

Client: EcoSystems Inc

Analytical Data

Job Number: 680-16640-1

General Chemistry

Client Sample ID: HER-MW17-0506

Lab Sample ID: 680-16640-2

Client Matrix: Water

Date Sampled: 05/15/2006 1235

Date Received: 05/16/2006 0920

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	260		mg/L	1.0	1.0	310.1
	Anly Batch: 680-45630	Date Analyzed	05/24/2006 1340			
Carbon dioxide	110		mg/L	1.0	1.0	310.1
	Anly Batch: 680-45630	Date Analyzed	05/24/2006 1340			

Client: EcoSystems Inc

Analytical Data

Job Number: 680-16640-1

General Chemistry

Client Sample ID: HER-FD3-0506

Lab Sample ID: 680-16640-3FD

Client Matrix: Water

Date Sampled: 05/15/2006 0000

Date Received: 05/16/2006 0920

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	43		mg/L	1.0	1.0	325.2
	Anly Batch: 680-45604	Date Analyzed	05/24/2006 1439			
Ammonia	0.035		mg/L	0.030	1.0	350.1
	Anly Batch: 680-45959	Date Analyzed	05/26/2006 1731			
Ferrous Iron	36		mg/L	1.0	10	3500 FE D
	Anly Batch: 680-44928	Date Analyzed	05/16/2006 1222			
Nitrogen, Nitrate	<0.050		mg/L	0.050	1.0	353.2
	Anly Batch: 680-45117	Date Analyzed	05/16/2006 1005			
Nitrogen, Nitrate Nitrite	<0.050		mg/L	0.050	1.0	353.2
	Anly Batch: 680-45117	Date Analyzed	05/16/2006 1005			
Nitrogen, Nitrite	<0.050		mg/L	0.050	1.0	353.2
	Anly Batch: 680-45117	Date Analyzed	05/16/2006 1005			
Orthophosphate	<0.050		mg/L	0.050	1.0	365.2
	Anly Batch: 680-44927	Date Analyzed	05/16/2006 1324			
Sulfate	120		mg/L	25	5.0	375.4
	Anly Batch: 680-45790	Date Analyzed	05/26/2006 0919			
Sulfide	0.16		mg/L	0.10	1.0	376.2
	Anly Batch: 680-45009	Date Analyzed	05/18/2006 0900			
Total Organic Carbon	16		mg/L	1.0	1.0	415.1
	Anly Batch: 680-45639	Date Analyzed	05/24/2006 1022			
Phenolics, Total Recoverable	<0.050		mg/L	0.050	1.0	420.1
	Anly Batch: 680-45975	Date Analyzed	05/26/2006 1700			
	Prep Batch: 680-45974	Date Prepared:	05/26/2006 1230			

Analytical Data

Client: EcoSystems Inc

Job Number: 680-16640-1

General Chemistry

Client Sample ID: HER-FD3-0506

Lab Sample ID: 680-16640-3FD

Client Matrix: Water

Date Sampled: 05/15/2006 0000

Date Received: 05/16/2006 0920

Analyte	Result	Qual	Units	RL	Dil	Method
Alkalinity	87		mg/L	1.0	1.0	310.1
	Anly Batch: 680-45630	Date Analyzed	05/24/2006 1340			
Carbon dioxide	46		mg/L	1.0	1.0	310.1
	Anly Batch: 680-45630	Date Analyzed	05/24/2006 1340			

DATA REPORTING QUALIFIERS

Client: EcoSystems Inc

Job Number: 680-16640-1

Lab Section	Qualifier	Description
GC/MS VOA	*	LCS or LCSD exceeds the control limits
Metals	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.

QUALITY CONTROL RESULTS

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:680-45631				
LCS 680-45631/3	Lab Control Spike	Water	8260B	
MB 680-45631/4	Method Blank	Water	8260B	
680-16640-1	HER-MW09-0506	Water	8260B	
680-16640-3FD	HER-FD3-0506	Water	8260B	
680-16640-4TB	TRIP BLANK	Water	8260B	
Analysis Batch:680-45882				
LCS 680-45882/4	Lab Control Spike	Water	8260B	
MB 680-45882/6	Method Blank	Water	8260B	
680-16640-2	HER-MW17-0506	Water	8260B	
GC VOA				
Analysis Batch:680-45555				
LCS 680-45555/13	Lab Control Spike	Water	RSK-175	
680-16640-1	HER-MW09-0506	Water	RSK-175	
680-16640-2	HER-MW17-0506	Water	RSK-175	
680-16640-3FD	HER-FD3-0506	Water	RSK-175	
Analysis Batch:680-45718				
MB 680-45718/18	Method Blank	Water	RSK-175	

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Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
Metals				
Prep Batch: 680-45373				
LCS 680-45373/22-A	Lab Control Spike	Water	3005A	
MB 680-45373/21-A	Method Blank	Water	3005A	
680-16640-1	HER-MW09-0506	Water	3005A	
680-16640-1MS	Matrix Spike	Water	3005A	
680-16640-1MSD	Matrix Spike Duplicate	Water	3005A	
680-16640-2	HER-MW17-0506	Water	3005A	
680-16640-3FD	HER-FD3-0506	Water	3005A	
Prep Batch: 680-47805				
LCS 680-47805/12-A	Lab Control Spike	Water	3005A	
MB 680-47799/13-B	Method Blank	Water	3005A	
680-16640-1	HER-MW09-0506	Water	3005A	
680-16640-2	HER-MW17-0506	Water	3005A	
680-16640-3FD	HER-FD3-0506	Water	3005A	
Analysis Batch:680-45784				
LCS 680-45373/22-A	Lab Control Spike	Water	6010B	680-45373
MB 680-45373/21-A	Method Blank	Water	6010B	680-45373
680-16640-1	HER-MW09-0506	Water	6010B	680-45373
680-16640-1MS	Matrix Spike	Water	6010B	680-45373
680-16640-1MSD	Matrix Spike Duplicate	Water	6010B	680-45373
680-16640-2	HER-MW17-0506	Water	6010B	680-45373
680-16640-3FD	HER-FD3-0506	Water	6010B	680-45373
Analysis Batch:680-47966				
LCS 680-47805/12-A	Lab Control Spike	Water	6010B	680-47805
MB 680-47799/13-B	Method Blank	Water	6010B	680-47805
680-16640-1	HER-MW09-0506	Water	6010B	680-47805
680-16640-2	HER-MW17-0506	Water	6010B	680-47805
680-16640-3FD	HER-FD3-0506	Water	6010B	680-47805

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Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
General Chemistry				
Analysis Batch:680-44927				
LCS 680-44927/2	Lab Control Spike	Water	365.2	
LCSD 680-44927/3	Lab Control Spike Duplicate	Water	365.2	
MB 680-44927/1	Method Blank	Water	365.2	
680-16640-1	HER-MW09-0506	Water	365.2	
680-16640-1MS	Matrix Spike	Water	365.2	
680-16640-1MSD	Matrix Spike Duplicate	Water	365.2	
680-16640-2	HER-MW17-0506	Water	365.2	
680-16640-3FD	HER-FD3-0506	Water	365.2	
Analysis Batch:680-44928				
LCS 680-44928/2	Lab Control Spike	Water	3500 FE D	
LCSD 680-44928/3	Lab Control Spike Duplicate	Water	3500 FE D	
MB 680-44928/1	Method Blank	Water	3500 FE D	
680-16640-1	HER-MW09-0506	Water	3500 FE D	
680-16640-2	HER-MW17-0506	Water	3500 FE D	
680-16640-3FD	HER-FD3-0506	Water	3500 FE D	
Analysis Batch:680-45009				
LCS 680-45009/7	Lab Control Spike	Water	376.2	
MB 680-45009/6	Method Blank	Water	376.2	
680-16640-1	HER-MW09-0506	Water	376.2	
680-16640-2	HER-MW17-0506	Water	376.2	
680-16640-2DU	Duplicate	Water	376.2	
680-16640-3FD	HER-FD3-0506	Water	376.2	
Prep Batch: 680-45095				
LCS 680-45095/15-A	Lab Control Spike	Water	Distill/Phenol	
LCSD 680-45095/16-A	Lab Control Spike Duplicate	Water	Distill/Phenol	
MB 680-45095/14-A	Method Blank	Water	Distill/Phenol	
680-16640-1	HER-MW09-0506	Water	Distill/Phenol	
680-16640-1DU	Duplicate	Water	Distill/Phenol	
Analysis Batch:680-45117				
LCS 680-45117/2	Lab Control Spike	Water	353.2	
LCSD 680-45117/3	Lab Control Spike Duplicate	Water	353.2	
MB 680-45117/1	Method Blank	Water	353.2	
680-16640-1	HER-MW09-0506	Water	353.2	
680-16640-2	HER-MW17-0506	Water	353.2	
680-16640-3FD	HER-FD3-0506	Water	353.2	
Analysis Batch:680-45604				
LCS 680-45604/2	Lab Control Spike	Water	325.2	
LCSD 680-45604/3	Lab Control Spike Duplicate	Water	325.2	
MB 680-45604/1	Method Blank	Water	325.2	
680-16640-1	HER-MW09-0506	Water	325.2	
680-16640-2	HER-MW17-0506	Water	325.2	
680-16640-3FD	HER-FD3-0506	Water	325.2	

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Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
General Chemistry				
Analysis Batch:680-45630				
LCS 680-45630/21	Lab Control Spike	Water	310.1	
MB 680-45630/22	Method Blank	Water	310.1	
680-16640-1	HER-MW09-0506	Water	310.1	
680-16640-2	HER-MW17-0506	Water	310.1	
680-16640-2DU	Duplicate	Water	310.1	
680-16640-3FD	HER-FD3-0506	Water	310.1	
Analysis Batch:680-45639				
LCS 680-45639/2	Lab Control Spike	Water	415.1	
LCSD 680-45639/3	Lab Control Spike Duplicate	Water	415.1	
MB 680-45639/1	Method Blank	Water	415.1	
680-16640-1	HER-MW09-0506	Water	415.1	
680-16640-1MS	Matrix Spike	Water	415.1	
680-16640-1MSD	Matrix Spike Duplicate	Water	415.1	
680-16640-2	HER-MW17-0506	Water	415.1	
680-16640-3FD	HER-FD3-0506	Water	415.1	
Analysis Batch:680-45790				
LCS 680-45790/2	Lab Control Spike	Water	375.4	
LCSD 680-45790/3	Lab Control Spike Duplicate	Water	375.4	
MB 680-45790/1	Method Blank	Water	375.4	
680-16640-1	HER-MW09-0506	Water	375.4	
680-16640-1DU	Duplicate	Water	375.4	
680-16640-2	HER-MW17-0506	Water	375.4	
680-16640-3FD	HER-FD3-0506	Water	375.4	
Analysis Batch:680-45959				
LCS 680-45959/2	Lab Control Spike	Water	350.1	
LCSD 680-45959/3	Lab Control Spike Duplicate	Water	350.1	
MB 680-45959/1	Method Blank	Water	350.1	
680-16640-1	HER-MW09-0506	Water	350.1	
680-16640-2	HER-MW17-0506	Water	350.1	
680-16640-3FD	HER-FD3-0506	Water	350.1	
Prep Batch: 680-45974				
LCS 680-45974/13-A	Lab Control Spike	Water	Distill/Phenol	
MB 680-45974/12-A	Method Blank	Water	Distill/Phenol	
680-16640-2	HER-MW17-0506	Water	Distill/Phenol	
680-16640-3FD	HER-FD3-0506	Water	Distill/Phenol	
Analysis Batch:680-45098				
LCS 680-45095/15-A	Lab Control Spike	Water	420.1	680-45095
LCSD 680-45095/16-A	Lab Control Spike Duplicate	Water	420.1	680-45095
MB 680-45095/14-A	Method Blank	Water	420.1	680-45095
680-16640-1	HER-MW09-0506	Water	420.1	680-45095
680-16640-1DU	Duplicate	Water	420.1	680-45095

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Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
General Chemistry				
Analysis Batch:680-45975				
LCS 680-45974/13-A	Lab Control Spike	Water	420.1	680-45974
MB 680-45974/12-A	Method Blank	Water	420.1	680-45974
680-16640-2	HER-MW17-0506	Water	420.1	680-45974
680-16640-3FD	HER-FD3-0506	Water	420.1	680-45974

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Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Surrogate Recovery Report

8260B Volatile Organic Compounds by GC/MS

Client Matrix: Water

<u>Lab Sample ID</u>	<u>Client Sample</u>	<u>(BFB)</u> <u>(%Rec)</u>	<u>(DBFM)</u> <u>(%Rec)</u>	<u>(TOL)</u> <u>(%Rec)</u>
LCS 680-45631/3		100	98	103
LCS 680-45882/4		104	97	91
MB 680-45631/4		91	94	102
MB 680-45882/6		99	92	93
680-16640-1	HER-MW09-0506	90	94	101
680-16640-2	HER-MW17-0506	100	90	94
680-16640-3FD	HER-FD3-0506	90	88	99
680-16640-4TB	TRIP BLANK	88	87	101

<u>Surrogate</u>		<u>Acceptance Limits</u>
(BFB)	4-Bromofluorobenzene	77 - 120
(DBFM)	Dibromofluoromethane	75 - 123
(TOL)	Toluene-d8	79 - 122

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45631

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 680-45631/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2006 1205
Date Prepared: 05/25/2006 1205

Analysis Batch: 680-45631
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq250.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
Methyl Ethyl Ketone	<10		10
Carbon disulfide	<2.0		2.0
Carbon tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
Chlorodibromomethane	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
Dibromomethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		10
Iodomethane	<5.0		5.0
Isobutanol	<40		40
Methacrylonitrile	<20		20
Methylene Chloride	<5.0		5.0
Methyl methacrylate	<1.0		1.0
methyl isobutyl ketone	<10		10
Pentachloroethane	<5.0		5.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45631

Lab Sample ID: MB 680-45631/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2006 1205
Date Prepared: 05/25/2006 1205

Analysis Batch: 680-45631
Prep Batch: N/A
Units: ug/L

Method: 8260B Preparation: 5030B

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq250.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Propionitrile	<20		20
Styrene	<1.0		1.0
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
Toluene	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
Trichloroethene	<1.0		1.0
Trichlorofluoromethane	<1.0		1.0
1,2,3-Trichloropropane	<1.0		1.0
Vinyl acetate	<2.0		2.0
Vinyl chloride	<1.0		1.0
Xylenes, Total	<2.0		2.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	91	77 - 120	
Dibromofluoromethane	94	75 - 123	
Toluene-d8	102	79 - 122	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Laboratory Control Sample - Batch: 680-45631

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 680-45631/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2006 1108
Date Prepared: 05/25/2006 1108

