ALLENDER BUTZKE ENGINEERS INC.
GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION Q.C.

Connolly O'Malley Lillis Hansen Olson LLP
300 Bank of America Building
317 Sixth Avenue
Des Moines, Iowa 50309-4127

March 31, 2000

Attn: Patrick T. Burk

Re: Limited Phase II Environmental Site Assessment
Iowa Power Property
823 Walnut Street
Des Moines, Iowa
PN 003130

Dear Mr. Burk:

Allender Butzke Engineers Inc. has completed the Limited Phase II Environmental Site Assessment for the above-referenced project. The Limited Phase II Environmental Site Assessment was performed to assess soil and ground water quality in four areas on the subject property. A soil sample collected from a test boring drilled next to a former underground heating oil tank exhibited a concentration of total extractable hydrocarbons as diesel fuel greater than the IDNR corrective action level. Concentrations of petroleum hydrocarbons, volatile organic compounds, and semi-volatile compounds were found to be below IDNR corrective action levels and EPA drinking water standards in all ground water samples.

Three copies of the Limited Phase II Environmental Site Assessment report are enclosed. If you have any questions regarding this project, or require further assistance, please contact our office at your convenience.

Respectfully,
ALLENDER BUTZKE ENGINEERS INC.

Donald D. Edds

Donald D. Edds
Environmental Geologist

DE/dde
1 pc Above
Enclosures

3660 109TH STREET • URBANDALE, IOWA 50322 • PHONE 515-252-1885 • FAX 515-252-1888

ALLENDER BUTZKE ENGINEERS INC.
GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION Q.C.

MARCH 31, 2000

PN 003130

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

IOWA POWER PROPERTY
823 WALNUT STREET
DES MOINES, IOWA

PERFORMED FOR

CONNOLLY O'MALLEY LILLIS HANSEN OLSON LLP
300 BANK OF AMERICA BUILDING
317 SIXTH AVENUE
DES MOINES, IOWA 50309-4127

3660 109TH STREET • URBANDALE, IOWA 50322 • PHONE 515-252-1885 • FAX 515-252-1888

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

IOWA POWER PROPERTY
823 WALNUT STREET
DES MOINES, IOWA

PN 003130

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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

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823 WALNUT STREET
DES MOINES, IOWA

PERFORMED FOR

CONNOLLY O'MALLEY LILLIS HANSEN OLSON LLP
300 BANK OF AMERICA BUILDING
317 SIXTH AVENUE
DES MOINES, IOWA 50309-4127

MARCH 31, 2000
PN 003130

INTRODUCTION

The following report presents the results of four test borings and laboratory chemical analysis of soil and ground water samples. The investigation was performed in accordance with our proposal and general conditions dated March 17, 2000. The purpose of this investigation was to determine if the subsurface at four locations on the project site has been impacted by petroleum hydrocarbons, volatile organic compounds, or semi-volatile compounds.

A Phase I Environmental Site Assessment was recently performed for the subject property by Seneca Environmental Services. A letter from Seneca dated March 14, 2000, which summarized the findings of their Phase I ESA, was provided for our review. Recognized

environmental conditions found in connection with the subject property included the historical presence of an underground heating oil storage tank, two printing companies, and a paint shop on the subject property, and the historical presence of similar environmentally sensitive businesses in the surrounding area. It was proposed that four test borings be performed on the project site to assess the potential for soil and ground water impact from these possible sources. Test Borings Nos. 1 and 2 were drilled on the north half of the subject property and Test Boring Nos. 3 and 4 were drilled on the south half of the subject property. Test Boring No. 3 was drilled near the northeast corner of the building to investigate the possibility of a petroleum release from a former heating oil UST. It was proposed that soil samples be collected from the test borings only if obvious soil contamination was encountered.

The following report includes discussions on borehole drilling, soil sampling, soil profile, ground water sampling, and laboratory chemical analysis results. A Site Map showing the four test boring locations is enclosed in the Appendix.

BOREHOLE DRILLING AND SOIL SAMPLING

The four test borings were drilled at the site on March 21, 2000. The borings were drilled to depths of 50 feet using truck-mounted drilling equipment and hollow stem augers. Soil samples were collected at five-foot intervals using a split spoon sampler. All drilling and sampling equipment were steam cleaned with a pressure washer prior to entering the site to prevent off-site contamination. Separate clean augers were used for each test borings to prevent cross-contamination. Soils were examined in the field for textural classification and for the presence of unusual discoloration or odors. In addition, a photoionization detector (PID) was used to screen soil samples for laboratory chemical analysis.

