DATA DOCUMENTATION

REC'D
AUG 29 2001
RCAP

May 2001 Annual Ground Water Compliance Monitoring

Inland Realty Enterprises, L.L.C.
Maryville, Missouri

August 2001

O'BRIEN & GERE ENGINEERS, INC.

R00184149
RCRA RECORDS CENTER

O'BRIEN & GERE
ENGINEERS, INC.

REC'D
AUG 29 2001
RCAP

August 28, 2001

Mr. Art Gronoer
Chief, Permits Section
Missouri Department of Natural Resources
Hazardous Waste Program
1738 Elm Street (Lower Level)
P.O. Box 176
Jefferson City, MO 65102

Re: Inland Realty/Nixdorff

File: 3050.005 #2

Dear Mr. Gronoer:

We are sending herewith three copies of the May 2001 ground water sampling event analytical data. Included are a summery table of analytical results, data trend graphs for 1995 through May 2001, Ground Water Sampling Logs, Laboratory Analytical Reports, and Figure 1 depicting the monitoring well locations. This is the sixth event under Missouri Hazardous Waste Management Facility Permit MOD099238784.

In his April 28, 1999 letter to Mr. Millard S. Cohen, John A. Young wrote that "MDNR supports Inland Realty's right to petition for termination of ground water monitoring and the permit if no exceedances of the ground water protection standards occur for three years." The sixth sampling event completed three years of monitoring and, as the enclosed report demonstrates, the ground water protection standards have not been exceeded. Accordingly, Inland Realty is in the process of preparing the necessary "modification request" to terminate post-closure activities and the permit.

Should you have any questions, please contact William E. Wright, Extension 123, at our office.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Ronald S. Krusie

Ronald S. Krusie, P.E.
Senior Managing Engineer

RSK:jg

Enclosures

cc: Mr. Brian McCurren – Missouri Department of Natural Resources (MDNR)
U.S. Environmental Protection Agency (2 Copies)
Mr. Millard Cohen – Nixdorff Krein (1 Copy)
Mr. Peter Strassner , Esq. – Thompson Coburn (1 Copy)
Mr. Al Macali, Jr. – Laclede Chain (1 Copy)

O'Brien & Gere Engineers, Inc., an O'Brien & Gere company
12250 Weber Hill Road / St. Louis, MO 63127
(314) 842-4550 / FAX (314) 842-3266 • http:// www.obg.com
... and offices in major U.S. cities

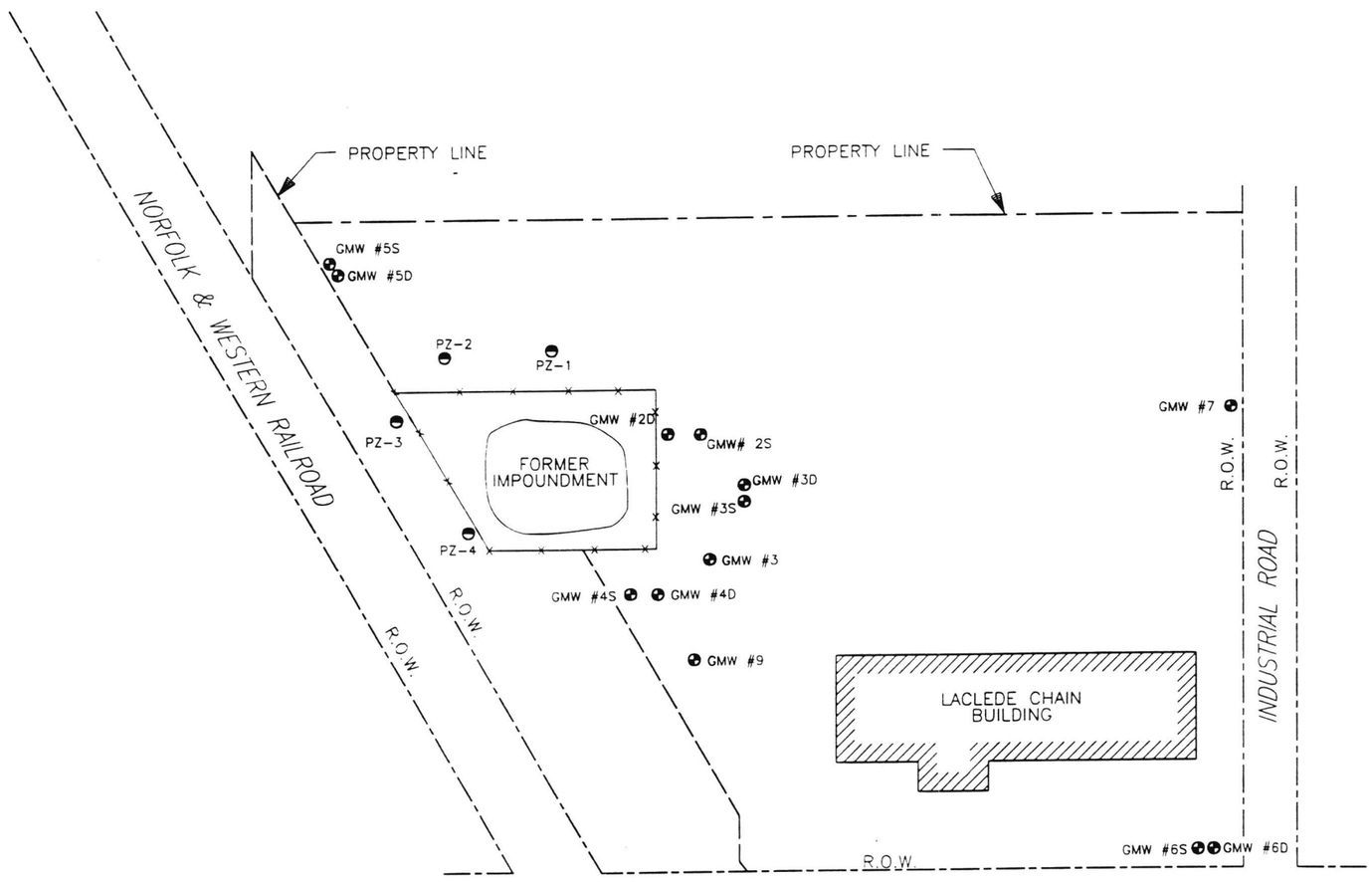
Ground Water Analytical Summary
May 2001 Sampling Event
Inland Realty, Maryville, Missouri

Parameter	MDL	GMW #2S	GMW #2D	GMW #3	GMW #3S	GMW #3D	GMW #4S	GMW #4D	GMW #5S	GMW #5D	GWPS
		Concentrations in Milligrams per Liter									
Cadmium, Total	0.00012	<0.00012	<0.00012	0.0089	0.00013B	<0.00012	0.011	<0.00012	0.0011B	0.00026B	0.12
Chromium, Total	0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	NE
Chromium, Hex	0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	0.24
Chromium, Tri	0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	49
Lead, Total	0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.0043	<0.0043	<0.00043	<0.00043	<0.00043	3
Manganese, Total	0.000088	0.99	0.63	1.2	0.14	0.72	43.8	1.8	0.089	0.79	114
Mercury, Total	0.000035	<0.000035	0.000048B	0.000064B	<0.000035	0.000037B	<0.000035	0.000042B	<0.000035	<0.000035	0.37
Nickel, Total	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	10
Zinc, Total	0.0085	<0.0085	0.011B	0.068	<0.0085	0.014 B	1.4	<0.0085	<0.040	0.010B	1,175
Cyanide, Total	0.0025	0.0288	<0.0025	<0.0025	0.0272	<0.0025	<0.0025	<0.0025	<0.0025	0.0029B	40
pH		6.96	5.63	6.27	6.58	6.17	5.79	6	6.32	6.34	
Specific Conductivity		1,629	937	1,653	1,445	1,182	3,830	1,834	3,270	1,251	
Temperature		57.5	58.2	60	57.5	60.1	60.3	59.2	56.2	59.3	

Parameter	MDL	GMW #6S	GMW #6D	GMW #7	GMW #9	GMW #10	GMW #3DA	GWPS
Cadmium, Total	0.00012	0.00024 B	<0.00012	<0.00012	<0.00012	<0.00012	<0.005	0.12
Chromium, Total	0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.00041	<0.005	NE
Chromium, Hex	0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.1	0.24
Chromium, Tri	0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.1	49
Lead, Total	0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.00043	<0.002	3
Manganese, Total	0.000088	0.14	0.16	0.21	1	<0.000088	0.69	114
Mercury, Total	0.000035	<0.000035	<0.000035	<0.000035	<0.000035	<0.000035	<0.0002	0.37
Nickel, Total	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	10
Zinc, Total	0.0085	0.017 B	<0.0085	0.015 B	0.029 B	<0.0085	0.04	1,175
Cyanide, Total	0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0318	<0.005	40
pH		7.09	6.98	6.93	5.53	NA	6.17	
Specific Conductivity		442	451	431	1,379	NA	1,182	
Temperature		58	57.7	59	60.6	NA	60.1	

B – Estimated.
GMW – Ground Water Monitoring Well.
GWPS - Ground Water Protection Standard.
MDL - Method Detection Limit.
NA - Not applicable.
NE - Not established.

FIGURE 1



LEGEND

- GROUND WATER MONITORING WELL
- PIEZOMETER

INLAND REALTY COMPANY
MARYVILLE, MISSOURI

GROUND WATER MONITORING WELL LOCATION PLAN

5/4/99
3050.005-109F

O'BRIEN & GERE ENGINEERS INC.

