Preston Engineering, Inc.
environmental consultants

Corporate Office
4436 N. Brady St. • Davenport, IA 52806
Ph. 319/388/8288 • Fax 319/388/9003
www.prestonengineering.com

November 27, 2001

CON 12-15
Doc #12395

Ken Herstowski, Project Manager
Region VII
US Environmental Protection Agency
901 North 5th Street
Kansas City, KS 66101

RE: RV Hopkins, Inc
EPA # IAD022096028
November 2001 Sampling Results

Dear Mr. Herstowski:

Enclosed are the sampling results for the November 8, 2001 sampling event at RV Hopkins, Inc. Sampling was performed as part of the approved November 2000 Closure Plan for the facility. The procedures followed were in accordance to the Groundwater Sampling Plan submitted to the agency on June 13, 2001.

Purging activities were performed on November 7, 2001. At this time, pH, specific conductivity, and temperature were measured to ensure that the wells were properly evacuated. A copy of the field notes and a typed summary are being submitted with this letter.

Prior to preserving the sample, turbidity was measured. If the turbidity was greater then 5 NTUs, the sample was field filtered. All samples were filtered in the field as the criteria set forth in the sampling plan was not met.

In the following table, the November 8, 2001 results are summarized.

Parameter	MCL (mg/L)	MW1 (mg/L)	MW2 (mg/L)	Duplicate (mg/L)	Relative % Difference	MW3 (mg/L)	MW5 (mg/L)
Arsenic	0.05	0.0011	0.0096	0.0099	3%	0.0069	0.0027
Barium	2	0.243	0.273	0.279	2%	0.233	0.260
Cadmium	0.005	<0.00006	<0.00006	<0.00006	0%	<0.00006	<0.00006
Chromium	0.1	<0.0032	<0.0032	<0.0032	0%	<0.0032	0.0036
Lead	0.015	0.0002	0.0002	0.0003	40%	0.006	0.0051
Mercury	0.002	0.000061	0.000061	0.000068	11%	0.000068	0.000064
Selenium	0.05	<0.005	<0.0005	<0.0005	0%	<0.005	<0.005
Silver	NA	<0.0015	<0.0015	<0.0015	0%	<0.0015	<0.0015

Regional Office
5650 N.W. Johnston Dr. Ste. G • Johnston, IA 50131
Ph. 515/727/9195 • Fax 515/727/9198

The method detection limit for each parameter was used for the reporting limit. These concentrations are below the maximum contamination limit.

A duplicate sample was collected from monitoring well #2 (MW2) as part of quality assurance and quality control. The groundwater sampling plan indicated that a 20% relative percent difference between the duplicate and well sample is considered to be an unacceptable result. The calculated relative percent difference for lead is 40%. This result is most likely due to the low concentration and the variation of laboratory procedures. Holding times and preservation temperature were met according to the laboratory report. A quality assurance report performed by the laboratory has been included with the analytical report.

Mercury was detected at low concentrations in all samples and range from 0.061 to 0.068 µg/L. Upon review of the laboratory report, the parameter was also detected in the laboratory blank at 0.064 µg/L. The laboratory reported that these concentrations might be due to the variability in noise of the instrument due to the low reporting concentration. According to the laboratory, the MDL for mercury is evaluated once per year as required by the State of Iowa. The MDL for any given parameter is not run specific, and does not take into account changes in the matrix or the instrument. Mercury is most likely not present in the ground water at RV Hopkins.

Lead, arsenic, and barium were detected in low concentrations. All concentrations were below the respective MCL. In addition, concentrations of arsenic at RV Hopkins is less than the proposed standard of 10 ppb.

I have also enclosed a groundwater contour map. The contour map shows that the water is flowing to the south and southwest.

If you have any questions or comments regarding this matter, please don't hesitate to contact me.

Sincerely,

Jaci L.E. Moore, E.I.T.

Enclosures: Groundwater Analytical Report dated November 21, 2001
Field Notes
Groundwater Contour Map

cc: James Bentley, RV Hopkins, Inc– Davenport, Iowa

TestAmerica
INCORPORATED

ANALYTICAL AND QUALITY CONTROL REPORT

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Enclosed is the Analytical and Quality Control reports for the following samples submitted to the Cedar Falls Division of TestAmerica, Inc. for analysis.