Approximately three to seven feet of brown to very dark brown silty clay fill, locally containing bricks, rock fragments and wood, was encountered in the upper portion of each test boring directly beneath the pavement. The fill soils were underlain by cohesive alluvium, consisting of brown silty clay, that extended to depths ranging from 13 to 15 feet. Granular

alluvium, consisting of brown fine to coarse sand, underlies the cohesive sediments. Gravelly sand was encountered in the borings at depths ranging from 30 to 35 feet below existing grades.

Petroleum odor and elevated PID readings were encountered from 12 to 18 feet in Test Boring No. 3 drilled near the former underground heating oil storage tank. No odors or elevated PID readings were indicated in the other three test borings performed for this investigation. A soil sample for laboratory chemical analysis was collected from a depth of 13 feet where the odor appeared to be the strongest. The soil sample was placed in a laboratory provided glass container, properly labeled, and sealed with a PTFE-lined lid. The container was then placed in an insulated cooler and shipped to the laboratory for chemical analysis. Detailed descriptions of the soils encountered during this investigation are shown on the Borings Logs enclosed in the Appendix.

TEST WELL INSTALLATION AND GROUND WATER SAMPLING

Upon completion of borehole drilling, temporary test wells, each consisting of an end well point, a lower 20 feet of two-inch diameter factory-slotted PVC screen, and an upper 30 feet of two-inch diameter PVC solid casing, were installed in the test borings for ground water sampling purposes. Ground water samples for laboratory chemical analysis were collected from the temporary wells using laboratory provided disposable bailers. The ground water samples were prepared for shipment as described above.

LABORATORY CHEMICAL ANALYSIS

Chemical analysis of the soil and ground water samples was performed by Keystone Laboratories, Inc. The soil sample was analyzed for benzene, toluene, ethylbenzene, and xylenes by Iowa Method OA-1 and for total extractable hydrocarbons by Iowa Method OA-2. All ground water samples were analyzed for volatile organic compounds by EPA Method 8260. In addition, two of the ground water samples were analyzed for total extractable hydrocarbons (TEH) by Iowa Method OA-2 and the other two ground water samples were analyzed for semi-volatile compounds by EPA Method 8270. Analytical Reports are enclosed in the Appendix.

The Analytical Reports indicate that the soil sample collected from TB-3 exhibited a concentration of TEH diesel fuel greater than the IDNR corrective action level. The TEH diesel fuel concentration in the soil sample was 6790 parts per million (ppm) and the IDNR corrective action level is 3800 ppm. Concentrations of petroleum hydrocarbons, volatile organic compounds, and semi-volatile compounds were found to be below IDNR corrective action levels and EPA drinking water standards in all ground water samples.

Based on field observations, portable vapor detection equipment, and limited laboratory chemical analysis, it appears that a release of petroleum has occurred near the northeast corner of the former Iowa Power building. The source of the petroleum contamination is believed to be an underground heating oil storage tank formerly located in the area. In a recent conversation with Jack Williams of MidAmerican Energy, Mr. Williams explained that the UST had been removed from the ground several years ago. The extent of petroleum contamination beneath this area is not known. Higher concentrations of petroleum may exist at other locations that were not investigated for this assessment. Additional test borings would be required to determine the full extent of petroleum contamination in this area.

Regulations concerning petroleum contamination in soil and ground water are contained in the Iowa Administrative Code and are administered by the Iowa Department of Natural Resources. It is recommended that the client consult with representatives of the IDNR with regard to the results of our investigation and any additional action required.

GENERAL

This investigation is based upon the best information available to us at this time, including visual/olfactory observations, portable vapor detection equipment, and limited laboratory chemical analysis which are assumed to be representative of this site. Evaluation of analytical test results are based on current IDNR and EPA guidelines regarding acceptable concentrations and methods. Failure to discover hazardous substances or conditions at the time of this report, within the scope of this investigation, does not guarantee unacceptable levels of hazardous materials might not exist

at the site. We make no warranty, expressed or implied, for this property nor make certification of the suitability of the future use of the property based on the results of this assessment, except that our services were performed with the level of care and skill ordinarily practiced by members of the profession in this area at this time under similar budget and time restraints.