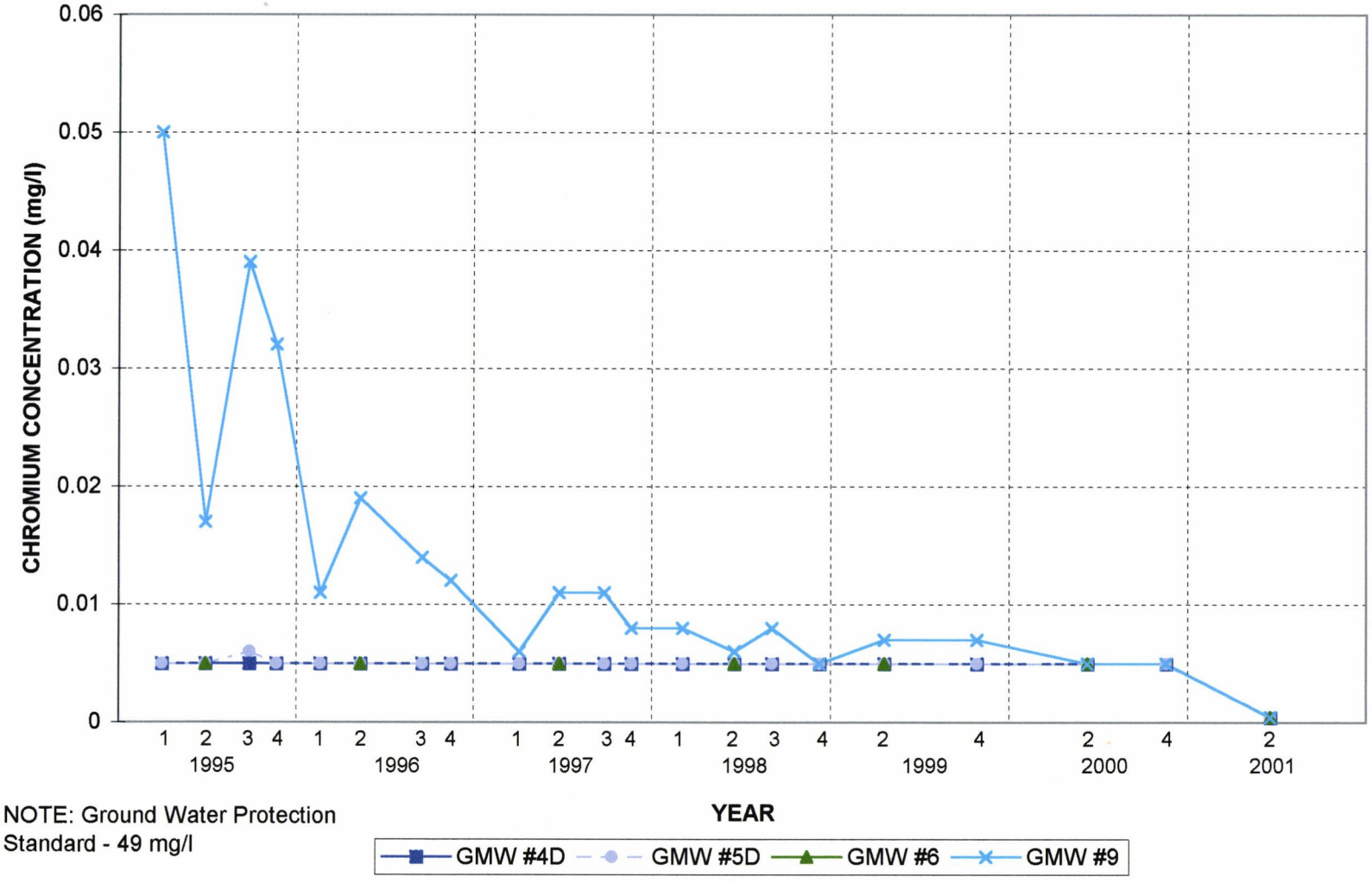
DWG PATH: I:\PRO \3050005\DWG

PLOT DATE: 5

Concentration Trend Graphs –

INLAND REALTY - MARYVILLE, MISSOURI

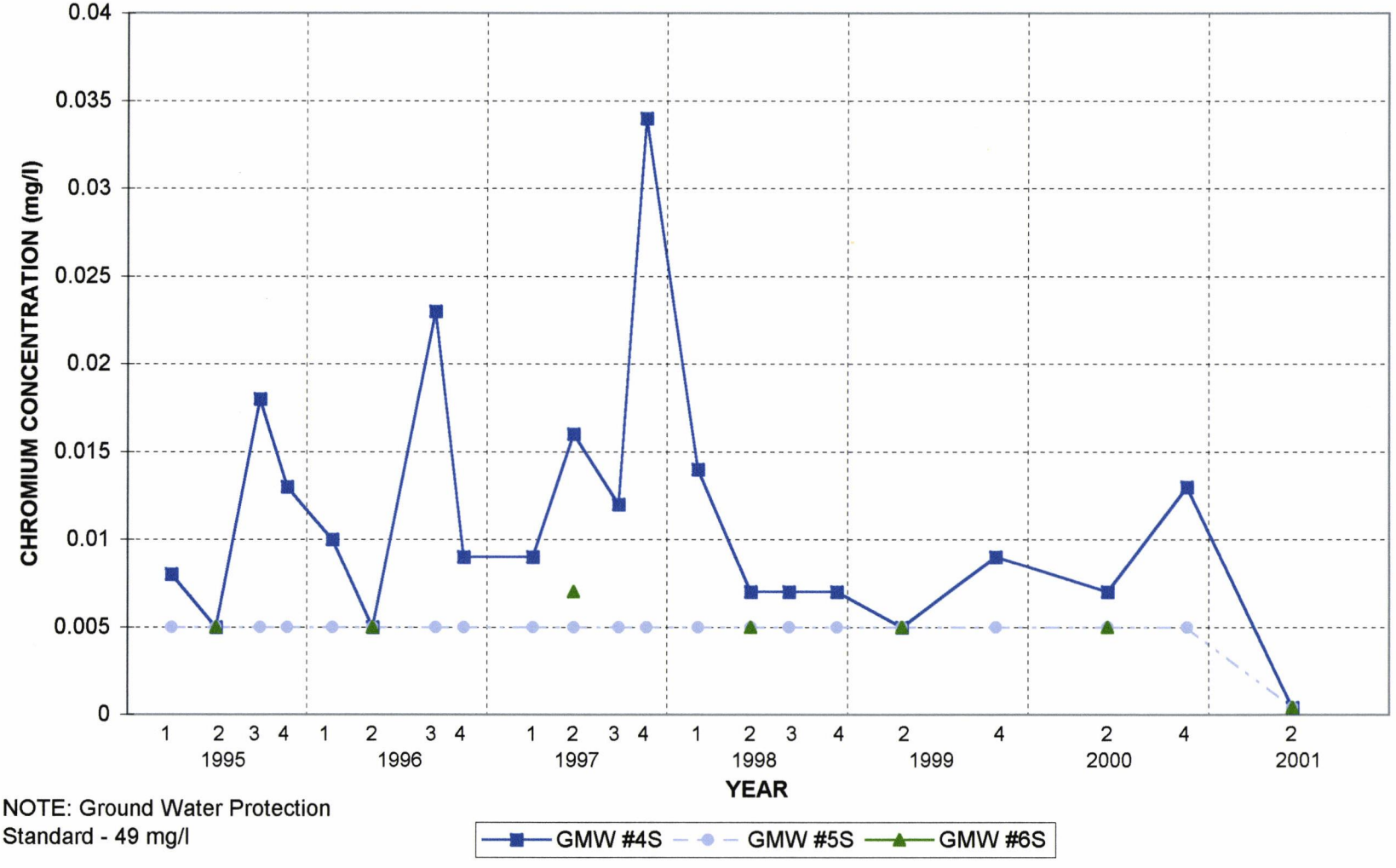
CHROMIUM CONCENTRATION - DEEP WELLS



NOTE: Ground Water Protection Standard - 49 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

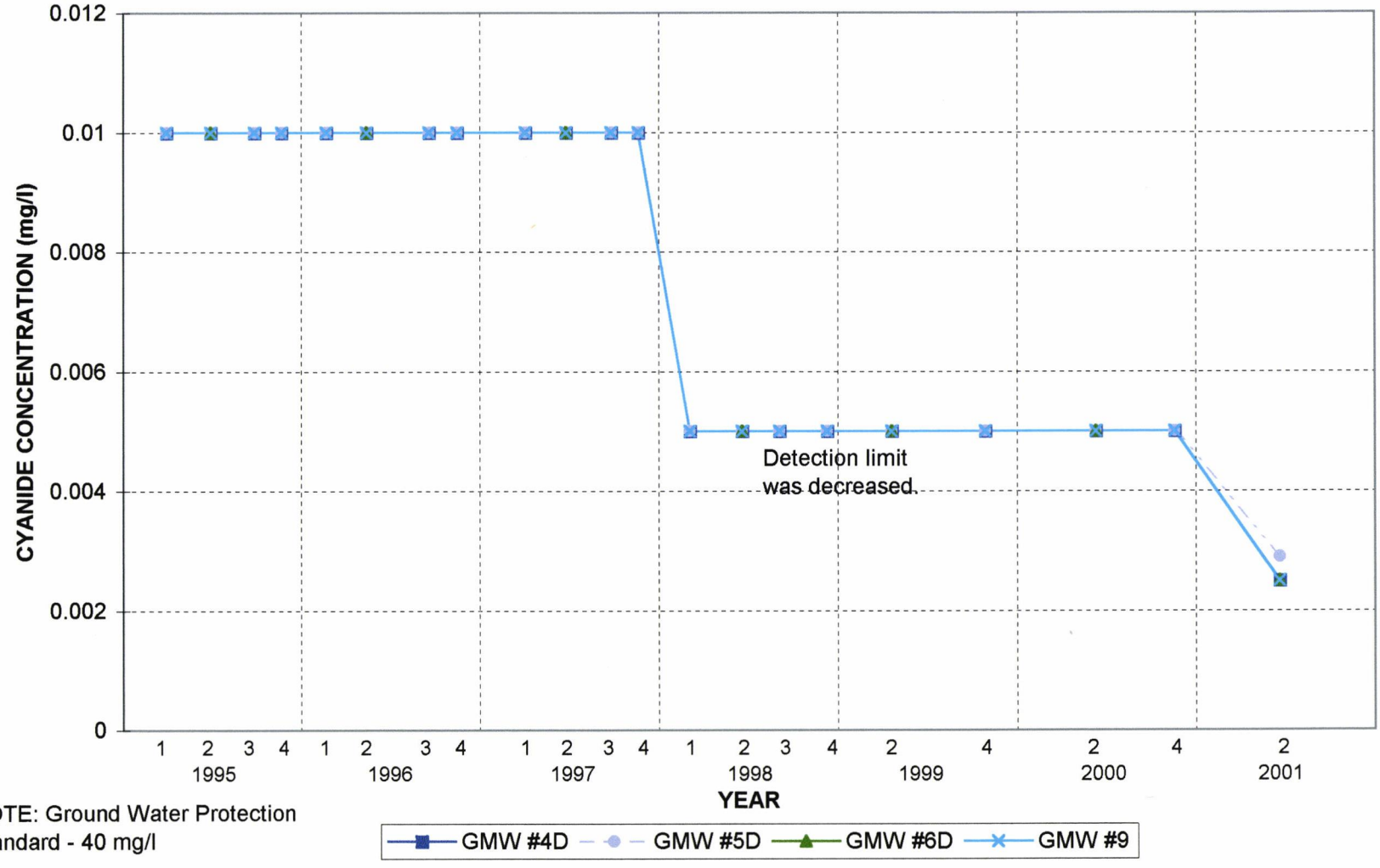
CHROMIUM CONCENTRATION - SHALLOW WELLS



NOTE: Ground Water Protection Standard - 49 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

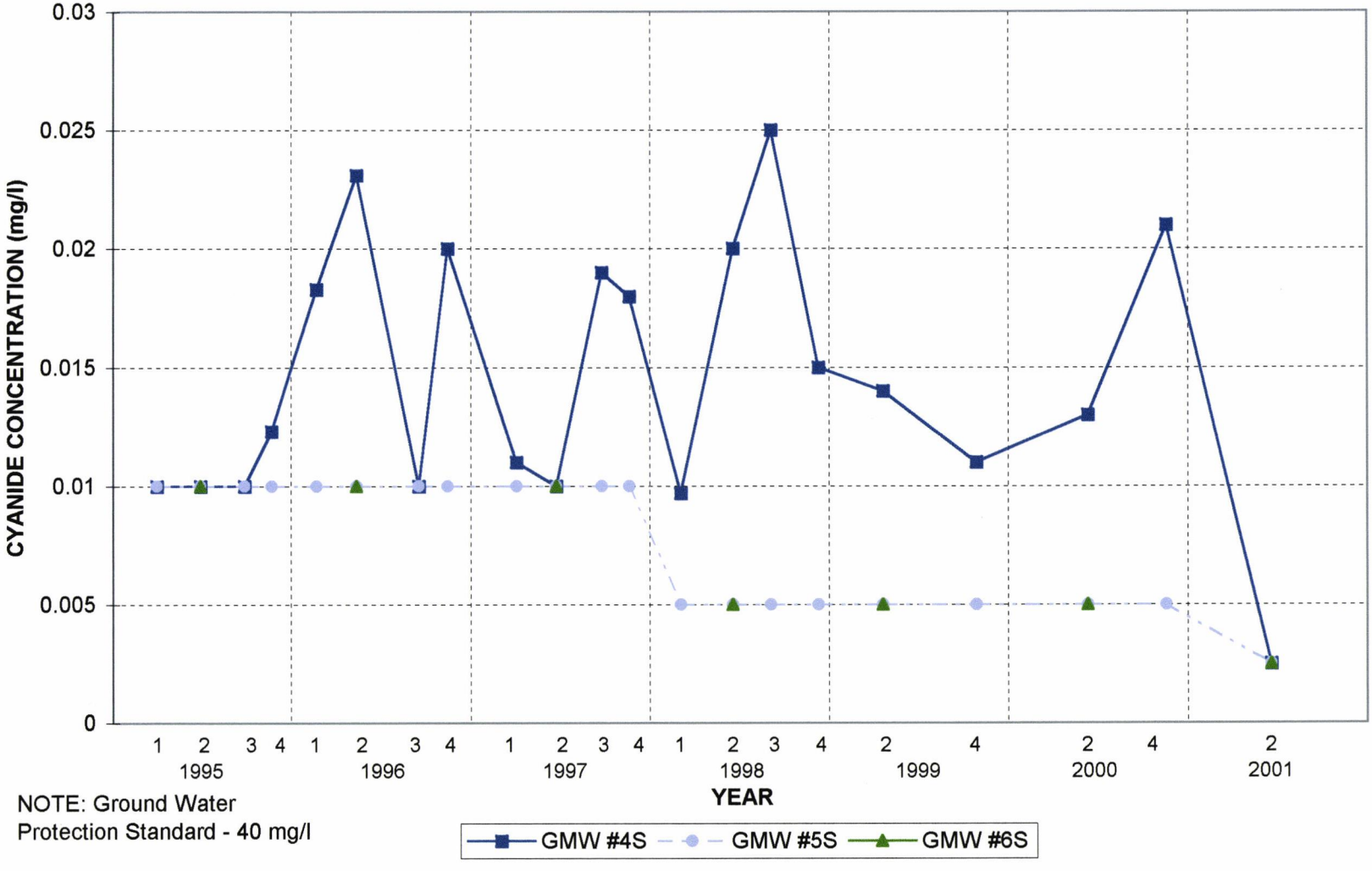
CYANIDE CONCENTRATION - DEEP WELLS



NOTE: Ground Water Protection Standard - 40 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

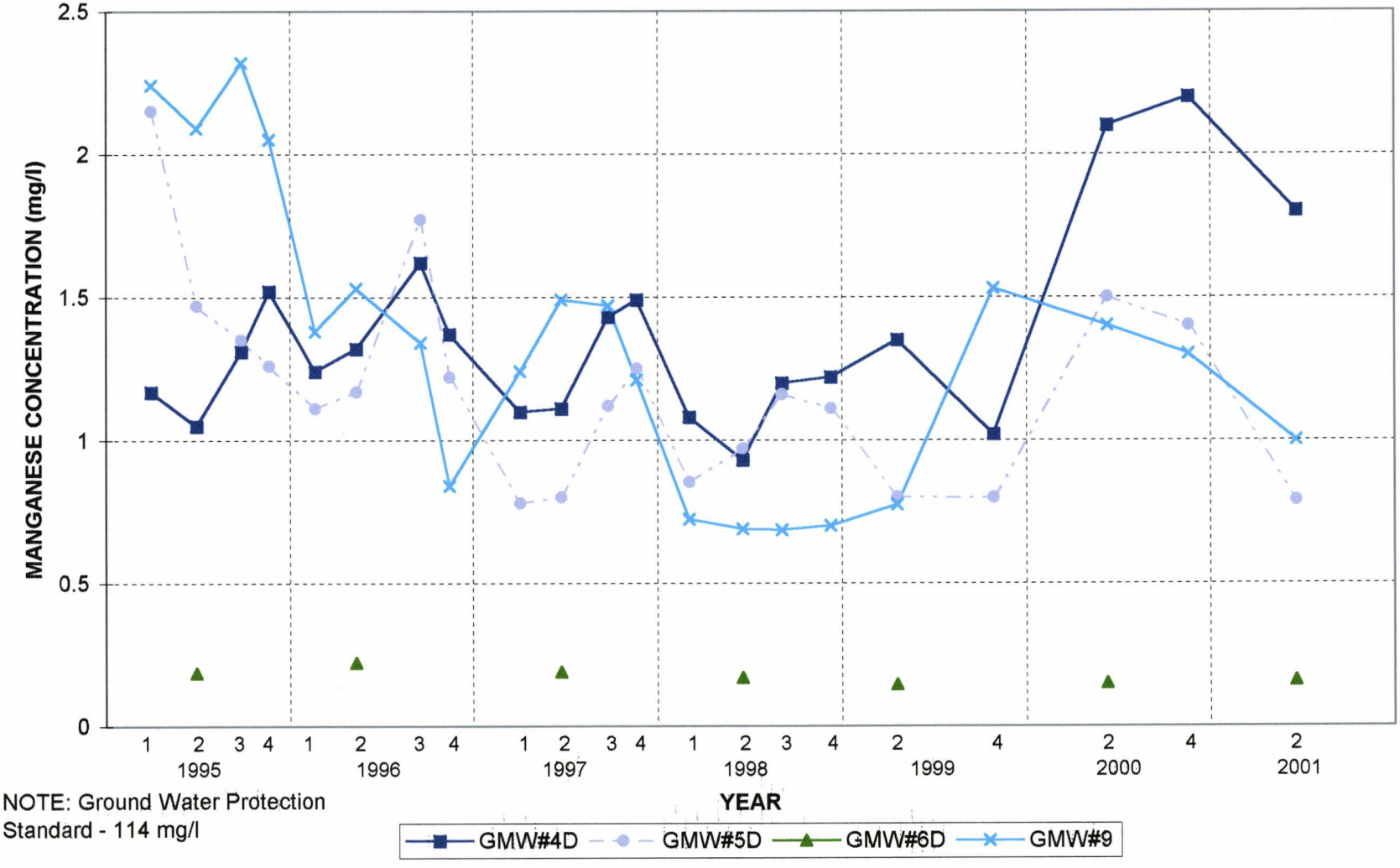
CYANIDE CONCENTRATION - SHALLOW WELLS



NOTE: Ground Water
Protection Standard - 40 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