Sample Number	Sample Description	Date Taken	Date Received
648811	MW #5 11-08-01	11/08/2001	11/09/2001
648812	MW #1 11-08-01	11/08/2001	11/09/2001
648813	MW #2 11-08-01	11/08/2001	11/09/2001
648814	MW #3 11-08-01	11/08/2001	11/09/2001
648815	Duplicate 11-08-01	11/08/2001	11/09/2001

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TestAmerica, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

Kristin Clay
Project Manager

TestAmerica INCORPORATED

ANALYTICAL REPORT

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Client Project ID: RV Hopkins 11-08-01

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 648811	SAMPLE DESCRIPTION MW #5 11-08-01							DATE-TIME TAKEN 11/08/2001 08:40	
Dissolved ICP Metals	COMPLETE				11/12/2001	heh		1019	
Barium, Diss (ICP) WT	0.260		mg/L	0.0039	11/12/2001	heh		4027	SW 6010B
Chromium, diss (ICP) WT	0.0036		mg/L	0.0115	11/12/2001	heh		4039	SW 6010B
Silver, diss (ICP) WT	<0.0015		mg/L	0.0054	11/12/2001	heh		4037	SW 6010B
Arsenic, diss. GFAA WT	0.0027		mg/L	0.0038	11/14/2001	llw		13	EPA 206.2
Cadmium, diss (GFAA) WT	<0.00006		mg/L	0.00020	11/19/2001	llw		7	EPA 213.2
Lead, diss GFAA WT	0.0051		mg/L	0.0009	11/15/2001	llw		7	EPA 239.2
Mercury, diss WT	0.064	B	ug/L	0.048	11/15/2001	rmp		2055	EPA 245.1
Selenium, diss GFAA WT	<0.0005		mg/L	0.0018	11/21/2001	llw		9	EPA 270.2
SAMPLE NO. 648812	SAMPLE DESCRIPTION MW #1 11-08-01							DATE-TIME TAKEN 11/08/2001 08:50	
Dissolved ICP Metals	COMPLETE				11/12/2001	heh		1019	
Barium, Diss (ICP) WT	0.243		mg/L	0.0039	11/12/2001	heh		4027	SW 6010B
Chromium, diss (ICP) WT	<0.0032		mg/L	0.0115	11/12/2001	heh		4039	SW 6010B
Silver, diss (ICP) WT	<0.0015		mg/L	0.0054	11/12/2001	heh		4037	SW 6010B
Arsenic, diss. GFAA WT	0.0011		mg/L	0.0038	11/14/2001	llw		13	EPA 206.2
Cadmium, diss (GFAA) WT	<0.00006		mg/L	0.00020	11/19/2001	llw		7	EPA 213.2

B - Blank is contaminated for this analyte

TestAmerica INCORPORATED

ANALYTICAL REPORT

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Client Project ID: RV Hopkins 11-08-01

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 648812 SAMPLE DESCRIPTION MW #1 11-08-01 DATE-TIME TAKEN 11/08/2001 08:50									
Lead, diss GFAA WT	0.0002		mg/L	0.0009	11/15/2001	llw		7	EPA 239.2
Mercury, diss WT	0.061	B	ug/L	0.048	11/15/2001	rmp		2055	EPA 245.1
Selenium, diss GFAA WT	<0.0005	N,S	mg/L	0.0018	11/21/2001	llw		9	EPA 270.2
SAMPLE NO. 648813 SAMPLE DESCRIPTION MW #2 11-08-01 DATE-TIME TAKEN 11/08/2001 09:00									
Dissolved ICP Metals	COMPLETE				11/12/2001	heh		1019	
Barium, Diss (ICP) WT	0.273		mg/L	0.0039	11/12/2001	heh		4027	SW 6010B
Chromium, diss (ICP) WT	<0.0032		mg/L	0.0115	11/12/2001	heh		4039	SW 6010B
Silver, diss (ICP) WT	<0.0015		mg/L	0.0054	11/12/2001	heh		4037	SW 6010B
Arsenic, diss. GFAA WT	0.0096		mg/L	0.0038	11/14/2001	llw		13	EPA 206.2
Cadmium, diss (GFAA) WT	<0.00006		mg/L	0.00020	11/19/2001	llw		7	EPA 213.2
Lead, diss GFAA WT	0.0002		mg/L	0.0009	11/15/2001	llw		7	EPA 239.2
Mercury, diss WT	0.061	B	ug/L	0.048	11/15/2001	rmp		2055	EPA 245.1
Selenium, diss GFAA WT	<0.0005		mg/L	0.0018	11/20/2001	llw		9	EPA 270.2