If you have any questions regarding this Limited Phase II Environmental Site Assessment, or require further assistance, feel free to contact us at your convenience.

Respectfully,

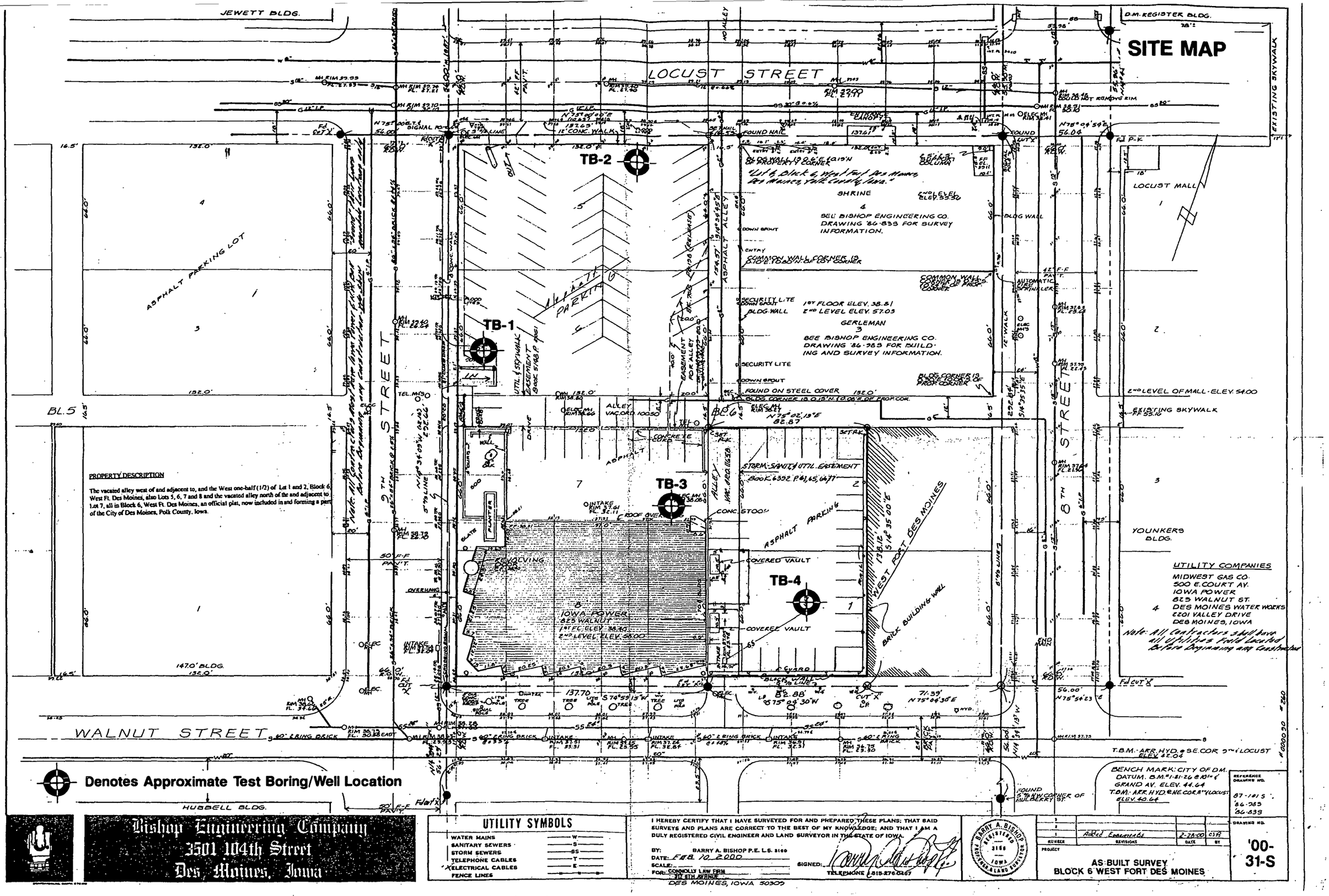
ALLENDER BUTZKE ENGINEERS INC.

