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1643	jdn
	Toluene	0.0010	U		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1643	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1643	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1643	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-4
Date Sampled.....: 10/25/2003
Time Sampled.....: 15:45
Sample Matrix.....: Water

Laboratory Sample ID: 221756-10
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2	0.13	U		0.087	0.13	1.00000	mg/L	100773		11/04/03 1455	mgk
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1712	jdn
	Toluene	0.0010	U		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1712	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1712	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1712	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-3
Date Sampled.....: 10/25/2003
Time Sampled.....: 16:30
Sample Matrix.....: Water

Laboratory Sample ID: 221756-11
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2	0.12	U		0.082	0.12	1.00000	mg/L	100773		11/04/03 1543	mgk
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1741	jdn
	Toluene	0.0010	U		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1741	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1741	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1741	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: MW-1
Date Sampled.....: 10/25/2003
Time Sampled.....: 17:00
Sample Matrix.....: Water

Laboratory Sample ID: 221756-12
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2	0.12	U		0.084	0.12	1.00000	mg/L	100773		11/04/03 1630	mgk
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1811	jdn
	Toluene	0.0010	U		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1811	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1811	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1811	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: FIELD BLANK
Date Sampled.....: 10/25/2003
Time Sampled.....: 16:00
Sample Matrix.....: Water

Laboratory Sample ID: 221756-13
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
OA-2	Extractable Petroleum Products											
	Diesel Fuel as OA-2	0.12	U		0.080	0.12	1.00000	mg/L	100773		11/04/03 1717	mgk
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1840	jdn
	Toluene	0.00095	J		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1840	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1840	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1840	jdn

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 221756

Date:11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Customer Sample ID: TRIP BLANK
Date Sampled.....: 10/24/2003
Time Sampled.....: 16:00
Sample Matrix.....: Water

Laboratory Sample ID: 221756-14
Date Received.....: 10/28/2003
Time Received.....: 09:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1909	jdn
	Toluene	0.0010	U		0.00021	0.0010	1.00000	mg/L	100776		11/04/03 1909	jdn
	Ethylbenzene	0.0010	U		0.00020	0.0010	1.00000	mg/L	100776		11/04/03 1909	jdn
	Xylenes (total)	0.0010	U		0.00028	0.0010	1.00000	mg/L	100776		11/04/03 1909	jdn

* In Description = Dry Wgt.

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LABORATORY CHRONICLE

Job Number: 221756

Date: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Lab ID: 221756-1 Client ID: MW-4 S-3

Date Recvd: 10/28/2003 Sample Date: 10/24/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1446	
OA-2	Extractable Petroleum Products	1	100773	100362	11/04/2003	2027	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1446	1.00000

Lab ID: 221756-2 Client ID: MW-4 S-6

Date Recvd: 10/28/2003 Sample Date: 10/24/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1520	
OA-2	Extractable Petroleum Products	1	100773	100362	11/04/2003	2249	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1520	1.00000

Lab ID: 221756-3 Client ID: MW-2 S-4

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1548	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0023	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1548	1.00000

Lab ID: 221756-4 Client ID: MW-2 S-7

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1615	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0110	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1615	1.00000

Lab ID: 221756-5 Client ID: MW-3 S-5

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1643	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0243	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1643	1.00000

Lab ID: 221756-6 Client ID: MW-3 S-8

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1710	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0329	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1710	1.00000

Lab ID: 221756-7 Client ID: MW-1 S-3

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1738	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0416	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1738	1.00000

Lab ID: 221756-8 Client ID: MW-1 S-8

Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
Method	% Solids Determination	1	100098		10/29/2003	1905	

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LABORATORY CHRONICLE

Job Number: 221756

Date: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Lab ID: 221756-8 Client ID: MW-1 S-8 Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030A	5030 Soil(5g)Prep	1	100562		11/02/2003	1805	
OA-2	Extractable Petroleum Products	1	100773	100362	11/05/2003	0502	1.00000
3550B	Extraction Ultrasonic (Diesel)	1	100362		11/01/2003	0900	
8260B	Volatile Organics	1	100563	100562	11/02/2003	1805	1.00000