Analysis Batch: 680-45631
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq246.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	100	82.8	83	20 - 183	
Benzene	50.0	46.6	93	74 - 122	
Dichlorobromomethane	50.0	52.5	105	74 - 128	
Bromoform	50.0	54.3	109	64 - 132	
Bromomethane	50.0	30.6	61	21 - 176	
Methyl Ethyl Ketone	100	90.3	90	51 - 142	
Carbon disulfide	50.0	52.4	105	60 - 130	
Carbon tetrachloride	50.0	57.8	116	64 - 137	
Chlorobenzene	50.0	49.4	99	75 - 123	
Chloroethane	50.0	47.0	94	40 - 171	
Chloroform	50.0	50.9	102	74 - 124	
Chloromethane	50.0	46.2	92	51 - 133	
Chlorodibromomethane	50.0	52.1	104	75 - 126	
1,2-Dibromo-3-Chloropropane	50.0	52.6	105	14 - 147	
Ethylene Dibromide	50.0	52.0	104	60 - 118	
Dibromomethane	50.0	45.5	91	70 - 130	
Dichlorodifluoromethane	50.0	55.2	110	70 - 130	
1,1-Dichloroethane	50.0	47.8	96	70 - 127	
1,2-Dichloroethane	50.0	51.3	103	68 - 130	
1,1-Dichloroethene	50.0	49.3	99	64 - 132	
cis-1,2-Dichloroethene	50.0	45.4	91	69 - 126	
trans-1,2-Dichloroethene	50.0	45.2	90	67 - 130	
1,2-Dichloropropane	50.0	51.9	104	74 - 123	
cis-1,3-Dichloropropene	50.0	53.8	108	76 - 126	
trans-1,3-Dichloropropene	50.0	53.8	108	75 - 126	
Ethylbenzene	50.0	52.4	105	77 - 123	
2-Hexanone	100	101	101	58 - 139	
Methylene Chloride	50.0	43.7	87	67 - 128	
methyl isobutyl ketone	100	103	103	62 - 130	
Styrene	50.0	51.5	103	75 - 125	
1,1,1,2-Tetrachloroethane	50.0	50.2	100	62 - 107	
1,1,2,2-Tetrachloroethane	50.0	50.8	102	71 - 127	
Tetrachloroethene	50.0	52.5	105	70 - 133	
Toluene	50.0	48.5	97	75 - 122	
1,1,1-Trichloroethane	50.0	54.0	108	70 - 132	
1,1,2-Trichloroethane	50.0	48.9	98	75 - 122	
Trichloroethene	50.0	52.1	104	75 - 122	
Trichlorofluoromethane	50.0	53.0	106	74 - 165	
1,2,3-Trichloropropane	50.0	47.5	95	60 - 147	
Vinyl acetate	100	116	116	47 - 150	
Vinyl chloride	50.0	43.8	88	59 - 136	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Laboratory Control Sample - Batch: 680-45631

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 680-45631/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2006 1108
Date Prepared: 05/25/2006 1108

Analysis Batch: 680-45631
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - P
Lab File ID: pq246.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Xylenes, Total	150	154	103	77 - 121	
Surrogate		% Rec		Acceptance Limits	
4-Bromofluorobenzene		100		77 - 120	
Dibromofluoromethane		98		75 - 123	
Toluene-d8		103		79 - 122	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45882

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 680-45882/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2006 2054
Date Prepared: 05/28/2006 2054

Analysis Batch: 680-45882
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq669.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
Methyl Ethyl Ketone	<10		10
Carbon disulfide	<2.0		2.0
Carbon tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
Chlorodibromomethane	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
Dibromomethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		10
Iodomethane	<5.0		5.0
Isobutanol	<40		40
Methacrylonitrile	<20		20
Methylene Chloride	<5.0		5.0
Methyl methacrylate	<1.0		1.0
methyl isobutyl ketone	<10		10
Pentachloroethane	<5.0		5.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45882

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 680-45882/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2006 2054
Date Prepared: 05/28/2006 2054

Analysis Batch: 680-45882
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq669.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Propionitrile	<20		20
Styrene	<1.0		1.0
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
Toluene	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
Trichloroethene	<1.0		1.0
Trichlorofluoromethane	<1.0		1.0
1,2,3-Trichloropropane	<1.0		1.0
Vinyl acetate	<2.0		2.0
Vinyl chloride	<1.0		1.0
Xylenes, Total	<2.0		2.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	99	77 - 120	
Dibromofluoromethane	92	75 - 123	
Toluene-d8	93	79 - 122	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Laboratory Control Sample - Batch: 680-45882

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 680-45882/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2006 1947
Date Prepared: 05/28/2006 1947

Analysis Batch: 680-45882
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq665.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	100	170	165	20 - 183	
Benzene	50.0	50	101	74 - 122	
Dichlorobromomethane	50.0	51	101	74 - 128	
Bromoform	50.0	52	104	64 - 132	
Bromomethane	50.0	37	74	21 - 176	
Methyl Ethyl Ketone	100	140	140	51 - 142	
Carbon disulfide	50.0	55	109	60 - 130	
Carbon tetrachloride	50.0	56	111	64 - 137	
Chlorobenzene	50.0	54	107	75 - 123	
Chloroethane	50.0	44	88	40 - 171	
Chloroform	50.0	49	99	74 - 124	
Chloromethane	50.0	34	67	51 - 133	
Chlorodibromomethane	50.0	60	120	75 - 126	
1,2-Dibromo-3-Chloropropane	50.0	48	96	14 - 147	
Ethylene Dibromide	50.0	50	101	60 - 118	
Dibromomethane	50.0	48	95	70 - 130	
Dichlorodifluoromethane	50.0	32	65	70 - 130	*
1,1-Dichloroethane	50.0	46	91	70 - 127	
1,2-Dichloroethane	50.0	47	94	68 - 130	
1,1-Dichloroethene	50.0	48	95	64 - 132	
cis-1,2-Dichloroethene	50.0	47	95	69 - 126	
trans-1,2-Dichloroethene	50.0	50	100	67 - 130	
1,2-Dichloropropane	50.0	48	96	74 - 123	
cis-1,3-Dichloropropene	50.0	55	110	76 - 126	
trans-1,3-Dichloropropene	50.0	54	107	75 - 126	
Ethylbenzene	50.0	54	107	77 - 123	
2-Hexanone	100	140	144	58 - 139	*
Methylene Chloride	50.0	47	95	67 - 128	
methyl isobutyl ketone	100	110	107	62 - 130	
Styrene	50.0	54	107	75 - 125	
1,1,1,2-Tetrachloroethane	50.0	59	117	62 - 107	*
1,1,2,2-Tetrachloroethane	50.0	54	108	71 - 127	
Tetrachloroethene	50.0	58	116	70 - 133	
Toluene	50.0	48	96	75 - 122	
1,1,1-Trichloroethane	50.0	53	105	70 - 132	
1,1,2-Trichloroethane	50.0	49	97	75 - 122	
Trichloroethene	50.0	52	104	75 - 122	
Trichlorofluoromethane	50.0	46	93	74 - 165	
1,2,3-Trichloropropane	50.0	54	109	60 - 147	
Vinyl acetate	100	74	74	47 - 150	
Vinyl chloride	50.0	37	74	59 - 136	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Laboratory Control Sample - Batch: 680-45882

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 680-45882/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/28/2006 1947
Date Prepared: 05/28/2006 1947

Analysis Batch: 680-45882
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS Volatiles - O
Lab File ID: oq665.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Xylenes, Total	150	160	105	77 - 121	
Surrogate		% Rec		Acceptance Limits	
4-Bromofluorobenzene		104		77 - 120	
Dibromofluoromethane		97		75 - 123	
Toluene-d8		91		79 - 122	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Laboratory Control Sample - Batch: 680-45555

Method: RSK-175
Preparation: N/A

Lab Sample ID: LCS 680-45555/13

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 05/18/2006 1511

Date Prepared: N/A

Analysis Batch: 680-45555

Prep Batch: N/A

Units: ug/L

Instrument ID: GC Volatiles - U TCD

Lab File ID: UQ819.D

Initial Weight/Volume:

Final Weight/Volume: 1000 uL

Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methane	1900	2100	110	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45718

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 680-45718/18
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/18/2006 1656
Date Prepared: N/A

Analysis Batch: 680-45718
Prep Batch: N/A
Units: ug/L

Instrument ID: GC Volatiles - U FID
Lab File ID: UQ821.D
Initial Weight/Volume:
Final Weight/Volume: 1000 uL
Injection Volume:

Analyte	Result	Qual	RL
Methane	<0.19		0.19

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45373

Lab Sample ID: MB 680-45373/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0606
Date Prepared: 05/23/2006 1049

Analysis Batch: 680-45784
Prep Batch: 680-45373
Units: mg/L

Method: 6010B
Preparation: 3005A
Total Recoverable

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Iron	<0.050		0.050
Manganese	<0.010		0.010

Laboratory Control Sample - Batch: 680-45373

Lab Sample ID: LCS 680-45373/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0610
Date Prepared: 05/23/2006 1049

Analysis Batch: 680-45784
Prep Batch: 680-45373
Units: mg/L

Method: 6010B
Preparation: 3005A
Total Recoverable

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	1.00	0.970	97	75 - 125	
Manganese	0.500	0.522	104	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 680-45373

Method: 6010B
Preparation: 3005A
Total Recoverable

MS Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0629
Date Prepared: 05/23/2006 1049

Analysis Batch: 680-45784
Prep Batch: 680-45373

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0633
Date Prepared: 05/23/2006 1049

Analysis Batch: 680-45784
Prep Batch: 680-45373

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Iron	456	416	75 - 125	1	20	4	4
Manganese	211	198	75 - 125	1	20	4	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-47805

Lab Sample ID: MB 680-47799/13-B
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2006 2314
Date Prepared: 06/19/2006 0943

Analysis Batch: 680-47966
Prep Batch: 680-47805
Units: mg/L

Method: 6010B
Preparation: 3005A
Dissolved

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Manganese, Dissolved	<0.010		0.010

Laboratory Control Sample - Batch: 680-47805

Lab Sample ID: LCS 680-47805/12-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/19/2006 2319
Date Prepared: 06/19/2006 0943

Analysis Batch: 680-47966
Prep Batch: 680-47805
Units: mg/L

Method: 6010B
Preparation: 3005A
Dissolved

Instrument ID: ICP/AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Manganese, Dissolved	0.500	0.520	104	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45630

Method: 310.1
Preparation: N/A

Lab Sample ID: MB 680-45630/22
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1340
Date Prepared: N/A

Analysis Batch: 680-45630
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Alkalinity	<1.0		1.0
Carbon dioxide	<1.0		1.0

Laboratory Control Sample - Batch: 680-45630

Method: 310.1
Preparation: N/A

Lab Sample ID: LCS 680-45630/21
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1340
Date Prepared: N/A

Analysis Batch: 680-45630
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	192	194	101	80 - 120	

Matrix Duplicate - Batch: 680-45630

Method: 310.1
Preparation: N/A

Lab Sample ID: 680-16640-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1340
Date Prepared: N/A

Analysis Batch: 680-45630
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Alkalinity	257	257	0	30	
Carbon dioxide	115	191	49	30	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45604

Method: 325.2
Preparation: N/A

Lab Sample ID: MB 680-45604/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1402
Date Prepared: N/A

Analysis Batch: 680-45604
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Chloride	<1.0		1.0

Laboratory Control/

Laboratory Control Duplicate Recovery Report - Batch: 680-45604

Method: 325.2
Preparation: N/A

LCS Lab Sample ID: LCS 680-45604/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1403
Date Prepared: N/A

Analysis Batch: 680-45604
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

LCSD Lab Sample ID: LCSD 680-45604/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1403
Date Prepared: N/A

Analysis Batch: 680-45604
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chloride	98	98	85 - 115	0	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45959

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 680-45959/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 1732
Date Prepared: N/A

Analysis Batch: 680-45959
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Ammonia	<0.030		0.030

Laboratory Control/

Laboratory Control Duplicate Recovery Report - Batch: 680-45959

Method: 350.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-45959/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 1732
Date Prepared: N/A

Analysis Batch: 680-45959
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

LCSD Lab Sample ID: LCSD 680-45959/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 1732
Date Prepared: N/A

Analysis Batch: 680-45959
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ammonia	94	94	90 - 110	0	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-44928

Method: 3500 FE D
Preparation: N/A

Lab Sample ID: MB 680-44928/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1222
Date Prepared: N/A

Analysis Batch: 680-44928
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Ferrous Iron	<0.10		0.10

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 680-44928

Method: 3500 FE D
Preparation: N/A

LCS Lab Sample ID: LCS 680-44928/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1222
Date Prepared: N/A

Analysis Batch: 680-44928
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 680-44928/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1222
Date Prepared: N/A

Analysis Batch: 680-44928
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ferrous Iron	92	94	80 - 120	2	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45117

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 680-45117/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1005
Date Prepared: N/A

Analysis Batch: 680-45117
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Nitrogen, Nitrate	<0.050		0.050
Nitrogen, Nitrate Nitrite	<0.050		0.050
Nitrogen, Nitrite	<0.050		0.050

Laboratory Control/

Laboratory Control Duplicate Recovery Report - Batch: 680-45117

Method: 353.2
Preparation: N/A

LCS Lab Sample ID: LCS 680-45117/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1005
Date Prepared: N/A

Analysis Batch: 680-45117
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 680-45117/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1005
Date Prepared: N/A

Analysis Batch: 680-45117
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrogen, Nitrate	103	105	80 - 120	2	30		
Nitrogen, Nitrate Nitrite	103	105	80 - 120	2	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-44927

Method: 365.2
Preparation: N/A

Lab Sample ID: MB 680-44927/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1324
Date Prepared: N/A

Analysis Batch: 680-44927
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Orthophosphate	<0.050		0.050

Laboratory Control/

Laboratory Control Duplicate Recovery Report - Batch: 680-44927

Method: 365.2
Preparation: N/A

LCS Lab Sample ID: LCS 680-44927/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1324
Date Prepared: N/A

Analysis Batch: 680-44927
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 680-44927/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1324
Date Prepared: N/A

Analysis Batch: 680-44927
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Orthophosphate	99	98	90 - 110	1	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 680-44927

Method: 365.2

Preparation: N/A

MS Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1324
Date Prepared: N/A

Analysis Batch: 680-44927
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/16/2006 1324
Date Prepared: N/A

Analysis Batch: 680-44927
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Orthophosphate	93	92	90 - 110	0	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45790

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 680-45790/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0805
Date Prepared: N/A

Analysis Batch: 680-45790
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 2 mL

Analyte	Result	Qual	RL
Sulfate	<5.0		5.0

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 680-45790

Method: 375.4
Preparation: N/A

LCS Lab Sample ID: LCS 680-45790/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0805
Date Prepared: N/A

Analysis Batch: 680-45790
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 2 mL

LCSD Lab Sample ID: LCSD 680-45790/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 0805
Date Prepared: N/A

Analysis Batch: 680-45790
Prep Batch: N/A
Units: mg/L

Instrument ID: KoneLab1
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 2 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Sulfate	96	97	75 - 125	0	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Matrix Duplicate - Batch: 680-45790

Method: 375.4

Preparation: N/A

Lab Sample ID: 680-16640-1

Analysis Batch: 680-45790

Instrument ID: KoneLab1

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 5.0

Units: mg/L

Initial Weight/Volume:

Date Analyzed: 05/26/2006 0927

Final Weight/Volume: 2 mL

Date Prepared: N/A

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfate	119	111	7	30	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45009