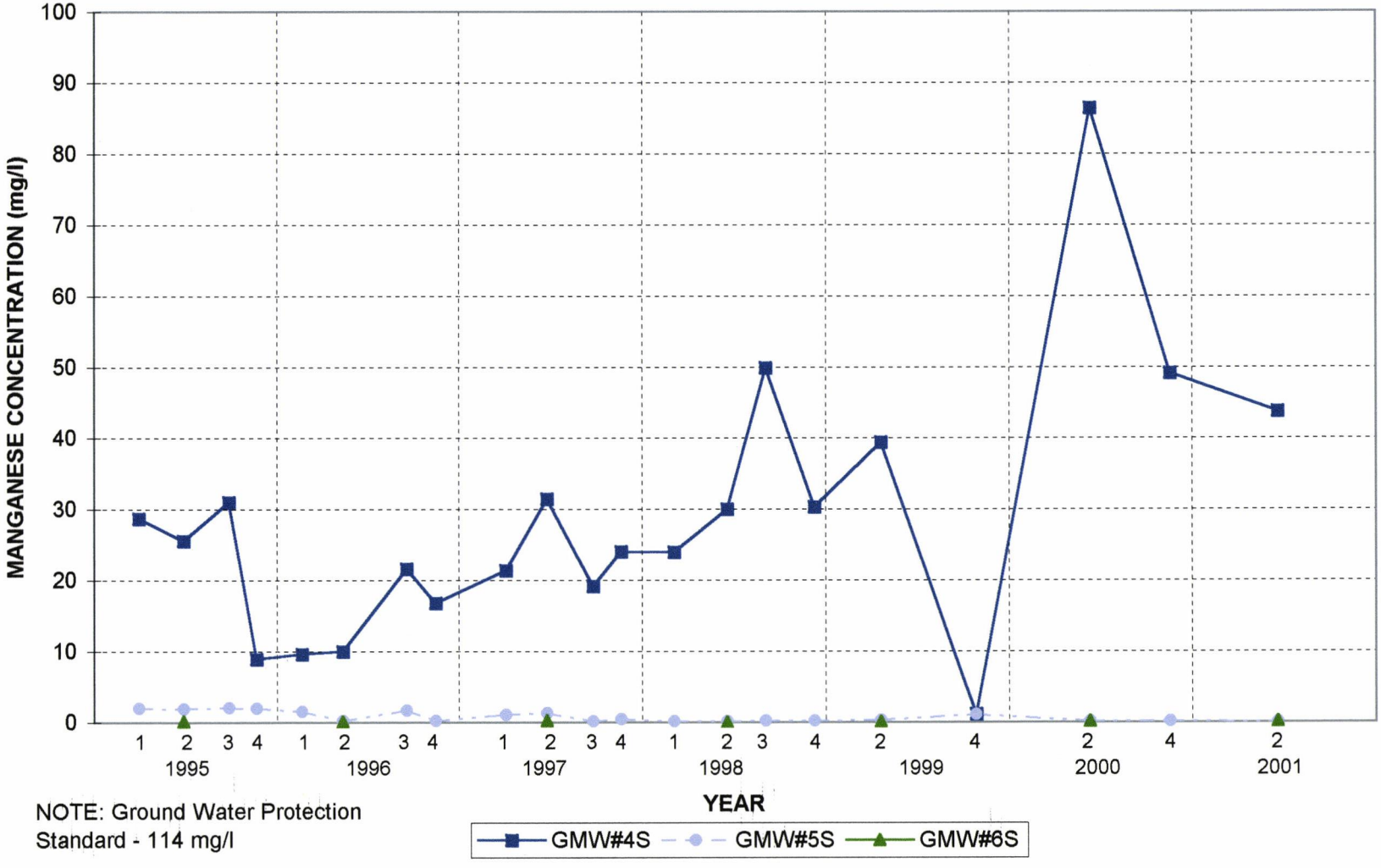
MANGANESE CONCENTRATION - DEEP WELLS



NOTE: Ground Water Protection Standard - 114 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

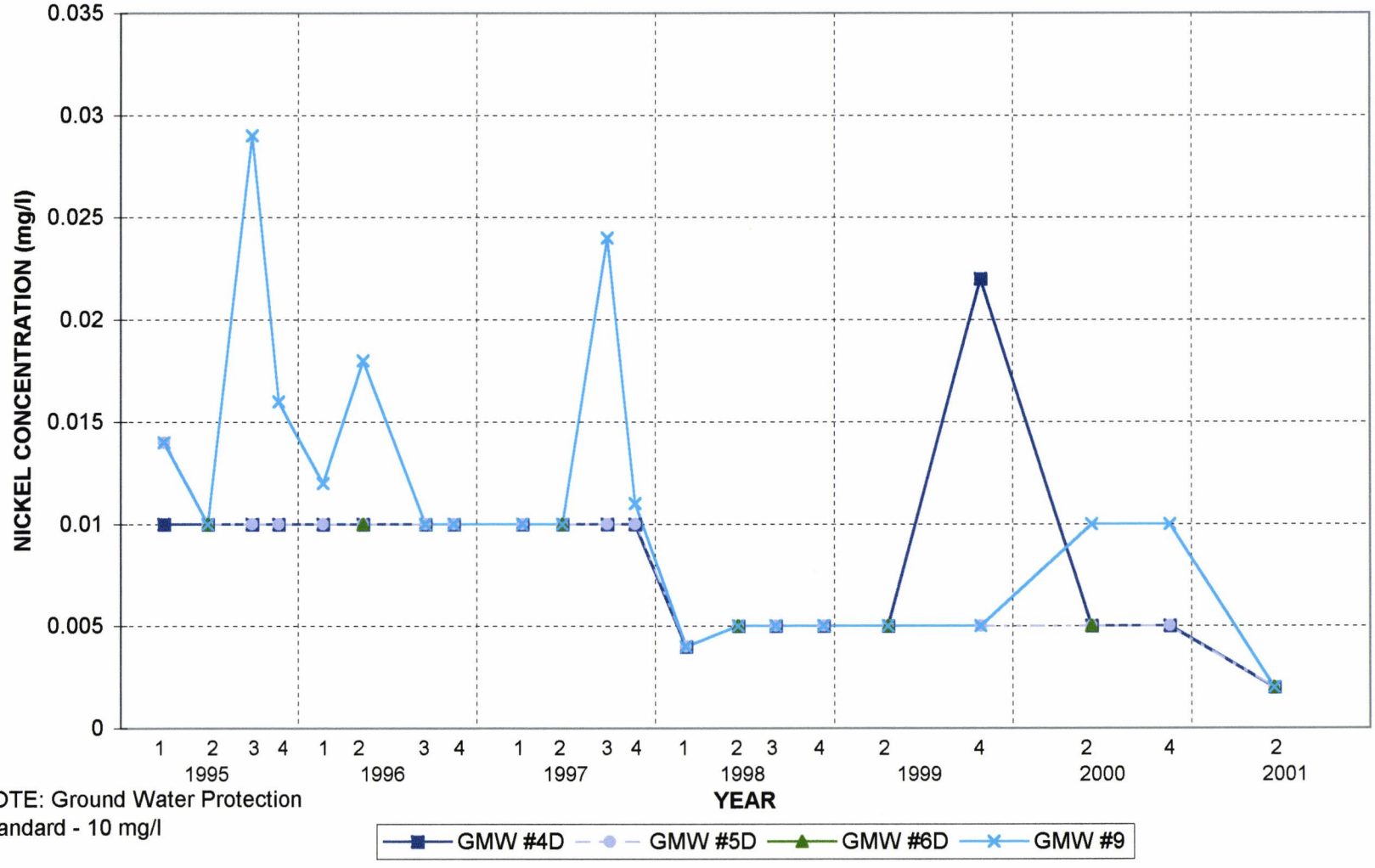
MANGANESE CONCENTRATION - SHALLOW WELLS



NOTE: Ground Water Protection Standard - 114 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

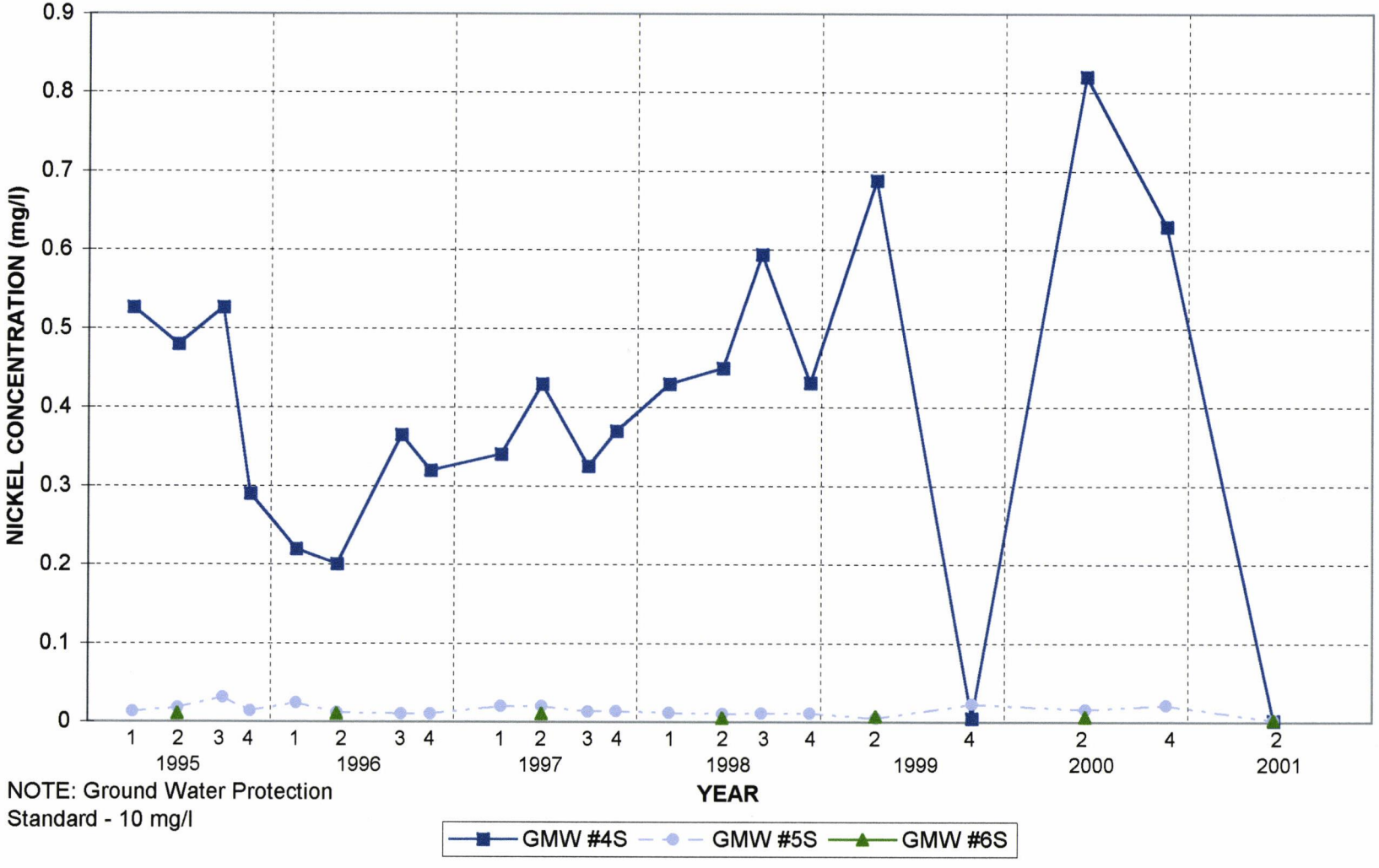
NICKEL CONCENTRATION - DEEP WELLS



NOTE: Ground Water Protection Standard - 10 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