Donald D. Edds
Environmental Geologist

DE/dde
3 pc Above
Enclosures

APPENDIX

SITE MAP



Denotes Approximate Test Boring/Well Location

PROPERTY DESCRIPTION

The vacated alley west of and adjacent to, and the West one-half (1/2) of Lot 1 and 2, Block 6, West Ft. Des Moines, also Lots 5, 6, 7 and 8 and the vacated alley north of the and adjacent to Lot 7, all in Block 6, West Ft. Des Moines, an official plat, now included in and forming a part of the City of Des Moines, Polk County, Iowa.

Bishop Engineering Company
3501 104th Street
Des Moines, Iowa

UTILITY SYMBOLS

WATER MAINS	W
SANITARY SEWERS	S
STORM SEWERS	SS
TELEPHONE CABLES	T
ELECTRICAL CABLES	E
FENCE LINES	

I HEREBY CERTIFY THAT I HAVE SURVEYED FOR AND PREPARED THESE PLANS; THAT SAID SURVEYS AND PLANS ARE CORRECT TO THE BEST OF MY KNOWLEDGE; AND THAT I AM A DULY REGISTERED CIVIL ENGINEER AND LAND SURVEYOR IN THE STATE OF IOWA.

BY: BARRY A. BISHOP P.E. L.S. 8169
DATE: FEB. 10, 2000
SCALE:
FOR: CONNOLLY LAW FIRM
317 6TH AVENUE
DES MOINES, IOWA 50309
SIGNED:
TELEPHONE (515) 276-0467

BARRY A. BISHOP — REGISTERED — 8169 — IOWA — LICENSED PROFESSIONAL ENGINEER AND LAND SURVEYOR

NUMBER	REVISIONS	DATE	BY
3			
2			
1	Added Easements	2-28-00	CJA

PROJECT
AS-BUILT SURVEY
BLOCK 6 WEST FORT DES MOINES

REFERENCE DRAWING NO.
87-101 S
'86-383
'86-839

DRAWING NO.
'00-31-S

BORING LOG NO. TB-1

Project No.: 003130

Project: Iowa Power
823 Walnut Street
Des Moines, Iowa

Client: Connolly Law Firm
317 Sixth Avenue
Des Moines, Iowa 50309-4127

Surface Elevation:
Datum:

Date Drilled: March 21, 2000
Drilling Depth: 50

Drilling Method Hollow Stem Augers
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		4 inches Portland Cement concrete PAVEMENT				
				0		Dark brown silty clay with brick fragments, damp FILL		CL-ML		
				0		Brown lean clay, trace sand, moist COHESIVE ALLUVIUM		CL		
	16			0		Brown fine to medium sand, moist		SP		
				0		GRANULAR ALLUVIUM				
				0						
				0		Gravelly coarse sand below 30 feet, very moist		GP		
	32			0						
				0		Wet below 38 feet GRANULAR ALLUVIUM				
				0						
	48			0		End of Boring				

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation
Time: at completion 1 hrs. ____ days
Depth to water: 40 ft. ▽ 38 ft. ▽ ____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.
Geotechnical • Environmental • Construction Q.C.

BORING LOG NO. TB-2

Project No.: 003130

Project: Iowa Power
823 Walnut Street
Des Moines, Iowa

Client: Connolly Law Firm
317 Sixth Avenue
Des Moines, Iowa 50309-4127

Surface Elevation:
Datum:

Date Drilled: March 21, 2000
Drilling Depth: 50

Drilling Method Hollow Stem Augers
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		4 inches Portland Cement concrete PAVEMENT				
				0		Dark brown silty clay with brick and wood fragments, damp FILL		CL-ML		
				0		Brown lean clay, trace sand, moist COHESIVE ALLUVIUM		CL		
	16			0		Brown fine to medium sand, moist GRANULAR ALLUVIUM		SP		
				0						
				0						
	32			0		Gravelly coarse sand below 33 feet, very moist		GP		
				0		Wet below 39 feet GRANULAR ALLUVIUM			▽	
	48			0		End of Boring				

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation
Time: at completion 1 hrs. ____ days
Depth to water: 40 ft. ▽ 39 ft. ▽ ____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.
Geotechnical • Environmental • Construction Q.C.

