GOOD CHEVROLET
1630 Park Street ✦ Phone/510/522-9221
ALAMEDA, CA 94501

cleanup

May 12, 1994

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
800 Swan Way, Room 200
Oakland, CA 94621

Mr. Richard Hiett
Regional Water Quality
Control Board
San Francisco Bay Region
2101 Webster Street #500
Oakland, CA 94612

Re: 1630 Park Street, Alameda, CA

Dear Ms. Shin and Mr. Hiett:

Enclosed please find a copy of our Supplemental Investigation and Quarterly Gound Water Monitoring Report.

Should you have any questions, please call or write Mr. David Glick at Geo Plexus, Inc.

Thank you,

GOOD CHEVROLET

JoAnn Stewart

JKS:js

Enclosures

GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

May 6, 1994
Project C93013

Ms. JoAnn Stewart, General Manager
Good Chevrolet
1630 Park Street
Alameda, California 94501

Subject: Supplemental Investigation and Quarterly Ground Water Monitoring Report for Good Chevrolet, 1630 Park Street, Alameda, CA.

Dear Ms. Stewart:

As requested and authorized, the attached Supplemental Investigation and Quarterly Ground Water Monitoring Report has been prepared to document the field investigation efforts performed at the subject site related to installation of two additional ground water monitoring wells and to provide the results of the April, 1994 quarterly ground water monitoring.

The previous investigation which included advancing soil borings across the parking area of the property, detected high concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) in the immediate vicinity of the former underground storage tanks at depths of 5-12 feet below the ground surface. The borings identified concentrations of Total Petroleum Hydrocarbons as gasoline as high as 15,000 parts per million (ppm) decreasing to 1,000 ppm within 30-feet from the former tanks.

Monitoring Well MW-4 which was advanced during the current investigation and is northwest of the project site (near the centerline of Park Street) defines the effective boundary of soil contamination (9.7 ppm at 10-feet and non-detect at the 5- and 15-foot depths). Monitoring Well MW-5 (advanced in Park Street down-gradient of the site) identified elevated concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds in the soil at a depth of 10-feet (possibly associated with an off-site source of contamination).

The current investigation included installation of two (2) additional ground water monitoring wells to further define the limits of the ground water plume previously identified at the site and to assist in locating additional wells for monitoring and/or remedial activities. However, analytical testing of ground water samples indicated increasing concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) in the ground water with increasing distance from the site in the down-gradient (northerly) direction (along Park Street). The concentrations of Total Petroleum Hydrocarbons as gasoline on-site ranged from 5,300 - 15,000 parts per billion (ppb) and increased to 30,000 ppb in the down-gradient direction which indicates that the Good Chevrolet property is located at the westerly extent of a ground water plume originating at an off-site source located north and/or east of the project site and the ground water contamination is not directly related to the former tanks at the site.

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Although the previous investigations identified the presence of localized soil contamination at the site in the immediate vicinity of the former underground tanks, the contribution to the observed contamination plume, if any, from this soil contamination has not been established. The location of the on-site soil contamination does not correlate with the observed off-site ground water contamination plume and it is very likely that the significance of the off-site plume exceeds the on-site contribution.

It is recommended that the established monitoring wells be sampled for an additional quarter to verify the findings of the current investigation and to develop recommendations for amendments to the existing/proposed monitoring program.

Our previous recommendations for implementing soil and ground water remedial action are hereby modified to suspend implementing any ground water remedial action until the source(s) and responsible parties have been established. Implementing on-site soil remediation through vapor extraction techniques could reduce the exposure and contribution to the observed ground water plume.

It is further recommended that Alameda County Department of Environmental Health and the Regional Water Quality Control Board review/evaluate the down-gradient properties as source(s) of the observed ground water plume.

Copies of this Report should be forwarded to:

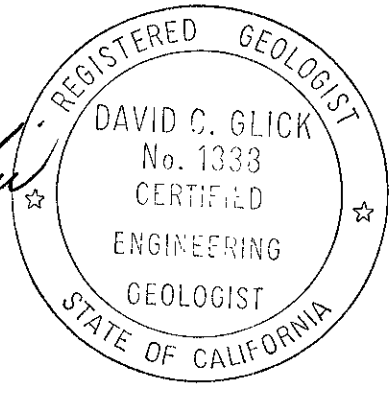
Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Mr. Richard Hiett
Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Room 500
Oakland, CA 94612

It has been a pleasure to be of service to you on this project. Questions or comments regarding the attached report should be addressed to the undersigned.

Respectfully submitted,
Geo Plexus, Incorporated

David C. Glick, CEG 1338
Director, Geological and
Environmental Services



GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

SUPPLEMENTAL INVESTIGATION

and

QUARTERLY GROUND WATER MONITORING REPORT

for

GOOD CHEVROLET

1630 PARK STREET

ALAMEDA, CALIFORNIA

Project C93013

May 5, 1994

1900 Wyatt Drive, Suite 1 • Santa Clara, California 95054 • Phone 408/987-0210 • FAX 408/988-0815

SUPPLEMENTAL INVESTIGATION
and
QUARTERLY GROUND WATER MONITORING REPORT
for
GOOD CHEVROLET
1630 PARK STREET
ALAMEDA, CALIFORNIA

INTRODUCTION

The project site is an automobile dealership and service center located at 1630 Park Street in the City of Alameda, in Alameda County, California as indicated on Figure 1.

BACKGROUND

A 300 gallon waste oil storage tank and a 500 gallon underground gasoline storage tank were reportedly removed from the property by Petroleum Engineering, Inc. in October, 1986. A subsurface investigation including installation of three ground water monitoring wells (see Figure 2) was performed by Groundwater Technology, Inc. in January, 1987 (Groundwater Technology, Inc. Report Dated April 29, 1987). Soil samples obtained from the soil borings contained low to moderate concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene).

The three existing ground water monitoring wells located at the project site have been monitored on a quarterly basis from to evaluate the ground water conditions and to establish the directions of ground water flow at the project site. The monitoring has determined that direction of flow beneath the site has varied from a northwesterly direction to a northeasterly direction. The quarterly sampling has also detected Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds at various concentrations in the ground water samples obtained from the three wells at the project site.

The Alameda County Department of Environmental Health requested that Good Chevrolet initiate a ground water migration containment/ground water remediation program to abate the hydrocarbon products detected in the ground water at the project site and to perform additional investigations as required to determine the extent of the ground water impact (both on-site and off-site). The resulting investigations have been performed in three (3) phases (up-gradient water quality study, on-site soil borings, and the current additional well installation).

The previous investigation included advancing 7 soil borings (continuous sample borings) across the parking area of the property, and identified high concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) in the immediate vicinity of the former underground storage tanks at depths of 5-12 feet below the ground surface. The borings identified concentrations of Total Petroleum Hydrocarbons as gasoline as high as 15,000 parts per million (ppm) decreasing to 1,000 ppm within 30-feet from the former tanks (lateral direction) and decreasing to 1,800 ppm at the down-gradient property boundary.