Lab ID: 221756-9 Client ID: MW-2 Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1643	
OA-2	Extractable Petroleum Products	1	100773	100254	11/04/2003	1408	1.00000
3510C	Extraction Sep. Funnel (Diesel)	1	100254		10/30/2003	2000	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1643	1.00000

Lab ID: 221756-10 Client ID: MW-4 Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1712	
OA-2	Extractable Petroleum Products	1	100773	100254	11/04/2003	1455	1.00000
3510C	Extraction Sep. Funnel (Diesel)	1	100254		10/30/2003	2000	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1712	1.00000

Lab ID: 221756-11 Client ID: MW-3 Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1741	
OA-2	Extractable Petroleum Products	1	100773	100254	11/04/2003	1543	1.00000
3510C	Extraction Sep. Funnel (Diesel)	1	100254		10/30/2003	2000	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1741	1.00000

Lab ID: 221756-12 Client ID: MW-1 Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1811	
OA-2	Extractable Petroleum Products	1	100773	100254	11/04/2003	1630	1.00000
3510C	Extraction Sep. Funnel (Diesel)	1	100254		10/30/2003	2000	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1811	1.00000

Lab ID: 221756-13 Client ID: FIELD BLANK Date Recvd: 10/28/2003 Sample Date: 10/25/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1840	
OA-2	Extractable Petroleum Products	1	100773	100254	11/04/2003	1717	1.00000
3510C	Extraction Sep. Funnel (Diesel)	1	100254		10/30/2003	2000	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1840	1.00000

Lab ID: 221756-14 Client ID: TRIP BLANK Date Recvd: 10/28/2003 Sample Date: 10/24/2003

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED		DILUTION
5030B	5030 25 mL Purge Prep	1	100762		11/04/2003	1909	
8260B	Volatile Organics	1	100776	100762	11/04/2003	1909	1.00000

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SURROGATE RECOVERIES REPORT

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Method.....: Volatile Organics
Method Code...: 8260B

Test Matrix...: Solid
Batch(s).....: 100563

Prep Batch..: 100562

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
LCD			11/02/2003	101	102	101	106
LCS			11/02/2003	99	101	101	101
MB			11/02/2003	105	97	103	102
221756- 1		MW-4 S-3	11/02/2003	98	94	97	97
221756- 2		MW-4 S-6	11/02/2003	98	94	92	100
221756- 3		MW-2 S-4	11/02/2003	100	94	95	98
221756- 4		MW-2 S-7	11/02/2003	104	96	96	100
221756- 5		MW-3 S-5	11/02/2003	101	93	96	100
221756- 6		MW-3 S-8	11/02/2003	104	97	100	101
221756- 7		MW-1 S-3	11/02/2003	99	95	98	99
221756- 8		MW-1 S-8	11/02/2003	105	95	98	101

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	50 - 145
BRFLBE	4-Bromofluorobenzene (surr)	60 - 140
DBRFLM	Dibromofluoromethane (surr)	60 - 140
TOLD8	Toluene-d8 (surr)	66 - 141

Method.....: Volatile Organics
Method Code...: 8260B

Test Matrix...: Water
Batch(s).....: 100776

Prep Batch..: 100762

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
LCS			11/04/2003	103	96	102	100
MB			11/04/2003	99	95	101	100
221756- 9		MW-2	11/04/2003	104	95	105	101
221756- 10		MW-4	11/04/2003	103	96	104	101
221756- 11		MW-3	11/04/2003	103	96	107	101
221756- 12		MW-1	11/04/2003	100	95	103	100
221756- 13		FIELD BLANK	11/04/2003	102	95	104	100
221756- 14		TRIP BLANK	11/04/2003	104	95	105	100

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	61 - 131
BRFLBE	4-Bromofluorobenzene (surr)	73 - 122
DBRFLM	Dibromofluoromethane (surr)	66 - 132
TOLD8	Toluene-d8 (surr)	78 - 128

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SURROGATE RECOVERIES REPORT

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Method.....: Extractable Petroleum Products
Method Code...: OA-2

