

gale/jordan associates, inc.

November 7, 1995 ENVIRONMENTAL MANAGEMENT SERVICES

Mr. John Hanson
Broadway Stores Inc.
835 Market Street
San Francisco, California 94103

COPY

Re: Former Chevron Station
1911 Telegraph Avenue, Oakland, California
g/ja Project No. CE95039

Dear Mr. Hanson:

gale/jordan associates, inc. (g/ja) is pleased to submit this summary of groundwater monitoring activities for the above-referenced site. On October 17, and 18, 1995 groundwater samples were collected from the seven monitoring wells (MW-1 through MW-7) at the Emporium Capwell site located at 1911 Telegraph Avenue in Oakland California.


Before collecting the samples, we measured and recorded the depth to groundwater in each of the wells. We then purged about three well volumes of water from the wells using a stainless steel bailer. During purging, the temperature, conductivity, and pH of the purged water was monitored. After about three well volumes had been purged from the well and the water level recharged to about 90 percent of static level, a groundwater sample was collected using a disposable polyethylene bailer.

The groundwater samples were collected in laboratory-supplied glass bottles, labeled, and placed in an ice chest. The samples were then delivered to Curtis & Thompkins, a state-certified hazardous materials testing facility. The samples were analyzed for total volatile hydrocarbons as gasoline using EPA Method 8015-M and volatile organic compounds using EPA Method 624.

The bailers were steam-cleaned prior to use and between monitoring wells. The water purged from the monitoring wells and the water generated during steam cleaning were collected in 55-gallon DOT-rated drums and labeled. The drums have been stored inside the former auto service building at the site.

A table summarizing the the results of laboratory analyses and the complete laboratory report are attached.

Sincerely,



Kristen Williamson
Registered Geologist

LABORATORY RESULTS FOR GROUNDWATER SAMPLES COLLECTED OCTOBER 1995

Results expressed in ug/L which equals PPB (parts per billion)

Monitoring Well Number	TVH as Gasoline	Benzene	Toluene	Ethyl-benzene	Xylene	TCE	1,2-DCA	Carbon DiSulfide	PCE
MW-1	<50	ND	ND	ND	ND	ND	ND	ND	9.9
MW-2	2900	1200	5.4	41	5.9	40	280	ND	ND
MW-3	<50	ND	ND	ND	ND	ND	ND	4.8	3.1
MW-4	<50	4.1	ND	ND	ND	ND	ND	3.1	ND
MW-5	260	86	ND	ND	ND	ND	ND	ND	ND
MW-6	<50	ND	ND	ND	ND	11	33	110	6.2
MW-7	<50	ND	ND	ND	ND	3.5	8.3	ND	5.3

Notes: TVH - Total Volatile Hydrocarbons
TCE - Trichloroethene
1,2 DCA - 1,2 Dichloroethane
PCE - Tetrachloroethene
ND - Not Detected Above Reporting Limit



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Gale/Jordan Assoc.

Date: 25-OCT-95
Lab Job Number: 123070
Project ID: N/A
Location: Emporium Capwell

Reviewed by: _____

Reviewed by: _____

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Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
Field ID: MW-1 Lab ID: 123070-001 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sampled: 10/18/95 Received: 10/18/95 Extracted: 10/21/95 Analyzed: 10/21/95	
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	20
Methylene Chloride	ND	20
Acetone	ND	5.0
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	10
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	50
Vinyl Acetate	ND	5.0
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	9.9	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	96	68-126

Lab #: 123070

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240		
Location: Emporium Capwell	Prep Method: EPA 5030		
METHOD BLANK			
Matrix: Water	Prep Date: 10/20/95		
Batch#: 23970	Analysis Date: 10/20/95		
Units: ug/L			
Diln Fac: 1			

MB Lab ID: QC07219

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	93	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	98	68-126

Lab #: 123070

BATCH QC REPORT

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EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030
LABORATORY CONTROL SAMPLE	
Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Prep Date: 10/20/95 Analysis Date: 10/20/95