SCOPE OF WORK

The scope of work for the current phase of investigative effort included advancing two (2) subsurface exploratory borings at locations located in the "down-gradient" directions from the former underground storage tanks (see Figure 3) and completion of the borings as ground water monitoring wells. Additional monitoring wells were proposed in the Work Plan issued for this investigation but have not been installed at this time.

The scope of work for this phase of investigation included:

(1) advancing two subsurface exploration borings in the down-gradient directions of the former tanks to further define the subsurface conditions and to obtain soil samples for analytical testing;

(2) completing the borings as ground water monitoring wells to further define the on-site and off-site ground water conditions;

(3) development of the new monitoring wells and collection of ground water samples from the new and existing wells for quarterly analytical testing;

(4) performing analytical testing on the soil and ground water samples; and

(5) preparation of this report.

Specifics of the individual investigative phases are described in the following sections of this report.

SUBSURFACE INVESTIGATION

Two subsurface exploration borings were advanced at the locations indicated on Figure 3 for installation of additional ground water monitoring wells. The borings were drilled by Exploration Geoservices, State of California Licensed Drilling Contractor, C57 License No. 489288 and were logged (see Figures 4 and 5) under the supervision of a State of California Certified Engineering Geologist.

The soil borings were advanced using an eight-inch, nominal diameter, continuous flight hollow stem auger. Drilling and sampling equipment used for advancing the exploratory borings was thoroughly steam cleaned before drilling began to prevent the introduction of off-site contamination. Sampling equipment was cleaned between sample events using a phosphate-free detergent bath and double rinsed in hot water baths to prevent cross contamination. Pre-cleaned brass liners were placed in the sampler to retain the soil. The drilling and sampling equipment were steam cleaned subsequent to completion of the field activities.

Soil cuttings from the borings were contained in 55-gallon drums and were stored on-site pending results of the analytical testing. Rinsate water derived from the steam cleaning was contained on-site in 55-gallon containers pending results of the analytical data. Disposal of the cuttings and rinsate remains the responsibility of the client.

Soil samples were obtained at five (5) foot intervals throughout the boring through the use of a 2 inch I.D. split-barrel sampler advanced into the undisturbed soil by a 140 pound hammer repeatedly falling 30 inches. Sand catchers were used as necessary to retain the samples.

The drill cuttings and soil samples were monitored in the field for evidence of hydrocarbon content through the use of a portable photo-ionization detector (PID).

The soil samples were immediately sealed in the liners using aluminum foil and plastic caps and properly labeled including: the date, time, sample location, and project number. The samples were placed immediately into a chilled cooler (maintained at 3-5^{o} C with dry ice) for transport to the laboratory under chain-of-custody documentation.

The drill cuttings and soil samples obtained from the boring were monitored during drilling to observe moisture changes in the soils and to determine the depth of the first saturated zone.

Subsurface Conditions

The soil borings revealed near uniform subsurface soil conditions consisting of orange-brown to redish-brown, loose to dense, fine- to medium-grained sand (Merritt Sand Formation) interbedded with coarse-grained sand lenses to a depth of 23 feet (limit of soil borings).

No gasoline vapors were detected within the first 8 feet of the borings; however, moderate to strong gasoline vapors were encountered at depths ranging from 8.5 - 12 feet below the ground surface in the boring for Monitoring Well MW-5. The gas vapors appeared to be confined to a thin (less than 2-feet) medium-grained sand len.

Ground water was encountered in the exploration borings at a depths ranging from 11-13 feet below the ground surface at the time of drilling.

MONITORING WELL INSTALLATION

Following completion of the drilling, the borings were completed as monitoring wells constructed in accordance with Alameda County Monitoring Well Construction Guidelines by installing 2-inch diameter polyvinyl chloride (PVC) flush-threaded casing and slotted pipe directly through the hollow stem auger. The slotted section of the PVC pipe installed through the saturated zone had 0.010 inch factory perforations. The PVC materials used in the well construction were thoroughly cleaned prior to introduction into the boring.

The monitoring wells were filter-packed with clean #2/12 silica sand throughout the screened interval. The filter-pack material was installed in the annular spacing between the monitoring well pipe and the auger as the auger was removed. The filter-pack was extended two feet above the top of the screened interval. To assure continuity and integrity of the filter material, and to prevent the bore hole from caving, no more than five feet of auger was removed at a time during placement of the filter-pack.

A one foot thick layer of bentonite pellets was placed above the filter material to provide an annular seal. The bentonite was hydrated with water prior to placement of the grout seal. The remainder of the borings were filled with an 11-sack cement-sand slurry to within one foot of grade. A locking cap was placed on the PVC well casing and a water tight aluminum traffic box was installed in concrete flush with the ground surface over the well casing. Figures 6 and 7 illustrate the construction of Monitoring Wells MW-4 and MW-5, respectively.

MONITORING WELL DEVELOPMENT

MONITORING WELL DEVELOPMENT

The two new monitoring wells were allowed to stabilize for a minimum of 72 hours between construction and development activities. Free product measurements were obtained prior to development utilizing an acrylic bailer lowered into the well to obtain a water sample. The bailer was used to collect a water sample to observe the presence of hydrocarbon odors, visible sheen, or free product.

Free product, visible sheen, or odors were not observed at Monitoring Wells MW-4 or MW-5 prior to development; however, gasoline odors were observed at Monitoring Well MW-5 following purging.

The initial well development was through the use of a stainless steel submersible purge pump (to remove sediment) and was followed by purging with a teflon bailer. The well was developed until a minimum of four well volumes had been purged and the discharged water appeared clear of sediment. Electrical conductivity, temperature, and pH of the ground water was recorded throughout the development process. The well development continued until the electrical conductivity, temperature, and pH of the discharged water stabilized (twelve volumes actually evacuated). Depth to water measurements were recorded prior to and following the well development activities.

MONITORING WELL SAMPLING

The monitoring wells were allowed to stabilize for a minimum of 72 hours between development and sampling activities. Free product measurements were obtained at the time of sample acquisition utilizing an acrylic bailer lowered into the wells to obtain a surface water sample. The bailer was used to collect a water sample to observe the presence of hydrocarbon odors, visible sheen, or free product.

Free product, visible sheen, or odors were not observed in the monitoring wells prior to purging. Prior to sampling, a minimum of four well volumes were purged from the well through the use of a teflon bailer. Electrical conductivity, temperature, and pH of the ground water were recorded throughout the purging process. The purging activities continued until the electrical conductivity, temperature, and pH of the discharged water stabilized. Water samples for analytical testing were obtained through the use of the teflon bailer. The water developed from the monitoring wells was contained on-site pending receipt of the laboratory test results.