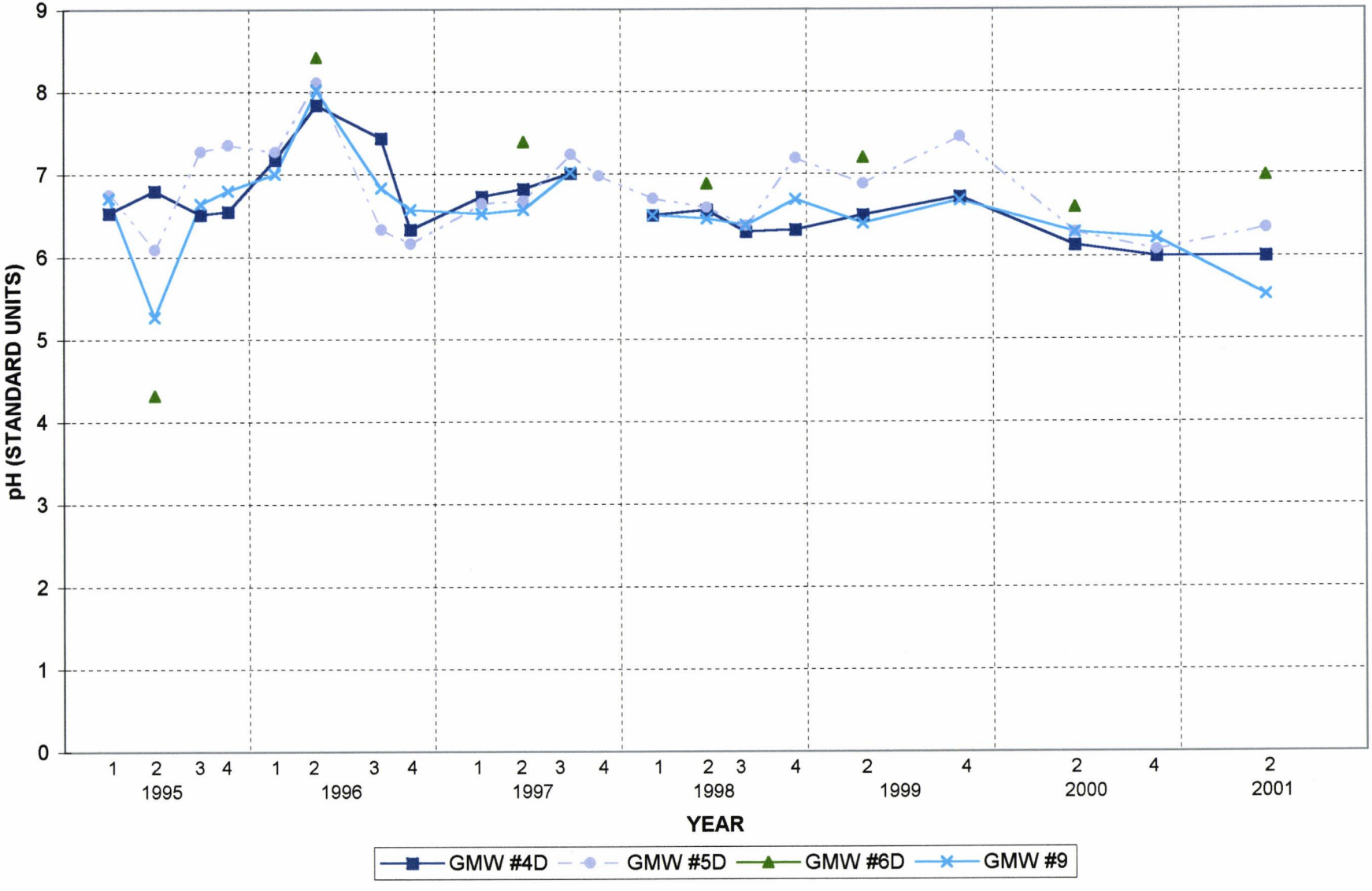
NICKEL CONCENTRATION - SHALLOW WELLS



NOTE: Ground Water Protection Standard - 10 mg/l

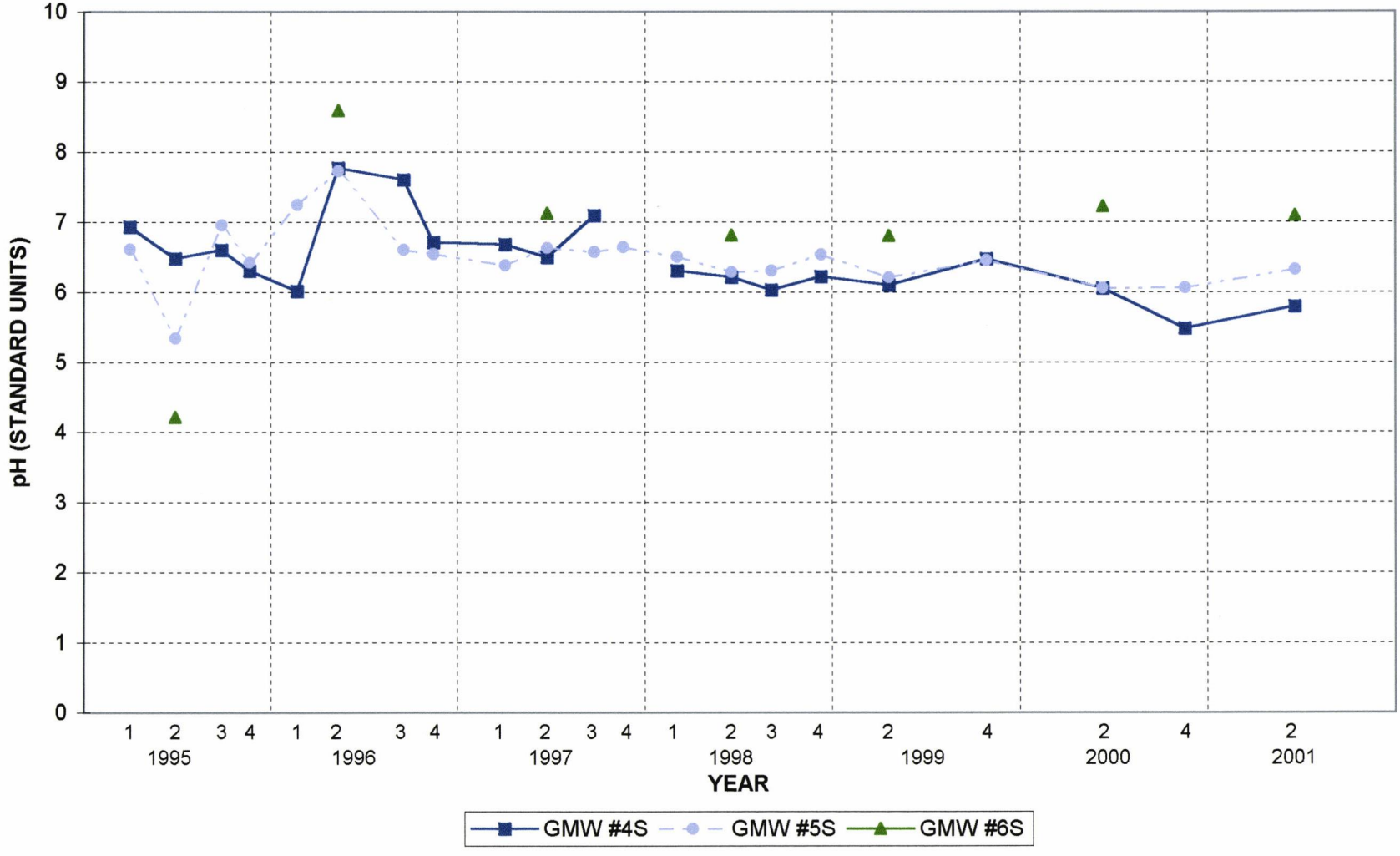
INLAND REALTY - MARYVILLE, MISSOURI

pH - DEEP WELLS



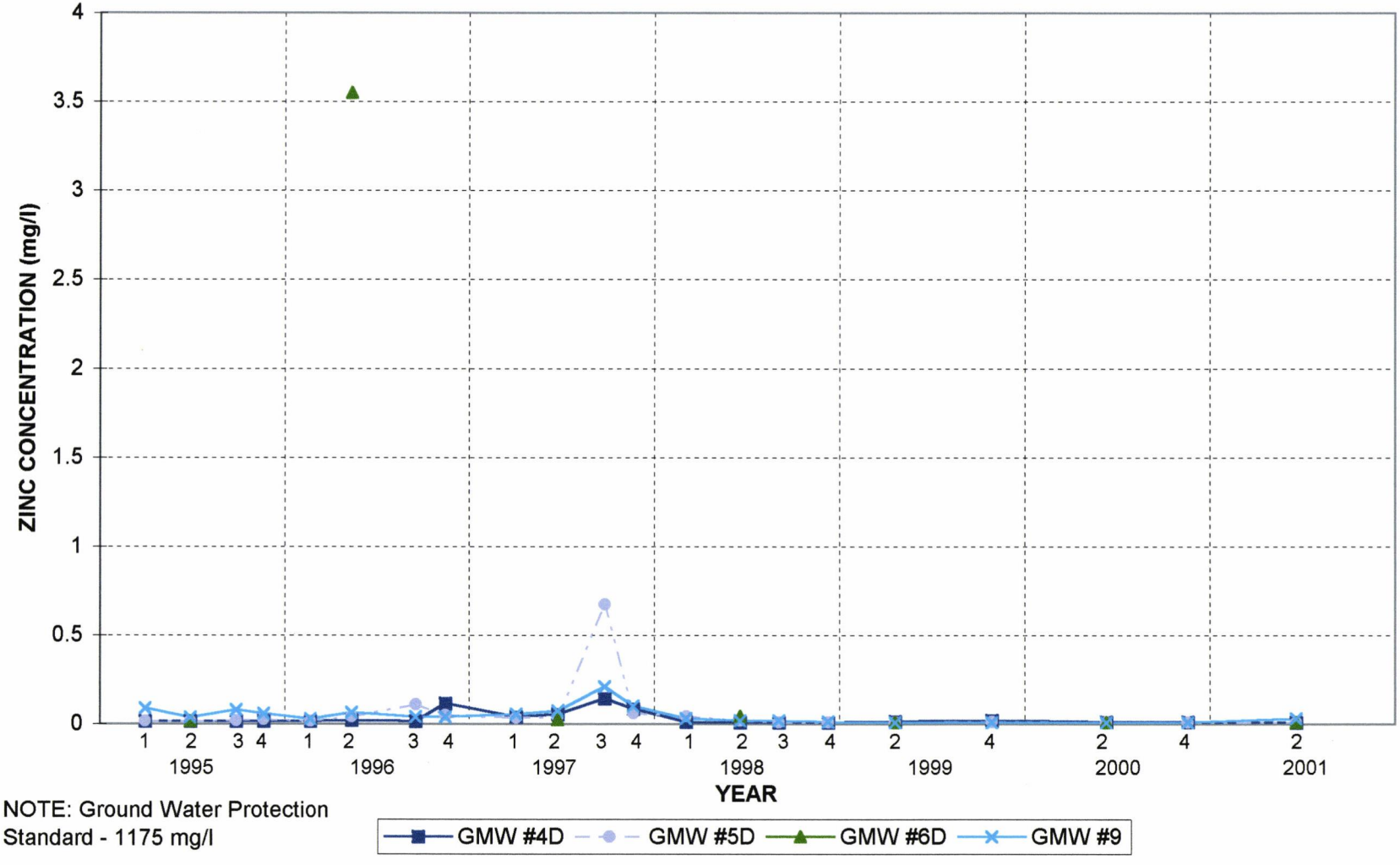
INLAND REALTY - MARYVILLE, MISSOURI

pH - SHALLOW WELLS



INLAND REALTY - MARYVILLE, MISSOURI

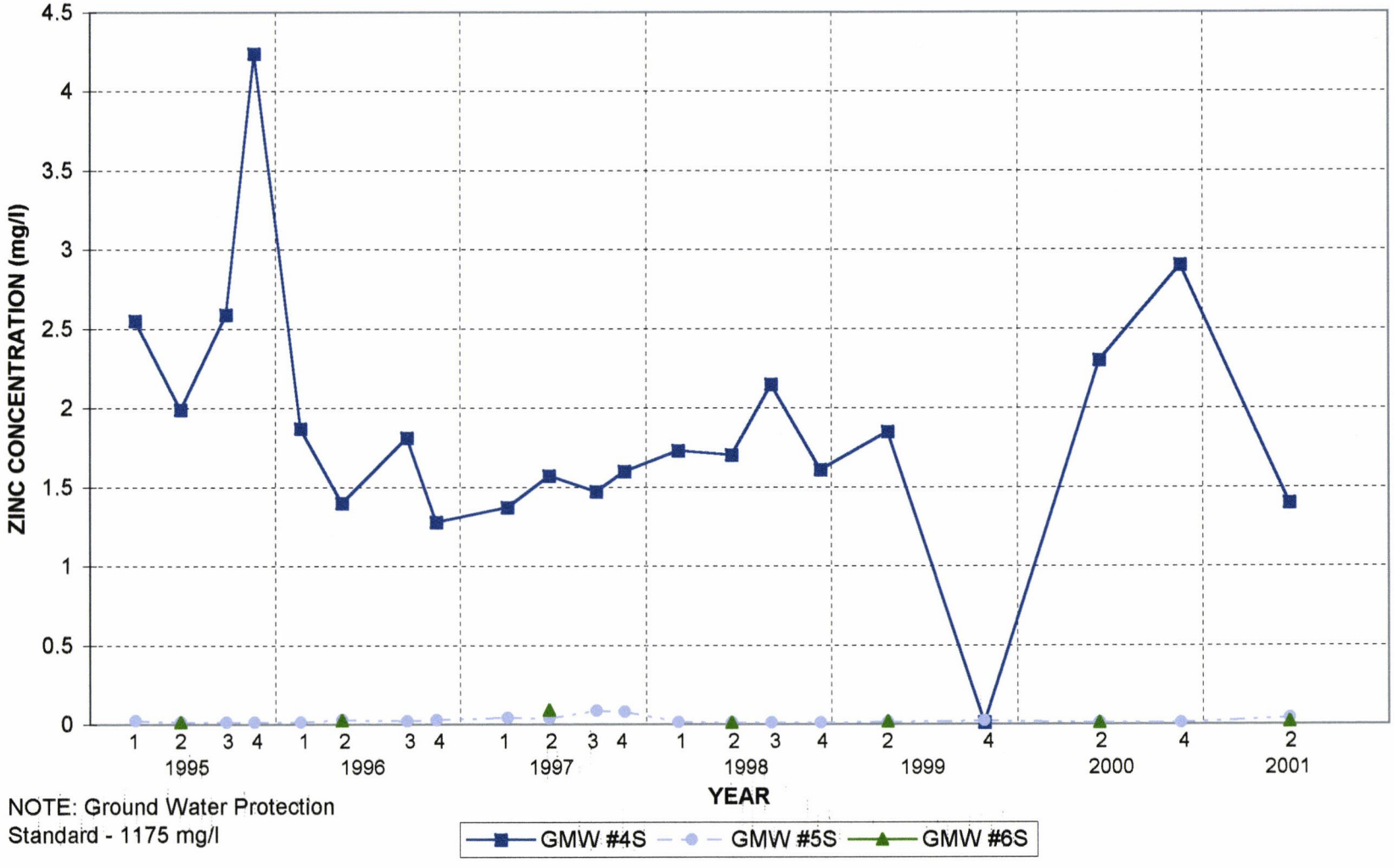
ZINC CONCENTRATION - DEEP WELLS



NOTE: Ground Water Protection Standard - 1175 mg/l

INLAND REALTY - MARYVILLE, MISSOURI

ZINC CONCENTRATION - SHALLOW WELLS



NOTE: Ground Water Protection Standard - 1175 mg/l

Ground Water Sampling Field Logs

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 06-19-01
Name: Inland Realty
Site Location Maryville, MO
Personnel: William E Wright

Weather: Cloudy 65°F
Well Number: GMW-2D
Project Number: 3050.005
Evacuation Method Bailer

Depth of Well * 32.06 ft.
Depth to Water * 5.95 ft.
Length of Water Column 26.11 ft.
Volume of Water in Well 4.3 gal.(s)
3X Volume of Water in Well 12.9 gal.(s)

Water Volume /ft. for:
(2") Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 15 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard	3.97	84 S Standard	NA
		7.0 Standard	6.99	1413 S Standard	1293@69F
		10.0 Standard	NA		
initial	60.5	initial	4.94	initial	938
after 5 (gal.)	59.2	after 5 (gal.)	5.43	after 5 (gal.)	938
after 10 (gal.)	58.1	after 10 (gal.)	5.44	after 10 (gal.)	914
after 15 (gal.)	58.2	after 15 (gal.)	5.63	after 15 (gal.)	937
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: 1315

Turbidity: Cal - 501 5gal ->200 15gal - 47
I ->200 10gal - 76

Physical Appearance at Start		Physical Appearance at Sampling	
Color	orange	Color	clear
Odor	none	Odor	none
Turbidity (> 100 NTUs)	yes	Turbidity (> 100 NTU's)	no <50
Sheen/Free Product	no	Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide 500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr 500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn 500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg 1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?.....Yes ✓ No ____
Well covers and locks in good condition and secure?.....Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?.....Yes ✓ No ____
Is the concrete pad and surface seal in good condition?.....Yes ✓ No ____
Are soils surrounding the well pad eroded?.....Yes ____ No ✓
Is the PVC well casing in good condition?.....Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?.....Yes ____ No ✓
' the stand pipe vented at the base to provide drainage?.....Yes ✓ No ____
es the total depth of the well sounded correspond with original well completion depths?.....Yes ✓ No ____

TD - 32.11 no obstruction

NOTES: Top of casing elevation: 998.42
Depth to Ground Water: 5.95
Ground Water Elevation: 992.47

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 6-19-01
Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: Cloudy 65°F
Well Number: GMW-2S
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 21.75 ft.
Depth to Water * 6.86 ft.
Length of Water Column 14.89 ft.
Volume of Water in Well ~~2.4~~ gal.(s) 9.7
3X Volume of Water in Well ~~7.2~~ gal.(s) 29.1

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 30 gal.(s)
Did well go dry? Yes ____ No ~~X~~

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		
		initial 63.7
after 10	(gal.)	60.2
after 20	(gal.)	59.3
after 30	(gal.)	57.5
after	(gal.)	
after	(gal.)	

pH Reading		
4.0 Standard		4.00
7.0 Standard		7.02
10.0 Standard		NA
initial		7.36
after 10	(gal.)	7.19
after 20	(gal.)	7.04
after 30	(gal.)	6.96
after	(gal.)	
after	(gal.)	