BORING LOG NO. TB-3

Project No.: 003130

Project: Iowa Power
823 Walnut Street
Des Moines, Iowa

Client: Connolly Law Firm
317 Sixth Avenue
Des Moines, Iowa 50309-4127

Surface Elevation:
Datum:

Date Drilled: March 21, 2000
Drilling Depth: 50

Drilling Method Hollow Stem Augers
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		4 inches Portland Cement concrete PAVEMENT				
						Dark brown silty clay with brick and wood fragments, damp		CL-ML		
				0		FILL				
						Brown lean clay, trace sand, moist		CL		
				0		COHESIVE ALLUVIUM				
		WPA-3	SS			Brown fine to medium sand, moist		SP		
	16			53		Petroleum odor from 12 to 18 feet				
				12		GRANULAR ALLUVIUM				
				0						
				0		Gravelly coarse sand below 30 feet, very moist		GP		
	32									
				0						
				0		Wet below 38 feet				
						GRANULAR ALLUVIUM				
				0						
	48									
				0		End of Boring				

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion 1 hrs. ____ days

Depth to water: 45 ft. ▽ 38 ft. ▽ ____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical • Environmental • Construction Q.C.

BORING LOG NO. TB-4

Project No.: 003130

Project: Iowa Power
823 Walnut Street
Des Moines, Iowa

Client: Connolly Law Firm
317 Sixth Avenue
Des Moines, Iowa 50309-4127

Surface Elevation:
Datum:

Date Drilled: March 21, 2000
Drilling Depth: 50

Drilling Method Hollow Stem Augers
Page 1 of 1

Elevation ft.	Depth ft.	Sample No.	Type	PID (PPM)	Odor	Material Description*	Graphic Log	USCS	Water Level	Well Detail
	0			0		4 inches Portland Cement concrete PAVEMENT				
						Brown to very dark brown silty clay, damp FILL		CL-ML		
				0		Brown lean clay, trace sand, moist				
						COHESIVE ALLUVIUM		CL		
				0						
	16			0		Brown fine to medium sand, moist				
				0		GRANULAR ALLUVIUM		SP		
				0						
	32									
				0		Gravelly coarse sand below 35 feet, very moist		GP		
									▽	
				0		Wet below 40 feet				
						GRANULAR ALLUVIUM			▽	
				0						
	48									
				0		End of Boring				

*The stratification lines represent the approximate boundary lines between material types: in-situ, the transition may be gradual.

Water Level Observation

Time: at completion 1 hrs. ____ days

Depth to water: 42 ft. ▽ 39 ft. ▽ ____ ft. ▽

ALLENDER BUTZKE ENGINEERS, INC.

Geotechnical • Environmental • Construction Q.C.

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

Report To

Don Edds
Allender Butzke Engineers, Inc.
3660 109th Street

Urbandale, IA 50322

Sample Information

Work Order: 1003.0717
Date Received: 03/22/00 10:05 AM
Collector: Don Edds
Collector Phone: 515-252-1885
Report Date: 03/28/00

Site Information

Iowa Power
823 Walnut
Des Moines, IA

Comments

Specific sample comments (if any) are shown below.

Sample No : Description : Date Collected : Matrix Analyte	Analysis Result		Detection Limit	Method	Analyst	Date Analyzed
1007047 WPA-3 : 03/21/2000 11:40:00 AM : soil						
Benzene	< 0.2	mg/kg	0.2	Iowa OA-1	TVK	03/28/00
Toluene	< 0.2	mg/kg	0.2	Iowa OA-1	TVK	03/28/00
Ethylbenzene	< 0.2	mg/kg	0.2	Iowa OA-1	TVK	03/28/00
Xylenes, total	0.3	mg/kg	0.2	Iowa OA-1	TVK	03/28/00
TEH, as gasoline	< 5.	mg/kg	5.	Iowa OA-2	FIZ	03/24/00
TEH, as #2 diesel fuel	6,790.	mg/kg	100.	Iowa OA-2	FIZ	03/24/00
TEH, as waste oil	< 5.	mg/kg	5.	Iowa OA-2	FIZ	03/24/00
Total Extractable Hydrocarbons	6,790.	mg/kg	100.	Iowa OA-2	FIZ	03/24/00
Soil extraction for TEH				EPA 3550	PTB	03/23/00

Jeff King
Keystone Laboratories, Inc.

