CON 12-15
Doc #19341

Site Name: Stamatelos Property, West Des Moines

Brownfield Initial Site Screening (ISS)

Project Manager: Tami Rice

Date: 6/10/2008

☒ **3931 - Phase II Assessment Review - standard**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – grant funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination

Location:

Latitude: 41. 5679 *Longitude:-93. 7061* ***County:Polk***
(Decimal Degree format)

USGS Quadrant: Des Moines SW

Site Size: 10.5

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): NA

Congressional District: 3

Grant Recipient Name, Address & Contact: NA

Current Owner & Address: ***Lakeside Park Plaza, LC***
4949 Westown Pkwy, Suite 200
West Des Moines, Iowa 50266-6704

Responsible Party Name(s) & Address, if different from current owner:
Unknown at this time.

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
NE ¼ of NW ¼ of Sec. 14, Tier 78 North, Range 25 West;
SW corner of the intersection of 63rd Street and Railroad Avenue

Directions to site: From the west, take I-235 east and go south on the 63rd Street exit. From the east, take I-235 west and go south on the 63rd Street exit. 63rd Street turns into 1st Street which will intersect with Railroad Avenue. Lincoln Street is an access street heading west that is just south of Railroad Avenue. The site address appears to be 312 Lincoln Street in West Des Moines on the SW corner of 63rd Street/1st Street and Railroad Avenue.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)

Based on information provided in the Phase I Report, the site encompasses about 10.5 acres of vacant land. A site structure was located onsite historically but was demolished in 2000. A bulk station appears to have been located onsite in the 1930s and 1940s. The site was bought by Mr. John Stamatelos in March of 1960. Since about 1960, the site was used as a concrete ready mix facility and truck maintenance shop. During the site reconnaissance an underground storage tank (UST), a 55-gallon drum, and some demolition debris were noted in a fenced area onsite. This debris has since been removed. Railroad tracks adjoin the site to the north, a gravel pit adjoins the site to the west, 63rd/1st Street adjoins the site to the east, and the Raccoon River adjoins the site to the south. The site is in the flood plain for the Raccoon River that is located about 1,600 feet south of the site.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

Several investigations have been conducted onsite which include the Phase I conducted in March 2000, a Phase II and addendum conducted in May 2000, and another Phase II conducted in May 2008. The Phase II conducted in May 2000 included five borings conducted to about 20 feet deep. These borings were used to collect soil and groundwater samples for analysis of a combination of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), heavy metals, benzene, toluene, ethylbenzene, and xylene (BTEX), and total extractable hydrocarbons (TEH).

The Phase II conducted in 2008 included three borings drilled to a range of 20 to 25 feet deep which were used to expand on the initial investigation conducted in 2000. Soil and groundwater samples were collected and analyzed for BTEX, TEH, and heavy metals. Groundwater was noted onsite at depths ranging from 13 to 17 feet deep. Soil boring logs indicated that mixtures of sand and silty clay were found in soils onsite.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

Several heavy metals were detected in soil sample TMW-4 conducted in 2000 and TB-1A through TB-3A conducted in 2008. The only exceedence of a standard in soil was arsenic, detected at ranges of 3.6 mg/kg to 8.9 mg/kg. The standard for arsenic in soil is 1.9 mg/kg but the range of naturally occurring arsenic determined to be present in Iowa soils is 17 mg/kg or less. Petroleum constituents were not detected in soils onsite and no other chemical analyses were performed on the soils. See the attached Table 1 for additional soil information.

No VOCs or SVOCs were detected in groundwater onsite. TEH as diesel was detected in groundwater sample TB-1 conducted in 2008 at a concentration of 0.2 mg/L, below the standard of 1.2 mg/L. Concentrations of arsenic, barium, lead, and selenium were detected in water onsite; however, only selenium detected in TMW-4 at a concentration of 0.102 mg/L exceeded the standard of 0.05 mg/L. There are several groundwater laboratory detection limits that exceed the applicable statewide standards. See the attached Table 2 for additional groundwater information.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.
There is one private well located within a quarter-mile radius of the site and two plugged wells located between a quarter-mile radius and a half-mile radius of the site. The private well (#30795) is owned by the Kaser Construction Co. and is 474 feet deep. The status of this well is unknown. The plugged wells (#16261 and #16262) were 15 feet deep and abandoned in 1994.