Method: 376.2
Preparation: N/A

Lab Sample ID: MB 680-45009/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/18/2006 0900
Date Prepared: N/A

Analysis Batch: 680-45009
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Sulfide	<0.10		0.10

Laboratory Control Sample - Batch: 680-45009

Method: 376.2
Preparation: N/A

Lab Sample ID: LCS 680-45009/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/18/2006 0900
Date Prepared: N/A

Analysis Batch: 680-45009
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfide	0.504	0.538	107	80 - 120	

Matrix Duplicate - Batch: 680-45009

Method: 376.2
Preparation: N/A

Lab Sample ID: 680-16640-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/18/2006 0900
Date Prepared: N/A

Analysis Batch: 680-45009
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfide	0.228	0.228	0	25	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45639

Method: 415.1
Preparation: N/A

Lab Sample ID: MB 680-45639/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1022
Date Prepared: N/A

Analysis Batch: 680-45639
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Total Organic Carbon	<1.0		1.0

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 680-45639

Method: 415.1
Preparation: N/A

LCS Lab Sample ID: LCS 680-45639/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1022
Date Prepared: N/A

Analysis Batch: 680-45639
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 680-45639/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1022
Date Prepared: N/A

Analysis Batch: 680-45639
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Organic Carbon	92	94	80 - 120	2	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 680-45639**

**Method: 415.1
Preparation: N/A**

MS Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1022
Date Prepared: N/A

Analysis Batch: 680-45639
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 680-16640-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/24/2006 1022
Date Prepared: N/A

Analysis Batch: 680-45639
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Total Organic Carbon	89	89	80 - 120	1	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45095

Lab Sample ID: MB 680-45095/14-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2006 0925
Date Prepared: 05/19/2006 0640

Analysis Batch: 680-45098
Prep Batch: 680-45095
Units: mg/L

Method: 420.1
Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Phenolics, Total Recoverable	<0.050		0.050

Laboratory Control/ Laboratory Control Duplicate Recovery Report - Batch: 680-45095

Method: 420.1
Preparation: Distill/Phenol

LCS Lab Sample ID: LCS 680-45095/15-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2006 0925
Date Prepared: 05/19/2006 0640

Analysis Batch: 680-45098
Prep Batch: 680-45095
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 680-45095/16-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2006 0925
Date Prepared: 05/19/2006 0640

Analysis Batch: 680-45098
Prep Batch: 680-45095
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Phenolics, Total Recoverable	106	108	75 - 125	2	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Matrix Duplicate - Batch: 680-45095

Method: 420.1

Preparation: Distill/Phenol

Lab Sample ID: 680-16640-1

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 05/19/2006 0925

Date Prepared: 05/19/2006 0640

Analysis Batch: 680-45098

Prep Batch: 680-45095

Units: mg/L

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume: 100 mL

Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Phenolics, Total Recoverable	0.0	0.0	NC	30	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: EcoSystems Inc

Job Number: 680-16640-1

Method Blank - Batch: 680-45974

Lab Sample ID: MB 680-45974/12-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 1700
Date Prepared: 05/26/2006 1230

Analysis Batch: 680-45975
Prep Batch: 680-45974
Units: mg/L

Method: 420.1
Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Phenolics, Total Recoverable	<0.050		0.050

Laboratory Control Sample - Batch: 680-45974

Lab Sample ID: LCS 680-45974/13-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/26/2006 1700
Date Prepared: 05/26/2006 1230

Analysis Batch: 680-45975
Prep Batch: 680-45974
Units: mg/L

Method: 420.1
Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenolics, Total Recoverable	0.250	0.281	112	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Cooper 1 of 1

91326

STILL

STL Savannah
5102 LaRoche Avenue
Savannah, GA 31404

Website: www.stl-inc.com
Phone: (912) 354-7858
Fax: (912) 352-0165

○ Alternate Laboratory Name/Location

Phone:
Fax:

[illegible]

Page 62 of 63

LOGIN SAMPLE RECEIPT CHECK LIST

Client: EcoSystems Inc

Job Number: 680-16640-1

Login Number: 16640

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	NA	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



CLAYTON

APPENDIX C
HYDROGEOLOGICAL TESTING CALCULATIONS

HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-2

PROJECT NAME: HERCULES
PROJECT NUMBER: HER24100
FIELD WORK DATE(S): 06-03-2004

USER NAME: CVC
DATE: 06-14-2004

Rw - BORING RADIUS (IN): 3.25
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 17.67
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT): 2
STATIC WATER LEVEL (FT): 4.69

Rc was corrected for response in well screen filter material to 1.967 in

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	10.01	0,0,30	6.47
0,0,1.2	9.78	0,0,31.2	6.41
0,0,2.4	9.58	0,0,32.4	6.35
0,0,3	9.41	0,0,33	6.28
0,0,4.2	9.24	0,0,34.2	6.23
0,0,5.4	9.08	0,0,35.4	6.18
0,0,6	8.92	0,0,36	6.11
0,0,7.2	8.76	0,0,37.2	6.07
0,0,8.4	8.62	0,0,38.4	6.01
0,0,9	8.48	0,0,39	5.97
0,0,10.2	8.33	0,0,40.2	5.92
0,0,11.4	8.22	0,0,41.4	5.88
0,0,12	8.09	0,0,42	5.83
0,0,13.2	7.98	0,0,43.2	5.8
0,0,14.4	7.86	0,0,44.4	5.75
0,0,15	7.74	0,0,45	5.71
0,0,16.2	7.65	0,0,46.2	5.68
0,0,17.4	7.53	0,0,47.4	5.65
0,0,18	7.44	0,0,48	5.52
0,0,19.2	7.33	0,0,49.2	5.49
0,0,20.4	7.25	0,0,52.2	5.46
0,0,21	7.15	0,0,54	5.41
0,0,22.2	7.06	0,0,55.2	5.39
0,0,23.4	6.98	0,0,56.4	5.35
0,0,24	6.9	0,0,57	5.33
0,0,25.2	6.83	0,0,58.2	5.3
0,0,26.4	6.75	0,1,0	5.26
0,0,27	6.67	0,1,1.200001	5.24
0,0,28.2	6.61	0,1,2.400002	5.22
0,0,29.4	6.54	0,1,3	5.21

TIME (H,M,S)	DEPTH (FT)
0,1,4.199997	5.19
0,1,5.400002	5.16
0,1,7.199997	5.14
0,1,8.400002	5.12
0,1,10.2	5.1
0,1,11.4	5.07
0,1,12	5.05
0,1,14.4	5.03
0,1,15	5.02
0,1,17.4	5
0,1,19.2	4.98
0,1,22.2	4.95
0,1,24	4.93
0,1,27	4.91
0,1,30	4.89
0,1,32.4	4.87
0,1,34.2	4.86
0,1,38.4	4.84
0,1,43.2	4.82
0,1,47.4	4.8

TIME (H,M,S)	DEPTH (FT)
0,1,53.4	4.79
0,2,3	4.77
0,2,14.39999	4.75
0,2,37.2	4.73
0,3,2.399994	4.71

$(1/t) (\ln(Y_o/Y_t)) = 0.0369508$

PARTIALLY PENETRATING: A= 2.66 B= 0.45

HYDRAULIC CONDUCTIVITY: 1.37E-04 ft/sec
4.19E-03 cm/sec

FT : Ln(Yt-Yo) CUC HER24100 HERCULES

Well: MM-2

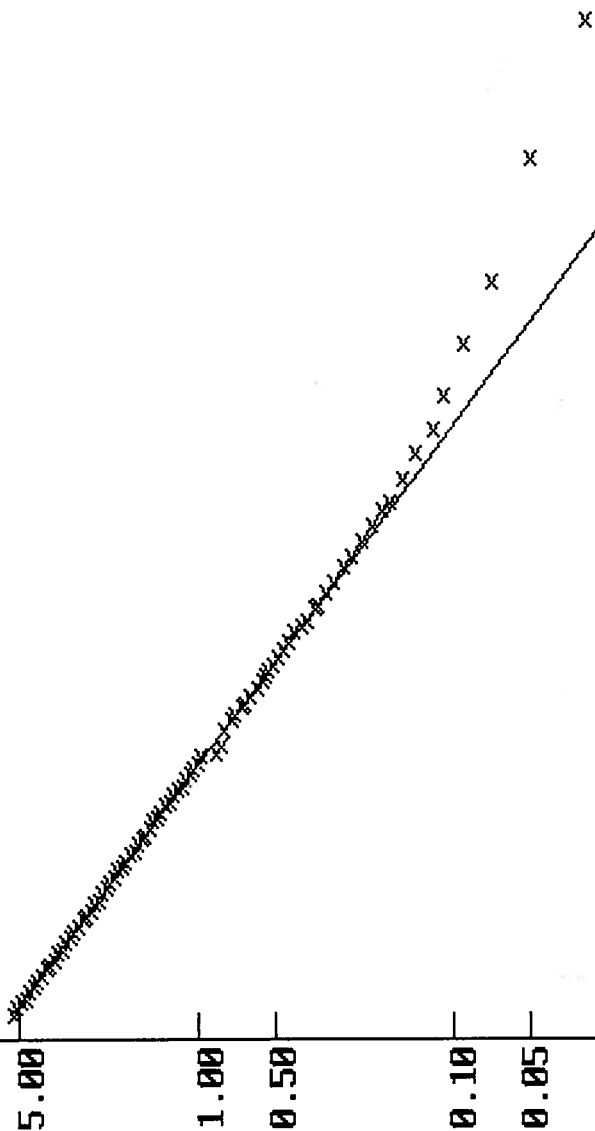
06-14-2004

Slope
0.0369508

CONDUCTIVITY
4.19E-03
cm/sec

10.00
5.00
1.00
0.50
0.10
0.05
0.01

10 secs/unit



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-6

PROJECT NAME: HERCULES
PROJECT NUMBER: HER24100
FIELD WORK DATE(S): 06-03-2004

USER NAME: CVC
DATE: 06-14-2004

Rw - BORING RADIUS (IN): 3.25 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 10 D - AQUIFER THICKNESS (FT)
HT - SCREEN BASE TO WATER TABLE (FT): 14.18 STATIC WATER LEVEL (FT):
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 1.967 i

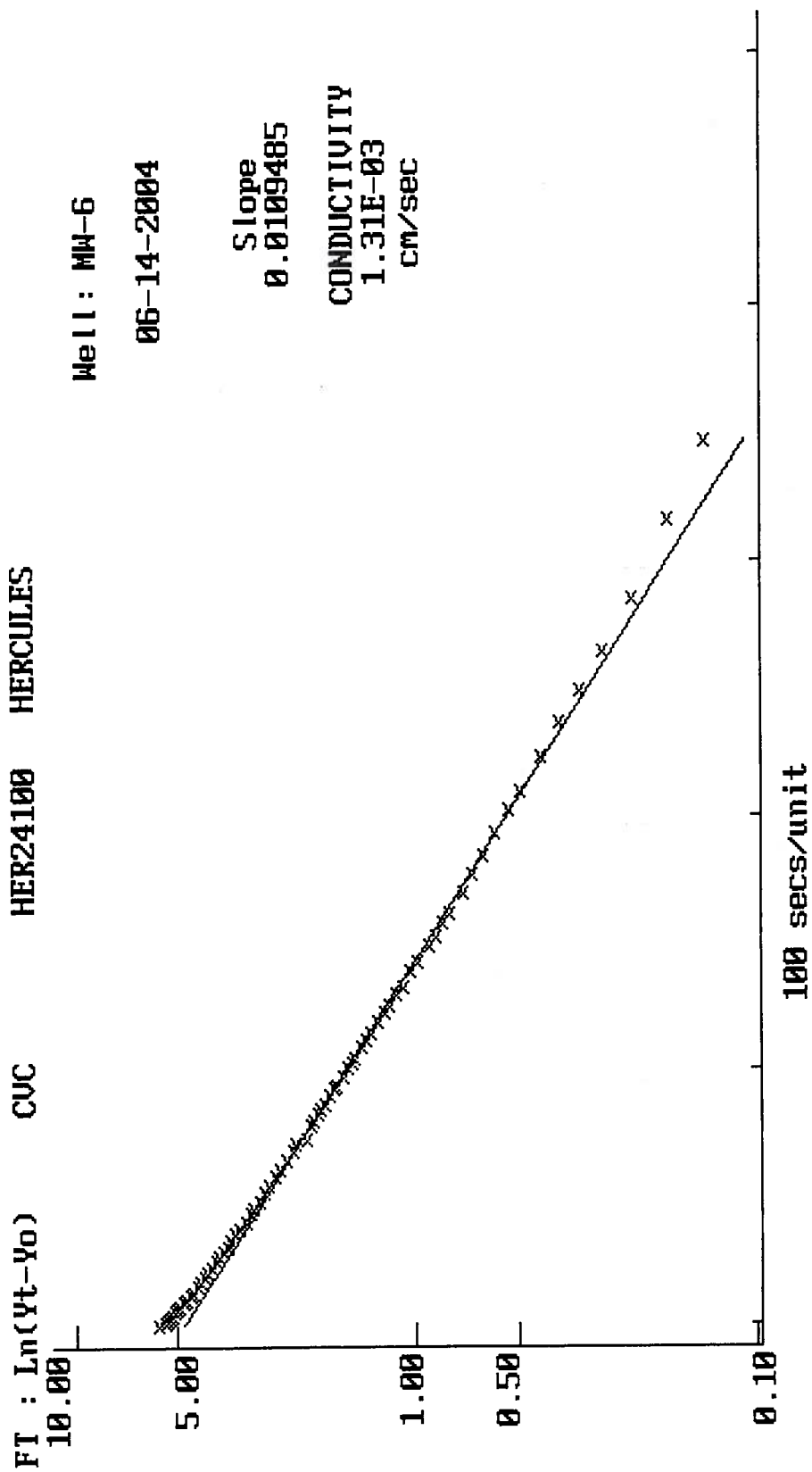
TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	12.58	0,0,59	9.5
0,0,1	12.38	0,1,1	9.43
0,0,2	12.28	0,1,5	9.32
0,0,3	12.19	0,1,9	9.21
0,0,4	12.1	0,1,11	9.16
0,0,5	12.01	0,1,13	9
0,0,6	11.92	0,1,19	8.94
0,0,7	11.85	0,1,20	8.91
0,0,9	11.7	0,1,23	8.85
0,0,10	11.64	0,1,25	8.81
0,0,12	11.51	0,1,27	8.76
0,0,13	11.44	0,1,30	8.7
0,0,15	11.32	0,1,33	8.64
0,0,17	11.21	0,1,34	8.62
0,0,19	11.11	0,1,38	8.54
0,0,21	11	0,1,41	8.5
0,0,23	10.9	0,1,43	8.44
0,0,25	10.8	0,1,45	8.42
0,0,27	10.7	0,1,49	8.36
0,0,29	10.61	0,1,52	8.31
0,0,31	10.52	0,1,55	8.26
0,0,33	10.43	0,1,59	8.21
0,0,36	10.31	0,2,3	8.15
0,0,38	10.22	0,2,6	8.11
0,0,41	10.1	0,2,10	8.05
0,0,44	10	0,2,13	8.01
0,0,46	9.93	0,2,19	7.95
0,0,49	9.81	0,2,23	7.91
0,0,52	9.7	0,2,29	7.84
0,0,55	9.62	0,2,33	7.8