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

March 28, 2000

Report To

Don Edds
Allender Butzke Engineers, Inc.
3660 109th Street

Urbandale, IA 50322

Sample Information

Work Order: 1003.0717
Sample No: 1007048
Date Collected: 03/21/00 10:32 AM
Date Received: 03/22/00 10:05 AM
Collector: Don Edds
Collector Phone: 515-252-1885
Matrix: water

Site Information/Sample Description

Iowa Power
823 Walnut
Des Moines, IA

WPA-1W

Comments

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Determination of volatile organic compounds.					
1,1,1-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2,2-Tetrachloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichloroethane	< 0.4 ug/L	0.4	EPA 8260	EPP	03/25/00
1,2-Dichloropropane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,3-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,4-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
2-Butanone (MEK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
2-Hexanone (MBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
4-Methyl-2-pentanone (MIBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Acetone	< 10. ug/L	10.	EPA 8260	EPP	03/25/00
Benzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromodichloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromoform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromomethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007048
Report Date: 03/28/2000

Site Name / Sample Description
Iowa Power
WPA-1W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Carbon Disulfide	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Tetrachloride	< 0.3 ug/L	0.3	EPA 8260	EPP	03/25/00
Chlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Dibromochloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Ethylbenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Methyl-t-butyl Ether (MTBE)	< 2. ug/L	2.	EPA 8260	EPP	03/25/00
Methylene Chloride	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Naphthalene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Tetrachloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Toluene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Trichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Vinyl Chloride	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Xylenes, total	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Determination of semivolatile organic compounds.					
TEH, as #2 diesel fuel	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
TEH, as gasoline	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
TEH, as waste oil	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
Total Extractable Hydrocarbons	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00

Jeff King

Keystone Laboratories, Inc.

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

March 30, 2000

Report To

Don Edds
Allender Butzke Engineers, Inc.
3660 109th Street

Urbandale, IA 50322

Sample Information

Work Order: 1003.0717
Sample No: 1007049
Date Collected: 03/21/00 11:18 AM
Date Received: 03/22/00 10:05 AM
Collector: Don Edds
Collector Phone: 515-252-1885
Matrix: water

Site Information/Sample Description

Iowa Power
823 Walnut
Des Moines, IA

WPA-2W

Comments

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Determination of volatile organic compounds.					
1,1,1-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2,2-Tetrachloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichloroethane	< 0.4 ug/L	0.4	EPA 8260	EPP	03/25/00
1,2-Dichloropropane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
2-Butanone (MEK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
2-Hexanone (MBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
4-Methyl-2-pentanone (MIBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Acetone	< 10. ug/L	10.	EPA 8260	EPP	03/25/00
Benzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromodichloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromoform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromomethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Disulfide	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Tetrachloride	< 0.3 ug/L	0.3	EPA 8260	EPP	03/25/00
Chlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007049
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-2W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Chloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Dibromochloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Ethylbenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Methyl-t-butyl Ether (MTBE)	< 2. ug/L	2.	EPA 8260	EPP	03/25/00
Methylene Chloride	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Tetrachloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Toluene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Trichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Vinyl Chloride	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Xylenes, total	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Determination of acid extractable organic compounds.					
(3 & 4)-Methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4,5-Trichlorophenol	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
2,4,6-Trichlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dichlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dimethylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dinitrophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Chlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Nitrophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4,6-Dinitro-2-methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chloro-3-methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Nitrophenol	< 20. ug/L	20.	EPA 8270	GGD	03/28/00
Pentachlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Phenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Determination of base/neutral extractable organic compounds.					
1,2,4-Trichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007049
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-2W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
1,2-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
1,3-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
1,4-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dinitrotoluene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,6-Dinitrotoluene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Chloronaphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Methylnaphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Nitroaniline	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
3,3'-Dichlorobenzidine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
3-Nitroaniline	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
4-Bromophenyl Phenyl Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chloroaniline	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chlorophenyl Phenyl Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Nitroaniline	< 20. ug/L	20.	EPA 8270	GGD	03/28/00
Acenaphthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Acenaphthylene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Aniline	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Azobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzidine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(a)anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(a)Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(b)Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(g,h,i)perylene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(k)Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzyl Alcohol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroethoxy) Methane	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroethyl) Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroisopropyl) Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-ethylhexyl)Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Butyl Benzyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Chrysene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Di-n-butyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007049
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-2W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Di-n-octyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dibenzo(a,h)anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dibenzofuran	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Diethyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dimethylphthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Fluorene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorobutadiene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorocyclopentadiene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachloroethane	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Indeno(1,2,3-cd)Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Isophorone	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
n-Nitroso-di-n-propylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
N-Nitrosodimethylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
N-Nitrosodiphenylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Naphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Nitrobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Phenanthrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

Jeff King

Keystone Laboratories, Inc.