Test Matrix...: Water
Batch(s).....: 100773

Prep Batch..: 100254

Lab ID	DT	Sample ID	Date	2FLUBP	OTERPH
LCD			11/04/2003	98	98
LCS			11/04/2003	83	87
MB			11/04/2003	78	89
221756- 9		MW-2	11/04/2003	78	82
221756- 10		MW-4	11/04/2003	77	79
221756- 11		MW-3	11/04/2003	79	84
221756- 12		MW-1	11/04/2003	84	91
221756- 13		FIELD BLANK	11/04/2003	82	83

Test	Test Description	Limits
2FLUBP	2-Fluorobiphenyl (surr)	48 - 119
OTERPH	o-Terphenyl (surr)	58 - 119

Method.....: Extractable Petroleum Products
Method Code...: OA-2

Test Matrix...: Solid
Batch(s).....: 100773

Prep Batch..: 100362

Lab ID	DT	Sample ID	Date	2FLUBP	OTERPH
LCS			11/04/2003	105*	106
MB			11/04/2003	96	97
221756- 1		MW-4 S-3	11/04/2003	86	94
221756- 1	MS	MW-4 S-3	11/04/2003	103	110
221756- 1	MSD	MW-4 S-3	11/04/2003	98	106
221756- 2		MW-4 S-6	11/04/2003	88	93
221756- 3		MW-2 S-4	11/05/2003	94	96
221756- 4		MW-2 S-7	11/05/2003	80	86
221756- 5		MW-3 S-5	11/05/2003	90	95
221756- 6		MW-3 S-8	11/05/2003	86	90
221756- 7		MW-1 S-3	11/05/2003	90	94
221756- 8		MW-1 S-8	11/05/2003	95	99

Test	Test Description	Limits
2FLUBP	2-Fluorobiphenyl (surr)	48 - 103
OTERPH	o-Terphenyl (surr)	44 - 128

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

LCD	Laboratory Control Sample Duplicate	003HWLDIEA	100254-003		11/04/2003	1321

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2	mg/L	1.763850	1.469335	2.000000	0.125000 U	88	%	57-107	
						18	R	20	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

LCS	Laboratory Control Sample	003HWLDIEA	100254-002		11/04/2003	1233

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2	mg/L	1.469335		2.000000	0.125000 U	73	%	57-107	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

LCS	Laboratory Control Sample	003HWLD1EA	100362-002		11/04/2003	1939

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2, Solid	mg/Kg	64.424		66.670	4.199 U	97	%	70-106	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

MB	Method Blank		100254-001		11/04/2003	1146

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2	mg/L	0.125000 U							

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

MB	Method Blank		100362-001		11/04/2003	1852

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2, Solid	mg/Kg	4.199 U							

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

MS	Matrix Spike	003HWLDIEA	221756-1		11/04/2003	2114

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value		QC Calc.	*	Limits	F
Diesel Fuel as OA-2, Solid	mg/Kg	83.110		80.540	5.073	U	103	%	70-106	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: OA-2
Method Description.: Extractable Petroleum Products

Equipment Code....: INST09
Batch.....: 100773

Analyst...: mgk

MSD	Matrix Spike Duplicate	003HWLDIEA	221756-1		11/04/2003	2201

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Diesel Fuel as OA-2, Solid	mg/Kg	78.644	83.110	80.530	5.073 U	98	%	70-106	
						5	R	30	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
LCD	Laboratory Control Sample Duplicate	V03K02DSG	100562-012		11/02/2003	1833

Test Method.....: 8260B
Method Description.: Volatile Organics

Equipment Code....: GCL6
Batch.....: 100563

Analyst...: jdn

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Benzene, Solid	mg/Kg	0.049	0.049	0.050	0.005 U	99 2	% R	72-128 20	
Toluene, Solid	mg/Kg	0.050	0.049	0.050	0.005 U	99 2	% R	75-125 20	
Ethylbenzene, Solid	mg/Kg	0.050	0.050	0.050	0.005 U	99 0	% R	79-123 20	
Xylenes (total), Solid	mg/Kg	0.147	0.148	0.150	0.005 U	98 1	% R	82-125 20	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8260B
Method Description.: Volatile Organics