B - Blank is contaminated for this analyte
N - Spike recovery for this analyte is out of control
S - Reported value determined by the method of standard addtions

TestAmerica INCORPORATED

ANALYTICAL REPORT

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Client Project ID: RV Hopkins 11-08-01

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 648814	**SAMPLE DESCRIPTION MW #3 11-08-01**							**DATE-TIME TAKEN 11/08/2001 09:15**	
Dissolved ICP Metals	COMPLETE				11/12/2001	heh		1019	
Barium, Diss (ICP) WT	0.233		mg/L	0.0039	11/12/2001	heh		4027	SW 6010B
Chromium, diss (ICP) WT	<0.0032		mg/L	0.0115	11/12/2001	heh		4039	SW 6010B
Silver, diss (ICP) WT	<0.0015		mg/L	0.0054	11/12/2001	heh		4037	SW 6010B
Arsenic, diss. GFAA WT	0.0069		mg/L	0.0038	11/14/2001	llw		13	EPA 206.2
Cadmium, diss (GFAA) WT	<0.00006		mg/L	0.00020	11/19/2001	llw		7	EPA 213.2
Lead, diss GFAA WT	0.0006		mg/L	0.0009	11/15/2001	llw		7	EPA 239.2
Mercury, diss WT	0.068	B	ug/L	0.048	11/15/2001	rmp		2055	EPA 245.1
Selenium, diss GFAA WT	<0.0005		mg/L	0.0018	11/20/2001	llw		9	EPA 270.2
SAMPLE NO. 648815	**SAMPLE DESCRIPTION Duplicate 11-08-01**							**DATE-TIME TAKEN 11/08/2001**	
Dissolved ICP Metals	COMPLETE				11/12/2001	heh		1019	
Barium, Diss (ICP) WT	0.279		mg/L	0.0039	11/12/2001	heh		4027	SW 6010B
Chromium, diss (ICP) WT	<0.0032		mg/L	0.0115	11/12/2001	heh		4039	SW 6010B
Silver, diss (ICP) WT	<0.0015		mg/L	0.0054	11/12/2001	heh		4037	SW 6010B
Arsenic, diss. GFAA WT	0.0099		mg/L	0.0038	11/14/2001	llw		13	EPA 206.2
Cadmium, diss (GFAA) WT	<0.00006		mg/L	0.00020	11/19/2001	llw		7	EPA 213.2

B - Blank is contaminated for this analyte

TestAmerica INCORPORATED

ANALYTICAL REPORT

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Client Project ID: RV Hopkins 11-08-01

Analyte	Result	Flag	Units	Quantitation Limit	Date Analyzed	Analyst Initials	Prep Batch No.	Run Batch No.	Method Reference
SAMPLE NO. 648815	SAMPLE DESCRIPTION Duplicate 11-08-01							DATE-TIME TAKEN 11/08/2001	
Lead, diss GFAA WT	0.0003		mg/L	0.0009	11/15/2001	llw		7	EPA 239.2
Mercury, diss WT	0.068	B	ug/L	0.048	11/15/2001	rmp		2055	EPA 245.1
Selenium, diss GFAA WT	<0.0005		mg/L	0.0018	11/20/2001	llw		9	EPA 270.2

B - Blank is contaminated for this analyte

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch No.	Run Batch No.	CCV True Value	Units	CCV Conc Found	CCV % Rec	Flag	Date Analyzed
Barium, Diss (ICP) WT		4027	5.00	ppm	5.00	100		11/12/2001
Chromium, diss (ICP) WT		4039	5.00	ppm	5.09	102		11/12/2001
Silver, diss (ICP) WT		4037	1.00	ppm	1.04	104		11/12/2001
Arsenic, diss. GFAA WT		13	0.0250	mg/L	0.0265	106		11/14/2001
Cadmium, diss (GFAA) WT		7	0.0010	mg/L	0.00097	97		11/19/2001
Lead, diss GFAA WT		7	0.0375	mg/L	0.0369	98		11/15/2001
Mercury, diss WT		2055	1.00	ppb	0.92	92		11/15/2001
Selenium, diss GFAA WT		9	0.0375	mg/L	0.0392	105		11/20/2001