The water samples were collected in sterilized glass vials with Teflon lined screw caps. The water samples collected for Total Petroleum Hydrocarbons as gasoline and Volatile Organics were collected in 40 mil. vials acidified with HCL by the analytical laboratory. The samples were immediately sealed in the vials and properly labeled including: the date, time, sample location, project number, and indication of any preservatives added to the sample. The samples were placed on ice immediately for transport to the laboratory under chain-of-custody documentation.

GRADIENT SURVEY

The elevation of the top of the casing for the new monitoring wells were established with vertical control to 0.01 feet and referenced to the elevations of the existing wells. The depth to ground water (measured to the nearest 0.01 foot) was measured with an electronic water level meter in each monitoring well prior to purging the well.

Ground water elevations recorded during the sampling suggest that ground water is at a depth of 8-9 feet below the ground surface and flows in a northerly direction at a gradient of 0.0139 ft/ft as indicated on Figure 8. This flow direction is consistent with the variable northwest to northeast directions recorded for the site throughout the last year. The flow directions establishes that Monitoring Well MW-2, MW-3, MW-4, and MW-5 are located in the "down-gradient" directions from the location of the former underground storage tanks.

ANALYTICAL TESTING

The soil and ground water samples were submitted to and tested by McCampbell Analytical, Inc., a State of California certified laboratory. Analytical testing was scheduled and performed in accordance with the State of California, Regional Water Quality Control Board and Alameda County Department of Environmental Health Guidelines

The samples were tested for Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015 and Volatile Aromatic Compounds by EPA Method 8020/5030. The Chain-of-Custody Form and analytical test data are attached in Appendix A (soil) and Appendix B (ground water).

The analytical test data indicates that Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds exist in the soil samples obtained from the borings from Monitoring Wells MW-4 and MW-5 from non-detectable concentrations to 1,100 parts per million as summarized on Table 1.

TABLE 1

SUMMARY OF SOIL BORING ANALYTICAL TEST DATA

Sample	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl-Benzene	Total Xylenes
MW4-S1, 4.5-6'	N.D.	N.D.	N.D.	N.D.	0.013
MW4-S2, 9-10.5'	9.7	1.1	0.82	0.42	1.3
MW4-S3, 14-15.5'	N.D.	N.D.	0.008	N.D.	0.022
MW5-S1, 4.5-6'	N.D.	N.D.	N.D.	N.D.	N.D.
MW5-S2, 9-10.5'	1,100	12	43	20	93
MW5-S3, 14-15.5'	1.1	0.033	0.17	0.044	0.22

Notes: Concentrations reported as parts per million (mg/kg).
N.D. indicates that concentrations below detection limit.

The analytical test results for the ground water samples obtained for this sampling event detected reportable quantities of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) for the samples from Monitoring Wells MW-1, MW-2, MW-3, MW-4 and MW-5.

Total Petroleum Hydrocarbons as gasoline concentrations ranged from 5,300 to 15,000 parts per billion (ppb) on-site to 190 ppb in Monitoring Well MW-4 (in center of Park Street) to 30,000 ppb in Monitoring Well MW-5 located in Park Street down-gradient of the site. Benzene concentrations ranged from 1,700 to 4,000 ppb on-site to 3.8 ppb in Monitoring Well MW-4 (located in Park Street).

Table 2 summarizes the current analytical test results along with the results of the previous analytical testing.

TABLE 2

SUMMARY OF GROUND WATER ANALYTICAL TEST DATA

Date Sampled	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl-Benzene	Total Xylenes
Monitoring Well MW-1					
1-21-87 (1)	21,020	1,148	8,627	1,792	6,012
1-11-89 (1)	1,400	74	10	13	5
7-12-89 (1)	1,200	470	49	45	33
4-09-91 (2)	850	260	10	15	12
7-14-92 (3)	13,000	2,300	1,200	1,200	1,200
10-7-92 (3)	3,600	1,600	80	120	120
1-11-93 (3)	1,200	410	16	23	19
4-23-93 (3)	2,200	720	180	82	150
7-08-93 (3)	3,200	1,200	110	97	100
10-15-93 (3)	3,700	1,400	43	94	36
1-25-94 (3)	1,600	680	16	41	35
4-28-94 (3)	6,100	1,900	380	250	340
Monitoring Well MW-2					
1-21-87 (1)	5,018	386	1,981	285	1,432
1-11-89 (1)	10,000	3,000	410	240	190
7-12-89 (1)	7,600	2,700	540	250	320
4-09-91 (2)	4,900	910	210	130	200
7-14-92 (3)	13,000	4,400	1,500	610	1,100
10-7-92 (3)	11,000	5,200	1,500	500	1,200
1-11-93 (3)	17,000	940	1,100	480	930
4-23-93 (3)	52,000	13,000	8,400	1,700	5,300
7-08-93 (3)	6,400	2,500	470	280	530
10-15-93 (3)	17,000	3,900	870	500	940
1-25-94 (3)	16,000	5,400	1,140	640	1,500
4-28-94 (3)	15,000	4,000	910	480	1,200

Note: (1) Concentrations reported by Groundwater Technology, Inc.
(2) Concentrations reported by Environmental Science & Engineering, Inc.
(3) Samples obtained and reported by Geo Plexus, Inc.

TABLE 1 (Continued)

SUMMARY OF GROUND WATER ANALYTICAL TEST DATA

Date Sampled	Total Petroleum Hydrocarbons	Benzene	Toluene	Ethyl-Benzene	Total Xylenes
Monitoring Well MW-3					
1-21-87 (1)	10,287	1,428	3,281	610	2,761
1-11-89 (1)	5,300	1,800	340	150	160
7-12-89 (1)	7,800	3,100	900	300	480
4-09-91 (2)	9,400	1,400	730	200	510
7-14-92 (3)	17,000	3,500	390	390	260
10-7-92 (3)	9,200	4,300	470	390	610
1-11-93 (3)	2,000	740	29	58	28
4-23-93 (3)	6,500	2,600	280	260	190
7-08-93 (3)	5,200	2,100	260	250	180
10-15-93 (3)	11,000	3,500	580	430	370
1-25-94 (3)	6,200	2,500	270	160	28
4-28-94 (3)	5,300	1,700	190	210	180
Monitoring Well MW-4					
4-28-94 (3)	190	3.8	2.9	2.1	3.1
Monitoring Well MW-5					
4-28-94 (3)	30,000	4,000	3,000	810	3,500

Note: (1) Concentrations reported by Groundwater Technology, Inc.
(2) Concentrations reported by Environmental Science & Engineering, Inc.
(3) Samples obtained and reported by Geo Plexus, Inc.