TIME (H,M,S)	DEPTH (FT)
0,2,38	7.75
0,2,42	7.71
0,2,50	7.65
0,2,57	7.6
0,3,4	7.55
0,3,13	7.5
0,3,22	7.45
0,3,30	7.41
0,3,43	7.35
0,3,57	7.3
0,4,9	7.25
0,4,25	7.2
0,4,46	7.15
0,5,16	7.1
0,5,47	7.06

$(1/t) (\ln(Y_o/Y_t)) = 0.0109485$

FULLY PENETRATING: C= 2.34

HYDRAULIC CONDUCTIVITY: 4.31E-05 ft/sec
1.31E-03 cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-7

PROJECT NAME: HERCULES
PROJECT NUMBER: HER24100
FIELD WORK DATE(S): 06-03-2004

USER NAME: CVC
DATE: 06-14-2004

Rw - BORING RADIUS (IN): 2.75 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 10 D - AQUIFER THICKNESS (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 10.22 STATIC WATER LEVEL (FT): 12.93
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 1.723 in

TIME (H,M,S)	DEPTH (FT)
0,0,0	15.64
0,0,1	15.6
0,0,2	15.25
0,0,3	14.95
0,0,4	14.69
0,0,5	14.49
0,0,6	14.32
0,0,7	14.17
0,0,8	14.04
0,0,9	13.93
0,0,10	13.84
0,0,11	13.75
0,0,12	13.68
0,0,13	13.63
0,0,14	13.58
0,0,15	13.53
0,0,16	13.49
0,0,18	13.44
0,0,19	13.4
0,0,22	13.35
0,0,23	13.3
0,0,27	13.27
0,0,30	13.23
0,0,34	13.2
0,0,41	13.16
0,0,48	13.12
0,1,0	13.09
0,1,17	13.05
0,1,44	13.02
0,3,36	12.98

$$(1/t) (\ln(Y_o/Y_t)) = 0.0319121$$

FULLY PENETRATING: C= 2.60

HYDRAULIC CONDUCTIVITY: 9.42E-05 ft/sec
2.87E-03 cm/sec

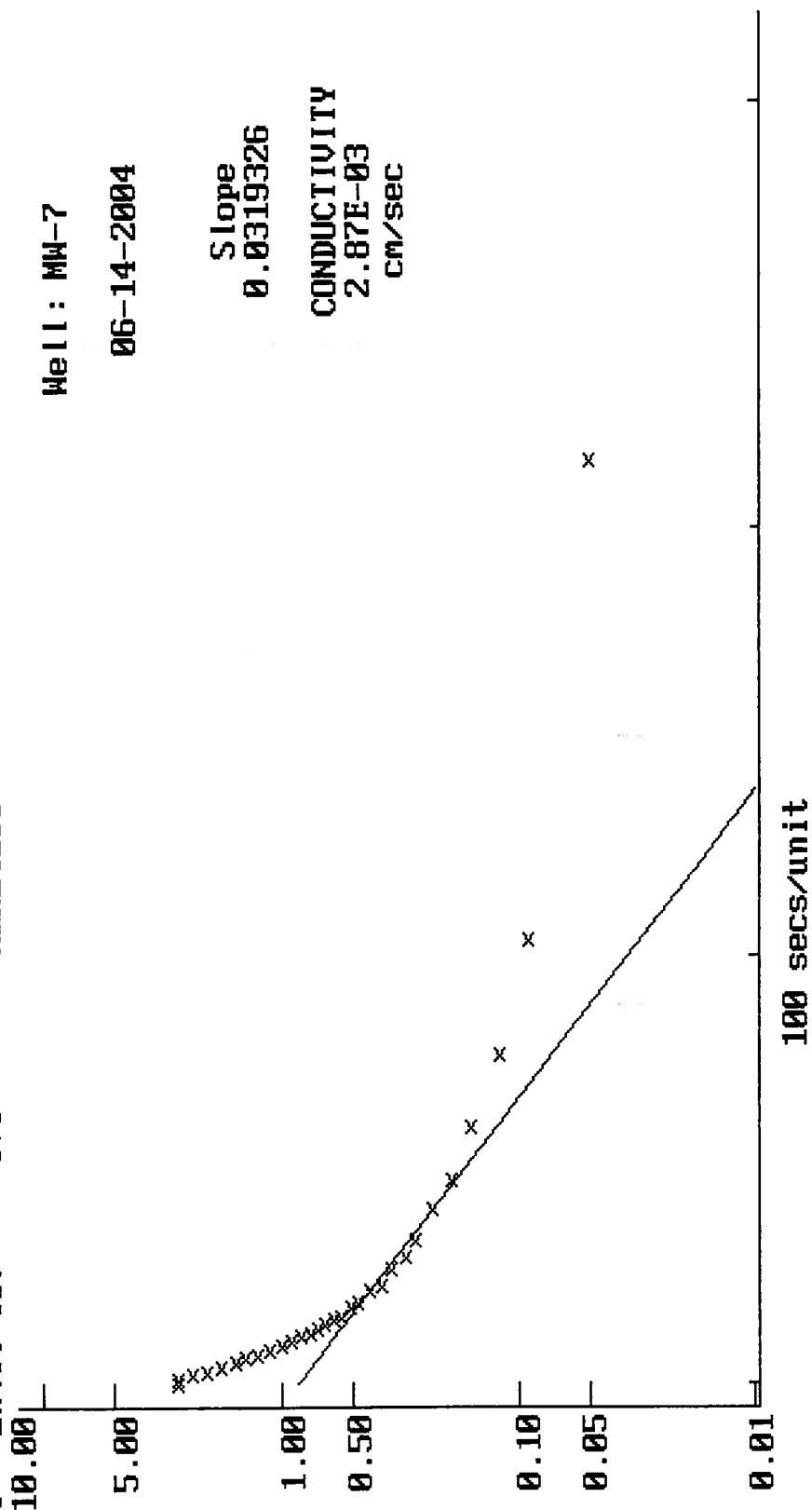
FT : Ln(Yt-Yo) CUC HER24100 HERCULES

Well : MW-7

06-14-2004

Slope
0.0319326

CONDUCTIVITY
2.87E-03
cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-12

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-11-2006

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 5.112
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 4.75
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.922 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	9.97	0,0,30	8.05
0,0,1	9.83	0,0,32	8.03
0,0,2	9.73	0,0,33	8
0,0,3	9.65	0,0,34	7.99
0,0,4	9.55	0,0,36	7.97
0,0,5	9.47	0,0,37	7.96
0,0,6	9.39	0,0,38	7.95
0,0,7	9.31	0,0,39	7.94
0,0,8	9.22	0,0,41	7.92
0,0,9	9.15	0,0,42	7.93
0,0,10	9.07	0,0,43	7.92
0,0,11	9	0,0,45	7.9
0,0,12	8.91	0,0,46	7.89
0,0,13	8.84	0,0,49	7.88
0,0,14	8.77	0,0,50	7.87
0,0,15	8.69	0,0,53	7.86
0,0,16	8.63	0,0,59	7.84
0,0,17	8.56	0,1,4	7.83
0,0,18	8.5	0,1,8	7.82
0,0,19	8.43	0,1,16	7.81
0,0,20	8.38	0,1,18	7.8
0,0,21	8.34	0,1,33	7.79
0,0,22	8.29	0,1,44	7.78
0,0,23	8.26	0,2,7	7.77
0,0,24	8.23	0,2,20	7.76
0,0,25	8.18	0,2,31	7.75
0,0,26	8.15	0,3,36	7.74
0,0,27	8.12	0,3,49	7.73
0,0,28	8.11		
0,0,29	8.08		

$$(1/t) (\ln(Y_o/Y_t)) = 0.0254823$$

FULLY PENETRATING: C= 1.85

HYDRAULIC CONDUCTIVITY: 1.41E-04 ft/sec
4.30E-03 cm/sec

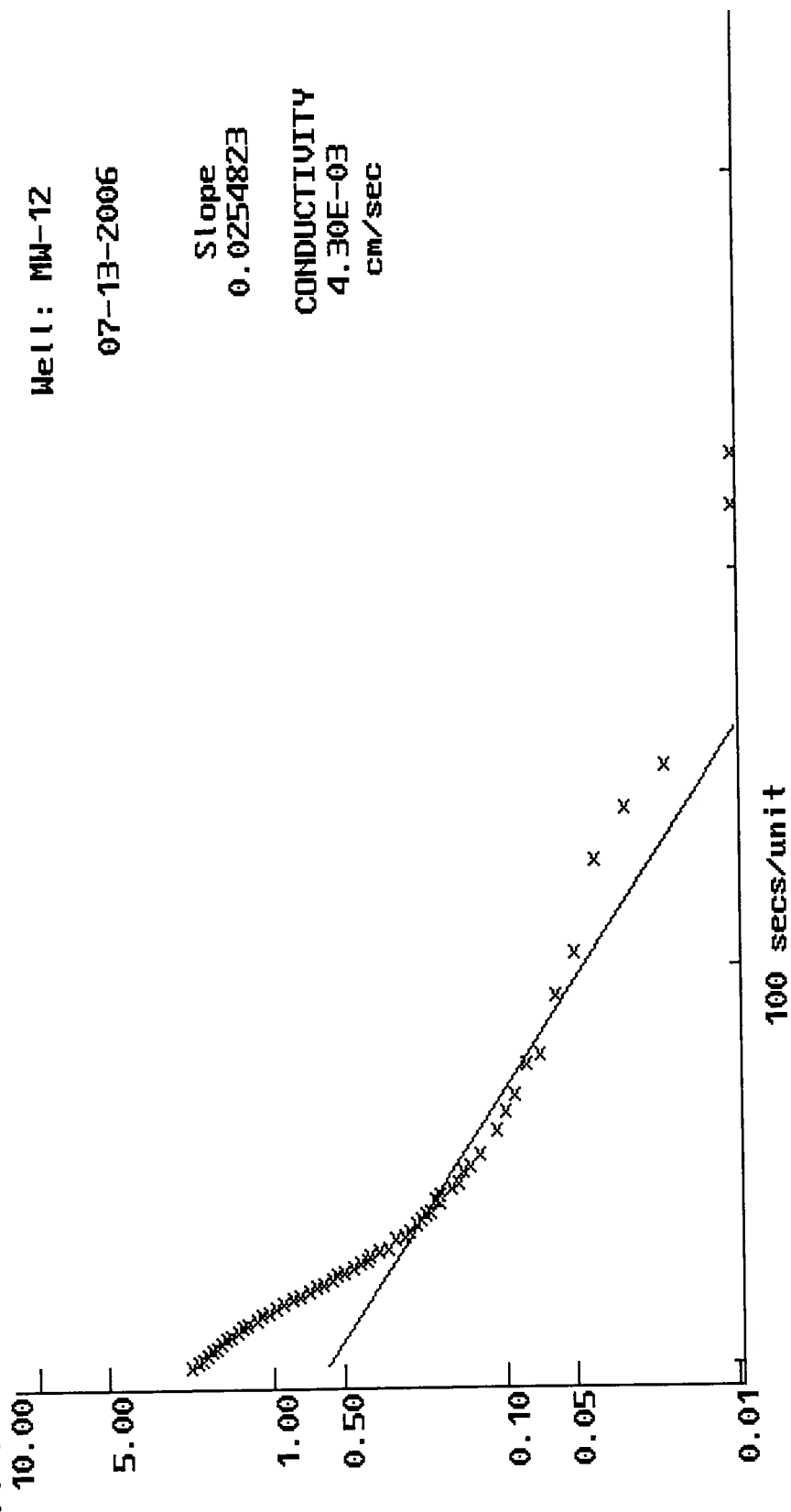
FT : Ln(Yt-Yo) CUC HER25080 HERCULES

Well: MW-12

07-13-2006

Slope
0.0254823

CONDUCTIVITY
4.30E-03
cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-13

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 4.49
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 11.65
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

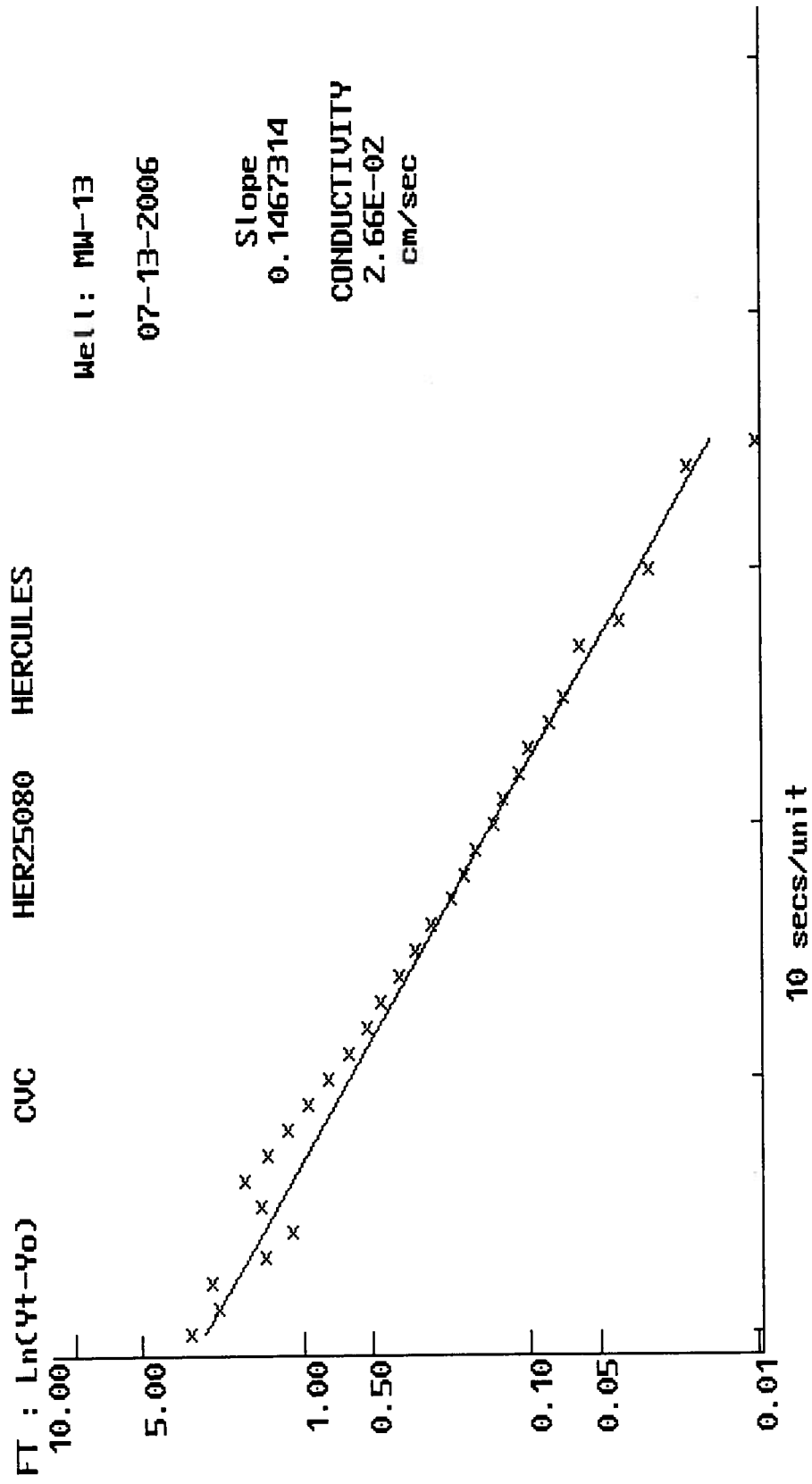
Rc was corrected for response in well screen filter material to 2.598 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	10.82	0,0,35	7.76
0,0,1	10.12		
0,0,2	10.3		
0,0,3	9.23		
0,0,4	8.87		
0,0,5	9.3		
0,0,6	9.57		
0,0,7	9.21		
0,0,8	8.93		
0,0,9	8.7		
0,0,10	8.53		
0,0,11	8.39		
0,0,12	8.28		
0,0,13	8.21		
0,0,14	8.13		
0,0,15	8.08		
0,0,16	8.03		
0,0,17	7.98		
0,0,18	7.95		
0,0,19	7.93		
0,0,20	7.9		
0,0,21	7.89		
0,0,22	7.87		
0,0,23	7.86		
0,0,24	7.84		
0,0,25	7.83		
0,0,27	7.82		
0,0,28	7.8		
0,0,30	7.79		
0,0,34	7.78		

$$(1/t) (\ln(Y_o/Y_t)) = 0.1466751$$

FULLY PENETRATING: C= 1.97

HYDRAULIC CONDUCTIVITY: 8.73E-04 ft/sec
2.66E-02 cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-14