QUALITY CONTROL REPORT
BLANKS

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch No.	Run Batch No.	Blank Value	Flag	Units	Quantitation Limit	Date Analyzed
Barium, Diss (ICP) WT		4027	<0.0011		mg/L	0.0039	11/12/2001
Chromium, diss (ICP) WT		4039	<0.0032		mg/L	0.0115	11/12/2001
Silver, diss (ICP) WT		4037	<0.0015		mg/L	0.0054	11/12/2001
Arsenic, diss. GFAA WT		13	<0.00077		mg/L	0.00273	11/14/2001
Cadmium, diss (GFAA) WT		7	<0.00006		mg/L	0.00020	11/19/2001
Lead, diss GFAA WT		7	<0.0002		mg/L	0.0009	11/15/2001
Mercury, diss WT		2055	0.064	B	ug/L	0.048	11/15/2001
Selenium, diss GFAA WT		9	<0.0005		mg/L	0.0018	11/20/2001

B - Blank is contaminated for this analyte

QUALITY CONTROL REPORT
LABORATORY CONTROL STANDARD

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch No.	Run Batch No.	LCS True Conc	Units	LCS Conc Found	LCS % Rec.	Flag	Date Analyzed
Mercury, diss WT		2055	1.667	ug/L	1.62	97	B	11/15/2001

B - Blank is contaminated for this analyte

QUALITY CONTROL REPORT
MATRIX SPIKE

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch No.	Run Batch No.	Conc. Spike Added	Units	Sample Result	Conc. MS Result	MS % Rec.	Flag	Date Analyzed
Barium, Diss (ICP) WT		4027	0.96	mg/L	0.233	1.15	96		11/12/2001
Chromium, diss (ICP) WT		4039	0.96	mg/L	<0.0032	0.96	100		11/12/2001
Silver, diss (ICP) WT		4037	0.98	mg/L	<0.0015	0.88	90		11/12/2001
Arsenic, diss. GFAA WT		13	0.0250	mg/L	0.0011	0.0247	94		11/14/2001
Cadmium, diss (GFAA) WT		7	0.00125	mg/L	<0.00006	0.00124	99		11/19/2001
Lead, diss GFAA WT		7	0.0250	mg/L	0.0002	0.0258	102		11/15/2001
Selenium, diss GFAA WT		9	0.0250	mg/L	<0.0005	0.0125	50	N,S	11/20/2001

N - Spike recovery for this analyte is out of control
S - Reported value determined by the method of standard addtions

QUALITY CONTROL REPORT
DUPLICATES

Jaci Moore
PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch No.	Run Batch No.	Sample Result	Duplicate Sample Result	Units	RPD	Flag	Date Analyzed
Barium, Diss (ICP) WT		4027	0.273	0.275	mg/L	0.7		11/12/2001
Chromium, diss (ICP) WT		4039	<0.0032	<0.0032	mg/L			11/12/2001
Silver, diss (ICP) WT		4037	<0.0015	<0.0015	mg/L			11/12/2001
Arsenic, diss. GFAA WT		13	0.0027	0.0030	mg/L	10.5		11/14/2001
Cadmium, diss (GFAA) WT		7	<0.00006	<0.00006	mg/L			11/19/2001
Lead, diss GFAA WT		7	0.0051	0.0055	mg/L	7.5		11/15/2001
Selenium, diss GFAA WT		9	<0.0005	<0.0005	mg/L			11/20/2001

TestAmerica
INCORPORATED

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

PRESTON ENGINEERING, INC.
Environmental Consultants
4436 N. Brady Street
Davenport, IA 52806
Jaci Moore

11/21/2001

Job Number: 01.13597

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
Mercury, diss WT		2055	1.64	0.064	1.667	ug/L	94.5	1.65	1.667	ug/L	95.1	0.6

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSDs
Inorganic Parameters and GC Volatiles
The spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

RPD = Relative Percent Difference

TestAmerica Job Number: 01.13597

ATTACHMENTS

Following are the sample receipt log and the chain of custody applicable to this analytical report.

For questions regarding this report, please contact the individual who signed the analytical report.