SUMMARY OF FINDINGS

Ground water elevations recorded during the sampling suggest that ground water is at a depth of 8-9 feet below the ground surface and flows in a northerly direction at a gradient of 0.0139 ft/ft. This flow direction is consistent with the variable northwest to northeast directions recorded for the site throughout the last year. The flow directions establishes that Monitoring Wells MW-2, MW-3, MW-4, and MW-5 are located in the "down-gradient" directions from the location of the former underground storage tanks.

The previous investigation detected high concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) in the immediate vicinity of the former underground storage tanks at depths of 5-12 feet below the ground surface. Figure 9 illustrates the concentration contours for Total Petroleum Hydrocarbons as gasoline in the soil at the site.

As illustrated on Figure 9, Monitoring Well MW-4 defines the effective Total Petroleum Hydrocarbons boundary of soil contamination (9.7 ppm at 10-feet and non-detect at the 5- and 15-foot depths). Monitoring Well MW-5 (advanced in Park Street down-gradient of the site) identified elevated concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds in the soil at a depth of 10-feet (possibly associated with an off-site source of contamination).

The current investigation and quarterly monitoring indicated increasing concentrations of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylene) in the ground water with increasing distance from the site in the down-gradient (easterly) direction (along Park Street). The concentrations of Total Petroleum Hydrocarbons as gasoline on-site ranged from 5,300 - 15,000 parts per billion (ppb) and increased to 30,000 ppb in the down-gradient direction (see Figure 10) which indicates that the Good Chevrolet property is located at the westerly extent of a ground water plume originating at an off-site source (unidentified source is located north and/or east of the project site). Figures 11, 12, and 13 illustrate the distribution of Benzene, Toluene, and Xylene in the ground water which further support the off-site source location (located north and/or east of the project site).

Correlation of the on-site gasoline impacted soils (Figure 9) with the observed ground water plume (Figures 10-13) illustrates that the on-site soils are not the source of the identified ground water plume. Although there is likely to have been (or remain) an on-site plume, or a contribution to the observe plume, the significance of the off-site contamination appears to exceed the on-site contribution. Without further definition of the off-site soil and ground water conditions, the potential and/or actual impact resulting from the on-site soil contamination can not be assessed.

RECOMMENDATIONS

It is recommended that the existing monitoring wells be sampled for an additional quarter to verify the findings of the current investigation and to develop recommendations for amendments to the existing/proposed monitoring program.

Our previous recommendations for implementing soil and ground water remedial action are hereby modified to suspend implementing any ground water remedial action until the source/sources and responsible parties have been established. Implementing on-site soil remediation through vapor extraction techniques could reduce further on-site exposure and contribution of gasoline constituents to the observed ground water plume.

It is further recommended that Alameda County Department of Environmental Health and the Regional Water Quality Control Board review/evaluate the adjacent down-gradient properties as potential/responsible sources of the observed ground water plume.

LIMITATIONS

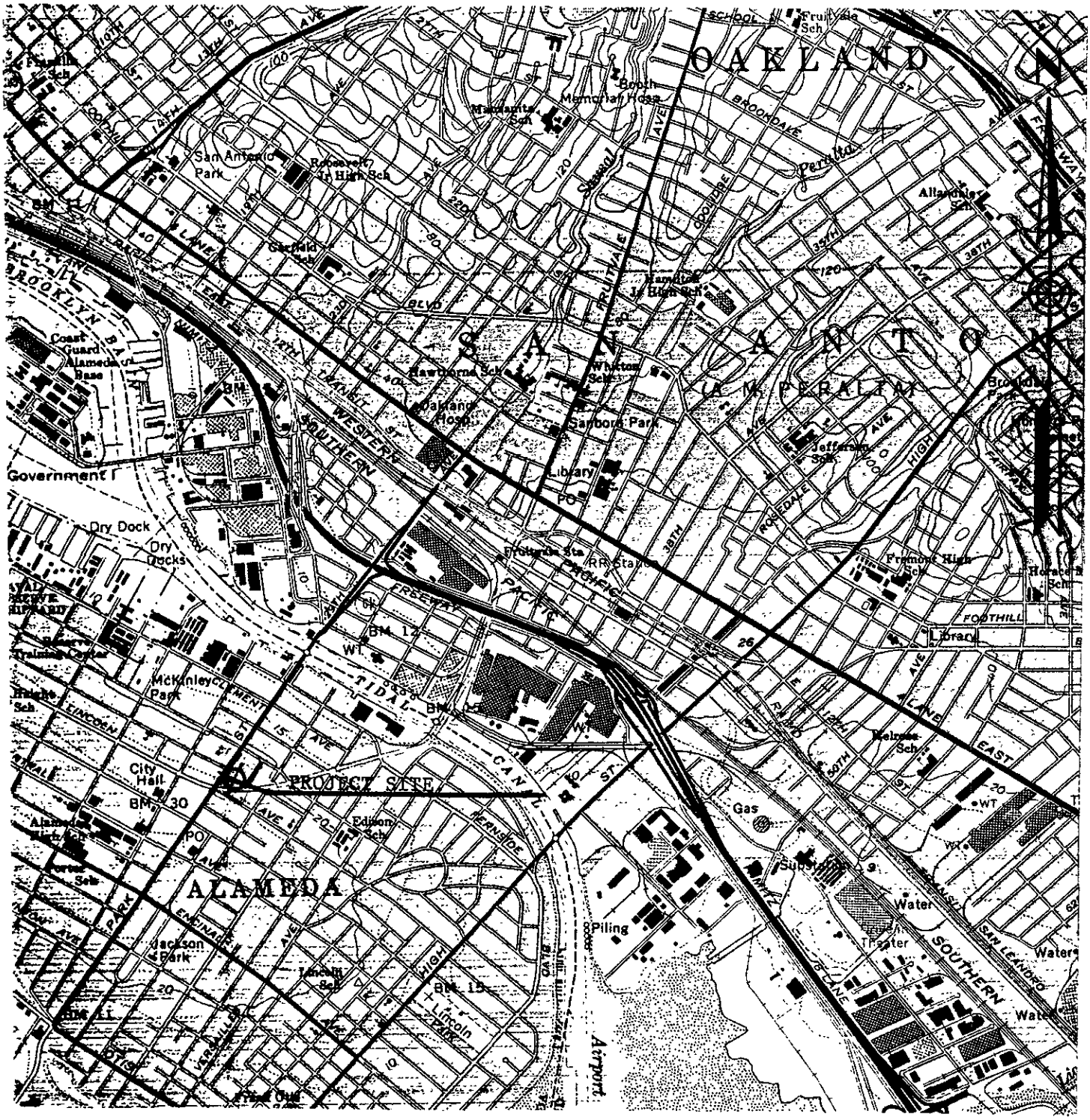
We have only observed a small portion of the pertinent subsurface and ground water conditions present at the site. The conclusions and recommendations made herein are based on the assumption that subsurface and ground water conditions do not deviate appreciably from those described in the reports and observed during the field investigation.