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

March 28, 2000

Report To

Don Edds
Allender Butzke Engineers, Inc.
3660 109th Street

Urbandale, IA 50322

Sample Information

Work Order: 1003.0717
Sample No: 1007050
Date Collected: 03/21/00 11:50 AM
Date Received: 03/22/00 10:05 AM
Collector: Don Edds
Collector Phone: 515-252-1885
Matrix: water

Site Information/Sample Description

Iowa Power
823 Walnut
Des Moines, IA

WPA-3W

Comments

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Determination of volatile organic compounds.					
1,1,1-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2,2-Tetrachloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichloroethane	< 0.4 ug/L	0.4	EPA 8260	EPP	03/25/00
1,2-Dichloropropane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,3-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,4-Dichlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
2-Butanone (MEK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
2-Hexanone (MBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
4-Methyl-2-pentanone (MIBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Acetone	< 10. ug/L	10.	EPA 8260	EPP	03/25/00
Benzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromodichloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromoform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromomethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007050
Report Date: 03/28/2000

Site Name / Sample Description
Iowa Power
WPA-3W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Carbon Disulfide	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Tetrachloride	< 0.3 ug/L	0.3	EPA 8260	EPP	03/25/00
Chlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Dibromochloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Ethylbenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Methyl-t-butyl Ether (MTBE)	< 2. ug/L	2.	EPA 8260	EPP	03/25/00
Methylene Chloride	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Naphthalene	3.1 ug/L	1.	EPA 8260	EPP	03/25/00
Tetrachloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Toluene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Trichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Vinyl Chloride	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Xylenes, total	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Determination of semivolatile organic compounds.					
TEH, as #2 diesel fuel	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
TEH, as gasoline	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
TEH, as waste oil	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00
Total Extractable Hydrocarbons	< 0.1 mg/L	0.1	Iowa OA-2	FIZ	03/25/00

Keystone Laboratories, Inc.

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Keystone LABORATORIES, INC.

MEMBER ACIL

ANALYTICAL REPORT

March 30, 2000

Report To

Don Edds
Allender Butzke Engineers, Inc.
3660 109th Street

Urbandale, IA 50322

Sample Information

Work Order: 1003.0717
Sample No: 1007051
Date Collected: 03/21/00 12:30 PM
Date Received: 03/22/00 10:05 AM
Collector: Don Edds
Collector Phone: 515-252-1885
Matrix: water

Site Information/Sample Description

Iowa Power
823 Walnut
Des Moines, IA

WPA-4W

Comments

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Determination of volatile organic compounds.					
1,1,1-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2,2-Tetrachloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1,2-Trichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,1-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
1,2-Dichloroethane	< 0.4 ug/L	0.4	EPA 8260	EPP	03/25/00
1,2-Dichloropropane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
2-Butanone (MEK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
2-Hexanone (MBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
4-Methyl-2-pentanone (MIBK)	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Acetone	< 10. ug/L	10.	EPA 8260	EPP	03/25/00
Benzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromodichloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromoform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Bromomethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Disulfide	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Carbon Tetrachloride	< 0.3 ug/L	0.3	EPA 8260	EPP	03/25/00
Chlorobenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007051
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-4W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Chloroethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloroform	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Chloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
cis-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Dibromochloromethane	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Ethylbenzene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Methyl-t-butyl Ether (MTBE)	< 2. ug/L	2.	EPA 8260	EPP	03/25/00
Methylene Chloride	< 5. ug/L	5.	EPA 8260	EPP	03/25/00
Tetrachloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Toluene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,2-Dichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
trans-1,3-Dichloropropene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Trichloroethylene	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Vinyl Chloride	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Xylenes, total	< 1. ug/L	1.	EPA 8260	EPP	03/25/00
Determination of acid extractable organic compounds.					
(3 & 4)-Methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4,5-Trichlorophenol	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
2,4,6-Trichlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dichlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dimethylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dinitrophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Chlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Nitrophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4,6-Dinitro-2-methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chloro-3-methylphenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Nitrophenol	< 20. ug/L	20.	EPA 8270	GGD	03/28/00
Pentachlorophenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Phenol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Determination of base/neutral extractable organic compounds.					
1,2,4-Trichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007051
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-4W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
1,2-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
1,3-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
1,4-Dichlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,4-Dinitrotoluene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2,6-Dinitrotoluene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Chloronaphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Methylnaphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
2-Nitroaniline	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
3,3'-Dichlorobenzidine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
3-Nitroaniline	< 50. ug/L	50.	EPA 8270	GGD	03/28/00
4-Bromophenyl Phenyl Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chloroaniline	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Chlorophenyl Phenyl Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
4-Nitroaniline	< 20. ug/L	20.	EPA 8270	GGD	03/28/00
Acenaphthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Acenaphthylene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Aniline	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Azobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzidine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(a)anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(a)Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(b)Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(g,h,i)perylene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzo(k)Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Benzyl Alcohol	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroethoxy) Methane	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroethyl) Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-Chloroisopropyl) Ether	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Bis(2-ethylhexyl)Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Butyl Benzyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Chrysene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Di-n-butyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