Conductivity Reading		
84 S Standard		NA
1413 S Standard		1391 @ 75°C
initial		1092
after 10	(gal.)	1453
after 20	(gal.)	1563
after 30	(gal.)	1629
after	(gal.)	
after	(gal.)	

Turbidity: cal – 4.99 I – 17.6
10 gal – >200 20 gal – >200 30 gal – 102

Water Sample:
Time Collected: 1300

Physical Appearance at Start	
Color	clear
Odor	none
Turbidity (> 100 NTUs)	no
Sheen/Free Product	no

Physical Appearance at Sampling	
Color	clear
Odor	none
Turbidity (> 100 NTU's)	~~NA~~ ~~no~~ ~~50~~ 102
Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
Is the stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
Does the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES: Top of casing elevation: 998.54'
Depth to Ground Water: 6.86
Ground Water Elevation: 991.68

TD – 21.84 no occlusion

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 06-19-01
Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: raining, 62°F
Well Number: GMW-3
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 18.50 ft.
Depth to Water * 3.73 ft.
Length of Water Column 14.77 ft.
Volume of Water in Well ~~2.4~~ gal.(s) 9.6
3X Volume of Water in Well ~~7.2~~ gal.(s) 28.9

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 30 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading			pH Reading			Conductivity Reading		
			4.0 Standard		4.02	84 S Standard		NA
			7.0 Standard		7.03	1413 S Standard		1412 @ 76.3
			10.0 Standard		NA			
			initial		6.42	initial		1680
initial		62.6						
after	10 (gal.)	60.5	after	10 (gal.)	6.31	after	10 (gal.)	1493
after	20 (gal.)	58.7	after	20 (gal.)	6.25	after	20 (gal.)	1626
after	30 (gal.)	60.0	after	30 (gal.)	6.27	after	30 (gal.)	1653
after	(gal.)		after	(gal.)		after	(gal.)	
after	(gal.)		after	(gal.)		after	(gal.)	

Water Sample:
Time Collected: 1450

Turbidity: cal - 5.00 I 26.4 10 gal 200 20 gal 175 30 gal - 86

Physical Appearance at Start

Color: clear
Odor: none
Turbidity (> 100 NTUs): 26.4
Sheen/Free Product: no

Physical Appearance at Sampling

Color: slight orange stain
Odor: none
Turbidity (> 100 NTU's): 67
Sheen/Free Product: no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD - 18.46

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
the stand pipe vented at the base to provide drainage?..... Yes ____ No ____
es the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES:
Top of casing elevation: 996.41
Depth to Ground Water: 3.73
Ground Water Elevation: 992.68

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 06-28-01
e Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: Sunny 70°F
Well Number: GMW-3D
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 36.66 ft.
Depth to Water * 6.62 ft.
Length of Water Column 30.04 ft.
Volume of Water in Well 4.9 gal.(s)
3X Volume of Water in Well 15 gal.(s)

Water Volume /ft. for:
(2") Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 15 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading			pH Reading			Conductivity Reading		
			4.0 Standard		4.03	84 S Standard		NA
			7.0 Standard		6.99	1413 S Standard		1301 @69.3°F
			10.0 Standard		NA			
		initial 68.7	initial		6.36	initial		1257
after 5	(gal.)	60.6	after 5	(gal.)	6.37	after 5	(gal.)	1130
after 10	(gal.)	59.9	after 10	(gal.)	6.35	after 10	(gal.)	1187
after 15	(gal.)	60.1	after 15	(gal.)	6.17	after 15	(gal.)	1182
after	(gal.)		after	(gal.)		after	(gal.)	
after	(gal.)		after	(gal.)		after	(gal.)	

Water Sample:
Time Collected: 1310

Turbidity: cal-5.00 5gal-88 15gal-9.2
I-11.1 10gal-20.8

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	clear
Odor	none	Odor	none
Turbidity (> 100 NTUs)	no 11.1	Turbidity (> 100 NTU's)	9.2
Sheen/Free Product	no	Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

TD - 37.26

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
the stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
es the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES: Top of casing elevation: 997.71
Depth to Ground Water: 6.62
Ground Water Elevation: ____

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 06-20-01
Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E Wright

Weather: Cloudy 68°F
Well Number: GMW-3S
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 23.61 ft.
Depth to Water * 6.22 ft.
Length of Water Column 17.39 ft.
Volume of Water in Well 2.8 gal.(s)
3X Volume of Water in Well 8.5 gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 10 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard	3.98		
		7.0 Standard	7.02	84 S Standard	NA
		10.0 Standard	NA	1413 S Standard	1264 @67°F
initial	60.5	initial	6.15	initial	1202
after 3 (gal.)	57.8	after 3 (gal.)	6.45	after 3 (gal.)	1535
after 6 (gal.)	57.6	after 6 (gal.)	6.60	after 6 (gal.)	1436
after 9 (gal.)	57.5	after 9 (gal.)	6.58	after 9 (gal.)	1445
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: 1405

Turbidity: cal-5.00 I-26 3gal-93 6gal-133 9gal-90

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	clear
Odor	none	Odor	none
Turbidity (> 100 NTUs)	26	Turbidity (> 100 NTU's)	ND 10
Sheen/Free Product	no	Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

TD 23.66

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
he stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
s the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES: Top of casing elevation: 997.67
Depth to Ground Water: 6.22
Ground Water Elevation: 991.45

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 06-19-01
Name: Inland Realty
Site Location Maryville, MO
Personnel: William E

Weather: Rainy 60°F
Well Number: GMW-4D
Project Number: 3050.005
Evacuation Method Bailer

Depth of Well * 37.09 ft.
Depth to Water * 6.29 ft.
Length of Water Column 30.8 ft.
Volume of Water in Well 5 gal.(s)
3X Volume of Water in Well 15 gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 15 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard	4.01	84 S Standard	NA
		7.0 Standard	6.99	1413 S Standard	1372 @74.4
		10.0 Standard	NA		
initial	61.8	initial	6.27	initial	2160
after 5 (gal.)	60.1	after 5 (gal.)	6.52	after 5 (gal.)	1993
after 10 (gal.)	59.2	after 10 (gal.)	6.58	after 10 (gal.)	1907
after 15 (gal.)	59.2	after 15 (gal.)	6.00	after 15 (gal.)	1834
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: 1600

Turbidity: cal - 4.99 5gal - 55 15gal -
I - 7 10gal - 13

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	very light stain
Odor	none	Odor	none
Turbidity (> 100 NTUs)	no	Turbidity (> 100 NTU's)	no
Sheen/Free Product	no	Sheen/Free Product	no

TD - 37.10

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

	Yes	No
Well identification number clearly marked?	✓	
Well covers and locks in good condition and secure?	✓	
Is the well stand pipe vertically aligned and secure?	✓	
Is the concrete pad and surface seal in good condition?	✓	
Are soils surrounding the well pad eroded?		✓
Is the PVC well casing in good condition?	✓	
Is there standing water in the annular space between the well stand pipe and PVC casing?		✓
the stand pipe vented at the base to provide drainage?	✓	
es the total depth of the well sounded correspond with original well completion depths?	✓	

NOTES: Top of casing elevation: 999.25
Depth to Ground Water: 6.29
Ground Water Elevation: 992.96

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

te: 6-21-01
e Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: Sunny 65°F
Well Number: GMW-4S
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 20.48 ft.
Depth to Water * 4.54 ft.
Length of Water Column 15.94 ft.
Volume of Water in Well ~~2.6~~ gal.(s) 10.4
3X Volume of Water in Well ~~7.8~~ gal.(s) 31.2

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
(4") Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 30 gal.(s)
Did well go dry? Yes ~~X~~ No

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard	4.03		
		7.0 Standard	7.02	84 S Standard	NA
		10.0 Standard	NA	1413 S Standard	1281 @68.2
initial	62.5	initial	5.70	initial	2600
after 10 (gal.)	58.9	after 10 (gal.)	5.87	after 10 (gal.)	2890
after 20 (gal.)	61.7	after 20 (gal.)	5.76	after 20 (gal.)	3716
after 30 (gal.)	60.3	after 30 (gal.)	5.79	after 30 (gal.)	3830
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: 1615

Turbidity: cal 5.00. I – 7.01 1 gal – >200 20 gal – 17.8 30 gal – 117

Physical Appearance at Start		Physical Appearance at Sampling	
Color	clear	Color	slight gray stain
Odor	none	Odor	none
Turbidity (> 100 NTUs)	no	Turbidity (> 100 NTU's)	117
Sheen/Free Product	no	Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD – 20.38

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ____ No ✓
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
the stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
es the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES:
Top of casing elevation: 997.89
Depth to Ground Water: 4.54
Ground Water Elevation: 993.35

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 06-20-01
Site Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E Wright

Weather: Cloudy 65°F
Well Number: GMW-5D
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 37.77 ft.
Depth to Water * 8.94 ft.
Length of Water Column 28.83 ft.
Volume of Water in Well 4.7 gal.(s)
3X Volume of Water in Well 14.1 gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 15 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		
		initial 62.3
after 5	(gal.)	58.4
after 10	(gal.)	59.1
after 15	(gal.)	59.3
after	(gal.)	
after	(gal.)	

pH Reading		
4.0 Standard		4.03
7.0 Standard		6.99
10.0 Standard		NA
initial		6.70
after 5	(gal.)	6.60
after 10	(gal.)	6.48
after 15	(gal.)	6.34
after	(gal.)	
after	(gal.)	

Conductivity Reading		
84 S Standard		NA
1413 S Standard		1307 @69°
initial		2171
after 5	(gal.)	2740
after 10	(gal.)	1607
after 15	(gal.)	1251
after	(gal.)	
after	(gal.)	

Water Sample:
Time Collected: 1345

Turbidity: cal - 5.0 5gal - 29 15gal - 7.1
I - 3.6 10gal - 14

Physical Appearance at Start	
Color	clear
Odor	none
Turbidity (> 100 NTUs)	no
Sheen/Free Product	no

Physical Appearance at Sampling	
Color	clear
Odor	none
Turbidity (> 100 NTU's)	7.1
Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

TD - 37.76

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

	Yes	No
Well identification number clearly marked?	✓	
Well covers and locks in good condition and secure?	✓	
Is the well stand pipe vertically aligned and secure?	✓	
Is the concrete pad and surface seal in good condition?	✓	
Are soils surrounding the well pad eroded?		✓
Is the PVC well casing in good condition?	✓	
Is there standing water in the annular space between the well stand pipe and PVC casing?		✓
Is the stand pipe vented at the base to provide drainage?	✓	
Does the total depth of the well sounded correspond with original well completion depths?	✓	

NOTES:
Top of casing elevation: 1003.25
Depth to Ground Water: 8.94
Ground Water Elevation: 994.31

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 06-20-01
Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: Cloudy 65°F
Well Number: GMW-5S
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 23.83 ft.
Depth to Water * 7.01 ft.
Length of Water Column 16.82 ft.
Volume of Water in Well 2.7 gal.(s)
3X Volume of Water in Well 8.1 gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 9 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		
		initial 62.5
after 3	(gal.)	57.6
after 6	(gal.)	55.6
after 9	(gal.)	56.2
after	(gal.)	
after	(gal.)	

pH Reading		
4.0 Standard		3.97
7.0 Standard		7.01
10.0 Standard		NA
initial		6.13
after 3	(gal.)	6.25
after 6	(gal.)	6.28
after 9	(gal.)	6.32
after	(gal.)	
after	(gal.)	

Conductivity Reading		
84 S Standard		NA
1413 S Standard		1255 @66.7
initial		2990
after 3	(gal.)	2860
after 6	(gal.)	3300
after 9	(gal.)	3270
after	(gal.)	
after	(gal.)	

Water Sample:
Time Collected: 1335

Turbidity: cal – 5.01 3 – 21.6 9 – 28.4
I – 13 6 – 55

Physical Appearance at Start	
Color	clear
Odor	none
Turbidity (> 100 NTUs)	no
Sheen/Free Product	no

Physical Appearance at Sampling	
Color	clear
Odor	none
Turbidity (> 100 NTU's)	no, 28.4
Sheen/Free Product	no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD – 23.84

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

	Yes	No
Well identification number clearly marked?	✓	
Well covers and locks in good condition and secure?	✓	
Is the well stand pipe vertically aligned and secure?	✓	
Is the concrete pad and surface seal in good condition?	✓	
Are soils surrounding the well pad eroded?		✓
Is the PVC well casing in good condition?	✓	
Is there standing water in the annular space between the well stand pipe and PVC casing?		✓
Is the stand pipe vented at the base to provide drainage?	✓	
Does the total depth of the well sounded correspond with original well completion depths?	✓	

NOTES: Top of casing elevation: 1003.25
Depth to Ground Water: 7.01
Ground Water Elevation: 996.24

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 6-26-01
Site Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather: Cloudy 65° F
Well Number: GMW-6D
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 28.65 ft.
Depth to Water * 5.27 ft.
Length of Water Column 23.38 ft.
Volume of Water in Well 3.8 gal.(s)
3X Volume of Water in Well 11.4 gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 12 gal.(s)
Did well go dry? Yes ____ No ✓

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading			pH Reading		Conductivity Reading	
			4.0 Standard	4.00	84 S Standard	NA
			7.0 Standard	6.97	1413 S Standard	1280 @68.3°F
			10.0 Standard	NA		
initial		60.7	initial	6.87	initial	490
after 4	(gal.)	59.2	after 4	6.83	after 4	489
after 8	(gal.)	57.7	after 8	6.79	after 8	453
after 12	(gal.)	57.7	after 12	6.98	after 12	451
after	(gal.)		after		after	
after	(gal.)		after		after	

Water Sample:
Time Collected: 1620

Turbidity: cal - 5.00 4gal - 11.9 12gal - 7
I - 5.1 8gal - 5.4

Physical Appearance at Start
Color: clear
Odor: none
Turbidity (> 100 NTUs): no (5.1)
Sheen/Free Product: no

Physical Appearance at Sampling
Color: clear
Odor: none
Turbidity (> 100 NTU's): no, 7
Sheen/Free Product: no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD- 28.67

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
Is the stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
Does the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES: Top of casing elevation: 992.47
Depth to Ground Water: 5.27
Ground Water Elevation: 987.20

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 06-20-01
e Name: Inland Realty
e Location: Maryville, MO
Personnel: William E Wright

Weather: Rainy 65°F
Well Number: GMW-6S
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 21.55 ft.
Depth to Water * 5.17 ft.
Length of Water Column 16.38 ft.
Volume of Water in Well 2.67 gal.(s)
3X Volume of Water in Well 8.00 gal.(s)

Water Volume /ft. for:
(2") Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 10 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		
		initial 64.9
after 3	(gal.)	58.4
after 6	(gal.)	58.5
after 9	(gal.)	58.0
after	(gal.)	
after	(gal.)	

pH Reading		
4.0 Standard		4.04
7.0 Standard		6.98
10.0 Standard		NA
initial		6.72
after 3	(gal.)	6.77
after 6	(gal.)	6.80
after 9	(gal.)	7.89
after	(gal.)	
after	(gal.)	