Geo Plexus, Incorporated provides consulting services in the fields of Geology and Engineering Geology performed in accordance with presently accepted professional practices. Professional judgments presented herein are based partly on information obtained from review of published documents, partly on evaluations of the technical information gathered, and partly on general experience in the fields of geology and engineering geology.

No attempt was made to verify the accuracy of the published information prepared by others used in preparation of this assessment report.

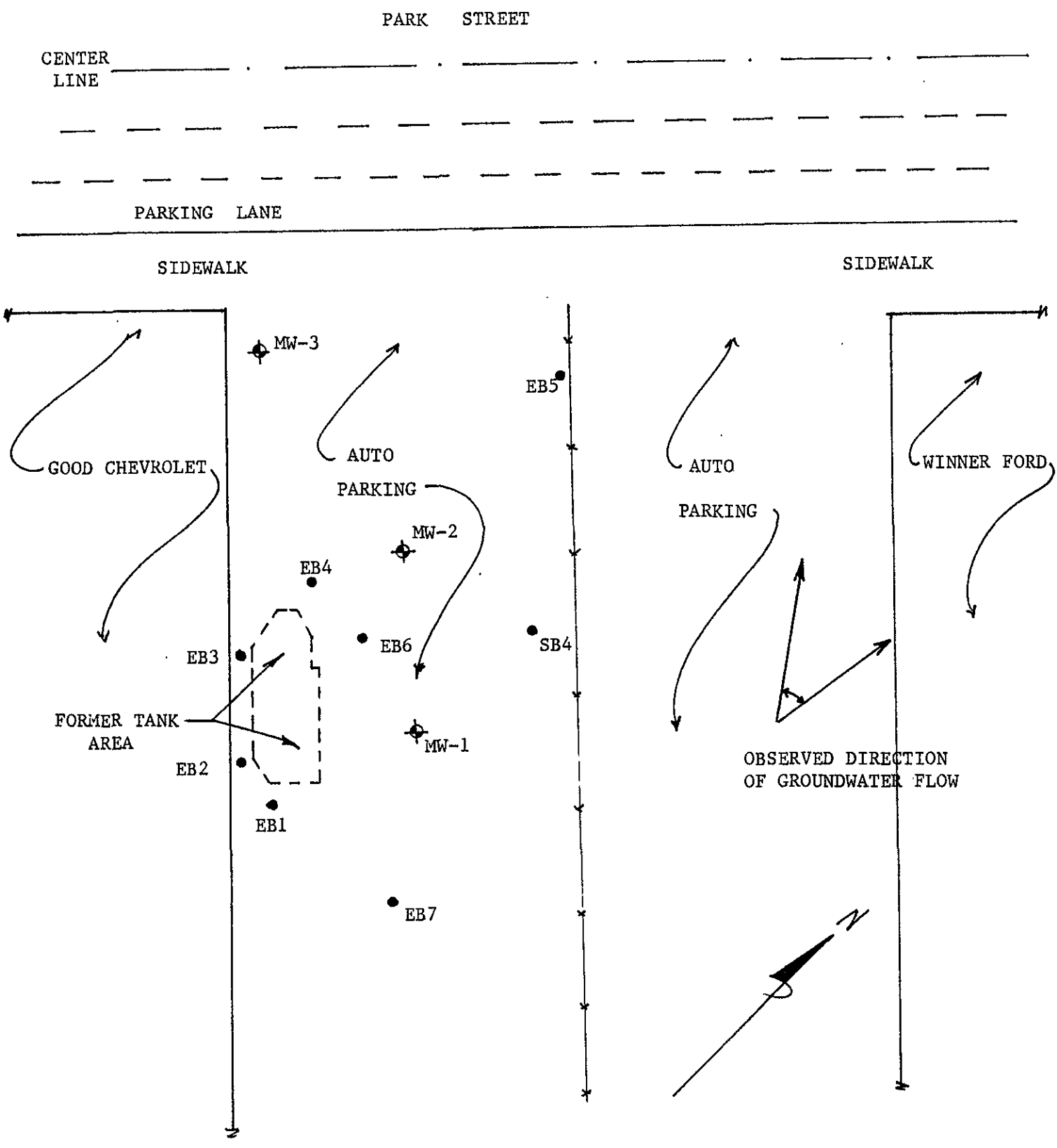
If you have questions regarding the findings, conclusions, or recommendations contained in this report, please contact us. We appreciate the opportunity to serve you.

Geo Plexus, Incorporated



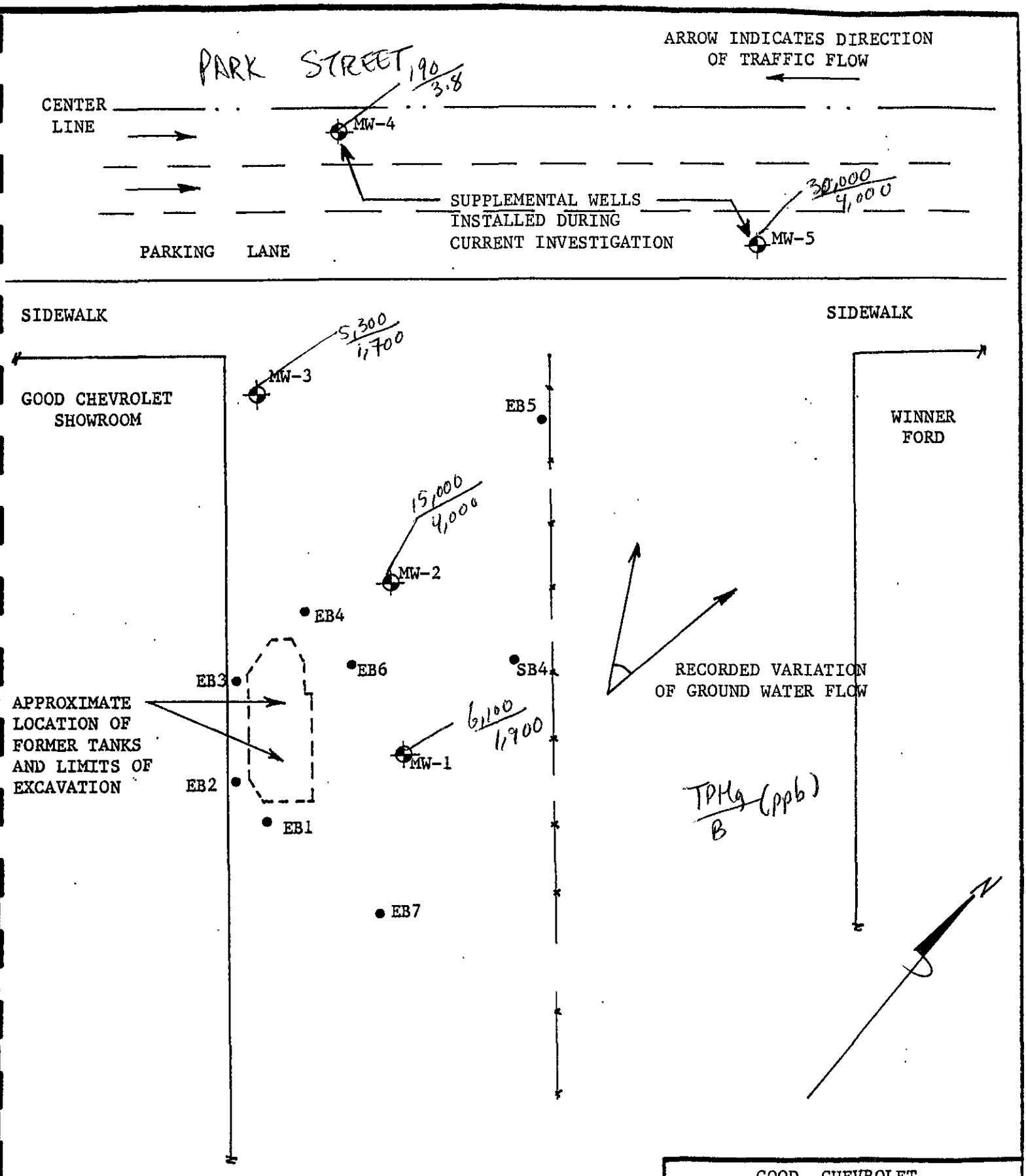
GOOD CHEVROLET		
DATE 10-9-92	SCALE 1"=2000'	DRAWN BY deg
LOCATION MAP		
	Figure 1	