Equipment Code....: GCL6
Batch.....: 100563

Analyst...: jdn

LCS	Laboratory Control Sample	V03K02DSG	100562-011		11/02/2003	1240

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Benzene, Solid	mg/Kg	0.049		0.050	0.005 U	97	%	72-128	
Toluene, Solid	mg/Kg	0.049		0.050	0.005 U	97	%	75-125	
Ethylbenzene, Solid	mg/Kg	0.050		0.050	0.005 U	99	%	79-123	
Xylenes (total), Solid	mg/Kg	0.148		0.150	0.005 U	99	%	82-125	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8260B
Method Description.: Volatile Organics

Equipment Code....: GCL6
Batch.....: 100563

Analyst...: jdn

MB	Method Blank		100562-010		11/02/2003	1212

Parameter/Test Description	Units	QC Result		QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Benzene, Solid	mg/Kg	0.005	U							
Toluene, Solid	mg/Kg	0.005	U							
Ethylbenzene, Solid	mg/Kg	0.005	U							
Xylenes (total), Solid	mg/Kg	0.005	U							

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
LCS	Laboratory Control Sample	V03K04DSE	100762-022		11/04/2003	1023

Test Method.....: 8260B
Method Description.: Volatile Organics

Equipment Code....: GCL9
Batch.....: 100776

Analyst...: jdn

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Benzene	mg/L	0.009749		0.010000	0.001000 U	97	%	74-116	
Toluene	mg/L	0.009891		0.010000	0.001000 U	99	%	71-122	
Ethylbenzene	mg/L	0.010087	—	0.010000	0.001000 U	101	%	74-121	
Xylenes (total)	mg/L	0.033250		0.030000	0.001000 U	111	%	76-138	

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

QUALITY CONTROL RESULTS

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time

Test Method.....: 8260B
Method Description.: Volatile Organics

Equipment Code....: GCL9
Batch.....: 100776

Analyst...: jdn

MB	Method Blank		100762-021		11/04/2003	0954

Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
Benzene	mg/L	0.001000 U							
Toluene	mg/L	0.001000 U							
Ethylbenzene	mg/L	0.001000 U							
Xylenes (total)	mg/L	0.001000 U							

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

Q U A L I T Y C O N T R O L R E S U L T S

Job Number.: 221756

Report Date.: 11/11/2003

CUSTOMER: SCS Engineers, Inc. PROJECT: GSA - OMAHA ATTN: David Brewer

Test Method.....: Method
Method Description.: % Solids Determination
Parameter.....: % Solids

Batch.....: 100098
Equipment Code....:

Analyst...: pfk
Test Code.: %SOLID

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	F	*	Limits	Date	Time
MB	100098-001		%	0.1000 U								10/29/2003	1905

* %=% REC, R=RPD, A=ABS Diff., D=% Diff.

REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

Inorganic Qualifiers (Q-Column)

U Analyte was not detected at or above the stated limit.
< Not detected at or above the reporting limit.
J Result is less than the RL, but greater than or equal to the method detection limit.
B Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
S Result was determined by the Method of Standard Additions.
F AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

~ ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
* LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
+ MSA correlation coefficient is less than 0.995.
4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
E SD: Serial dilution exceeds the control limits.
H MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
N MS, MSD: Spike recovery exceeds the upper or lower control limits.
W AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

U Analyte was not detected at or above the stated limit.
ND Compound not detected.
J Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
Q Result was qualitatively confirmed, but not quantified.
C Pesticide identification was confirmed by GC/MS.
Y The chromatographic response resembles a typical fuel pattern.
Z The chromatographic response does not resemble a typical fuel pattern.
E Result exceeded calibration range, secondary dilution required.
F AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

B MB: Batch QC is greater than reporting limit.
* LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
^ EB1, EB2, EB3, MLE: Batch QC is greater than reporting Limit
A Concentration exceeds the instrument calibration range
a Concentration is below the method Reporting Limit (RL)
B Compound was found in the blank and sample.
D Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
H Alternate peak selection upon analytical review
I Indicates the presence of an interfence, recovery is not calculated.
M Manually integrated compound.
P The lower of the two values is reported when the % difference between the results of two GC columns is

greater than 25%.

Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
CV	Calilbration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group
	Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RT	Retention Time

RTW	Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)
UCB	Unseeded Control Blank
SSV	Second Source Verification Standard
SLCS	Solid Laboratory Control Standard(LCS)
PHC	pH Calibration Check LCSP pH Laboratory Control Sample
LCDP	pH Laboratory Control Sample Duplicate
MDPH	pH Sample Duplicate
MDFP	Flashpoint Sample Duplicate
LCFP	Flashpoint LCS
G1	Gelex Check Standard Range 0-1
G2	Gelex Check Standard Range 1-10
G3	Gelex Check Standard Range 10-100
G4	Gelex Check Standard Range 100-1000

Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. EX. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)
Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.

SEVERN TRENT **STL**

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact: David Brewer
Company: SLS Engineers
Address: 10401 Holmes Rd
Kansas City, MO 64131
Phone: 816-941-7510
Fax: 816-941-8025
E-Mail: dbrewer@slsengineers.com

Bill To:
Contact: Sandy Weeks
Company: (Same)
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ____ of ____

Lab Lot# 221756

Package Sealed	Samples Sealed
Yes No	Yes No
Received on Ice	**Samples Intact**
Yes No	Yes No
Temperature °C of Cooler	
(3.8) (4.2)	
Within Hold Time	**Preserv. Indicated**
Yes No	Yes No NA
pH Check OK	**Res Cl_2 Check OK**
Yes No NA	Yes No NA
Sample Labels and COC Agree	
Yes No	COC not present

Sampler Name: J. Dearling
Signature: [signature]
Project Name: Omaha Tier 1
Project Number: 022000 70.07
Project Location: Omaha, NE
Date Required Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Eric Lang

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	BTEX	DA-2	Additional Analyses / Remarks
1		MW-4 S-3	10-24-03	4:00	S	G	X	X	
2		MW-4 S-6	10-24	4:30	S	G			
3		MW-2 S-4	10-25-03	9:30	S	G			
4		MW-2 S-7	10-25	10:00	S	G			
5		MW-3 S-5	10-25	1:00	S	G			
6		MW-3 S-8	10-25	1:30	S	G			
7		MW-1 S-3	10-25	2:30	S	G			
8		MW-1 S-8	10-25	2:45	S	G			
9		MW-2	10-25	3:00	W	G			
10		MW-4	10-25	3:45	W	G			
11		MW-3	10-25	4:30	W	G			
12		MW-1	10-25	5:00	W	G			

RELINQUISHED BY [signature]	COMPANY SLS Engineers	DATE 10-27-03	TIME 9:30	RECEIVED BY [signature]	COMPANY FEDEX	DATE 10/27	TIME 0940
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY [signature]	COMPANY STL	DATE 10/28/03	TIME 0930

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = ____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ____

Preservative Key
1. HCl, Cool to 4°
2. H_2SO_4, Cool to 4°
3. HNO_3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS
13 Field blank prepared at 4:00 on 10-25-03
14 Trip blank - added by STL

Date Received 10/28/03
Courier: FX **Hand Delivered** ☐
Bill of Lading See attach