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 2.37
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 10.34
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 1.544 i

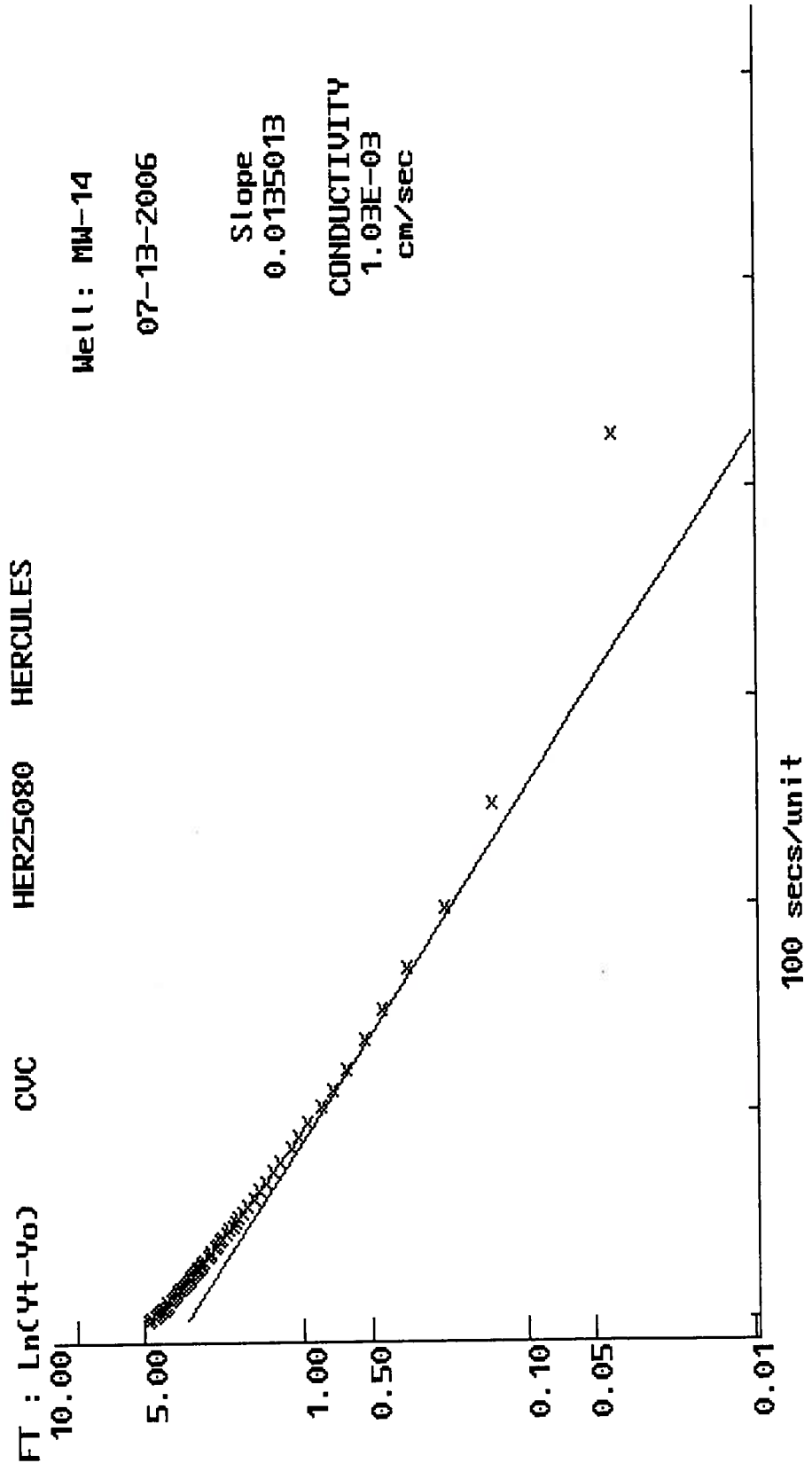
TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	19.8	0,0,31	17.59
0,0,1	19.66	0,0,32	17.54
0,0,2	19.54	0,0,33	17.49
0,0,3	19.43	0,0,35	17.41
0,0,4	19.31	0,0,37	17.34
0,0,5	19.22	0,0,39	17.27
0,0,6	19.12	0,0,40	17.22
0,0,7	19.03	0,0,42	17.15
0,0,8	18.95	0,0,44	17.08
0,0,9	19.01	0,0,46	17
0,0,10	18.79	0,0,48	16.95
0,0,11	18.73	0,0,50	16.88
0,0,12	18.67	0,0,52	16.82
0,0,13	18.6	0,0,55	16.73
0,0,14	18.52	0,0,59	16.63
0,0,15	18.45	0,1,3	16.54
0,0,16	18.4	0,1,7	16.44
0,0,17	18.34	0,1,12	16.33
0,0,18	18.26	0,1,17	16.24
0,0,19	18.2	0,1,23	16.12
0,0,20	18.13	0,1,29	16.03
0,0,21	18.08	0,1,35	15.94
0,0,22	18.03	0,1,43	15.83
0,0,23	17.98	0,1,51	15.74
0,0,24	17.92	0,2,1	15.64
0,0,25	17.88	0,2,15	15.53
0,0,26	17.84	0,2,30	15.44
0,0,27	17.77	0,2,50	15.34
0,0,28	17.74	0,3,19	15.23
0,0,29	17.67	0,4,9	15.14

TIME (H,M,S) DEPTH (FT)
0,7,6 15.04

$(1/t) (\ln(Y_o/Y_t)) = 0.0135330$

FULLY PENETRATING: C= 2.73

HYDRAULIC CONDUCTIVITY: 3.38E-05 ft/sec
1.03E-03 cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-15

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 4.125 Rc - WELL RADIUS (IN): 1
L - SCREEN LENGTH (FT): 10 D - AQUIFER THICKNESS (FT)
HT - SCREEN BASE TO WATER TABLE (FT): 8.64 STATIC WATER LEVEL (FT):
START TIME (H,M,S): 0,0,0

Rc was corrected for response in well screen filter material to 2.409 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	22.21	0,0,30	20.76
0,0,1	22.12	0,0,31	20.73
0,0,2	22.05	0,0,32	20.69
0,0,3	21.97	0,0,33	20.65
0,0,4	21.91	0,0,34	20.61
0,0,5	21.86	0,0,35	20.59
0,0,6	21.81	0,0,36	20.56
0,0,7	21.74	0,0,37	20.53
0,0,8	21.68	0,0,38	20.51
0,0,9	21.64	0,0,39	20.48
0,0,10	21.58	0,0,40	20.44
0,0,11	21.52	0,0,41	20.41
0,0,12	21.48	0,0,42	20.38
0,0,13	21.44	0,0,43	20.37
0,0,14	21.38	0,0,44	20.34
0,0,15	21.34	0,0,45	20.29
0,0,16	21.29	0,0,46	20.28
0,0,17	21.27	0,0,47	20.24
0,0,18	21.21	0,0,49	20.2
0,0,19	21.17	0,0,52	20.12
0,0,20	21.13	0,0,55	20.05
0,0,21	21.09	0,0,58	20
0,0,22	21.04	0,1,0	19.95
0,0,23	21.02	0,1,3	19.87
0,0,24	20.97	0,1,6	19.82
0,0,25	20.93	0,1,9	19.77
0,0,26	20.89	0,1,12	19.7
0,0,27	20.86	0,1,15	19.65
0,0,28	20.82	0,1,18	19.61
0,0,29	20.8	0,1,25	19.49

TIME (H,M,S)	DEPTH (FT)
0,1,30	19.41
0,1,38	19.31
0,1,47	19.21
0,1,58	19.11
0,2,10	19
0,2,25	18.91
0,2,42	18.81
0,3,6	18.71
0,3,41	18.61
0,5,56	18.5

$(1/t) (\ln(Y_o/Y_t)) = 0.0159336$

FULLY PENETRATING: C= 2.06

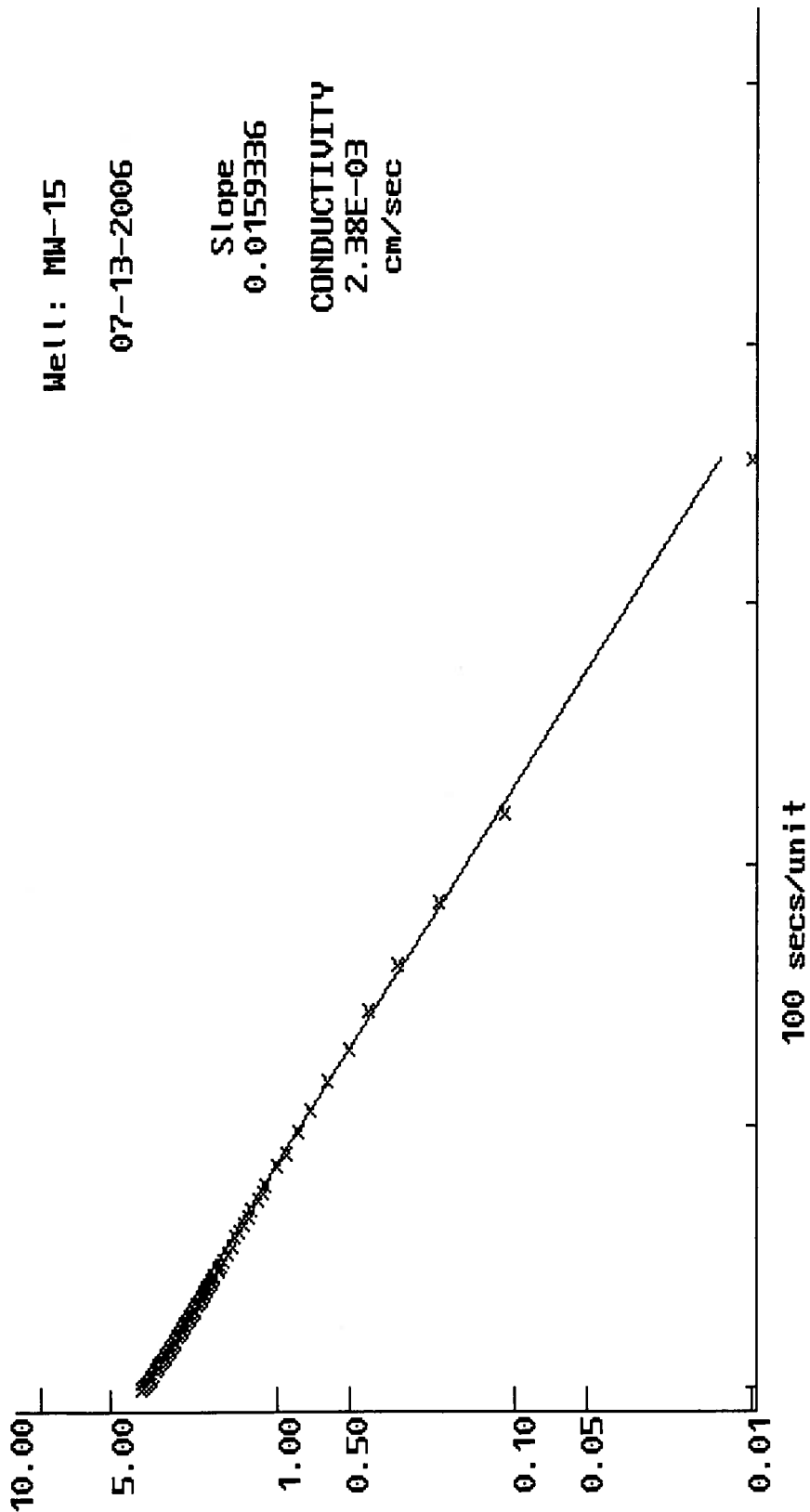
HYDRAULIC CONDUCTIVITY: 7.79E-05 ft/sec
2.38E-03 cm/sec

FT : Ln(Yt-Yo) CUC HER25080 HERCULES

Well: MW-15

07-13-2006

Slope
0.0159336
CONDUCTIVITY
2.38E-03
cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-16

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 3.426
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 12.65
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.055 i

TIME (H,M,S)	DEPTH (FT)
0,0,0	17.13
0,0,1	16.76
0,0,2	16.61
0,0,3	16.58
0,0,4	16.54
0,0,5	16.53
0,0,7	16.5
0,0,8	16.49
0,0,11	16.47
0,0,17	16.46
0,0,19	16.45

$$(1/t) (\ln(Y_o/Y_t)) = 0.2339565$$

FULLY PENETRATING: C= 2.25

HYDRAULIC CONDUCTIVITY: 9.68E-04 ft/sec
2.95E-02 cm/sec

FT : Ln(Yt-Yo)