LCS Lab ID: QC07218

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	52.9	50	106	51-180
Trichloroethene	45.41	50	91	73-141
Benzene	49.15	50	98	78-142
Toluene	44.89	50	90	76-150
Chlorobenzene	46.73	50	94	83-129
Surrogate	%Rec	Limits		
Toluene-d8	90	87-125		
Bromofluorobenzene	99	79-122		
1,2-Dichloroethane-d4	92	68-126		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 123070

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: MW-1 Lab ID: 123070-001 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sample Date: 10/18/95 Received Date: 10/18/95 Prep Date: 10/21/95 Analysis Date: 10/21/95

MS Lab ID: QC07220

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	52.57	105	51-180
Trichloroethene	50	<5.000	44.21	88	73-141
Benzene	50	<5.000	48.13	96	78-142
Toluene	50	<5.000	48.68	97	76-150
Chlorobenzene	50	<5.000	44.91	90	83-129
Surrogate	%Rec	Limits			
Toluene-d8	102	87-125			
Bromofluorobenzene	97	79-122			
1,2-Dichloroethane-d4	102	68-126			

MSD Lab ID: QC07221

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	53.23	106	51-180	1	<14
Trichloroethene	50	44.08	88	73-141	0	<14
Benzene	50	48.77	98	78-142	1	<11
Toluene	50	49.29	99	76-150	1	<13
Chlorobenzene	50	45.6	91	83-129	2	<13
Surrogate	%Rec	Limits				
Toluene-d8	102	87-125				
Bromofluorobenzene	96	79-122				
1,2-Dichloroethane-d4	96	68-126				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits



TVH-Total Volatile Hydrocarbons

Client: Gale/Jordan Assoc.
Location: Emporium Capwell

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123070-001	MW-1	23911	10/18/95	10/20/95	10/20/95	

Analyte	Units	123070-001
Diln Fac:		1
Gasoline	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	98
Bromobenzene	%REC	92



Lab #: 123070

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons	
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: CA LUFT (EPA 8015M) Prep Method: EPA 5030
METHOD BLANK	
Matrix: Water Batch#: 23911 Units: ug/L Diln Fac: 1	Prep Date: 10/19/95 Analysis Date: 10/19/95

MB Lab ID: QC06956

Analyte	Result	
Gasoline	<50	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	98	69-120
Bromobenzene	93	70-122

Lab #: 123070

BATCH QC REPORT

Page 1 of 1

TVH-Total Volatile Hydrocarbons	
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: CA LUFT (EPA 8015M) Prep Method: EPA 5030
BLANK SPIKE/BLANK SPIKE DUPLICATE	
Matrix: Water Batch#: 23911 Units: ug/L Diln Fac: 1	Prep Date: 10/19/95 Analysis Date: 10/19/95

BS Lab ID: QC06957

Analyte	Spike Added	BS	%Rec #	Limits
Gasoline	2006	1859	93	80-120
Surrogate				
Trifluorotoluene	87	69-120		
Bromobenzene	96	70-122		

BSD Lab ID: QC06958

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Gasoline	2006	1773	88	80-120	5	<35
Surrogate						
Trifluorotoluene	98	69-120				
Bromobenzene	96	70-122				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits



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2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Gale/Jordan Assoc.

Date: 25-OCT-95
Lab Job Number: 123069
Project ID: N/A
Location: Emporium Capwell

Reviewed by: _____

Reviewed by: _____

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Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
Field ID: MW-2 Lab ID: 123069-001 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sampled: 10/17/95 Received: 10/17/95 Extracted: 10/20/95 Analyzed: 10/20/95	
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	280	50
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	40	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	1200	50
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	5.4	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	41	5.0
Styrene	ND	5.0
m,p-Xylenes	5.9	5.0
o-Xylene	ND	5.0
Surrogate	Recovery	Recovery Limits
Toluene-d8	98	87-125
Bromofluorobenzene	99	79-122
1,2-Dichloroethane-d4	101	68-126



Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240	
Location: Emporium Capwell	Prep Method: EPA 5030	
Field ID: MW-3	Sampled:	10/17/95
Lab ID: 123069-002	Received:	10/17/95
Matrix: Water	Extracted:	10/20/95
Batch#: 23970	Analyzed:	10/20/95
Units: ug/L		
Diln Fac: 1		
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	4.8 J	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	3.1 J	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	90	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	96	68-126



Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
Field ID: MW-4 Lab ID: 123069-003 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sampled: 10/17/95 Received: 10/17/95 Extracted: 10/20/95 Analyzed: 10/20/95	
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	3.1 J	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	4.1 J	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	Recovery	Recovery Limits
Toluene-d8	102	87-125
Bromofluorobenzene	97	79-122
1,2-Dichloroethane-d4	104	68-126



Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
Field ID: MW-5 Lab ID: 123069-004 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sampled: 10/17/95 Received: 10/17/95 Extracted: 10/20/95 Analyzed: 10/20/95	
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	86	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	90	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	96	68-126



Volatile Organics by GC/MS		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
Field ID: MW-6 Lab ID: 123069-005 Matrix: Water Batch#: 23970 Units: ug/L Diln Fac: 1	Sampled: 10/17/95 Received: 10/17/95 Extracted: 10/21/95 Analyzed: 10/21/95	
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	110	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	33	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	11	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	6.2	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	94	68-126



Volatile Organics by GC/MS

Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240
Location: Emporium Capwell	Prep Method: EPA 5030
Field ID: MW-7	Sampled: 10/17/95
Lab ID: 123069-006	Received: 10/17/95
Matrix: Water	Extracted: 10/21/95
Batch#: 23970	Analyzed: 10/21/95
Units: ug/L	
Diln Fac: 1	

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	8.3	10
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	50
Vinyl Acetate	ND	5.0
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	3.5 J	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	5.3	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	103	68-126

Lab #: 123069

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics			
Client:	Gale/Jordan Assoc.	Analysis Method:	EPA 8240
Location:	Emporium Capwell	Prep Method:	EPA 5030
METHOD BLANK			
Matrix:	Water	Prep Date:	10/20/95
Batch#:	23970	Analysis Date:	10/20/95
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC07219

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	93	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	98	68-126

Lab #: 123069

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics		
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030	
METHOD BLANK		
Matrix: Water Batch#: 23976 Units: ug/L Diln Fac: 1	Prep Date: 10/22/95 Analysis Date: 10/22/95	

MB Lab ID: QC07253

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	10
2-Butanone	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	93	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	97	68-126

Lab #: 123069

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics		
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240	
Location: Emporium Capwell	Prep Method: EPA 5030	
METHOD BLANK		
Matrix: Water	Prep Date: 10/23/95	
Batch#: 23976	Analysis Date: 10/23/95	
Units: ug/L		
Diln Fac: 1		

MB Lab ID: QC07255

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	100	87-125
Bromofluorobenzene	98	79-122
1,2-Dichloroethane-d4	104	68-126



Lab #: 123069

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240
Location: Emporium Capwell	Prep Method: EPA 5030
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 10/20/95
Batch#: 23970	Analysis Date: 10/20/95
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC07218

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	52.9	50	106	51-180
Trichloroethene	45.41	50	91	73-141
Benzene	49.15	50	98	78-142
Toluene	44.89	50	90	76-150
Chlorobenzene	46.73	50	94	83-129
Surrogate	%Rec	Limits		
Toluene-d8	90	87-125		
Bromofluorobenzene	99	79-122		
1,2-Dichloroethane-d4	92	68-126		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 123069

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240
Location: Emporium Capwell	Prep Method: EPA 5030
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 10/22/95
Batch#: 23976	Analysis Date: 10/22/95
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC07250

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	58.88	50	118	51-180
Trichloroethene	50.44	50	101	73-141
Benzene	54.17	50	108	78-142
Toluene	52.12	50	104	76-150
Chlorobenzene	52.56	50	105	83-129
Surrogate	%Rec	Limits		
Toluene-d8	93	87-125		
Bromofluorobenzene	99	79-122		
1,2-Dichloroethane-d4	95	68-126		

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 Spike Recovery: 0 out of 5 outside limits



Lab #: 123069

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc.	Analysis Method: EPA 8240
Location: Emporium Capwell	Prep Method: EPA 5030
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 10/18/95
Lab ID: 123070-001	Received Date: 10/18/95
Matrix: Water	Prep Date: 10/21/95
Batch#: 23970	Analysis Date: 10/21/95
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC07220