Conductivity Reading		
84 S Standard		NA @ 75.5
1413 S Standard		
initial		435
after 3	(gal.)	430
after 6	(gal.)	438
after 9	(gal.)	442
after	(gal.)	
after	(gal.)	

Water Sample:
Time Collected: 1520

Turbidity: cal - 5.00 3gal - 39 9gal - 33
I - 3.05 6gal - 34

ysical Appearance at Start	
olor	clear
Odor	none
Turbidity (> 100 NTUs)	3.05
Sheen/Free Product	no

Physical Appearance at Sampling	
Color	clear
Odor	none
Turbidity (> 100 NTU's)	33
Sheen/Free Product	no

TD - 21.79

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HN_O3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HN_O3	<2	4°C	NA

Monitoring Well Integrity Checklist:

	Yes	No
Well identification number clearly marked?	✓	
Well covers and locks in good condition and secure?	✓	
Is the well stand pipe vertically aligned and secure?	✓	
Is the concrete pad and surface seal in good condition?	✓	
Are soils surrounding the well pad eroded?		✓
Is the PVC well casing in good condition?	✓	
Is there standing water in the annular space between the well stand pipe and PVC casing?		✓
Is the stand pipe vented at the base to provide drainage?	✓	
es the total depth of the well sounded correspond with original well completion depths?	✓	

NOTES: Top of casing elevation: 992.42
Depth to Ground Water: 5.17
Ground Water Elevation: 987.30

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 06-21-01
Name: Inland Realty
Location: Maryville, MO
Personnel: William E Wright

Weather: Sunny 80°F
Well Number: GMW-7
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 27.87 ft.
Depth to Water * 5.31 ft.
Length of Water Column 22.56 ft.
Volume of Water in Well 3.7 gal.(s)
3X Volume of Water in Well 11.1 gal.(s)

Water Volume/ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 12 gal.(s)
Did well go dry? Yes ____ No ✓

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
	initial 68.6	4.0 Standard	4.02	84 S Standard	NA
		7.0 Standard	6.95	1413 S Standard	1441 @78.5
		10.0 Standard	NA		
		initial	6.75	initial	517
after 4 (gal.)	60.9	after 4 (gal.)	~~4.52~~ 6.90	after 4 (gal.)	480
after 8 (gal.)	69.7	after 8 (gal.)	~~6.98~~ 6.89	after 8 (gal.)	481
after 12 (gal.)	59.0	after 12 (gal.)	6.93	after 12 (gal.)	431
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: 1435

Turbidity: cal - 5.00 4gal - >200 12gal - 84
I - 4.3 8gal - 119

Physical Appearance at Start

Color: clear
Odor: none
Turbidity (> 100 NTUs): no
Sheen/Free Product: no

Physical Appearance at Sampling

Color: slightly cloudy
Odor: none
Turbidity (> 100 NTU's): no, 78
Sheen/Free Product: no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD-28.01

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HNO_3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HNO_3	<2	4°C	NA

Monitoring Well Integrity Checklist:

Well identification number clearly marked?..... Yes ✓ No ____
Well covers and locks in good condition and secure?..... Yes ✓ No ____
Is the well stand pipe vertically aligned and secure?..... Yes ✓ No ____
Is the concrete pad and surface seal in good condition?..... Yes ✓ No ____
Are soils surrounding the well pad eroded?..... Yes ____ No ✓
Is the PVC well casing in good condition?..... Yes ✓ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?..... Yes ____ No ✓
Is the stand pipe vented at the base to provide drainage?..... Yes ✓ No ____
Does the total depth of the well sounded correspond with original well completion depths?..... Yes ✓ No ____

NOTES: Top of casing elevation: 994.42
Depth to Ground Water: 5.31
Ground Water Elevation: 989.11

O'BRIEN & GERE ENGINEERS, INC. — Ground Water Sampling Log

Date: 06-19-01
Name: Inland Realty
Location: Maryville, MO
Personnel: William E

Weather: Rainy, 70°F 6/19
Well Number: GMW-9
Project Number: 3050.005
Evacuation Method: Bailer

Depth of Well * 29.97 ft.
Depth to Water * 4.69 ft.
Length of Water Column 25.48 ft.
Volume of Water in Well 4.12 gal.(s)
3X Volume of Water in Well 12.36 gal.(s)

Water Volume /ft. for:
(2") Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling 15 gal.(s)
Did well go dry? Yes ____ No X

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify)

Water parameters:

Temperature Reading			pH Reading			Conductivity Reading		
			4.0 Standard		4.04	84 S Standard		NA
			7.0 Standard		7.02	1413 S Standard		1332 @72.1
			10.0 Standard		NA			
		initial 67.4	initial		4.95	initial		951
after	5 (gal.)	61.0	after	5 (gal.)	5.37	after	5 (gal.)	1129
after	10 (gal.)	60.4	after	10 (gal.)	5.55	after	10 (gal.)	1305
after	15 (gal.)	60.6	after	15 (gal.)	5.53	after	15 (gal.)	1379
after	(gal.)		after	(gal.)		after	(gal.)	
after	(gal.)		after	(gal.)		after	(gal.)	

Water Sample:
Time Collected: 1330

Turbidity: cal – 5.01 5gal >200 15gal – 78
I – 70 10gal – 153

Physical Appearance at Start
Color: slight orange stain
Odor: none
Turbidity (> 100 NTUs): no
Sheen/Free Product: no

Physical Appearance at Sampling
Color: clear
Odor: none
Turbidity (> 100 NTU's): <50
Sheen/Free Product: no

Sample Parameters: Cd, Cr, Hex Cr,CN,Hg,Mn,Ni,Pb,Zn TD – 30.75

Container Size		Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Cyanide	500ml	poly	1	no	NaOH	>12	4°C	NA
Hex Cr	500ml	poly	1	no	none		4°C	NA
Mn,Ni,Pb,Zn	500ml	poly	1	no	HNO_3	<2	4°C	NA
Cd,Cr,Hg	1 L	poly	1	no	HNO_3	<2	4°C	NA

Monitoring Well Integrity Checklist:

	Yes	No
Well identification number clearly marked?		✓
Well covers and locks in good condition and secure?	✓	
Is the well stand pipe vertically aligned and secure?	✓	
Is the concrete pad and surface seal in good condition?	✓	
Are soils surrounding the well pad eroded?		✓
Is the PVC well casing in good condition?	✓	
Is there standing water in the annular space between the well stand pipe and PVC casing?		✓
Is the stand pipe vented at the base to provide drainage?	✓	
Does the total depth of the well sounded correspond with original well completion depths?	✓	

NOTES: Top of casing elevation: 997.34
Depth to Ground Water: 4.69
Ground Water Elevation: 992.65

TD 30.03 no occlusion

O'BRIEN & GERE ENGINEERS, INC. | Ground Water Sampling Log

Date: 6-8-01
Site Name: Inland Realty
Site Location: Maryville, MO
Personnel: William E

Weather:
Well Number: PZ-1
Project Number: 3050.005
Evacuation Method:

Depth of Well * 20.32 ft.
Depth to Water * ____ ft.
Length of Water Column ____ ft.
Volume of Water in Well ____ gal.(s)
3X Volume of Water in Well ____ gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling ____ gal.(s)
Did well go dry? Yes ____ No ____

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify) ____

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard		84 S Standard	
		7.0 Standard		1413 S Standard	
		10.0 Standard			
	initial	initial		initial	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: ____

Turbidity:

Physical Appearance at Start		Physical Appearance at Sampling	
Color		Color	
Odor		Odor	
Turbidity (> 100 NTUs)		Turbidity (> 100 NTU's)	
Sheen/Free Product		Sheen/Free Product	

Sample Parameters: water level only

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity

Monitoring Well Integrity Checklist:

Well identification number clearly marked?.....Yes ____ No ____
Well covers and locks in good condition and secure?.....Yes ____ No ____
Is the well stand pipe vertically aligned and secure?.....Yes ____ No ____
Is the concrete pad and surface seal in good condition?.....Yes ____ No ____
Are soils surrounding the well pad eroded?.....Yes ____ No ____
Is the PVC well casing in good condition?.....Yes ____ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?.....Yes ____ No ____
Is the stand pipe vented at the base to provide drainage?.....Yes ____ No ____
Does the total depth of the well sounded correspond with original well completion depths?.....Yes ____ No ____

NOTES: Top of casing elevation: 1001.66
Depth to Ground Water: 7.08
Ground Water Elevation: 994.58

O'BRIEN & GERE ENGINEERS, INC. | Ground Water Sampling Log

Date: 6-18-01
Name: Inland Realty
Location: Maryville, MO
Personnel: William E

Weather:
Well Number: PZ-2
Project Number: 3050.005
Evacuation Method:

Depth of Well * 20.32 ft.
Depth to Water * ____ ft.
Length of Water Column ____ ft.
Volume of Water in Well ____ gal.(s)
3X Volume of Water in Well ____ gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling ____ gal.(s)
Did well go dry? Yes ____ No ____

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify) ____

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard		84 S Standard	
		7.0 Standard		1413 S Standard	
		10.0 Standard			
	initial	initial		initial	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: ____

Turbidity:

Physical Appearance at Start		Physical Appearance at Sampling	
Color		Color	
Odor		Odor	
Turbidity (> 100 NTUs)		Turbidity (> 100 NTU's)	
Sheen/Free Product		Sheen/Free Product	

Sample Parameters: water level only

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity

Monitoring Well Integrity Checklist:

Well identification number clearly marked?.....Yes ____ No ____
Well covers and locks in good condition and secure?.....Yes ____ No ____
Is the well stand pipe vertically aligned and secure?.....Yes ____ No ____
Is the concrete pad and surface seal in good condition?.....Yes ____ No ____
Are soils surrounding the well pad eroded?.....Yes ____ No ____
Is the PVC well casing in good condition?.....Yes ____ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?.....Yes ____ No ____
Is the stand pipe vented at the base to provide drainage?.....Yes ____ No ____
Does the total depth of the well sounded correspond with original well completion depths?.....Yes ____ No ____

NOTES: Top of casing elevation: 1001.97
Depth to Ground Water: 7.50
Ground Water Elevation: 994.47

O'BRIEN & GERE ENGINEERS, INC. | Ground Water Sampling Log

Date: 6-18-01
e Name: Inland Realty
e Location Maryville, MO
Personnel: William E

Weather:
Well Number: PZ-3
Project Number: 3050.005
Evacuation Method:

Depth of Well * 20.28 ft.
Depth to Water * ____ ft.
Length of Water Column ____ ft.
Volume of Water in Well ____ gal.(s)
3X Volume of Water in Well ____ gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling ____ gal.(s)
Did well go dry? Yes ____ No ____

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify) ____

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
		4.0 Standard		84 S Standard	
		7.0 Standard		1413 S Standard	
		10.0 Standard			
	initial	initial		initial	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	
after ____ (gal.)		after ____ (gal.)		after ____ (gal.)	

Water Sample:
Time Collected: ____

Turbidity:

ysical Appearance at Start		Physical Appearance at Sampling	
olor		Color	
Odor		Odor	
Turbidity (> 100 NTUs)		Turbidity (> 100 NTU's)	
Sheen/Free Product		Sheen/Free Product	

Sample Parameters: water level only

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity

Monitoring Well Integrity Checklist:

Well identification number clearly marked?.....Yes ____ No ____
Well covers and locks in good condition and secure?.....Yes ____ No ____
Is the well stand pipe vertically aligned and secure?.....Yes ____ No ____
Is the concrete pad and surface seal in good condition?.....Yes ____ No ____
Are soils surrounding the well pad eroded?.....Yes ____ No ____
Is the PVC well casing in good condition?.....Yes ____ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?.....Yes ____ No ____
Is the stand pipe vented at the base to provide drainage?.....Yes ____ No ____
Does the total depth of the well sounded correspond with original well completion depths?.....Yes ____ No ____

TES: Top of casing elevation: 1002.52
Depth to Ground Water: 6.98
Ground Water Elevation: 995.54

O'BRIEN & GERE ENGINEERS, INC. | Ground Water Sampling Log

Date: 6-18-01
Name: Inland Realty
Location: Maryville, MO
Personnel: William E

Weather:
Well Number: PZ-4
Project Number: 3050.005
Evacuation Method:

Depth of Well * 20.14 ft.
Depth to Water * ____ ft.
Length of Water Column ____ ft.
Volume of Water in Well ____ gal.(s)
3X Volume of Water in Well ____ gal.(s)

Water Volume /ft. for:
2" Diameter Well = 0.163 X LWC
4" Diameter Well = 0.653 X LWC
6" Diameter Well = 1.469 X LWC

Volume removed before sampling ____ gal.(s)
Did well go dry? Yes ____ No ____

*Measurements taken from [X] Top of Well Casing [ ] Top of Protective Casing [ ] (Other, Specify) ____

Water parameters:

Temperature Reading		pH Reading		Conductivity Reading	
initial	____	4.0 Standard	____	84 S Standard	____
		7.0 Standard	____	1413 S Standard	____
		10.0 Standard	____		
		initial	____	initial	____
after ____ (gal.)	____	after ____ (gal.)	____	after ____ (gal.)	____
after ____ (gal.)	____	after ____ (gal.)	____	after ____ (gal.)	____
after ____ (gal.)	____	after ____ (gal.)	____	after ____ (gal.)	____
after ____ (gal.)	____	after ____ (gal.)	____	after ____ (gal.)	____
after ____ (gal.)	____	after ____ (gal.)	____	after ____ (gal.)	____
		after ____ (gal.)	____	after ____ (gal.)	____

Water Sample:
Time Collected: ____

Turbidity:

Physical Appearance at Start		Physical Appearance at Sampling	
Color	____	Color	____
Odor	____	Odor	____
Turbidity (> 100 NTUs)	____	Turbidity (> 100 NTU's)	____
Sheen/Free Product	____	Sheen/Free Product	____

Sample Parameters: water level only

Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity

Monitoring Well Integrity Checklist:

Well identification number clearly marked?.....Yes ____ No ____
Well covers and locks in good condition and secure?.....Yes ____ No ____
Is the well stand pipe vertically aligned and secure?.....Yes ____ No ____
Is the concrete pad and surface seal in good condition?.....Yes ____ No ____
Are soils surrounding the well pad eroded?.....Yes ____ No ____
Is the PVC well casing in good condition?.....Yes ____ No ____
Is there standing water in the annular space between the well stand pipe and PVC casing?.....Yes ____ No ____
Is the stand pipe vented at the base to provide drainage?.....Yes ____ No ____
Does the total depth of the well sounded correspond with original well completion depths?.....Yes ____ No ____

NOTES: Top of casing elevation: 1002.37
Depth to Ground Water: 8.77
Ground Water Elevation: 993.60