TestAmerica INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319-277-2401
Fax: 319-277-2425

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Preston Engineering Client #: _____
Address: 4436 N. Brady
City/State/Zip Code: Davenport IA 52806
Project Manager: Jaci Moore
Telephone Number: @(563) 388-8288 Fax: (563) 388-9003
Sampler Name: (Print Name) Jaci Moore
Sampler Signature: Jaci M Moore

Project Name: RV Hopkins
Project #: 98-562
Site/Location ID: _____ State: _____
Report To: Jaci Moore
Invoice To: _____
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

QC Deliverables
___ None
X Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 8 RCRA Metal	Dissolved *	(Arsenic, Barium	Cadmium, Chromium	Lead, Mercury *	Selenium, Silver	REMARKS
MW#5	11/8/01	8:40		X	GW								X						
MW#1	11/8/01	8:50		X	"								X						
MW#2	11/8/01	9:00		X	"								X						
MW#3	11/8/01	9:15		X	"								X						
Duplicate	11/8/01			X	"								X						

Special Instructions:
X Please Report to MDL

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by TestAmerica: Y N
Method of Shipment:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Olivia Law			Ron Conley	11-8-01	13:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
			Edna Mueller	11-9-01	8:00
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Sample Receipt and Temperature Log Form

Client: Preston ENG. Project: RV Hopkins

City: QCCSC

Date: 11-9-01 Receiver's Initials CH Time (if Applicable): _____

Temperature Record

Cooler #1: 2° °C / On Ice ☒ Temp. Blank

Cooler #2: _____ °C / On Ice ☐ Temp. Blank

Cooler #3: _____ °C / On Ice ☐ Temp. Blank

Cooler #4: _____ °C / On Ice ☐ Temp. Blank

Couriers

☐ Airborne	☐ Speedy
☐ UPS	☐ TA Courier
☒ Velocity	☐ TA Field Svs
☐ FedEx	☐ Client
☐ DHL	
☐ US Postal	☐ Other

Thermometer:

☐ IR-905085 ☐ CF07-03-T1

☒ IR-809065 ☐ CF07-03-T2

☐ Samples Not Received in a Cooler

☐ Temperature Not Taken

☐ Samples Received Within 6 hrs of sampling

COC Completed Correctly? ☒ Yes ☐ No
(Cite inconsistencies below)

Custody Seals Intact? ☐ Yes ☐ No
(If Applicable)

Cooler Checklist (Check indicates conformance failure)

	Received Broken		Improper Container		Temperature*
	Improperly Preserved		Missing Sample		Extra Sample
	Missing Label		Sample Past Hold Date		Improper Label
	Insufficient Sample Volume		Other:		

Client Sample IDs: **Remarks/Action Taken:** **Initial/Date:**

*Refer to SOP CF01-01 for Temperature Criteria

RV Hopkins, Inc– Davenport, IA
Groundwater Sampling
Sampled By: Jaci Moore of Preston Engineering, Inc– Davenport, IA
November 7 and 8, 2001

Monitoring Well #5

Purging:

November 7, 2001
Time Purged: ~8:45am
Depth of Well: 18.10'
Depth to Water: 8.11'

Column of Water: 9.99'
Amount to Purge: 4.99 gallons
Actual Purging Volume: 7 gallon

5 gallons: pH: 6.66
Temperature: 56.8°F
Specific Conductivity: 935 µmho

6 gallons: pH: 6.88
Temperature: 57.5°F
Specific Conductivity: 914 µmho

7 gallons: pH: 6.96
Temperature: 56.4°F
Specific Conductivity: 914 µmho

Sampling:

November 8, 2001 at ~8:40am
Turbidity: 7.0 NTU
Sample was field filtered

Monitoring Well #3

Purging:

November 7, 2001
Time Purged: ~1:30 pm
Depth of Well: 22.50'
Depth to Water: 6.20'

Column of Water: 16.3'
Amount to Purge: 8.15 gallons
Actual Purging Volume: 9.0 gallons

7 gallons: pH: 7.17
Temperature: 66.1°F
Specific Conductivity: 774 µmho

8 gallons: pH: 6.98
Temperature: 64.8°F
Specific Conductivity: 764 µmho

9 gallons: pH: 6.98
Temperature: 63.1°F
Specific Conductivity: 750 µmho

Sampling:

November 8, 2001 at ~9:15am
Turbidity: 32 NTU
Sample was field filtered

RV Hopkins, Inc– Davenport, IA
Groundwater Sampling
Sampled By: Jaci Moore of Preston Engineering, Inc– Davenport, IA
November 7 and 8, 2001

Monitoring Well #1

Purging:

November 7, 2001
Time Purged: ~10:00am
Depth of Well: 19.20'
Depth to Water: 4.29'

Column of Water: 14.91'
Amount to Purge: 7.46 gallons
Actual Purging Volume: 9.0 gallons

7 gallons: pH: 6.94
Temperature: 58.5°F
Specific Conductivity: 743 µmho

8 gallons: pH: 7.15
Temperature: 58.4°F
Specific Conductivity: 727 µmho

9 gallons: pH: 7.17
Temperature: 58.6°F
Specific Conductivity: 712 µmho

Sampling:

November 8, 2001 at ~8:50am
Turbidity: 16 NTU
Sample was Field Filtered

Monitoring Well #2

Purging:

November 7, 2001
Time Purged: ~11:15am
Depth of Well: 18.91'
Depth to Water: 8.37'

Column of Water: 10.54'
Amount to Purge: 5.27 gallons
Actual Purging Volume: 7.0 gallons

5 gallons: pH: 6.80
Temperature: 61.1°F
Specific Conductivity: 1002 µmho

6 gallons: pH: 6.78
Temperature: 61.1°F
Specific Conductivity: 997 µmho

8 gallons: pH: 6.75
Temperature: 60.6°F
Specific Conductivity: 994 µmho

Sampling:

November 8, 2001 at ~9:00 am
Turbidity: 7.5 NTU
Sample was field filtered

RV Hopkins (6)
Ground H2O Samp ✓
11/7/07 ~~Location~~
Jaci Moon

8:30 - Arrived on site - checked in w/ Missy & Pat
Calibrated pH meter

8:30 MW#5 Dtw Well 18.1'
Dt Water 8.11'
Water Column ~ 10 feet
Purge amount 5 gallon
Amount purged - ~~7~~ gallon
5 gallons pH - 6.66
Specific Conductance - 9.34 x100
Temp - 56.8

6 gallons pH - 6.88 7 gallon 6.96
Spec Con 9.14 9.14
Temp 57.5 56.4

7 gallon pH

RV Hopkins (7)
Ground H2O San
San Mateo
11/7/01

9:30 Am

MW #3 DTW Well – 22.5.

DTW Water – 6.20

Column H2O – 16.30

Amount to purge – 8 gallons

Amount purged – 9 gallons

Could not purge – Went to MW #1

Needed Different Bailer.

purged @ 1:30 pm.

RV Hopkins Ground H2o Sampling 2 (8)
11/7/01.
Jon Moore

MW#1 - 10:05

Dt Well - 19.2

Dt H2O 4.29

Amount to purge - ~ 7.5 gallons

Amount purged - 9 gallons

7 gallons pH - 6.97
temp 58.5
Spec - Con. 7.43

8 gallons pH - 7.15
Spec 7.27
Temp - 58.4

9 gallons pH - 7.17
7.12
58.6

RV Hopkins ⑨
Ground Water Samp.
11/7/07
Jai Moore

11:15A MW#2 Dt Well 18.91
Dt H2O – 8.37
Column H2O 10.54
Amount to purge 5.27 gallons
Amount purged – 7 gallons

5 gallons – t 61.1
sp 10.02 X100
pH – 6.80

6 gallons t 61.1
Sp 9.97 X100
pH ~~6.80~~ 6.78

7 gal t 60.6 °F
Sp 9.94 X100
pH 6.75

RV Hopkins
Ground H2O Sampl. (11)
11/8/07
Jon Moore

8:30 Arrived checked in

MW #5 Turbidity - 7.0

8:40 Filtered.