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	52.57	105	51-180
Trichloroethene	50	<5.000	44.21	88	73-141
Benzene	50	<5.000	48.13	96	78-142
Toluene	50	<5.000	48.68	97	76-150
Chlorobenzene	50	<5.000	44.91	90	83-129
Surrogate	%Rec	Limits			
Toluene-d8	102	87-125			
Bromofluorobenzene	97	79-122			
1,2-Dichloroethane-d4	102	68-126			

MSD Lab ID: QC07221

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	53.23	106	51-180	1	<14
Trichloroethene	50	44.08	88	73-141	0	<14
Benzene	50	48.77	98	78-142	1	<11
Toluene	50	49.29	99	76-150	1	<13
Chlorobenzene	50	45.6	91	83-129	2	<13
Surrogate	%Rec	Limits				
Toluene-d8	102	87-125				
Bromofluorobenzene	96	79-122				
1,2-Dichloroethane-d4	96	68-126				

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits



Lab #: 123069

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Gale/Jordan Assoc. Location: Emporium Capwell	Analysis Method: EPA 8240 Prep Method: EPA 5030
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ Lab ID: 123103-001 Matrix: Water Batch#: 23976 Units: ug/L Diln Fac: 1	Sample Date: 10/16/95 Received Date: 10/17/95 Prep Date: 10/23/95 Analysis Date: 10/23/95

MS Lab ID: QC07406

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<0.5000	57.03	114	51-180
Trichloroethene	50	<0.5000	51.88	104	73-141
Benzene	50	<0.5000	56.59	113	78-142
Toluene	50	<0.5000	56.84	114	76-150
Chlorobenzene	50	<0.5000	53.94	108	83-129
Surrogate	%Rec	Limits			
Toluene-d8	98	87-125			
Bromofluorobenzene	98	79-122			
1,2-Dichloroethane-d4	96	68-126			

MSD Lab ID: QC07407

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	61.42	123	51-180	7	<14
Trichloroethene	50	59.04	118	73-141	13	<14
Benzene	50	63.59	127	78-142	12 *	<11
Toluene	50	62.42	125	76-150	9	<13
Chlorobenzene	50	59.18	118	83-129	9	<13
Surrogate	%Rec	Limits				
Toluene-d8	97	87-125				
Bromofluorobenzene	101	79-122				
1,2-Dichloroethane-d4	97	68-126				

Column to be used to flag recovery and RPD values with an asterisk


* Values outside of QC limits

RPD: 1 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

123069

CHAIN OF CUSTODY FORM

Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878

 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900 Phone
 (510) 486-0532 Fax

C&T
LOGIN # _____

Sampler: K. Williams

Project No: _____
 Project Name: Emporium Capwell
 Project P.O.: _____
 Turnaround Time: Normal