GeoPlexus, Inc.



GOOD CHEVROLET		
DATE 2/5/94	SCALE 1"=20'	DRAWN BY dcg
SITE PLAN		
	Figure 2	

GeoPlexus, Inc.



GOOD CHEVROLET

DATE	SCALE	DRAWN BY
5/4/94	1"=20'	dcg

SUPPLEMENTAL WELL LOCATION PLAN

Figure 3

GeoPlexus, Inc.

SUBSURFACE DATA LOG

LOG No. MW-4 DATE: 4/20/94
LOCATION: Good Chevrolet - Park Street
EQUIPMENT: Exploration Geoservices
PROJECT No.

DRY DENSITY (lbs cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	OVM READING (ppm)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
					0			A/C Pavement and Aggregate Base
		9	0.5	S1	5		SM	SAND, fine to medium grained with some gravel, gray, moist, medium dense
		37	3.8	S2	10		SM	SAND, fine to medium grained, gray, dense, wet
		39	0.8	S3	15		SM	SAND, fine to medium grained, red, wet, dense
					20			
					25			Boring terminated at 23.0 feet. Monitoring well constructed (2-inch). Ground water encountered at 11 feet.

GeoPlexus, Inc.

FIGURE 4

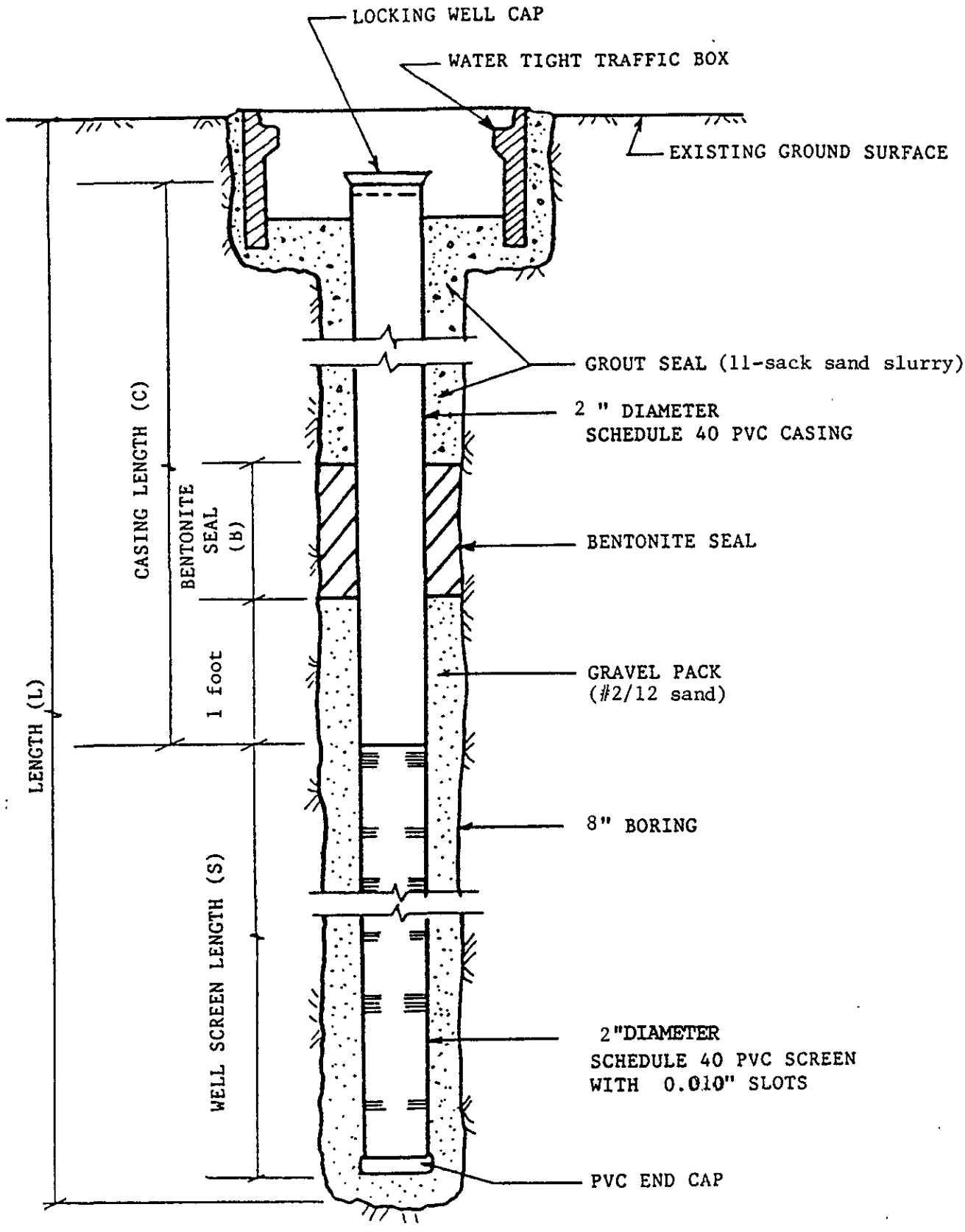
SUBSURFACE DATA LOG

LOG No. MW-5 DATE: 4/20/94
LOCATION: Good Chevrolet - Park Street
EQUIPMENT: Exploration Geoservices
PROJECT No.