The City of Des Moines water is collected from an infiltration gallery, a point on the Raccoon River, and a point on the Des Moines River. The infiltration gallery and point on the Raccoon River are located about 15,000 feet east of the site and the point on the Des Moines River is located about 25,000 feet northeast of the site. The city can also collect their drinking water from several municipal wells located about 3,000 feet west-southwest of site.

The Raccoon River is located about 1,600 feet south of the site and flows east into the Des Moines River located about 25,300 feet east of the site.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.
3

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.
Several heavy metals were detected in soil and groundwater onsite; however, only arsenic in soil and selenium in groundwater were detected at concentrations exceeding the applicable standards. The arsenic concentrations exceeded the standard but were within the range of naturally occurring arsenic determined to be present in Iowa soils (17 mg/kg or less). TEH as diesel was detected in one groundwater sample and several groundwater laboratory detection limits exceeded the applicable statewide standards.

Due to the lack of nearby receptors and the minor contamination discovered onsite, no additional investigation is required at this time. No further action is required under CERCLA or Iowa Chapter 133 at this time and the site is not a candidate for an ESS.

Site recommended for:
- ☒ No further action
- ☐ Additional investigation under state program (activity code 2824)
- ☐ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Additional investigation by responsible party
- ☐ Transfer to LUST/UST

Form Reviewed: _____ **Date Reviewed:** 6/12/08
Revised 6/2007

Table 1 - Soil Results (mg/kg)

	5/22/2000	5/8/2008						
	TMW-4 (12')	TB-1A (3')	TB-1B (13')	TB-2A (3')	TB-2B (17)	TB-3A (3')	TB-3B (17')	Standards
Arsenic	**6.53**	**3.6**		**5**		**8.9**		1.9 (19)
Barium	138	116		164		248		15,000
Cadmium	1.55	0.6		0.8		1.4		70
Chromium	18.9	11.4		15		19.9		210/97,000
Lead	15.2	18.6		106		67.9		400
Mercury	<0.1	<0.16		<0.24		0.63		23
Selenium	<6.5	<1.3		<1.2		<1.3		390
Silver	<2	<0.6		<0.6		0.9		370
TEH-diesel			<5		<5		<5	3,800/10,500
TEH-gasoline			<5		<5		<5	-
TEH-motor oil			<5		<5		<5	-
Benzene			<0.2		<0.2		<0.2	88
Ethylbenzene			<0.2		<0.2		<0.2	7,600
Toluene			<0.2		<0.2		<0.2	6,100
Xylenes			<0.4		<0.4		<0.4	15,000

Table 2 - Groundwater Results (mg/L)