O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
Address: 5000 Cedar Plaza Parkway
P: (314) 842-4550

Job No. 3050.005
Sheet 1 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) [signature]

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #2S	06-19-01	1300	Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #2S~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #2S	06-19-01	1300	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #2S	06-19-01	1300	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni) Pb, Zn
GMW #2D	06-19-01	1315	Water	Grab	1-P, 500 mL	CN
~~GMW #2D~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #2D	06-19-01	1315	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #2D	06-19-01	1315	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb, Zn
GMW #3	06-19-01	1450	Water	Grab	1-P, 500 mL	CN
~~GMW #3~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #3	06-19-01	1450	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #3	06-19-01	1450	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb, Zn

Minimum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name:	Date	Time
[signature] O'Brien & Gere Eng	06-01-19	1800	Federal Express 8187-0377-9494 *Attach delivery/courier receipt to Chain of Custody	06-19-01	1800

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O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
Address: 5000 Cedar Plaza Parkway
Phone: (314) 842-4550

Job No. 3050.005
Sheet 3 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #4D	06-19-01	1600	Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #4D~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #4D	06-19-01	1600	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #4D	06-19-01	1600	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni) Pb, Zn
GMW #5S			Water	Grab	1-P, 500 mL	CN
GMW #5S			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #5S			Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #5S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
GMW #5D			Water	Grab	1-P, 500 mL	CN
GMW #5D			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #5D			Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #5D			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni

Minimum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name:	Date	Time
William E. Wright / O'Brien & Gere Eng.	06-19-01	1800	Fed Ex 8187 0377 9494 *Attach delivery/courier receipt to Chain of Custody	06-19-01	1800

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
Address: 5000 Cedar Plaza Parkway
Phone: (314) 842-4550

Job No. 3050.005
Sheet 2 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #9	06-19-01	1330	Water	Grab	1-P, 500 mL	Cyanide (CN)
GMW #9			Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
GMW #9	06-19-01	1330	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #9	06-19-01	1330	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Pb, Zn, mercury (Hg), manganese (Mn), Nickel (Ni)

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

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Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name:	Date	Time
William E. Wright / O'Brien & Gere Eng	06-19-01	1800	Federal Express 8187 0377 9494 *Attach delivery/courier receipt to Chain of Custody	06-19-01	1800

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

O'BRIEN & GERE
ENGINEERS, INC.
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Job No. 3050.005
Sheet 2 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
~~GMW #3S~~			Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #3S~~			Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
~~GMW #3S~~			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
~~GMW #3S~~			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
~~GMW #3D~~	06-21-01	1310	Water	Grab	1-P, 500 mL	CN
~~GMW #3D~~			Water	Grab	1-P, 500 mL	Total Pb and Zn
~~GMW #3D~~	06-21-01	1310	Water	Grab	1-P, 500 mL	Cr^{VI}
~~GMW #3D~~	06-21-01	1310	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
GMW #4S	06-21-01	1615	Water	Grab	1-P, 500 mL	CN
~~GMW #4S~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #4S	06-21-01	1615	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #4S	06-21-01	1615	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb, Zn

Minimum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name: / *Attach delivery/courier receipt to Chain of Custody	Date	Time
William E. Wright / O'Brien & Gere Eng	06-21-01	1800	Fed Ex / 8187-0377-9510	06-21-01	1800

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
Address: 5000 Cedar Plaza Parkway
Phone: (314) 842-4550

Job No. 3050.005
Sheet 3 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Albright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #10	06-21-01	1515	Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #10~~			Water	Grab	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #10	06-21-01	1515	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #10	06-21-01	1515	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni), Pb, Zn

Minimum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

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Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: William E. Albright	Date	Time	Courier Name: Fed Ex	Date	Time
	06-21-01	1800	8187 0377 9510 *Attach delivery/courier receipt to Chain of Custody	6-21-01	1800

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O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
ess: 5000 Cedar Plaza Parkway
e: (314) 842-4550

Job No. 3050.005
Sheet 2 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #3S	06-20-01	1405	Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #3S~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #3S	06-20-01	1405	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #3S	06-20-01	1405	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni) Pb, Zn
GMW #3D			Water	Grab	1-P, 500 mL	CN
GMW #3D			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #3D			Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #3D			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
GMW #4S			Water	Grab	1-P, 500 mL	CN
GMW #4S			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #4S			Water	Grab	1-P, 500 mL	Cr^{VI}
MW #4S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

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Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name: / *Attach delivery/courier receipt to Chain of Custody	Date	Time
William E. Wright / O'Brien & Gere Eng	06/20/01	1815	Fed Ex 8187-0377-9509	06/20/01	1815

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

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Job No. 3050.005
Sheet ~~1~~ 2 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Fulbright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #4D			Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #4D~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #4D			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #4D			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni) Pb, Zn
GMW #5S	06-20-01	1335	Water	Grab	1-P, 500 mL	CN
~~GMW #5S~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #5S	06-20-01	1335	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #5S	06-20-01	1335	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb, Zn
GMW #5D	06-20-01	1345	Water	Grab	1-P, 500 mL	CN
~~GMW #5D~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #5D	06-20-01	1345	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #5D	06-20-01	1345	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb, Zn

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time
Relinquished by: / of:	**Date**	**Time**	**Received by: / of:**	**Date**	**Time**
Relinquished by: / of:	**Date**	**Time**	**Received by: / of:**	**Date**	**Time**
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: William E. Fulbright of: O'Brien & Gere Eng	06/20/01	1815	Courier Name: Fed Ex 8187-6377-9509 *Attach delivery/courier receipt to Chain of Custody	06/20/01	1815
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Job No. 3050.00
Sheet 1 of 3

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #6S	06-20-01	1520	Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #6S~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total lead (Pb) and zinc (Zn)~~
GMW #6S	06-20-01	1520	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
GMW #6S	06-20-01	1520	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
GMW #6D	06-20-01	1620	Water	Grab	1-P, 500 mL	CN
~~GMW #6D~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #6D	06-20-01	1620	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #6D	06-20-01	1620	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
~~GMW #7~~			Water	Grab	1-P, 500 mL	CN
~~GMW #7~~			Water	Grab	1-P, 500 mL	Total Pb and Zn
~~GMW #7~~			Water	Grab	1-P, 500 mL	Cr^{VI}
~~GMW #7~~			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time
Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time
Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: William E. Wright of: O'Brien & Gere Eng.	06/20/01	1815	Courier Name: Fed Ex 8187-0377-9509 *Attach delivery/courier receipt to Chain of Custody	06/20/01	1815
Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

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Job No. 3050.005
Sheet 1 of 1

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Wright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #3DA	06-21-01	1310	Water	Grab	2-P, 250 mL ~~1-P, 500 mL~~	Cyanide (CN)
GMW #3DA	06-21-01	1310	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
GMW #3DA	06-21-01	1310	Water	Grab	2 250 ~~1-P, 500 mL~~	Hexavalent chromium (Cr^{VI})
GMW #3DA	06-21-01	1310	Water	Grab	1-P, ~~1L~~ 500 mL	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

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William E. Wright / O'Brien & Gere Eng.	06-21-01	1800	Fed Ex 828412459013 *Attach delivery/courier receipt to Chain of Custody	06-21-01	1800

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ENGINEERS, INC.
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Phone: (314) 842-4550

Job No. 3050.0(
Sheet 3/ of -

CHAIN OF CUSTODY

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) [signature]

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
~~GMW #6S~~			Water	Grab	1-P, 500 mL	Cyanide (CN)
~~GMW #6S~~			Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
~~GMW #6S~~			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr^{VI})
~~GMW #6S~~			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
~~GMW #6D~~			Water	Grab	1-P, 500 mL	CN
~~GMW #6D~~			Water	Grab	1-P, 500 mL	Total Pb and Zn
~~GMW #6D~~			Water	Grab	1-P, 500 mL	Cr^{VI}
~~GMW #6D~~			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
GMW #7	06-21-01	1435	Water	Grab	1-P, 500 mL	CN
~~GMW #7~~			~~Water~~	~~Grab~~	~~1-P, 500 mL~~	~~Total Pb and Zn~~
GMW #7	06-21-01	1435	Water	Grab	1-P, 500 mL	Cr^{VI}
GMW #7	06-21-01	1435	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni, Pb Zn

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by: / of:	Date	Time	Received by:- / of:	Date	Time

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Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: / of:	Date	Time	Courier Name: / *Attach delivery/courier receipt to Chain of Custody	Date	Time
[signature] / O'Brien & Gere Eng.	06-21-01	1800	Fed Ex 8187-0377-9510	06-21-01	1800

Relinquished by: / of:	Date	Time	Received by: / of:	Date	Time
			[signature] / STL	6/22	0930

Laboratory Analytical Reports

O'Brien & Gere Laboratories,Inc.

Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.
Project: Inland Realty Co.
Proj. Desc: Maryville, Missouri

Job No.: 3435.016.015
Certification NY No.: 10155R

Sample: S7399
Samp. Description: GMW #3DA
Units: mg/L

Collected: 06/21/01
Received: 06/22/01

Matrix: Water
%Solids:
Number of analytes: 7

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut.	Note
Cadmium	<.005	200.7	06/26/01	06/27/01	062601W4	1	
Chromium	<.005	200.7	06/26/01	06/27/01	062601W4	1	
Lead	<.002	200.7	06/26/01	06/27/01	062601W4	1	
Manganese	.69	200.7	06/26/01	06/27/01	062601W4	1	
Mercury	<.0002	245.1	07/03/01	07/04/01	070301W2	1	
Nickel	<.005	200.7	06/26/01	06/27/01	062601W4	1	
Zinc	.04	200.7	06/26/01	06/27/01	062601W4	1	

Notes:

J-Estimated value

Authorized: Monika Santucci
Date: July 9,2001 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'Brien & Gere Laboratories,Inc.

Analytical Results Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.
Project: Inland Realty Co.
Proj. Desc: Maryville, Missouri

Job No.: 3435.016.015
Certification NY No.: 10155R

Sample: S7399
Samp. Description: GMW #3DA

Collected: 06/21/01 13:10
Received: 06/22/01 09:20

Matrix: Water

Parameter	Result	Units	Method	Prepared	Analyzed	QC Batch	Note
Chromium-Hexavalent	<.1	mg/L	SM3500-Cr-D		06/22/01	062201W12	29
Total cyanide	<.005	mg/L	EPA 335.2		06/25/01	062201W11	

Notes:
29: Elevated detection limit due to matrix interference.

I-Estimated value

Authorized: Monika Santucci
Date: June 26,2001 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE
ENGINEERS, INC.
Office: St. Louis, MO
Address: 5000 Cedar Plaza Parkway
ne: (314) 842-4550

9282

Job No. 3050.005
Sheet 1 of 1

CHAIN OF CUSTODY

3435.13.015

Client: INLAND REALTY CO
Location: MARYVILLE, MISSOURI

Collected By: (Signature) William E. Albright

SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers[3]	ANALYSIS REQUESTED
GMW #3DA	06-21-01	1310	Water	Grab	2-P, 250mL ~~1-P, 500 mL~~	Cyanide (CN)
GMW #3DA	06-21-01	1310	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
GMW #3DA	06-21-01	1310	Water	Grab	2 250 ~~1~~-P, ~~500~~ mL	Hexavalent chromium (Cr^{VI})
GMW #3DA	06-21-01	1310	Water	Grab	1-P, 500mL ~~1L~~	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)

ximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

[1]Matrix = water, wastewater, air, sludge, sediment, etc.
[2]Type = grab, composite
[3]Containers = P - polyethylene; G - glass

Chemical Preservatives: Metals - HNO_3 to pH 2
Cyanide - NaOH to pH 12

Relinquished by:	Date	Time	Received by:-	Date	Time
of:			of:		
Relinquished by:	**Date**	**Time**	**Received by:**	**Date**	**Time**
of:			of:		
Relinquished by:	**Date**	**Time**	**Received by:**	**Date**	**Time**
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: William E. Albright	**Date**	**Time**	**Courier Name:** Fed Ex	**Date**	**Time**
of: O'Brien & Gere Eng	06-21-01	1800	828412459013 *Attach delivery/courier receipt to Chain of Custody	06-21-01	1800
Relinquished by:	**Date**	**Time**	**Received by:** Mark F. Jackson	**Date**	**Time**
of:			of: O'Brien & Gere Labs	6/22/01	09:20

Refrigerate 4°C

FedEx Express USA Airbill

FedEx Tracking Number 8284 1245 9013

[redacted] 0200 [redacted]

1 From

Date 06-21-01 [redacted]

Sender's Name Bill Wright Phone 314 842-4550

Company O'Brien & Gere Engineers, Inc

Address 12250 Weber Hill Road Dept./Floor/Suite/Room

City ST. Louis State MO ZIP 63127

2 Your Internal Billing Reference 3050.005

3 To

Recipient's Name Monica Santucci Phone 315 437-0200

Company O'Brien & Gere Laboratories

Address 5000 Brittonfield Parkway, Suite 300

To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

City East Syracuse State NY ZIP 13057

8284 1245 9013

L

4a Express Package Service — *Packages up to 150 lbs.* Delivery commitment may be later in some areas

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day
- [ ] NEW FedEx Extra Hours — Later drop off with next business afternoon delivery for select locations

FedEx Envelope rate not available. Minimum charge: One-pound rate.

4b Express Freight Service — *Packages over 150 lbs.* Delivery commitment may be later in some areas

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [ ] FedEx 3Day Freight — Third business day

* Call for Confirmation: _____

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [x] Other Pkg. — Includes FedEx Box, FedEx Tube, and customer pkg

6 Special Handling — Include FedEx address in Section 3

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] SUNDAY Delivery — Available only for FedEx Priority Overnight to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Not available with FedEx First Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (incl. Dry Ice) cannot be shipped in FedEx packaging or with FedEx Extra Hours service.

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below — Obtain Recip. Acct. No.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

[redacted]

Total Packages	Total Weight	Total Declared Value†	Total Charges
1	18	$ .00	Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See back for details.

8 Release Signature *Sign to authorize delivery without obtaining signature*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

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SEVERN TRENT SERVICES

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13715 Rider Trail North
Earth City, MO 63045

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Fax 314 298 8757
www.stl-inc.com

ANALYTICAL REPORT

Inland Realty Co.

Lot #: F1F210124

Bill Wright

O'Brien & Gere Engineers, Inc.
5000 Cedar Plaza Parkway
Suite 211
St. Louis, MO 63128

SEVERN TRENT LABORATORIES, INC.

Jeff Carr
Project Manager

July 12, 2001

Case Narrative

LOT NUMBER: **F1F210124**

This report contains the analytical results for the five samples received under chain of custody by STL St. Louis on June 20, 2001. These samples are associated with your Inland Realty Co. project.

All applicable quality control procedures met method-specified acceptance criteria.

This report is incomplete without the case narrative. All results are based upon sample as received, wet weight, unless noted otherwise.