OFFICIAL SURVEY RECORD

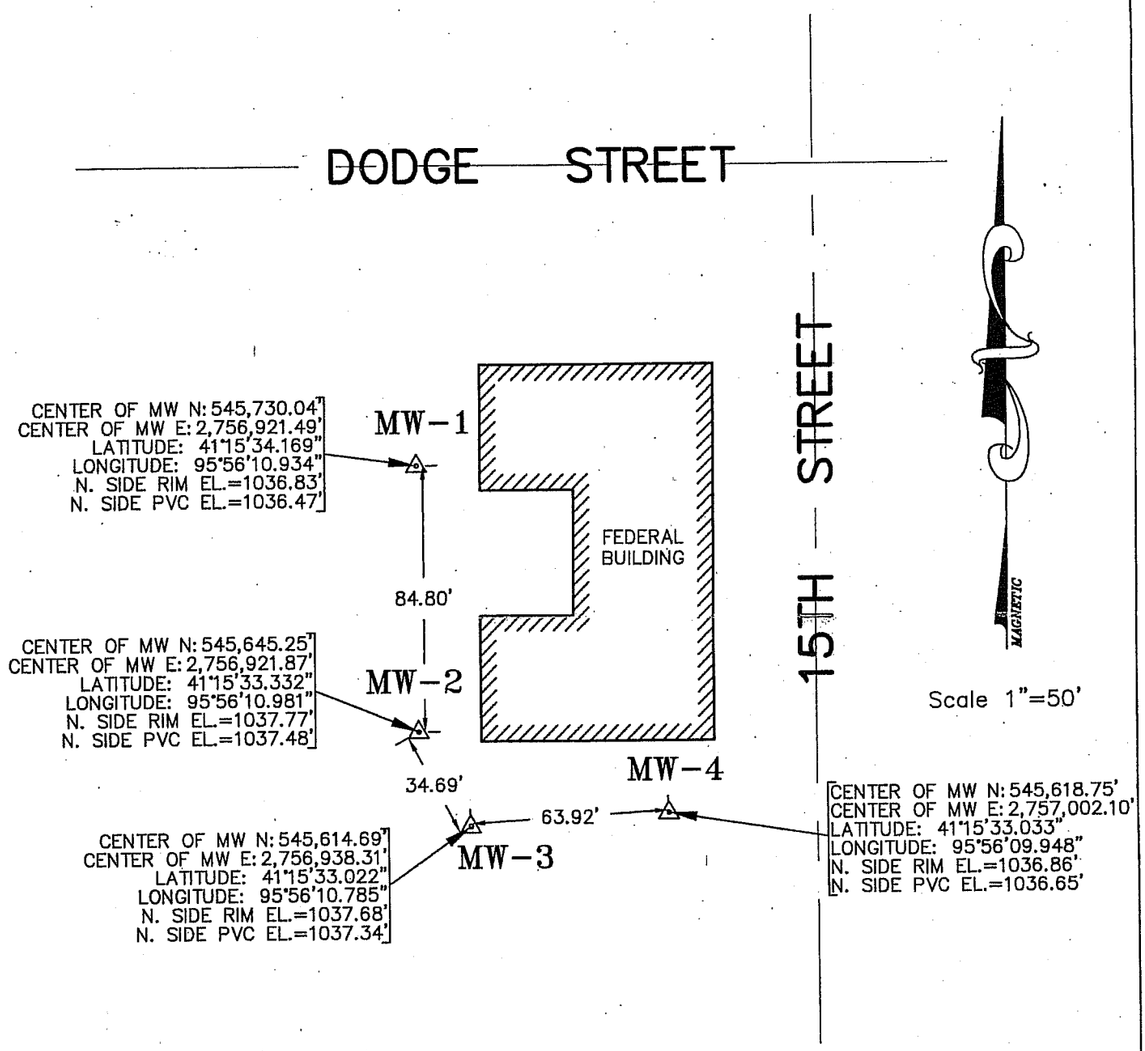
COMMUNITY LAND SURVEYING
LINCOLN OFFICE
1232 HIGH ST. SUITE 3
LINCOLN, NE. 68502
PHONE 1-402-441-5790
FAX 1-402-441-5791

Survey of Monitoring Wells by Federal Building.

City of Omaha.

Douglas County, Nebraska

Date of Survey 10/30/03 Job No. 15686



Signed this 30th day of Oct., 2003.

Surveyor's Certificate

I Terry L. Rothanzl, a Registered Land Surveyor in the State of Nebraska, certify that the above survey was performed by me or under my direct supervision and that said survey is correct to the best of my knowledge and belief.

NEBRASKA REGISTERED LS-607 LAND SURVEYOR TERRY L. ROTHANZL

Terry L. Rothanzl
Nebraska L.S. # 607