	5/22/2000					5/8/2008			
	TMW-1	TMW-2	TMW-3	TMW-4	TMW-A	TB-1	TB-2	TB-3	Standards
Arsenic				**<0.03**		0.007	<0.005	<0.005	0.01
Barium				0.131		0.052	0.082	0.097	2
Cadmium				<0.005		<0.001	<0.001	<0.001	0.005
Chromium				<0.01		<0.005	<0.005	<0.005	0.1
Lead	<0.02	<0.02	<0.02	**<0.02**		<0.005	0.005	<0.005	0.015
Mercury				<0.0002		<0.0005	<0.0005	<0.0005	0.002
Selenium				**0.102**		<0.005	<0.005	<0.005	0.05
Silver				<0.02		<0.01	<0.01	<0.01	0.1
TEH-diesel					<0.1	0.2	<0.1	<0.1	1.2
TEH-gasoline					<0.1	<0.1	<0.1	<0.1	-
TEH-motor oil					<0.1	<0.1	<0.1	<0.1	0.4
Benzene	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	0.005
Bromobenzene	<0.005	<0.005	<0.005	<0.005					-
Bromochloromethane	<0.005	<0.005	<0.005	<0.005					0.09
Bromodichloromethane	<0.005	<0.005	<0.005	<0.005					0.08
Bromoform	<0.005	<0.005	<0.005	<0.005					0.08
Bromomethane	<0.01	<0.01	<0.01	<0.01					0.01
n-Butylbenzene	<0.005	<0.005	<0.005	<0.005					2
sec-Butylbenzene	<0.005	<0.005	<0.005	<0.005					-
tert-Butylbenzene	<0.005	<0.005	<0.005	<0.005					-
Carbon tetrachloride	<0.005	<0.005	<0.005	<0.005					0.005
Clorobenzene	<0.005	<0.005	<0.005	<0.005					0.1
Chloroethane	<0.01	<0.01	<0.01	<0.01					-
Chloroform	<0.005	<0.005	<0.005	<0.005					0.08
Chloromethane	<0.01	<0.01	<0.01	<0.01					0.03
2-Chlorotoluene	<0.005	<0.005	<0.005	<0.005					0.1
4-Chlorotoluene	<0.005	<0.005	<0.005	<0.005					0.1
1,2-Dibromo-3-Chloropropane	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.0002