Method detection limits are included for all metal parameters and cyanide. Any positive values detected below the reporting limit are included.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

METHODS SUMMARY

F1F210124

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Hexavalent Chromium	SW846 7196A	SW846 7196A
ICP-MS (6020)	SW846 6020	SW846 3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Total Cyanide	MCAWW 335.2	MCAWW 335.2

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F1F210124

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EE9L8	001	GMW#2S	06/19/01	13:00
EE9ME	002	GMW#2D	06/19/01	13:15
EE9MJ	003	GMW#3	06/19/01	14:50
EE9MN	004	GMW#4D	06/19/01	16:00
EE9M6	005	GMW#9	06/19/01	13:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#2S

TOTAL Metals

Lot-Sample #...: F1F210124-001 **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:00 **Date Received..:** 06/20/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EE9L81AD
		Dilution Factor: 1		Analysis Time..: 21:06	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EE9L81AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EE9L81AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.99**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9L81AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EE9L81AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EE9L81AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EE9L81AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#2S

General Chemistry

Lot-Sample #...: F1F210124-001 **Work Order #...:** EE9L8 **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:00 **Date Received..:** 06/20/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/20/01	1173179
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	**28.8**	**5.0**	**ug/L**	**MCAWW 335.2**	**06/28-06/29/01**	**1180165**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#2D

TOTAL Metals

Lot-Sample #...: F1F210124-002 **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:15 **Date Received..:** 06/20/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	**0.000048 B**	**0.00020**	**mg/L**	**SW846 7470A**	**06/25/01**	**EE9ME1AD**
		Dilution Factor: 1		Analysis Time..: 21:08	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EE9ME1AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EE9ME1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.63**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9ME1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EE9ME1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EE9ME1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.011 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EE9ME1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#2D

General Chemistry

Lot-Sample #...: F1F210124-002 **Work Order #...:** EE9ME **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:15 **Date Received..:** 06/20/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/20/01	1173179
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3

TOTAL Metals

Lot-Sample #...: F1F210124-003 Matrix.....: WATER
Date Sampled...: 06/19/01 14:50 Date Received..: 06/20/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	**0.000064 B**	**0.00020**	**mg/L**	**SW846 7470A**	**06/25/01**	**EE9MJ1AD**
		Dilution Factor: 1		Analysis Time..: 21:10	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	**0.0089**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9MJ1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EE9MJ1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**1.2**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9MJ1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EE9MJ1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EE9MJ1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.068**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EE9MJ1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3

General Chemistry

Lot-Sample #...: F1F210124-003 **Work Order #...:** EE9MJ **Matrix.....:** WATER
Date Sampled...: 06/19/01 14:50 **Date Received..:** 06/20/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/20/01	1173179
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#4D

TOTAL Metals

Lot-Sample #...: F1F210124-004 **Matrix.....:** WATER
Date Sampled...: 06/19/01 16:00 **Date Received..:** 06/20/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	**0.000042 B**	**0.00020**	**mg/L**	**SW846 7470A**	**06/25/01**	**EE9MN1AD**
		Dilution Factor: 1		Analysis Time..: 21:12	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EE9MN1AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EE9MN1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**1.8**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9MN1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EE9MN1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EE9MN1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EE9MN1AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#4D

General Chemistry

Lot-Sample #...: F1F210124-004 **Work Order #...:** EE9MN **Matrix.....:** WATER
Date Sampled...: 06/19/01 16:00 **Date Received..:** 06/20/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/20/01	1173179
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#9

TOTAL Metals

Lot-Sample #...: F1F210124-005 **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:30 **Date Received..:** 06/20/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EE9M61AD
		Dilution Factor: 1		Analysis Time..: 21:15	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EE9M61AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EE9M61AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**1.0**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EE9M61AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EE9M61AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EE9M61AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.029 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EE9M61AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#9

General Chemistry

Lot-Sample #...: F1F210124-005 **Work Order #...:** EE9M6 **Matrix.....:** WATER
Date Sampled...: 06/19/01 13:30 **Date Received..:** 06/20/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/20/01	1173179
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

SEVERN TRENT SERVICES

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ANALYTICAL REPORT

Inland Realty Co.

Lot #: F1F250140

Bill Wright

O'Brien & Gere Engineers, Inc.
5000 Cedar Plaza Parkway
Suite 211
St. Louis, MO 63128

SEVERN TRENT LABORATORIES, INC.

Jeff Carr
Project Manager

July 12, 2001

STL St. Louis is a part of Severn Trent Laboratories, Inc.

Case Narrative

LOT NUMBER: **F1F250140**

This report contains the analytical results for the four samples received under chain of custody by STL St. Louis on June 22, 2001. These samples are associated with your Inland Realty Co. project.

All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page.

This report is incomplete without the case narrative. All results are based upon sample as received, wet weight, unless noted otherwise.

Method detection limits are included for all metal parameters and cyanide. Any positive values detected below the reporting limit are included.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

METHODS SUMMARY

F1F250140

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Hexavalent Chromium	SW846 7196A	SW846 7196A
ICP-MS (6020)	SW846 6020	SW846 3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Total Cyanide	MCAWW 335.2	MCAWW 335.2

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F1F250140

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EFGCP	001	GMW#7	06/21/01	14:35
EFGCX	002	GMW#3D	06/21/01	
EFGC3	003	GMW#4S	06/21/01	
EFGC4	004	GMW#10	06/21/01	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#7

TOTAL Metals

Lot-Sample #...: F1F250140-001 Matrix.....: WATER
Date Sampled...: 06/21/01 14:35 Date Received..: 06/22/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EFGCP1AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFGCP1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.21**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFGCP1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFGCP1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFGCP1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.015 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EFGCP1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	
Prep Batch #...: 1179435						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/28-06/29/01	EFGCP1AD
		Dilution Factor: 1		Analysis Time..: 14:13	MDL.....: 0.000035	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#7

General Chemistry

Lot-Sample #...: F1F250140-001 **Work Order #...:** EFGCP **Matrix.....:** WATER
Date Sampled...: 06/21/01 14:35 **Date Received..:** 06/22/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/22/01	1176402
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/29-07/03/01	1184212
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3D

TOTAL Metals

Lot-Sample #...: F1F250140-002 Matrix.....: WATER
Date Sampled...: 06/21/01 Date Received..: 06/22/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EFGCX1AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFGCX1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.72**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFGCX1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFGCX1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFGCX1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.014 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EFGCX1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	
Prep Batch #...: 1179435						
Mercury	**0.000037 B**	**0.00020**	**mg/L**	**SW846 7470A**	**06/28-06/29/01**	**EFGCX1AD**
		Dilution Factor: 1		Analysis Time..: 14:16	MDL.....: 0.000035	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3D

General Chemistry

Lot-Sample #...: F1F250140-002 **Work Order #...:** EFGCX **Matrix.....:** WATER
Date Sampled...: 06/21/01 **Date Received..:** 06/22/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/22/01	1176402
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/29-07/03/01	1184212
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#4S

TOTAL Metals

Lot-Sample #...: F1F250140-003 Matrix.....: WATER
Date Sampled...: 06/21/01 Date Received..: 06/22/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1177400						
Cadmium	**0.011**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFGC31AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFGC31AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**43.8**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFGC31AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFGC31AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFGC31AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**1.4**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EFGC31AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	
Prep Batch #...: 1179435						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/28-06/29/01	EFGC31AD
		Dilution Factor: 1		Analysis Time..: 14:18	MDL.....: 0.000035	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#4S

General Chemistry

Lot-Sample #...: F1F250140-003 **Work Order #...:** EFGC3 **Matrix.....:** WATER
Date Sampled...: 06/21/01 **Date Received..:** 06/22/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/22/01	1176402
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/29-07/03/01	1184212
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#10

TOTAL Metals

Lot-Sample #...: F1F250140-004 **Matrix.....:** WATER
Date Sampled...: 06/21/01 **Date Received..:** 06/22/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EFGC41AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFGC41AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	ND	0.015	mg/L	SW846 6020	06/26-06/28/01	EFGC41AG
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFGC41AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFGC41AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EFGC41AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	
Prep Batch #...: 1179435						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/28-06/29/01	EFGC41AD
		Dilution Factor: 1		Analysis Time..: 14:20	MDL.....: 0.000035	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#10

General Chemistry

Lot-Sample #...: F1F250140-004 **Work Order #...:** EFGC4 **Matrix.....:** WATER
Date Sampled...: 06/21/01 **Date Received..:** 06/22/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/22/01	1176402
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	**31.8**	**5.0**	**ug/L**	**MCAWW 335.2**	**06/29-07/03/01**	**1184212**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

SEVERN TRENT SERVICES

STL St. Louis
13715 Rider Trail North
Earth City, MO 63045

Tel 314 298 8566
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ANALYTICAL REPORT

Inland Realty Co.

Lot #: F1F220103

Bill Wright

O'Brien & Gere Engineers, Inc.
5000 Cedar Plaza Parkway
Suite 211
St. Louis, MO 63128

SEVERN TRENT LABORATORIES, INC.

Jeff Carr
Project Manager

July 12, 2001

STL St. Louis is a part of Severn Trent Laboratories, Inc.

Case Narrative

LOT NUMBER: **F1F220103**

This report contains the analytical results for the five samples received under chain of custody by STL St. Louis on June 21, 2001. These samples are associated with your Inland Realty Co. project.

All applicable quality control procedures met method-specified acceptance criteria.

This report is incomplete without the case narrative. All results are based upon sample as received, wet weight, unless noted otherwise.

Method detection limits are included for all metal parameters and cyanide. Any positive values detected below the reporting limit are included.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

METHODS SUMMARY

F1F220103

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Hexavalent Chromium	SW846 7196A	SW846 7196A
ICP-MS (6020)	SW846 6020	SW846 3010
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A	SW846 7470A
Total Cyanide	MCAWW 335.2	MCAWW 335.2

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F1F220103

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
EFC0H	001	GMW#3S	06/20/01	14:05
EFC0J	002	GMW#5S	06/20/01	13:35
EFC0K	003	GMW#5D	06/20/01	13:45
EFC0L	004	GMW#6S	06/20/01	15:20
EFC0M	005	GMW#6D	06/20/01	16:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3S

TOTAL Metals

Lot-Sample #...: F1F220103-001 **Matrix.....:** WATER
Date Sampled...: 06/20/01 14:05 **Date Received..:** 06/21/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EFC0H1AD
		Dilution Factor: 1		Analysis Time..: 21:21	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	**0.00013 B**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0H1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFC0H1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.14**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0H1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFC0H1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFC0H1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EFC0H1AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#3S

General Chemistry

Lot-Sample #...: F1F220103-001 **Work Order #...:** EFC0H **Matrix.....:** WATER
Date Sampled...: 06/20/01 14:05 **Date Received..:** 06/21/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/21/01	1173181
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	**27.2**	**5.0**	**ug/L**	**MCAWW 335.2**	**06/28-06/29/01**	**1180165**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#5S

TOTAL Metals

Lot-Sample #...: F1F220103-002 **Matrix.....:** WATER
Date Sampled...: 06/20/01 13:35 **Date Received..:** 06/21/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EFC0J1AD
		Dilution Factor: 1		Analysis Time..: 21:23	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	**0.0011 B**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0J1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFC0J1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.089**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0J1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFC0J1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFC0J1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EFC0J1AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#5S

General Chemistry

Lot-Sample #...: F1F220103-002 **Work Order #...:** EFC0J **Matrix.....:** WATER
Date Sampled...: 06/20/01 13:35 **Date Received..:** 06/21/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/21/01	1173181
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#5D

TOTAL Metals

Lot-Sample #...: F1F220103-003 **Matrix.....:** WATER
Date Sampled...: 06/20/01 13:45 **Date Received..:** 06/21/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EFC0K1AD
		Dilution Factor: 1		Analysis Time..: 21:31	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	**0.00026 B**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0K1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFC0K1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.79**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0K1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFC0K1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFC0K1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.010 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EFC0K1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#5D

General Chemistry

Lot-Sample #...: F1F220103-003 **Work Order #...:** EFC0K **Matrix.....:** WATER
Date Sampled...: 06/20/01 13:45 **Date Received..:** 06/21/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/21/01	1173181
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	**2.9 B**	**5.0**	**ug/L**	**MCAWW 335.2**	**06/28-06/29/01**	**1180165**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

NOTE(S):

RL Reporting Limit

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#6S

TOTAL Metals

Lot-Sample #...: F1F220103-004 **Matrix.....:** WATER
Date Sampled...: 06/20/01 15:20 **Date Received..:** 06/21/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EFC0L1AD
		Dilution Factor: 1		Analysis Time..: 21:33	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	**0.00024 B**	**0.0050**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0L1AE**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFC0L1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.14**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0L1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFC0L1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFC0L1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	**0.017 B**	**0.050**	**mg/L**	**SW846 6020**	**06/26-07/09/01**	**EFC0L1AK**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

NOTE(S):

B Estimated result. Result is less than RL.

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#6S

General Chemistry

Lot-Sample #...: F1F220103-004 **Work Order #...:** EFC0L **Matrix.....:** WATER
Date Sampled...: 06/20/01 15:20 **Date Received..:** 06/21/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/21/01	1173181
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#6D

TOTAL Metals

Lot-Sample #...: F1F220103-005 **Matrix.....:** WATER
Date Sampled...: 06/20/01 16:20 **Date Received..:** 06/21/01

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1176152						
Mercury	ND	0.00020	mg/L	SW846 7470A	06/25/01	EFC0M1AD
		Dilution Factor: 1		Analysis Time..: 21:35	MDL.....: 0.000035	
Prep Batch #...: 1177400						
Cadmium	ND	0.0050	mg/L	SW846 6020	06/26-06/28/01	EFC0M1AE
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00012	
Chromium	ND	0.010	mg/L	SW846 6020	06/26-06/28/01	EFC0M1AF
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00041	
Manganese	**0.16**	**0.015**	**mg/L**	**SW846 6020**	**06/26-06/28/01**	**EFC0M1AG**
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.000088	
Nickel	ND	0.040	mg/L	SW846 6020	06/26-06/28/01	EFC0M1AH
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0020	
Lead	ND	0.0030	mg/L	SW846 6020	06/26-06/28/01	EFC0M1AJ
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.00043	
Zinc	ND	0.050	mg/L	SW846 6020	06/26-07/09/01	EFC0M1AK
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 0.0085	

O'BRIEN & GERE ENGINEERS, INC.

Client Sample ID: GMW#6D

General Chemistry

Lot-Sample #...: F1F220103-005 **Work Order #...:** EFC0M **Matrix.....:** WATER
Date Sampled...: 06/20/01 16:20 **Date Received..:** 06/21/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	10.0	ug/L	SW846 7196A	06/21/01	1173181
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 4.5	
Total Cyanide	ND	5.0	ug/L	MCAWW 335.2	06/28-06/29/01	1180165
		Dilution Factor: 1		Analysis Time..: 00:00	MDL.....: 2.5	