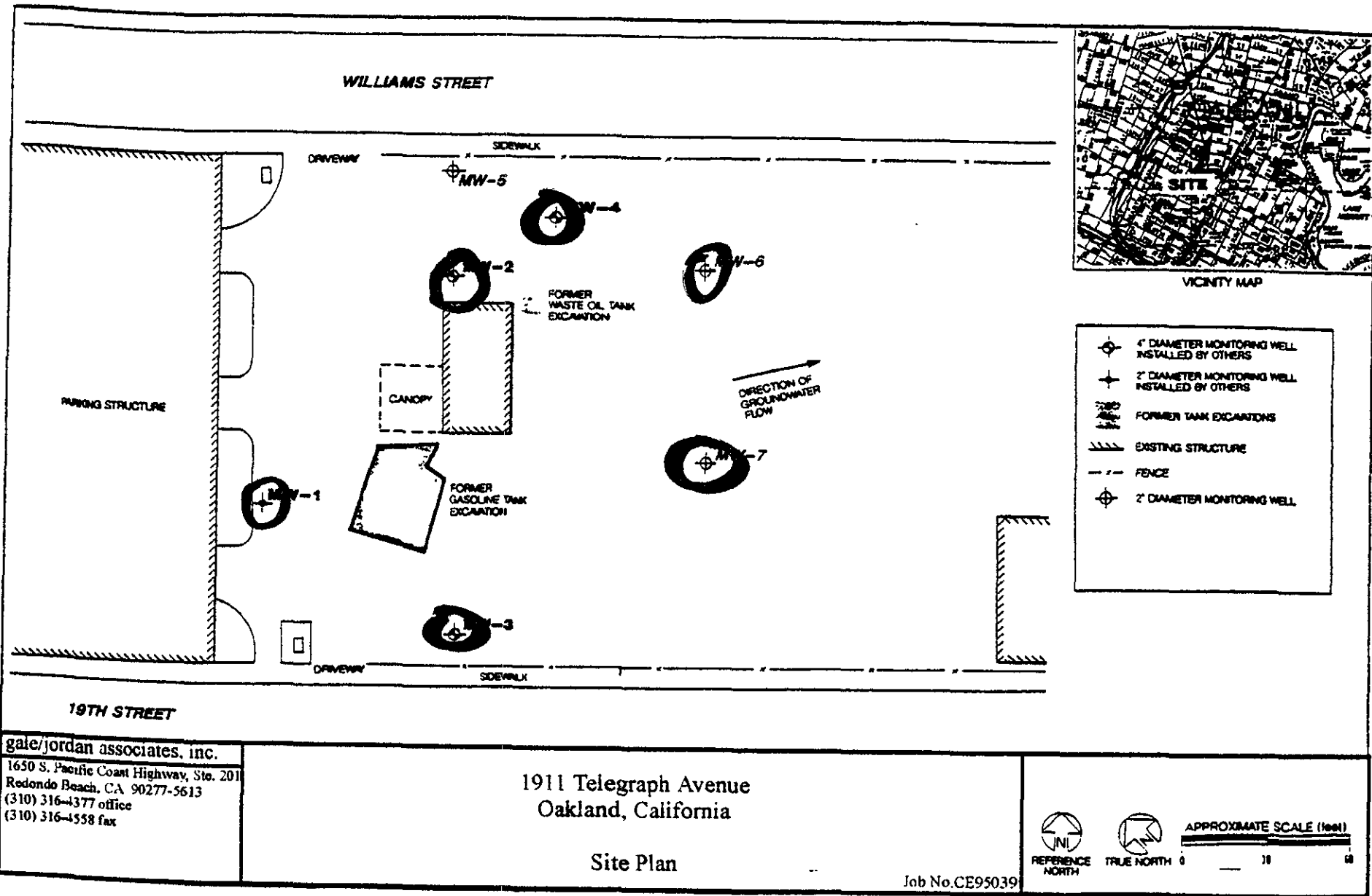
Report To: _____
 Company: Gale Jordan Assoc
 Telephone: 310 3164377
 Fax: _____

Lab Number	Sample ID.	Sampling Date Time	Matrix			# of Containers	Preservative				Field Notes
			Soil	Water	Waste		HCl	H2SO4	HNO3	ICE	
	MW-2	10-17-95		X		4					
	MW-3			X		4					
	MW-4			X		4					
	MW-5			X		4					
	MW-6			X		4					
	MW-7			X		4					