Dibromochloromethane	<0.005	<0.005	<0.005	<0.005					0.08
1,2-Dibromoethane	**<0.005**	**<0.005**	**<0.005**	**<0.005**					0.00005
Dibromomethane	<0.005	<0.005	<0.005	<0.005					0.07
1,2-Dichlorobenzene	<0.005	<0.005	<0.005	<0.005					0.6
1,3-Dichlorobenzene	<0.005	<0.005	<0.005	<0.005					0.6
1,4-Dichlorobenzene	<0.005	<0.005	<0.005	<0.005					0.075
Dichlorodifluoromethane	<0.01	<0.01	<0.01	<0.01					1
1,1-Dichloroethane	<0.005	<0.005	<0.005	<0.005					0.14
1,2-Dichloroethane	<0.005	<0.005	<0.005	<0.005					0.005
1,1-Dichloroethene	<0.005	<0.005	<0.005	<0.005					0.007
cis-1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005					0.07
trans-1,2-Dichloroethene	<0.005	<0.005	<0.005	<0.005					0.1
1,2-Dichloropropane	<0.005	<0.005	<0.005	<0.005					0.005
1,3-Dichloropropane	**<0.005**	**<0.005**	**<0.005**	**<0.005**					0.0018
2,2-Dichloropropane	<0.005	<0.005	<0.005	<0.005					-
1,1-Dichloropropene	<0.005	<0.005	<0.005	<0.005					-
cis-1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005					-
trans-1,3-Dichloropropene	<0.005	<0.005	<0.005	<0.005					-
Ethylbenzene	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	0.7
Hexachlorobutadiene	**<0.005**	**<0.005**	**<0.005**	**<0.005**					0.001
Isopropylbenzene	<0.005	<0.005	<0.005	<0.005					-
p-Isopropyltoluene	<0.005	<0.005	<0.005	<0.005					-
Methylene Chloride	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.005
Methyl tert-butyl ether					<0.001				0.021

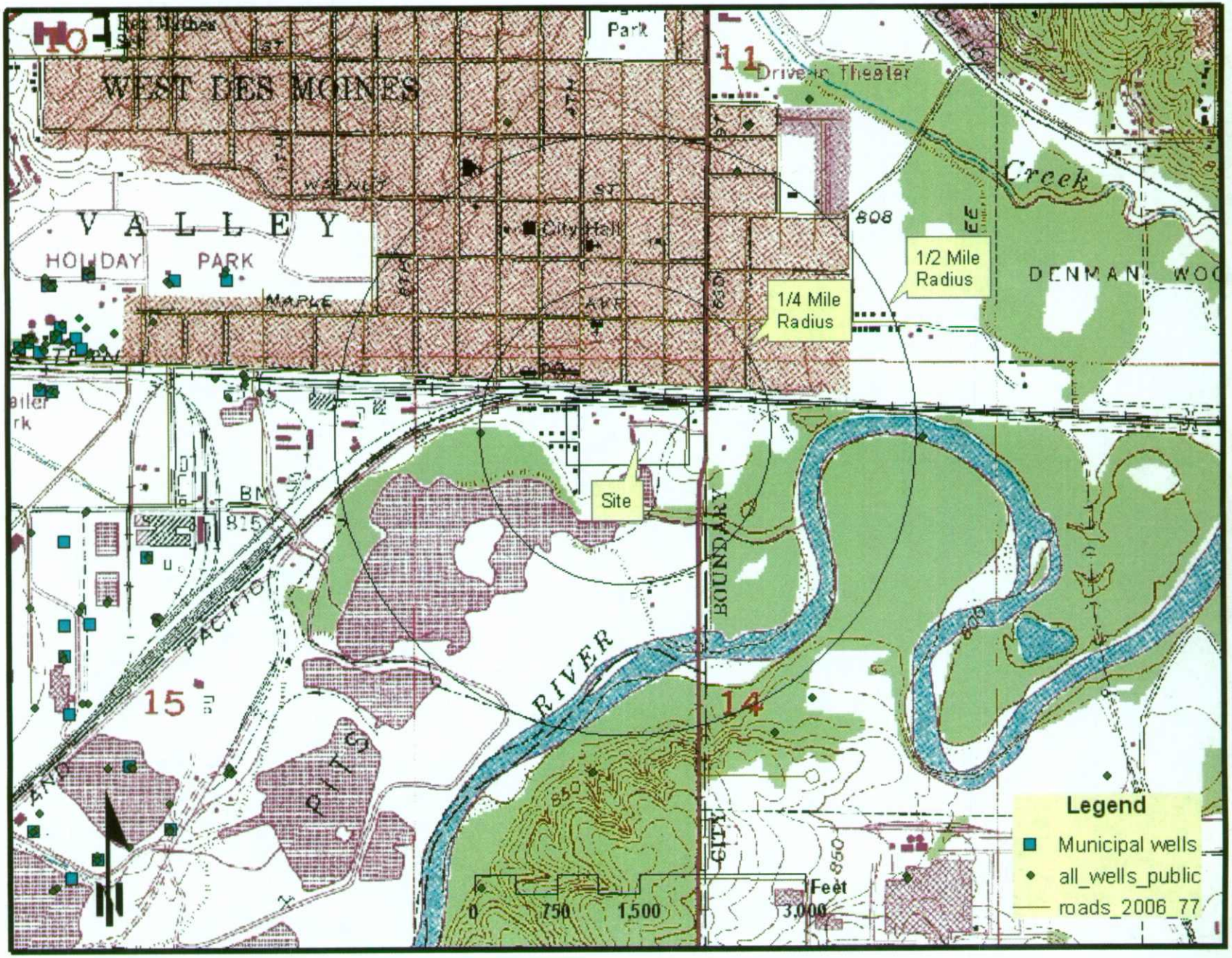
Table 2 - Groundwater Results (mg/L)