DRY DENSITY (lbs. cu. ft.)	MOISTURE (% of dry wt.)	"N" VALUE (blows/ft.)	OVM READING (ppm)	SAMPLE TYPE	DEPTH (ft)	LOG	U.S.C.	
								A/C Pavement and Aggregate Base
							SM	SILTY SAND, redish-brown, moist, medium dense
		12	0.8	S1	5			
								- grey staining of sand noted
		29	25.8	S2	10			
								- redish-brown
		39	15.5	S3	15			
					20			
					25			Boring terminated at 22 feet Monitoring well constructed (2-inch). Ground water encountered at 12 feet

GeoPlexus, Inc.

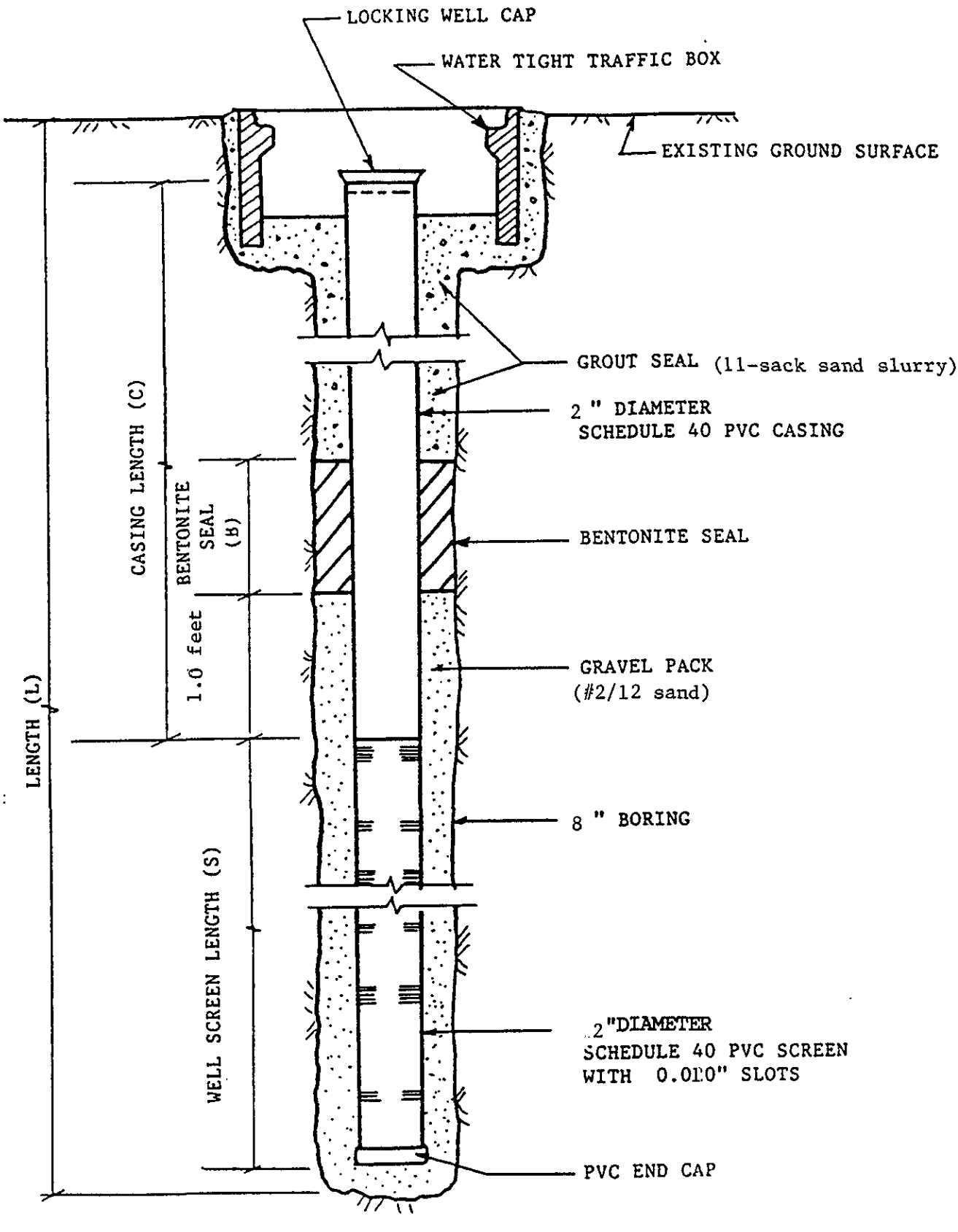
FIGURE 5



L=23 feet
S=15 feet
C= 8 feet
B= 1 foot

GOOD CHEVROLET		
DATE 4/20/94	SCALE n/a	DRAWN BY dcg