CUC

HER25080

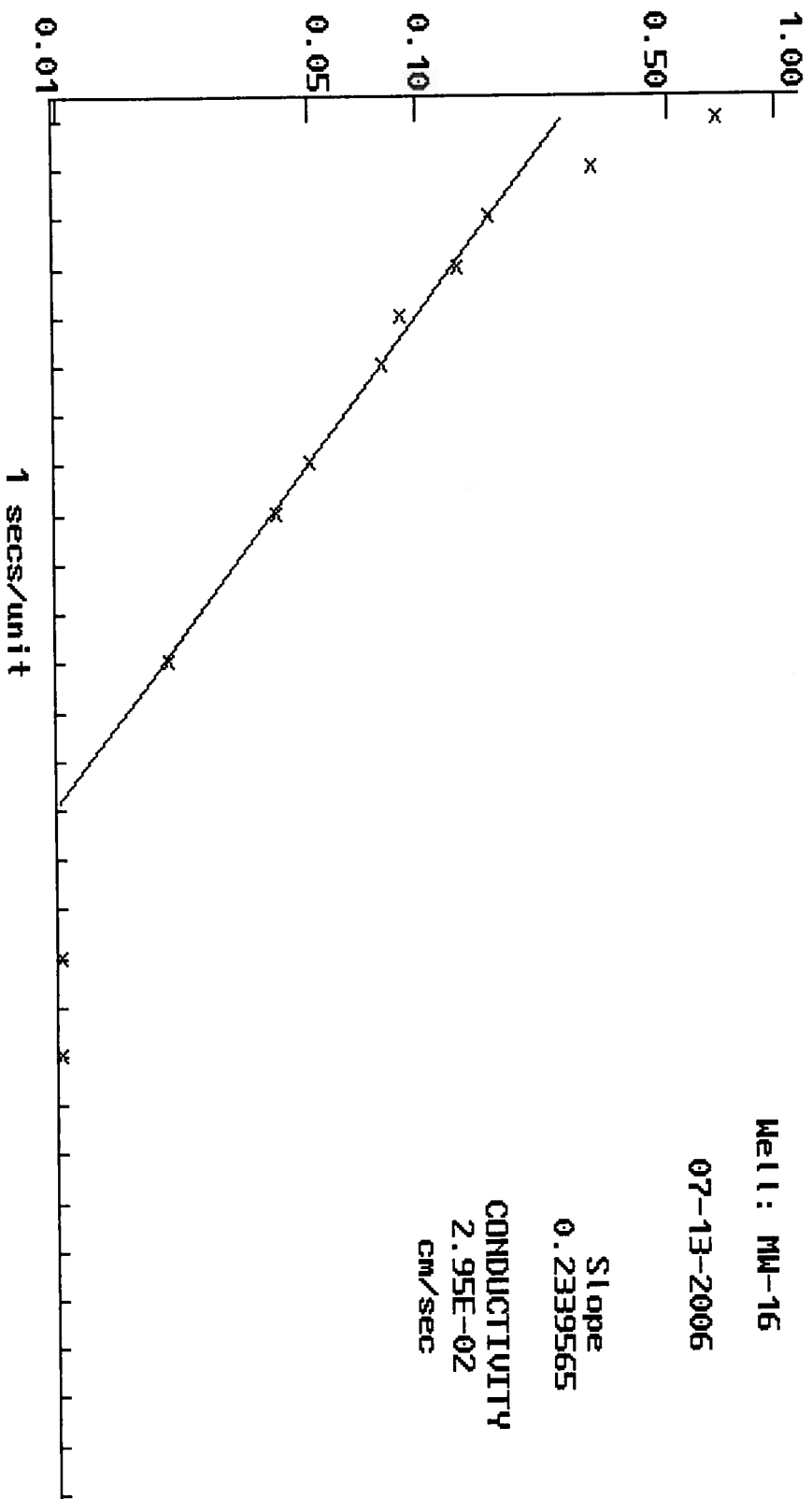
HERCULES

Well : MW-16

07-13-2006

Slope
0.2339565

CONDUCTIVITY
2.95E-02
cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-17

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-13-2006

Rw - BORING RADIUS (IN): 2.728
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 6.57
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

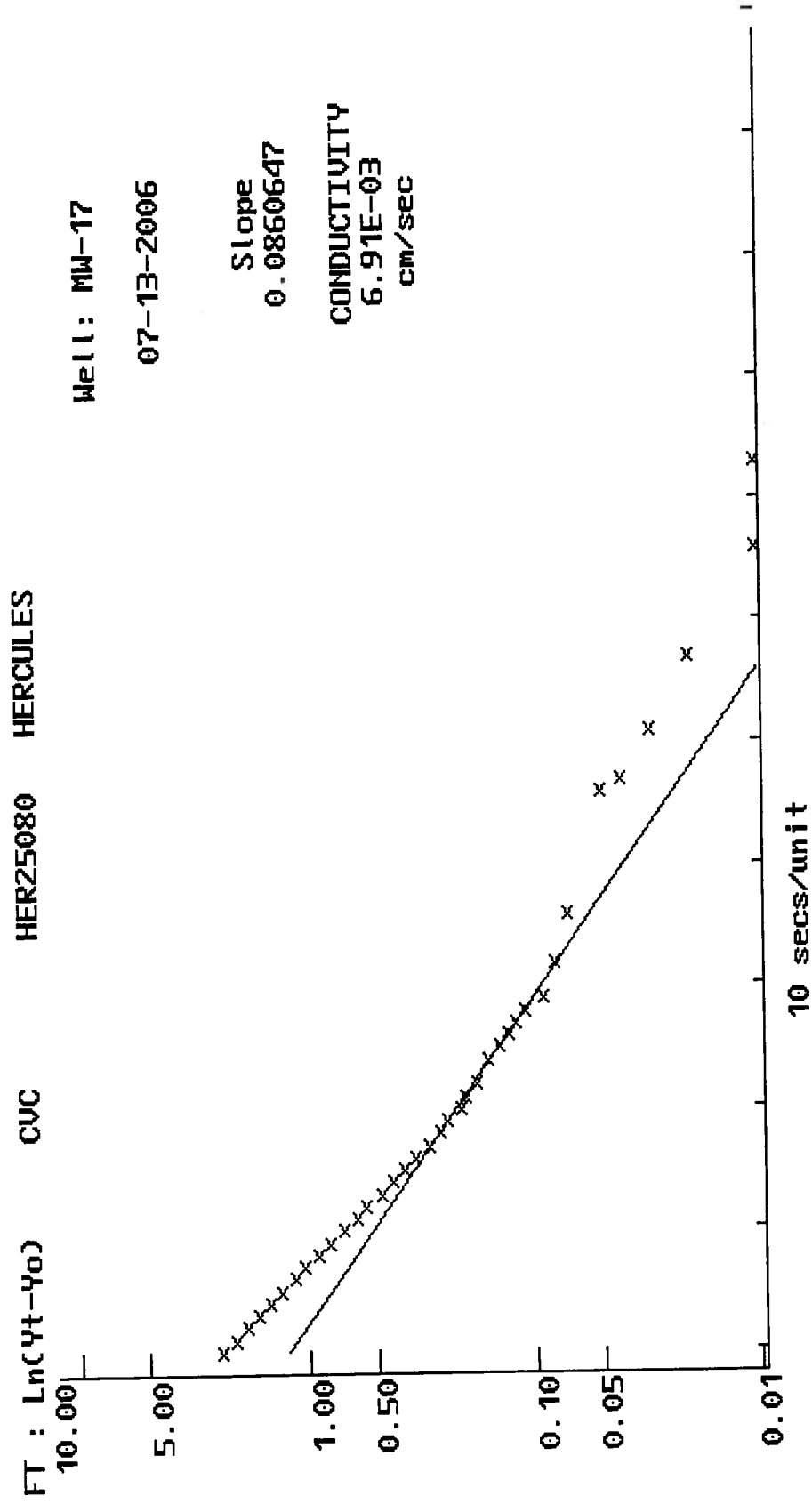
Rc was corrected for response in well screen filter material to 1.712 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	19.17	0,0,36	16.85
0,0,1	18.88	0,0,46	16.83
0,0,2	18.64	0,0,47	16.82
0,0,3	18.43	0,0,51	16.81
0,0,4	18.25	0,0,57	16.8
0,0,5	18.08	0,1,6	16.79
0,0,6	17.93	0,1,13	16.78
0,0,7	17.81		
0,0,8	17.69		
0,0,9	17.59		
0,0,10	17.48		
0,0,11	17.39		
0,0,12	17.34		
0,0,13	17.25		
0,0,14	17.2		
0,0,15	17.15		
0,0,16	17.11		
0,0,17	17.07		
0,0,18	17.04		
0,0,19	17.02		
0,0,20	16.99		
0,0,21	16.98		
0,0,22	16.96		
0,0,24	16.94		
0,0,25	16.92		
0,0,26	16.91		
0,0,27	16.9		
0,0,28	16.89		
0,0,29	16.87		
0,0,32	16.86		

$$(1/t) (\ln(Y_o/Y_t)) = 0.0860647$$

FULLY PENETRATING: C= 2.62

HYDRAULIC CONDUCTIVITY: 2.27E-04 ft/sec
6.91E-03 cm/sec



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-18

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-11-2005

USER NAME: CVC
DATE: 07-14-2006

Rw - BORING RADIUS (IN): 1.867
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 11.81
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 1.321 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	9.51	0,0,30	6.21
0,0,1	9.07	0,0,31	6.19
0,0,2	8.73	0,0,32	6.17
0,0,3	8.43	0,0,34	6.16
0,0,4	8.17	0,0,35	6.13
0,0,5	7.96	0,0,36	6.12
0,0,6	7.77	0,0,37	6.09
0,0,7	7.61	0,0,38	6.08
0,0,8	7.45	0,0,39	6.06
0,0,9	7.33	0,0,42	6.03
0,0,10	7.21	0,0,43	6.02
0,0,11	7.11	0,0,44	6.01
0,0,12	7.01	0,0,45	6
0,0,13	6.93	0,0,47	5.98
0,0,14	6.86	0,0,48	5.99
0,0,15	6.79	0,0,49	5.97
0,0,16	6.73	0,0,50	5.96
0,0,17	6.66	0,0,51	5.95
0,0,18	6.62	0,0,54	5.93
0,0,19	6.57	0,0,58	5.92
0,0,20	6.52	0,0,59	5.9
0,0,21	6.47	0,1,2	5.89
0,0,22	6.44	0,1,4	5.88
0,0,23	6.4	0,1,6	5.87
0,0,24	6.37	0,1,10	5.86
0,0,25	6.34	0,1,11	5.85
0,0,26	6.32	0,1,17	5.83
0,0,27	6.3	0,1,24	5.82
0,0,28	6.28	0,1,26	5.81
0,0,29	6.24	0,1,31	5.8

TIME (H,M,S)	DEPTH (FT)
0,1,35	5.79
0,1,46	5.78
0,1,57	5.77
0,2,5	5.76
0,2,18	5.75
0,2,28	5.74
0,2,51	5.73

$(1/t) (\ln(Y_o/Y_t)) = 0.0218932$

FULLY PENETRATING: C= 3.13

HYDRAULIC CONDUCTIVITY: 4.38E-05 ft/sec
1.34E-03 cm/sec

FT : Ln(Yt-Yo) CUC HER25080 HERCULES

Well: MW-18

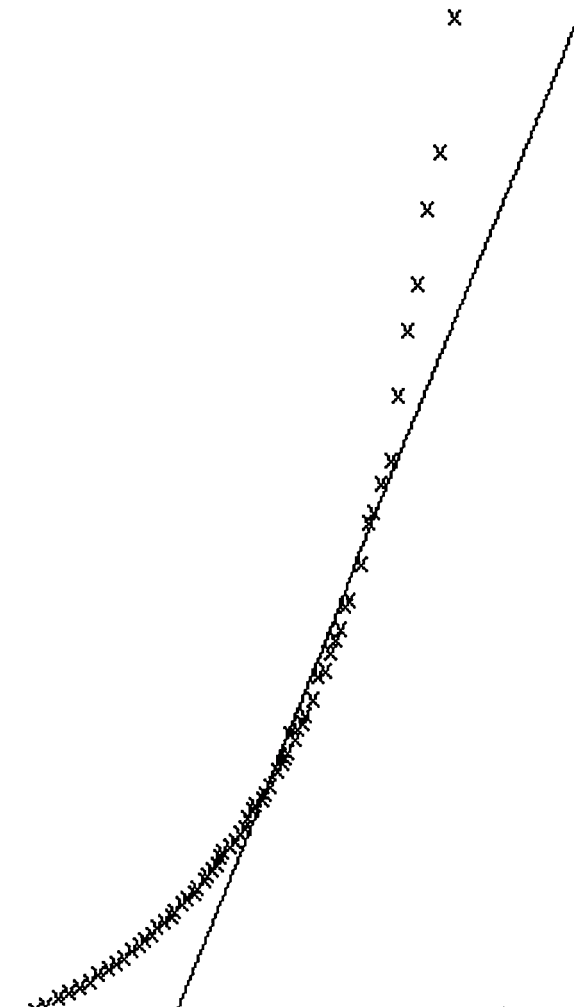
07-14-2006

Slope
0.0218932

CONDUCTIVITY
1.34E-03
cm/sec

10.00
5.00
1.00
0.50
0.10
0.05
0.01

10 secs/unit



HYDROCON - 1.2
HYDRAULIC CONDUCTIVITY
Bouwer and Rice Method

Well: MW-19

PROJECT NAME: HERCULES
PROJECT NUMBER: HER25080
FIELD WORK DATE(S): 05-16-2005

USER NAME: CVC
DATE: 07-14-2006

Rw - BORING RADIUS (IN): 4.08
L - SCREEN LENGTH (FT): 10
HT - SCREEN BASE TO WATER TABLE (FT): 10.99
START TIME (H,M,S): 0,0,0

Rc - WELL RADIUS (IN): 1
D - AQUIFER THICKNESS (FT)
STATIC WATER LEVEL (FT):

Rc was corrected for response in well screen filter material to 2.386 i

TIME (H,M,S)	DEPTH (FT)	TIME (H,M,S)	DEPTH (FT)
0,0,0	13.84	0,0,30	10.86
0,0,1	13.45	0,0,31	10.83
0,0,2	13.15	0,0,32	10.82
0,0,3	12.9	0,0,33	10.8
0,0,4	12.68	0,0,34	10.78
0,0,5	12.49	0,0,35	10.77
0,0,6	12.31	0,0,36	10.76
0,0,7	12.16	0,0,37	10.74
0,0,8	12.02	0,0,38	10.73
0,0,9	11.9	0,0,39	10.71
0,0,10	11.8	0,0,41	10.7
0,0,11	11.69	0,0,42	10.68
0,0,12	11.6	0,0,43	10.67
0,0,13	11.52	0,0,44	10.66
0,0,14	11.44	0,0,46	10.65
0,0,15	11.38	0,0,47	10.64
0,0,16	11.32	0,0,49	10.62
0,0,17	11.27	0,0,51	10.61
0,0,18	11.22	0,0,55	10.6
0,0,19	11.18	0,0,57	10.58
0,0,20	11.13	0,0,59	10.57
0,0,21	11.08	0,1,1	10.56
0,0,22	11.05	0,1,4	10.55
0,0,23	11.02	0,1,7	10.54
0,0,24	11	0,1,9	10.53
0,0,25	10.97	0,1,10	10.52
0,0,26	10.93	0,1,18	10.51
0,0,27	10.92	0,1,23	10.5
0,0,28	10.88	0,1,31	10.49
0,0,29	10.87	0,1,33	10.48