	5/22/2000					5/8/2008			
	TMW-1	TMW-2	TMW-3	TMW-4	TMW-A	TB-1	TB-2	TB-3	Standards
Naphthalene	<0.005	<0.005	<0.005	<0.005					0.1
n-Propylbenzene	<0.005	<0.005	<0.005	<0.005					-
Styrene	<0.005	<0.005	<0.005	<0.005					0.1
1,1,1,2-tetrachloroethane	<0.005	<0.005	<0.005	<0.005					0.07
1,1,2,2-tetrachloroethane	**<0.005**	**<0.005**	**<0.005**	**<0.005**					0.0003
Tetrachloroethene	<0.005	<0.005	<0.005	<0.005					0.005
Toluene	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	1
1,2,3-trichlorobenzene	<0.005	<0.005	<0.005	<0.005					-
1,2,4-trichlorobenzene	<0.005	<0.005	<0.005	<0.005					0.07
1,1,1-trichloroethane	<0.005	<0.005	<0.005	<0.005					0.2
1,1,2-trichloroethane	<0.005	<0.005	<0.005	<0.005					0.005
Trichloroethene	<0.005	<0.005	<0.005	<0.005					0.005
Trichlorofluoromethane	<0.01	<0.01	<0.01	<0.01					2
1,2,3-trichloropropane	<0.005	<0.005	<0.005	<0.005					0.04
1,2,4-trimethylbenzene	<0.005	<0.005	<0.005	<0.005					0.35
1,3,5-trimethylbenzene	<0.005	<0.005	<0.005	<0.005					0.35
Vinyl Chloride	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.002
Xylenes	<0.005	<0.005	<0.005	<0.005	<0.001	<0.002	<0.002	<0.002	10
Acenaphthene	<0.01	<0.01	<0.01	<0.01					0.42
Acenaphthylene	<0.01	<0.01	<0.01	<0.01					-
Aniline	<0.01	<0.01	<0.01	<0.01					-
Anthracene	<0.01	<0.01	<0.01	<0.01					2.1
Benzidine	<0.05	<0.05	<0.05	<0.05					-
Benzo(a)anthracene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00024
Benzo(b)fluoranthene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00024
Benzo(k)fluoranthene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.0024
Benzoic acid	<0.05	<0.05	<0.05	<0.05					-
Benzo(a)pyrene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.0002
Benzo(g,h,i)perylene	<0.01	<0.01	<0.01	<0.01					-
Benzyl alcohol	<0.02	<0.02	<0.02	<0.02					-
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01					-
Bis(2-chloroethyl)ether	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00016
Bis(2-chloroisopropyl)ether	<0.01	<0.01	<0.01	<0.01					0.3
Bis(2-ethylhexyl)phthalate	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.006
4-bromophenyl-phenylether	<0.01	<0.01	<0.01	<0.01					-
Benzylbutyl phthalate	<0.01	<0.01	<0.01	<0.01					0.14
4-chloroaniline	<0.02	<0.02	<0.02	<0.02					0.028
4-Chloro-3-Methylphenol	<0.01	<0.01	<0.01	<0.01					-
2-chloronaphthalene	<0.01	<0.01	<0.01	<0.01					0.56
2-chlorophenol	<0.01	<0.01	<0.01	<0.01					0.04
4-chlorophenyl-phenylether	<0.01	<0.01	<0.01	<0.01					-
Chrysene	<0.01	<0.01	<0.01	<0.01					0.024
Dibenz(a,h)anthracene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.000024
Dibenzofuran	<0.01	<0.01	<0.01	<0.01					-
Di-n-butyl phthalate	<0.01	<0.01	<0.01	<0.01					0.7
1,2-dichlorobenzene	<0.01	<0.01	<0.01	<0.01					0.6
1,3-dichlorobenzene	<0.01	<0.01	<0.01	<0.01					0.6
3,3-dichlorobenzidine	**<0.02**	**<0.02**	**<0.02**	**<0.02**					0.00039
2,4-dichlorophenol	<0.01	<0.01	<0.01	<0.01					0.02
Diethyl phthalate	<0.01	<0.01	<0.01	<0.01					6
1,4-dichlorobenzene	<0.01	<0.01	<0.01	<0.01					0.075
2,4-dimethylphenol	<0.01	<0.01	<0.01	<0.01					0.14
Dimethyl phthalate	<0.01	<0.01	<0.01	<0.01					-