H_2O level 8.00'

8:50 MW #4 Turbidity - 16

Filtered

H_2O level 4.26

9:00 MW #2 & Duplicate

Turbidity - 7.5

Filtered

H_2O level - 8.50

9:15 MW #3

Turbidity 32 NTU

Filtered

H_2O level 6.23'

Turb - 39

Filtered

H_2O 6.23'

R.V. Hopkins (10)
Ground H2O Pump
11/7/01
Jaci Moore

mw #3 - pH - 7.17
Wate Sp - 7.74
temp 66.1

7 gallons

64.8 Sp - 7.64
pH

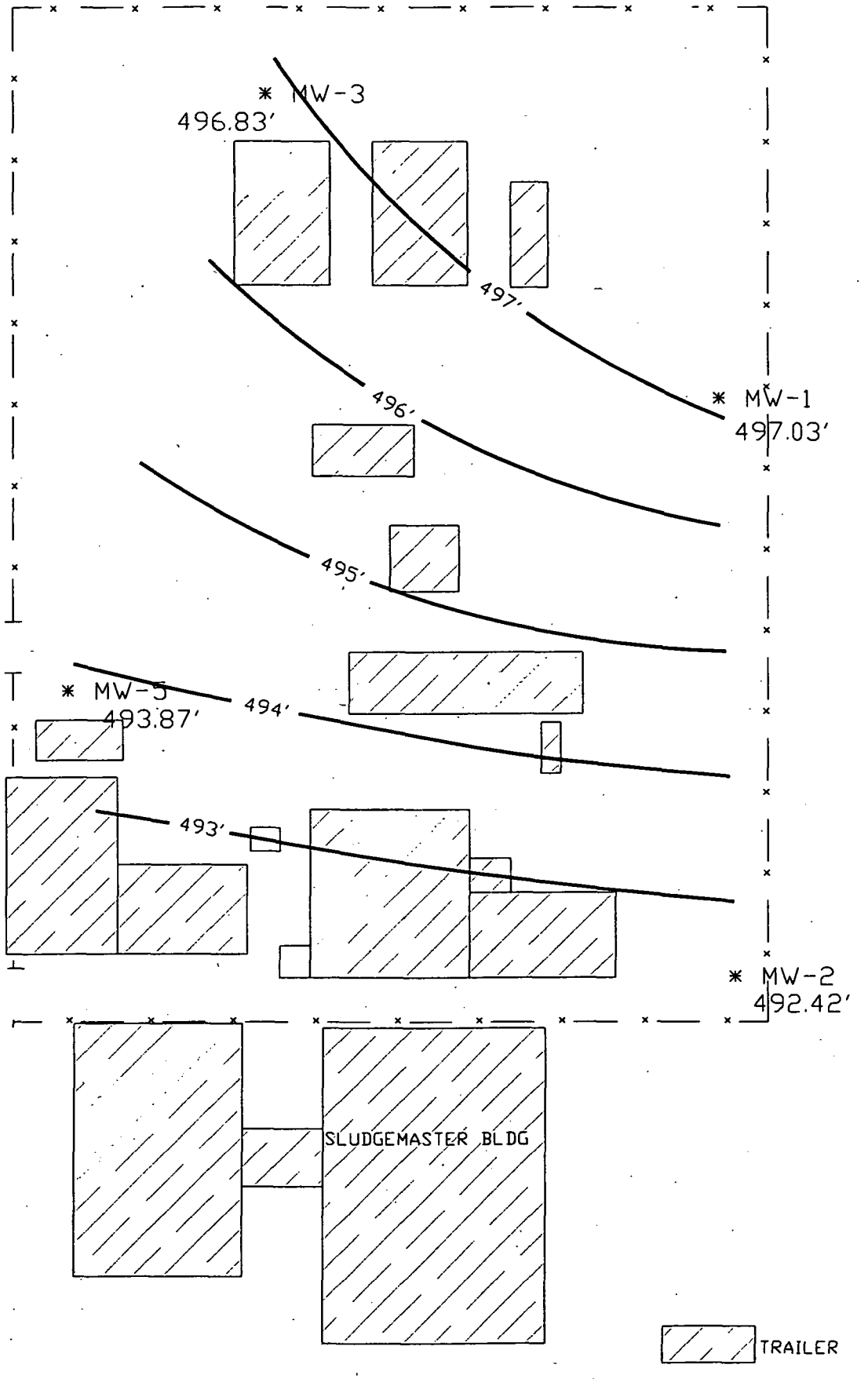
8 gals.

Sp

9 gallons

63-1
7.90
Sp -
pH - 6.98

JG (11/8/01)



Groundwater Table 11/07/01

DRAWN BY: JEM	DATE: 9/1/00	REVISED:	REVISED:

RV HOPKINS, INC

PRESTON ENGINEERING, INC.
CONSULTING ENVIRONMENTAL ENGINEERS

DRAWING NUMBER
GWTable.dwg