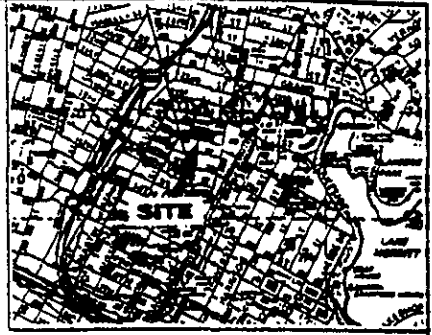
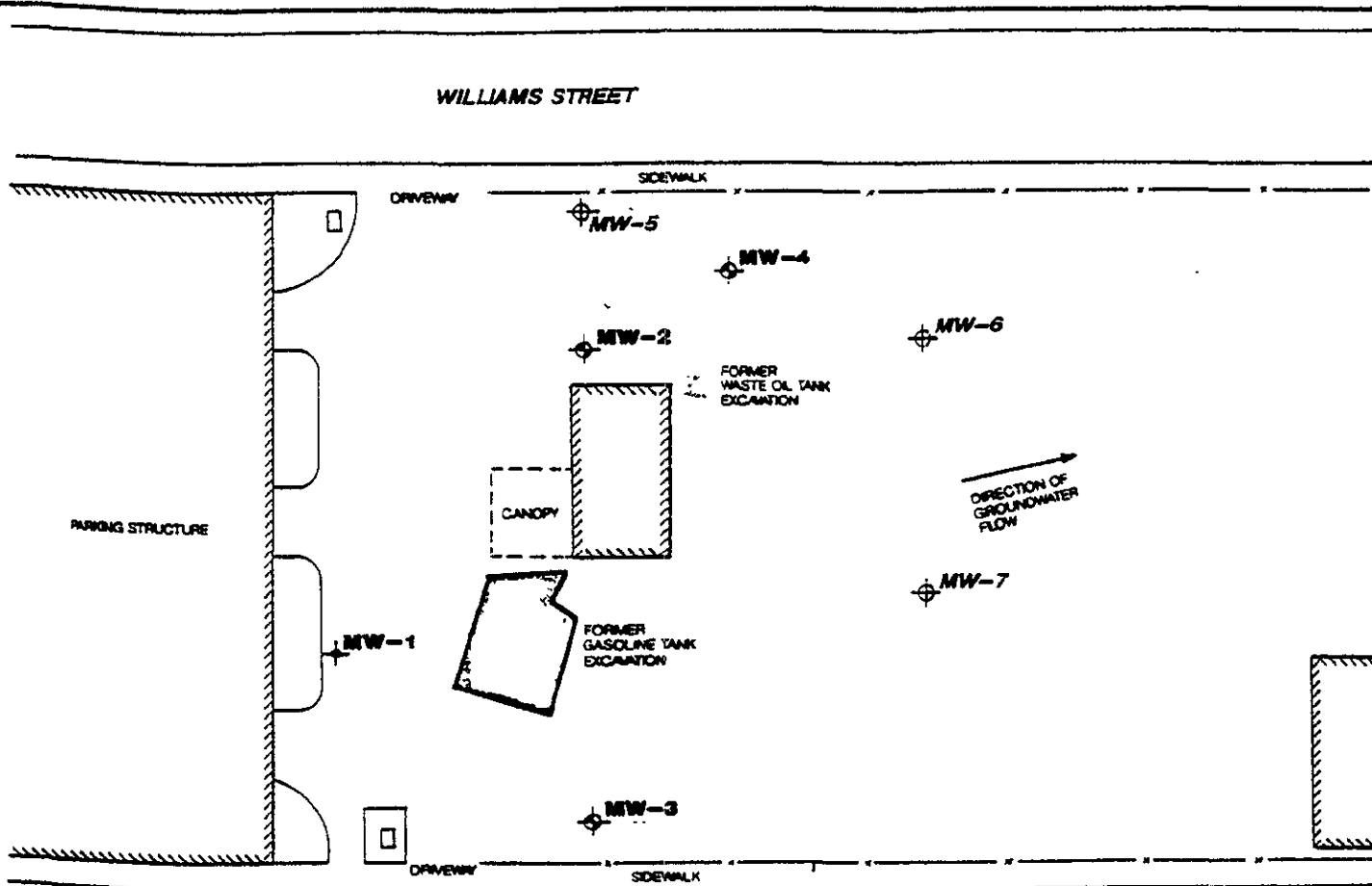
XXXXX 624
XXXXX 8015(6)

Notes:
 please note half of the
 voas were NOT preserved.

RELINQUISHED BY:		RECEIVED BY:	
<u>K. Williams</u>	10-17-95 5:47 PM	<u>Danara Moore</u>	5:17 PM 10-17-95
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME



TPH_g AND/OR BENZENE
 EPA METHOD 8240 COMPOUNDS



VICINITY MAP

- 4" DIAMETER MONITORING WELL INSTALLED BY OTHERS
- 2" DIAMETER MONITORING WELL INSTALLED BY OTHERS
- FORMER TANK EXCAVATIONS
- EXISTING STRUCTURE
- FENCE
- 2" DIAMETER MONITORING WELL

19TH STREET

gale/jordan associates, inc.
 1650 S. Pacific Coast Highway, Ste. 201
 Redondo Beach, CA 90277-5613
 (310) 316-4377 office
 (310) 316-4558 fax

1911 Telegraph Avenue
 Oakland, California

Site Plan

Job No. CE95039



REFERENCE NORTH



TRUE NORTH