Table 2 - Groundwater Results (mg/L)

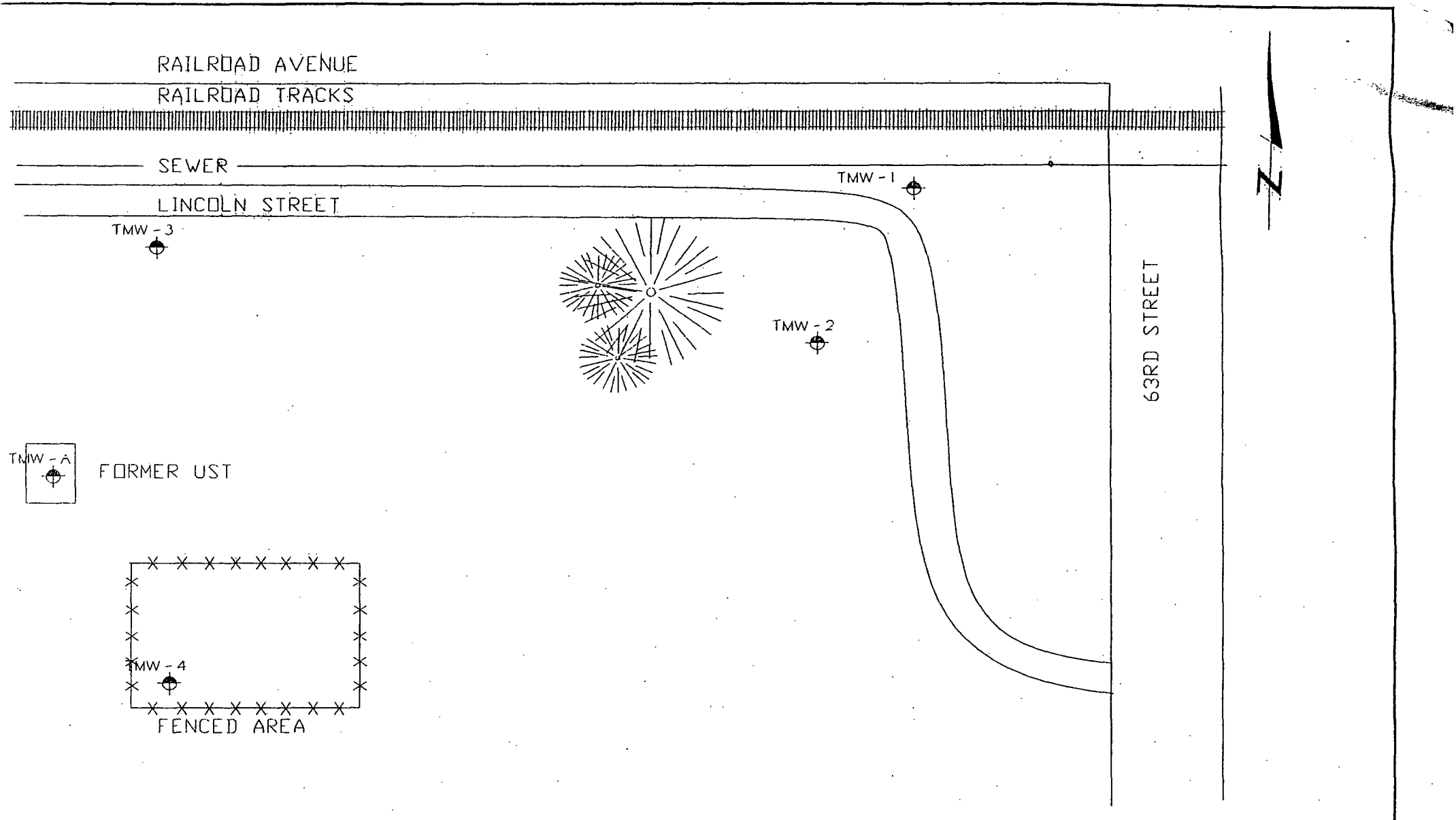
	5/22/2000					5/8/2008			
	TMW-1	TMW-2	TMW-3	TMW-4	TMW-A	TB-1	TB-2	TB-3	Standards
4,6-dinitro-2-methylphenol	<0.05	<0.05	<0.05	<0.05					-
2,4-dinitrophenol	**<0.05**	**<0.05**	**<0.05**	**<0.05**					0.014
2,4-dinitrotoluene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00026
2,6-dinitrotoluene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00026
Di-n-octyl phthalate	<0.01	<0.01	<0.01	<0.01					-
Diphenylamine	<0.01	<0.01	<0.01	<0.01					0.18
1,2-diphenylhydrazine	<0.01	<0.01	<0.01	<0.01					-
Fluoranthene	<0.01	<0.01	<0.01	<0.01					0.28
Fluorene	<0.01	<0.01	<0.01	<0.01					0.28
Hexachlorobenzene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.001
Hexachlorobutadiene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.001
Hexachlorocyclopentadiene	<0.05	<0.05	<0.05	<0.05					0.05
Hexachloroethane	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.001
Indeno(1,2,3-cd)pyrene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.00024
Isophorone	<0.01	<0.01	<0.01	<0.01					0.1
2-methylnaphthalene	<0.01	<0.01	<0.01	<0.01					0.028
2-methylphenol	<0.01	<0.01	<0.01	<0.01					0.035
Naphthalene	<0.01	<0.01	<0.01	<0.01					0.1
2-nitroaniline	<0.05	<0.05	<0.05	<0.05					-
3-nitroaniline	<0.05	<0.05	<0.05	<0.05					-
4-nitroaniline	<0.05	<0.05	<0.05	<0.05					-
Nitrobenzene	**<0.01**	**<0.01**	**<0.01**	**<0.01**					0.0035
2-nitrophenol	<0.01	<0.01	<0.01	<0.01					0.06
4-nitrophenol	<0.05	<0.05	<0.05	<0.05					0.06
n-nitrosodimethylamine	<0.01	<0.01	<0.01	<0.01					-
n-nitrosodiphenylamine	<0.01	<0.01	<0.01	<0.01					0.036
n-nitrodosi-n-propylamine	<0.01	<0.01	<0.01	<0.01					-
pentachlorophenol	**<0.05**	**<0.05**	**<0.05**	**<0.05**					0.001
Phenanthrene	<0.01	<0.01	<0.01	<0.01					-
phenol	<0.01	<0.01	<0.01	<0.01					2
Pyrene	<0.01	<0.01	<0.01	<0.01					0.21
Pyridine	<0.01	<0.01	<0.01	<0.01					-
1,2,4-trichlorobenzene	<0.01	<0.01	<0.01	<0.01					0.07
2,4,5-trichlorophenol	<0.01	<0.01	<0.01	<0.01					1
2,4,6-trichlorophenol	<0.01	<0.01	<0.01	<0.01					0.016

Stamatelos Property, West Des Moines



Stamatelos Property, West Des Moines

Site Map (2000)



NOTE: DRAWING NOT TO SCALE

MPS ENGINEERS
Environmental Consultants

PROJECT
Dan Stamatolos Property
SW corner of 63rd Street and Railroad Ave.
West Des Moines, Iowa

JOB NO. 1430	DWG. NO. A	DATE 5-21-00	DRAWN AAP

Site Map (2008)