TIME (H,M,S)	DEPTH (FT)
0,1,39	10.47
0,1,40	10.46
0,1,50	10.45
0,2,3	10.44
0,2,21	10.43
0,2,30	10.41
0,2,56	10.4

$(1/t) (\ln(Y_o/Y_t)) = 0.0129634$

FULLY PENETRATING: $C = 2.08$

HYDRAULIC CONDUCTIVITY: $6.62E-05$ ft/sec
 $2.02E-03$ cm/sec

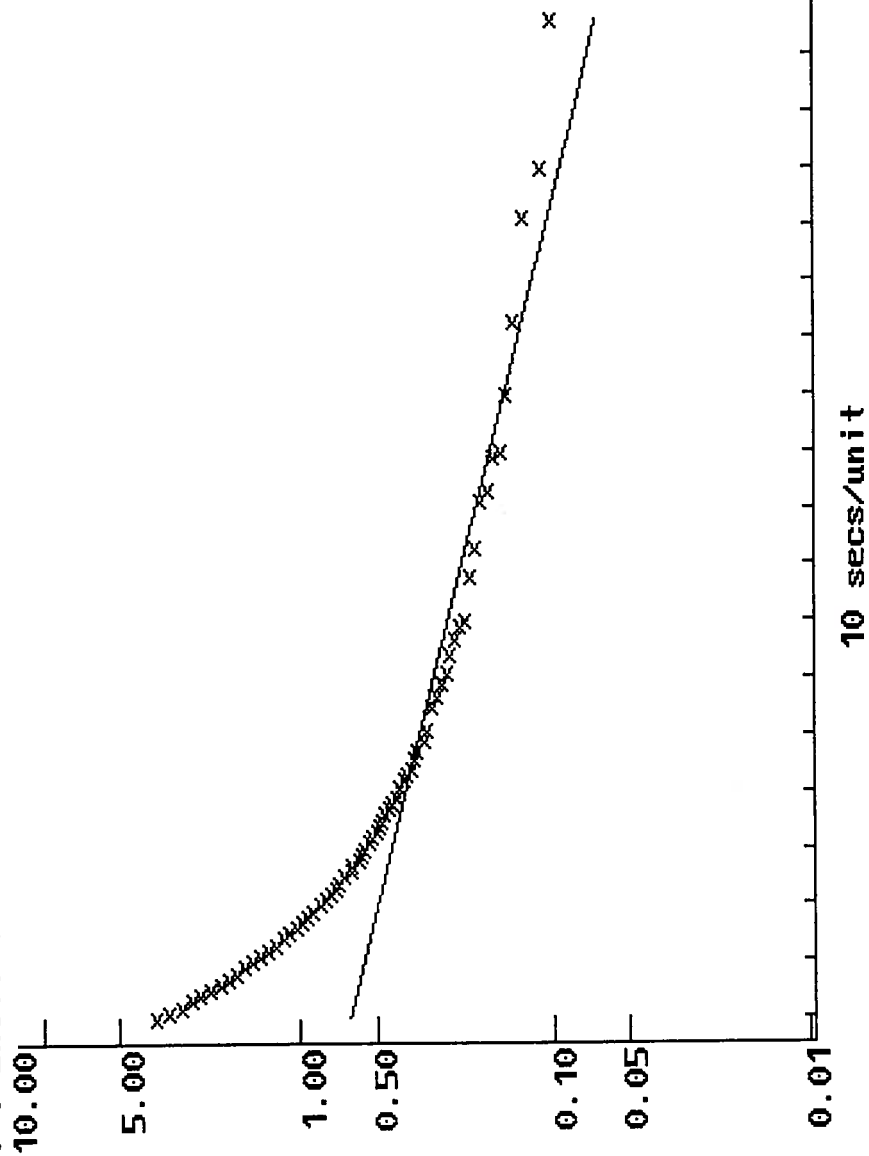
FT : Ln(Yt-Yo) CUC HER25080 HERCULES

Well: MW-19

07-14-2006

Slope
0.0129634

CONDUCTIVITY
2.02E-03
cm/sec



Eco-Systems, Inc.
6360 I-55 North, Suite 330
Jackson, Mississippi
ph.(601) 936-4440

Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 1

Project: Hercules

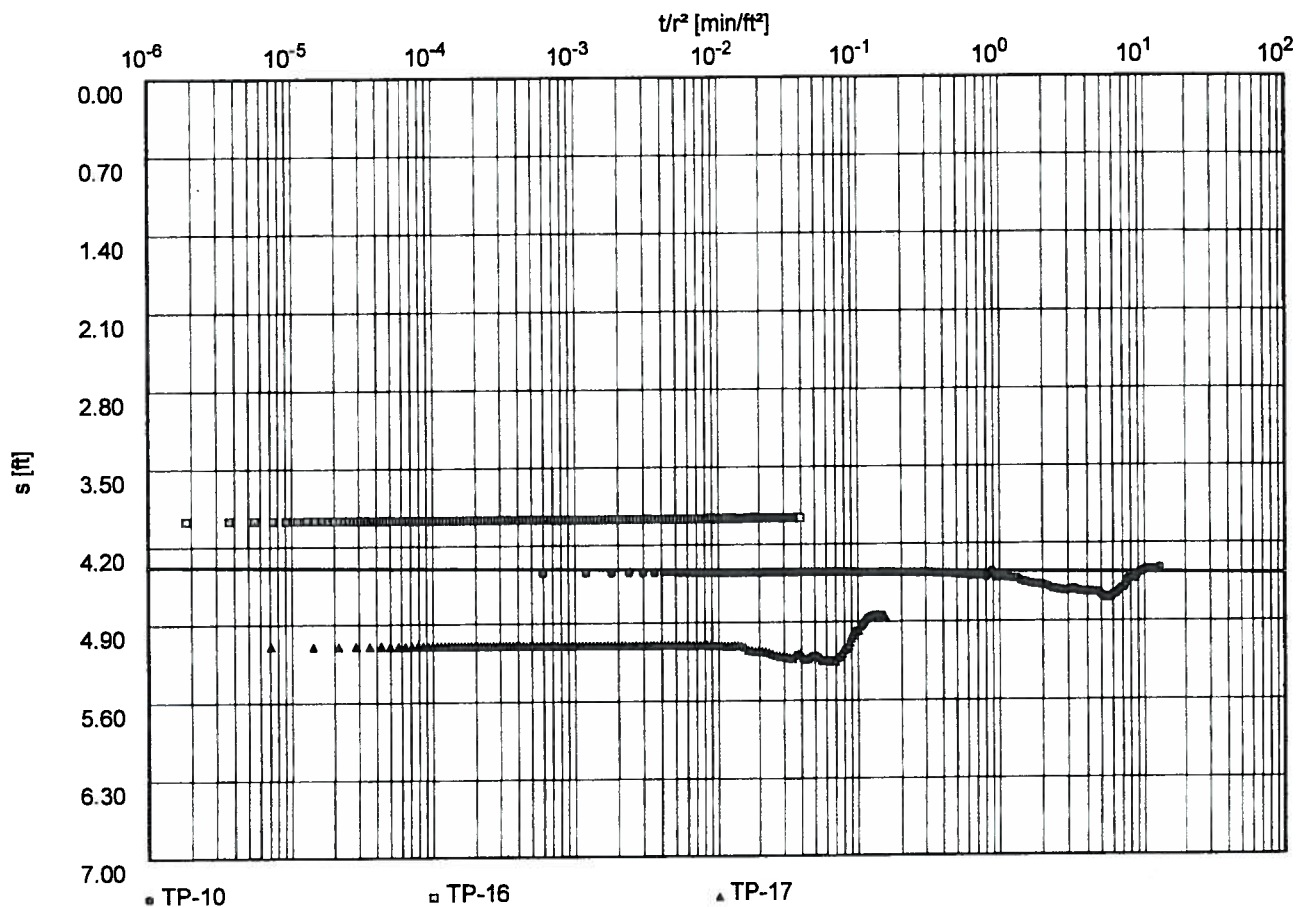
Evaluated by: Chris WaDate: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

Discharge 0.00 U.S.gal/min



Transmissivity [ft²/min]: 0.00×10^0

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Jackson, Mississippi
ph.(601) 936-4440

Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 3

Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-10

Discharge 0.00 U.S.gal/min

Distance from the pumping well 6.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
2	0.02	4.45	4.45	
3	0.04	4.45	4.45	
4	0.06	4.45	4.45	
5	0.09	4.45	4.45	
6	0.11	4.45	4.45	
7	0.13	4.45	4.45	
8	0.15	4.45	4.45	
9	0.17	4.45	4.45	
10	0.19	4.45	4.45	
11	0.21	4.45	4.45	
12	0.24	4.45	4.45	
13	0.26	4.45	4.45	
14	0.28	4.45	4.45	
15	0.30	4.45	4.45	
16	0.32	4.45	4.45	
17	0.34	4.45	4.45	
18	0.37	4.45	4.45	
19	0.39	4.45	4.45	
20	0.41	4.45	4.45	
21	0.43	4.45	4.45	
22	0.45	4.45	4.45	
23	0.48	4.45	4.45	
24	0.50	4.45	4.45	
25	0.53	4.45	4.45	
26	0.55	4.45	4.45	
27	0.58	4.45	4.45	
28	0.62	4.45	4.45	
29	0.65	4.45	4.45	
30	0.68	4.45	4.45	
31	0.72	4.46	4.46	
32	0.76	4.45	4.45	
33	0.80	4.45	4.45	
34	0.85	4.45	4.45	
35	0.89	4.45	4.45	
36	0.94	4.45	4.45	
37	1.00	4.45	4.45	
38	1.05	4.45	4.45	
39	1.11	4.45	4.45	
40	1.17	4.45	4.45	
41	1.24	4.45	4.45	
42	1.31	4.45	4.45	
43	1.39	4.45	4.45	
44	1.46	4.45	4.45	
45	1.55	4.45	4.45	
46	1.64	4.45	4.45	
47	1.73	4.45	4.45	
48	1.83	4.45	4.45	
49	1.94	4.45	4.45	
50	2.05	4.45	4.45	

Eco-Systems, Inc.
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Jackson, Mississippi
ph (601) 936-4440

Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 4

Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-10

Discharge 0.00 U.S.gal/min

Distance from the pumping well 6.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
51	2.16	4.45	4.45	
52	2.29	4.45	4.45	
53	2.42	4.45	4.45	
54	2.56	4.45	4.45	
55	2.71	4.45	4.45	
56	2.87	4.45	4.45	
57	3.04	4.45	4.45	
58	3.21	4.45	4.45	
59	3.40	4.46	4.46	
60	3.60	4.46	4.46	
61	3.81	4.46	4.46	
62	4.03	4.46	4.46	
63	4.27	4.46	4.46	
64	4.52	4.46	4.46	
65	4.78	4.46	4.46	
66	5.06	4.46	4.46	
67	5.36	4.46	4.46	
68	5.67	4.46	4.46	
69	6.01	4.46	4.46	
70	6.36	4.46	4.46	
71	6.73	4.46	4.46	
72	7.13	4.46	4.46	
73	7.55	4.46	4.46	
74	7.99	4.46	4.46	
75	8.46	4.46	4.46	
76	8.96	4.46	4.46	
77	9.49	4.46	4.46	
78	10.05	4.46	4.46	
79	10.64	4.46	4.46	
80	11.27	4.46	4.46	
81	11.93	4.46	4.46	
82	12.64	4.46	4.46	
83	13.38	4.46	4.46	
84	14.17	4.47	4.47	
85	15.01	4.47	4.47	
86	15.90	4.47	4.47	
87	16.84	4.47	4.47	
88	17.83	4.47	4.47	
89	18.89	4.47	4.47	
90	20.00	4.48	4.48	
91	21.18	4.48	4.48	
92	22.23	4.49	4.49	
93	22.44	4.48	4.48	
94	23.76	4.48	4.48	
95	25.17	4.49	4.49	
96	26.66	4.49	4.49	
97	29.02	4.50	4.50	
98	31.67	4.45	4.45	
99	33.54	4.50	4.50	
100	35.53	4.50	4.50	

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 5

Project: Hercules

Evaluated by: Chris WaDate: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-10

Discharge 0.00 U.S. gal/min

Distance from the pumping well 6.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
101	37.63	4.50	4.50	
102	39.86	4.50	4.50	
103	42.22	4.51	4.51	
104	44.72	4.51	4.51	
105	47.36	4.51	4.51	
106	50.17	4.53	4.53	
107	53.14	4.54	4.54	
108	56.28	4.55	4.55	
109	59.61	4.56	4.56	
110	63.14	4.57	4.57	
111	66.88	4.57	4.57	
112	70.84	4.57	4.57	
113	75.04	4.58	4.58	
114	79.48	4.59	4.59	
115	84.19	4.61	4.61	
116	89.17	4.61	4.61	
117	94.17	4.62	4.62	
118	99.17	4.62	4.62	
119	104.17	4.63	4.63	
120	109.17	4.62	4.62	
121	114.17	4.62	4.62	
122	119.17	4.61	4.61	
123	124.17	4.62	4.62	
124	129.17	4.63	4.63	
125	134.17	4.63	4.63	
126	139.17	4.64	4.64	
127	144.17	4.64	4.64	
128	149.17	4.64	4.64	
129	154.17	4.64	4.64	
130	159.17	4.64	4.64	
131	164.17	4.64	4.64	
132	169.17	4.64	4.64	
133	174.17	4.64	4.64	
134	179.17	4.67	4.67	
135	184.17	4.68	4.68	
136	189.17	4.68	4.68	
137	194.17	4.68	4.68	
138	199.17	4.69	4.69	
139	204.17	4.69	4.69	
140	209.17	4.69	4.69	
141	214.17	4.67	4.67	
142	219.17	4.66	4.66	
143	224.17	4.66	4.66	
144	229.17	4.65	4.65	
145	234.17	4.64	4.64	
146	239.17	4.62	4.62	
147	244.17	4.61	4.61	
148	249.17	4.61	4.61	
149	254.17	4.61	4.61	
150	259.17	4.60	4.60	

Evaluated by: Chris WaDate: 05.10.2005

[illegible]

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 7

Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-16

Discharge 0.00 U.S.gal/min

Distance from the pumping well 108.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
2	0.02	3.97	3.97	
3	0.04	3.97	3.97	
4	0.06	3.97	3.97	
5	0.09	3.97	3.97	
6	0.11	3.97	3.97	
7	0.13	3.97	3.97	
8	0.15	3.97	3.97	
9	0.17	3.97	3.97	
10	0.19	3.97	3.97	
11	0.21	3.97	3.97	
12	0.24	3.97	3.97	
13	0.26	3.97	3.97	
14	0.28	3.97	3.97	
15	0.30	3.97	3.97	
16	0.32	3.97	3.97	
17	0.34	3.97	3.97	
18	0.37	3.97	3.97	
19	0.39	3.97	3.97	
20	0.41	3.97	3.97	
21	0.43	3.97	3.97	
22	0.45	3.97	3.97	
23	0.48	3.97	3.97	
24	0.50	3.97	3.97	
25	0.53	3.97	3.97	
26	0.55	3.97	3.97	
27	0.58	3.97	3.97	
28	0.62	3.97	3.97	
29	0.65	3.97	3.97	
30	0.68	3.97	3.97	
31	0.72	3.97	3.97	
32	0.76	3.97	3.97	
33	0.80	3.97	3.97	
34	0.85	3.97	3.97	
35	0.89	3.97	3.97	
36	0.94	3.97	3.97	
37	1.00	3.97	3.97	
38	1.05	3.97	3.97	
39	1.11	3.97	3.97	
40	1.17	3.97	3.97	
41	1.24	3.97	3.97	
42	1.31	3.97	3.97	
43	1.39	3.97	3.97	
44	1.46	3.97	3.97	
45	1.55	3.97	3.97	
46	1.64	3.97	3.97	
47	1.73	3.97	3.97	
48	1.83	3.97	3.97	
49	1.94	3.97	3.97	
50	2.05	3.97	3.97	