Work Order: 1003.0717
Sample No: 1007051
Report Date: 03/30/2000

Site Name / Sample Description
Iowa Power
WPA-4W

Analyte	Analysis Result	Detection Limit	Method	Analyst	Date Analyzed
Di-n-octyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dibenzo(a,h)anthracene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dibenzofuran	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Diethyl Phthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Dimethylphthalate	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Fluoranthene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Fluorene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorobutadiene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachlorocyclopentadiene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Hexachloroethane	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Indeno(1,2,3-cd)Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Isophorone	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
n-Nitroso-di-n-propylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
N-Nitrosodimethylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
N-Nitrosodiphenylamine	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Naphthalene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Nitrobenzene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Phenanthrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00
Pyrene	< 10. ug/L	10.	EPA 8270	GGD	03/28/00

Jeff King
Keystone Laboratories, Inc.

< = less than; ug/L = ppb; mg/L = ppm; mg/kg = ppm

CHAIN OF CUSTODY RECORD

Keystone LABORATORIES, INC.

☐ 600 E. 17th St. S.
Newton, IA 50208
Phone: 515-792-8451
Fax: 515-792-7989

☐ 3012 Ansborough Ave.
Waterloo, IA 50701
Phone: 319-235-4440
Fax: 319-235-2480

☐ 1304 Adams
Kansas City, KS 66103
Phone: 913-321-7856
Fax: 913-321-7937

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW

SAMPLER: Don Edds
SITE NAME: Iowa Power
ADDRESS: 823 Walnut
CITY/ST/ZIP: Des Moines Iowa 50309
PHONE: NA

REPORT TO:
NAME: Don Edds
COMPANY NAME: Allender Butzke Engrs.
ADDRESS: 3660 109th St.
CITY/ST/ZIP: Urbandale IA 50322
PHONE: (515) 252-1885
FAX: (515) 252-1888

BILL TO:
NAME: Same as Report
COMPANY NAME:
ADDRESS:
CITY/ST/ZIP:
PHONE:

Keystone Quote No.: (If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED: OA-1	OA-2	VOCs	BNAs					LAB USE ONLY: LABORATORY SAMPLE NUMBER
WPA-3	3/21/00	11:40	Test Boring 3	1	soil	G	✓	✓							1007047
WPA-1W		10:32	Test Well 1	4	water	G		✓	✓						07048
WPA-2W		11:18	Test Well 2	4		G			✓	✓					07049
WPA-3W		11:50	Test Well 3	4		G		✓	✓						07050
WPA-4W	↓	12:30	Test Well 4	4	↓	G			✓	✓					07051

LABORATORY WORK ORDER NO.: 1003,0717

SAMPLE TEMPERATURE UPON RECEIPT: on ice °C

SAMPLE CONDITION/COMMENTS:

Relinquished by: (Signature) Don D. Edds	Date 3/22/00 Time	Received by: (Signature)	Date Time	Turn-Around: ☐ Standard ☑ Rush	Contact Lab Prior to Submission
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature)	Date 3/22/00 Time 10:05 A.M.	Remarks: No Chromatograms. Need results by 3/28/00 3:00 p.m.	

Original Return with Report Yellow Lab Copy Pink Sampler Copy FORM: CCR 7-97