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 8

Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-16

Discharge 0.00 U.S.gal/min

Distance from the pumping well 108.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
51	2.16	3.97	3.97	
52	2.29	3.97	3.97	
53	2.42	3.97	3.97	
54	2.56	3.97	3.97	
55	2.71	3.97	3.97	
56	2.87	3.97	3.97	
57	3.04	3.97	3.97	
58	3.21	3.97	3.97	
59	3.40	3.97	3.97	
60	3.60	3.97	3.97	
61	3.81	3.97	3.97	
62	4.03	3.97	3.97	
63	4.27	3.97	3.97	
64	4.52	3.97	3.97	
65	4.78	3.97	3.97	
66	5.06	3.97	3.97	
67	5.36	3.97	3.97	
68	5.67	3.97	3.97	
69	6.01	3.97	3.97	
70	6.36	3.97	3.97	
71	6.73	3.97	3.97	
72	7.13	3.97	3.97	
73	7.55	3.97	3.97	
74	7.99	3.97	3.97	
75	8.46	3.97	3.97	
76	8.96	3.97	3.97	
77	9.49	3.97	3.97	
78	10.05	3.97	3.97	
79	10.64	3.97	3.97	
80	11.27	3.97	3.97	
81	11.93	3.97	3.97	
82	12.64	3.97	3.97	
83	13.38	3.97	3.97	
84	14.17	3.97	3.97	
85	15.01	3.97	3.97	
86	15.90	3.97	3.97	
87	16.84	3.97	3.97	
88	17.83	3.97	3.97	
89	18.89	3.97	3.97	
90	20.00	3.97	3.97	
91	21.18	3.97	3.97	
92	22.44	3.97	3.97	
93	23.76	3.97	3.97	
94	25.17	3.97	3.97	
95	26.66	3.97	3.97	
96	28.23	3.97	3.97	
97	29.90	3.97	3.97	
98	31.67	3.97	3.97	
99	33.54	3.97	3.97	
100	35.53	3.97	3.97	

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 9
Project: Hercules
Evaluated by: Chris WeDate: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-16

Discharge 0.00 U.S.gal/min

Distance from the pumping well 108.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
101	37.63	3.96	3.96	
102	39.86	3.97	3.97	
103	42.22	3.97	3.97	
104	44.72	3.97	3.97	
105	47.36	3.97	3.97	
106	50.17	3.97	3.97	
107	53.14	3.97	3.97	
108	56.28	3.97	3.97	
109	59.61	3.97	3.97	
110	63.14	3.97	3.97	
111	66.88	3.97	3.97	
112	70.84	3.97	3.97	
113	75.04	3.97	3.97	
114	79.48	3.97	3.97	
115	84.19	3.97	3.97	
116	89.17	3.97	3.97	
117	94.17	3.97	3.97	
118	99.17	3.97	3.97	
119	104.17	3.96	3.96	
120	109.17	3.97	3.97	
121	114.17	3.96	3.96	
122	119.17	3.97	3.97	
123	124.17	3.97	3.97	
124	129.17	3.97	3.97	
125	134.17	3.96	3.96	
126	139.17	3.97	3.97	
127	144.17	3.96	3.96	
128	149.17	3.96	3.96	
129	154.17	3.97	3.97	
130	159.17	3.97	3.97	
131	164.17	3.97	3.97	
132	169.17	3.97	3.97	
133	174.17	3.97	3.97	
134	179.17	3.97	3.97	
135	184.17	3.97	3.97	
136	189.17	3.97	3.97	
137	194.17	3.96	3.96	
138	199.17	3.97	3.97	
139	204.17	3.96	3.96	
140	209.17	3.96	3.96	
141	214.17	3.96	3.96	
142	219.17	3.96	3.96	
143	224.17	3.96	3.96	
144	229.17	3.97	3.97	
145	234.17	3.96	3.96	
146	239.17	3.96	3.96	
147	244.17	3.96	3.96	
148	249.17	3.96	3.96	
149	254.17	3.96	3.96	
150	259.17	3.96	3.96	

Evaluated by: Chris W Date: 05.10.2005

[illegible]

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 11

Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-17

Discharge 0.00 U.S.gal/min

Distance from the pumping well 55.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
2	0.02	5.10	5.10	
3	0.04	5.10	5.10	
4	0.06	5.10	5.10	
5	0.09	5.10	5.10	
6	0.11	5.10	5.10	
7	0.13	5.10	5.10	
8	0.15	5.10	5.10	
9	0.17	5.10	5.10	
10	0.19	5.10	5.10	
11	0.21	5.10	5.10	
12	0.24	5.10	5.10	
13	0.26	5.10	5.10	
14	0.28	5.10	5.10	
15	0.30	5.10	5.10	
16	0.32	5.10	5.10	
17	0.34	5.10	5.10	
18	0.37	5.10	5.10	
19	0.39	5.10	5.10	
20	0.41	5.10	5.10	
21	0.43	5.10	5.10	
22	0.45	5.10	5.10	
23	0.48	5.10	5.10	
24	0.50	5.10	5.10	
25	0.53	5.10	5.10	
26	0.55	5.10	5.10	
27	0.58	5.10	5.10	
28	0.62	5.10	5.10	
29	0.65	5.10	5.10	
30	0.68	5.10	5.10	
31	0.72	5.10	5.10	
32	0.76	5.10	5.10	
33	0.80	5.10	5.10	
34	0.85	5.10	5.10	
35	0.89	5.10	5.10	
36	0.94	5.10	5.10	
37	1.00	5.10	5.10	
38	1.05	5.10	5.10	
39	1.11	5.10	5.10	
40	1.17	5.10	5.10	
41	1.24	5.10	5.10	
42	1.31	5.10	5.10	
43	1.39	5.10	5.10	
44	1.46	5.10	5.10	
45	1.55	5.10	5.10	
46	1.64	5.10	5.10	
47	1.73	5.10	5.10	
48	1.83	5.10	5.10	
49	1.94	5.10	5.10	
50	2.05	5.10	5.10	

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Pumping test analysisDistance-Time-Drawdown-method
after COOPER & JACOB

Confined aquifer

Appendix, Page 12

Project: Hercules

Evaluated by: Chris WeDate: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-17

Discharge 0.00 U.S.gal/min

Distance from the pumping well 55.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
51	2.16	5.10	5.10	
52	2.29	5.10	5.10	
53	2.42	5.10	5.10	
54	2.56	5.10	5.10	
55	2.71	5.10	5.10	
56	2.87	5.10	5.10	
57	3.04	5.10	5.10	
58	3.21	5.10	5.10	
59	3.40	5.10	5.10	
60	3.60	5.10	5.10	
61	3.81	5.10	5.10	
62	4.03	5.10	5.10	
63	4.27	5.10	5.10	
64	4.52	5.10	5.10	
65	4.78	5.10	5.10	
66	5.06	5.10	5.10	
67	5.36	5.10	5.10	
68	5.67	5.10	5.10	
69	6.01	5.10	5.10	
70	6.36	5.10	5.10	
71	6.73	5.10	5.10	
72	7.13	5.10	5.10	
73	7.55	5.10	5.10	
74	7.99	5.10	5.10	
75	8.46	5.10	5.10	
76	8.96	5.10	5.10	
77	9.49	5.10	5.10	
78	10.05	5.10	5.10	
79	10.64	5.10	5.10	
80	11.27	5.10	5.10	
81	11.93	5.10	5.10	
82	12.64	5.10	5.10	
83	13.38	5.10	5.10	
84	14.17	5.10	5.10	
85	15.01	5.10	5.10	
86	15.90	5.10	5.10	
87	16.84	5.10	5.10	
88	17.83	5.10	5.10	
89	18.89	5.10	5.10	
90	20.00	5.10	5.10	
91	21.18	5.10	5.10	
92	22.44	5.10	5.10	
93	23.76	5.10	5.10	
94	25.17	5.10	5.10	
95	26.66	5.10	5.10	
96	28.23	5.10	5.10	
97	29.90	5.10	5.10	
98	31.67	5.10	5.10	
99	33.54	5.11	5.11	
100	35.50	5.11	5.11	

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Pumping test analysis
Distance-Time-Drawdown-method
after COOPER & JACOB
Confined aquifer

Appendix, Page 13

Project: Hercules

Evaluated by: Chris WeDate: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8

TP-17

Discharge 0.00 U.S. gal/min

Distance from the pumping well 55.00 ft

Static water level: 0.00 ft below datum

	Pumping test duration	Water level	Drawdown	
	[min]	[ft]	[ft]	
101	37.63	5.11	5.11	
102	39.86	5.11	5.11	
103	42.22	5.10	5.10	
104	44.72	5.11	5.11	
105	47.36	5.12	5.12	
106	50.17	5.15	5.15	
107	53.14	5.15	5.15	
108	56.28	5.16	5.16	
109	59.61	5.16	5.16	
110	63.14	5.16	5.16	
111	66.88	5.16	5.16	
112	70.84	5.17	5.17	
113	75.04	5.18	5.18	
114	79.48	5.19	5.19	
115	84.19	5.20	5.20	
116	89.17	5.21	5.21	
117	94.17	5.21	5.21	
118	99.17	5.22	5.22	
119	104.17	5.22	5.22	
120	109.17	5.19	5.19	
121	114.17	5.19	5.19	
122	119.17	5.18	5.18	
123	124.17	5.21	5.21	
124	129.17	5.24	5.24	
125	134.17	5.23	5.23	
126	139.17	5.21	5.21	
127	144.17	5.21	5.21	
128	149.17	5.21	5.21	
129	154.17	5.20	5.20	
130	159.17	5.20	5.20	
131	164.17	5.21	5.21	
132	169.17	5.24	5.24	
133	174.17	5.24	5.24	
134	179.17	5.25	5.25	
135	184.17	5.25	5.25	
136	189.17	5.25	5.25	
137	194.17	5.25	5.25	
138	199.17	5.25	5.25	
139	204.17	5.25	5.25	
140	209.17	5.25	5.25	
141	214.17	5.22	5.22	
142	219.17	5.22	5.22	
143	224.17	5.21	5.21	
144	229.17	5.19	5.19	
145	234.17	5.18	5.18	
146	239.17	5.15	5.15	
147	244.17	5.14	5.14	
148	249.17	5.14	5.14	
149	254.17	5.13	5.13	
150	259.17	5.12	5.12	

Evaluated by: Chris W Date: 05.10.2005

[illegible]

Evaluated by: Chris W Date: 05.10.2005

[illegible]

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Pumping test analysis
Well performance test
Determination of specific capacity

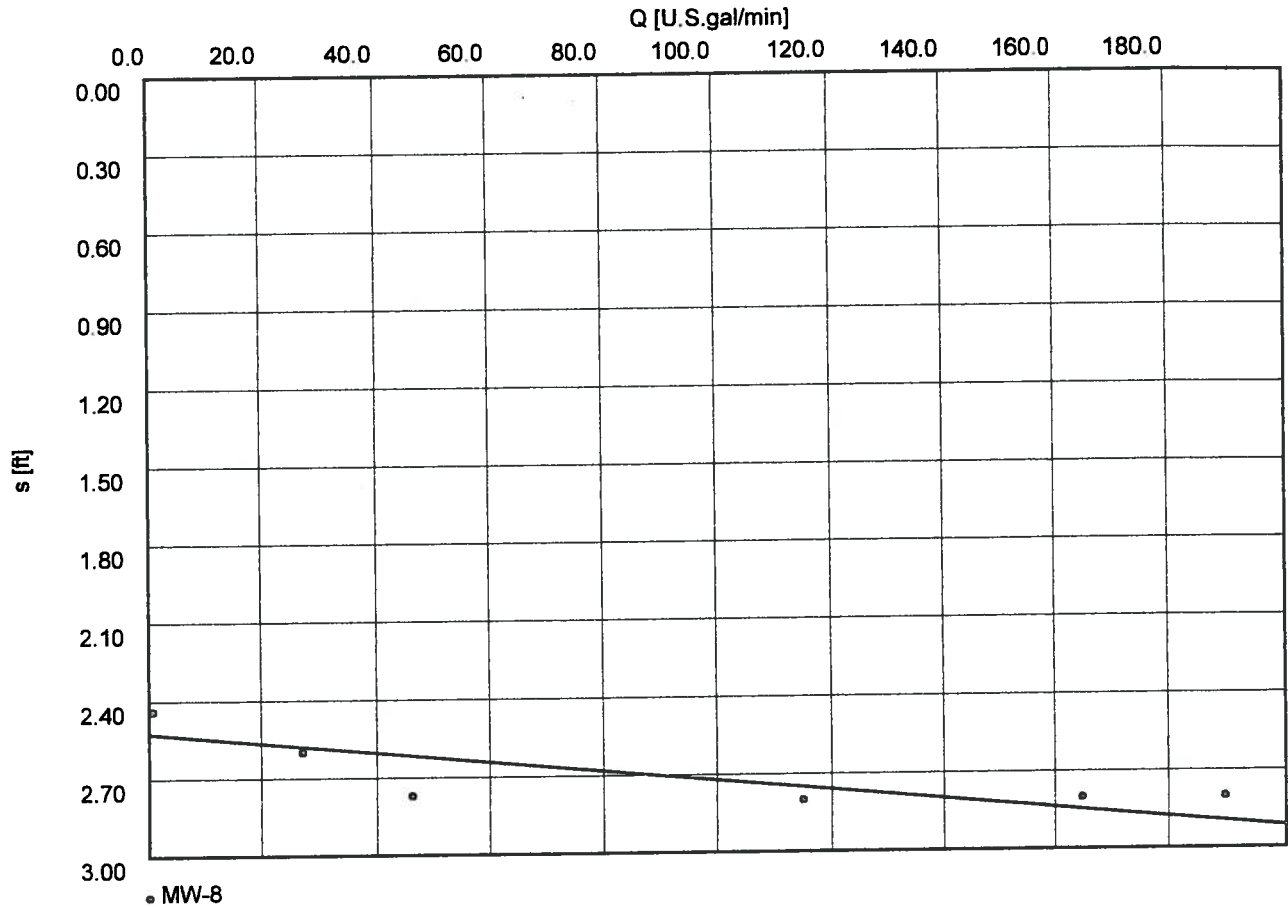
Project: Hercules

Evaluated by: Chris W Date: 05.10.2005

Pumping Test No. One

Test conducted on: July 21, 2005

Pumping Well MW-8



specific capacity C [ft²/min]: 6.90×10^1

Test conducted on: July 21, 2005

MW-8

[illegible]