MONITORING WELL MW-4		
	Figure 6	

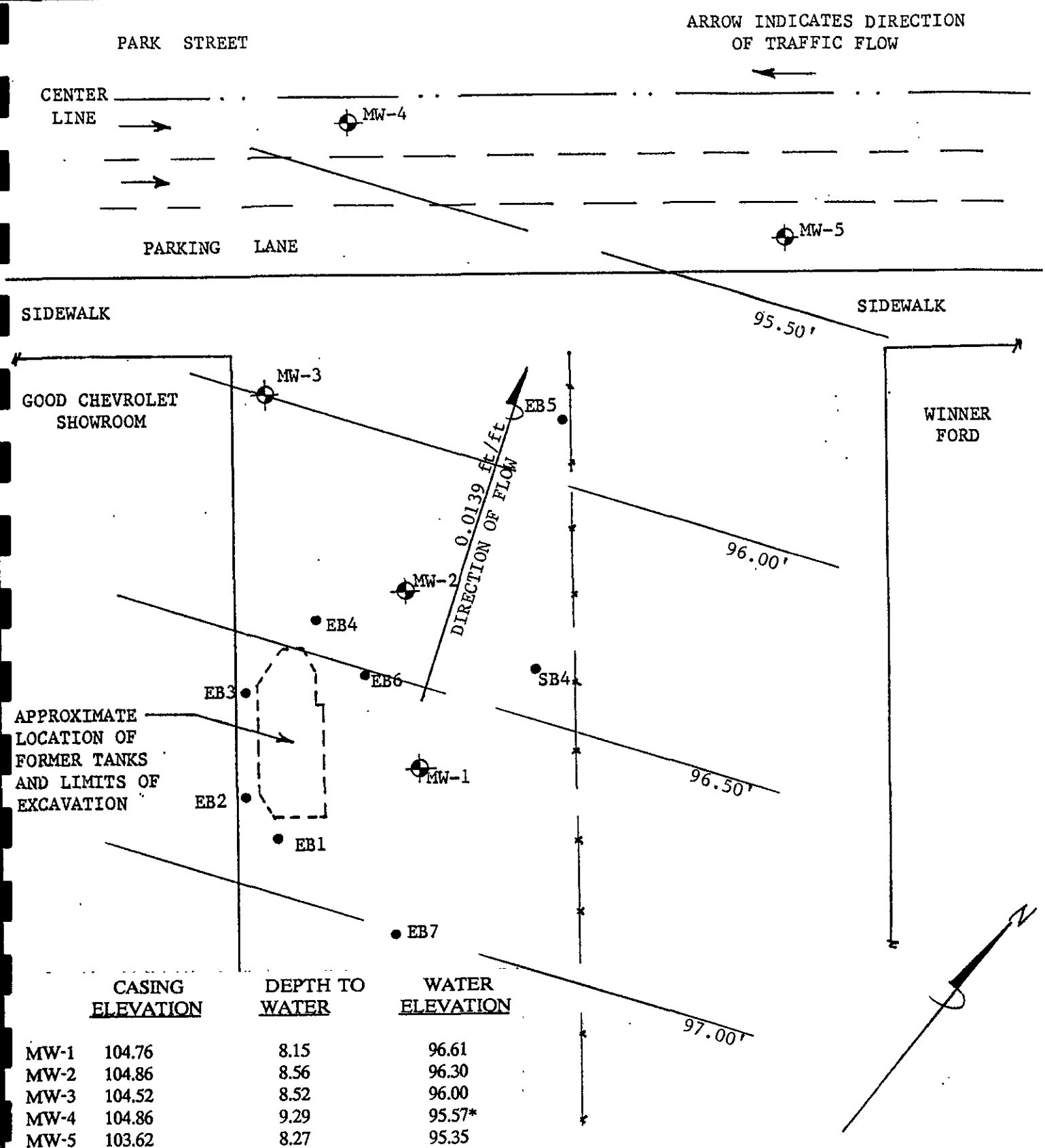
GeoPlexus, Inc.



L= 22 feet
S= 15 feet
C= 7 feet
B= 1 foot

GOOD CHEVROLET		
DATE 4/20/94	SCALE n/a	DRAWN BY dcg
MONITORING WELL MW-5		
	Figure 7	

GeoPlexus, Inc.



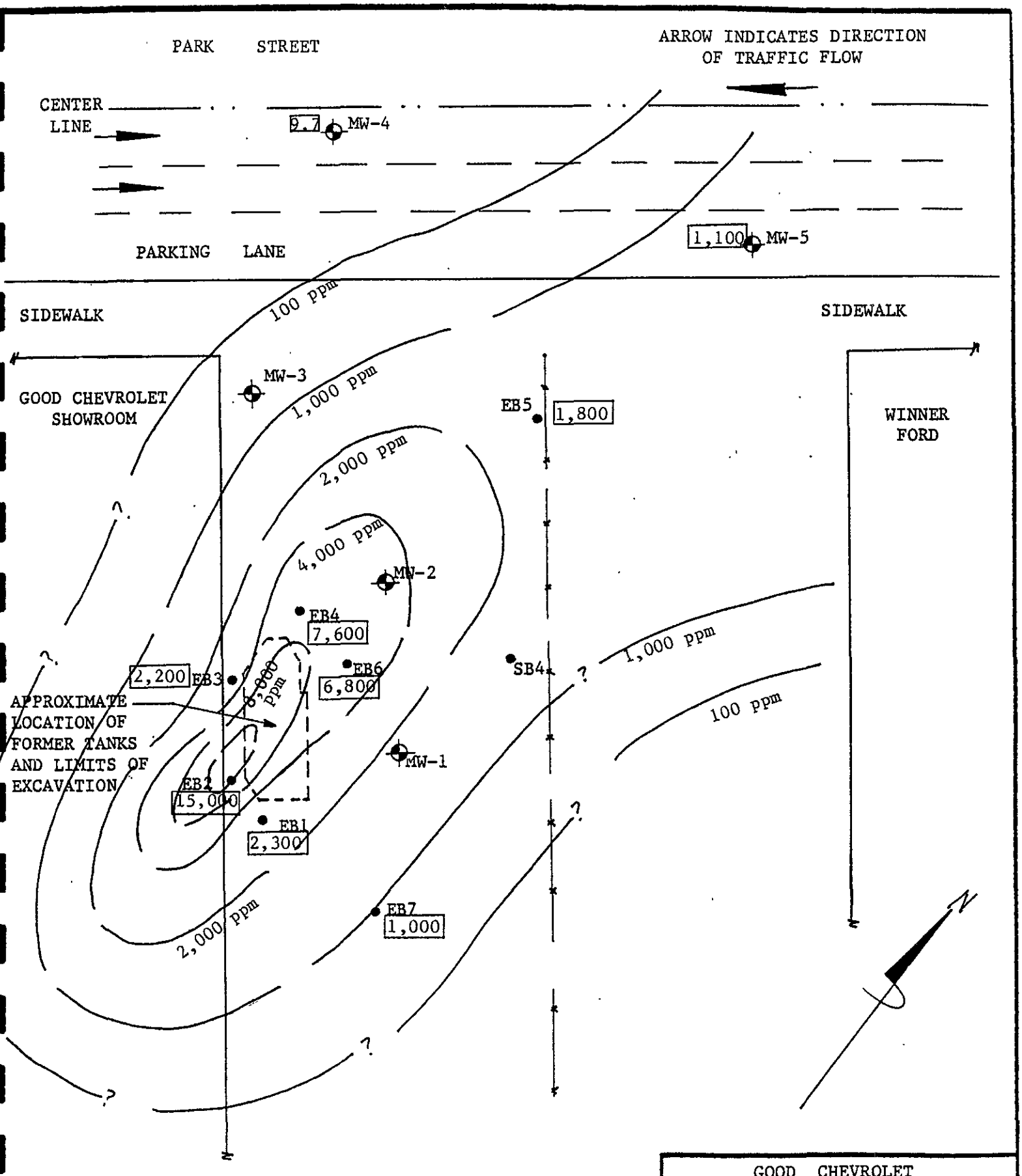
	CASING ELEVATION	DEPTH TO WATER	WATER ELEVATION
MW-1	104.76	8.15	96.61
MW-2	104.86	8.56	96.30
MW-3	104.52	8.52	96.00
MW-4	104.86	9.29	95.57*
MW-5	103.62	8.27	95.35

Note: Casing and ground water elevations based on Temporary Bench Mark (TBM) with an assumed elevation of 100.00 feet.

* Water level not stabilized.

GeoPlexus, Inc.

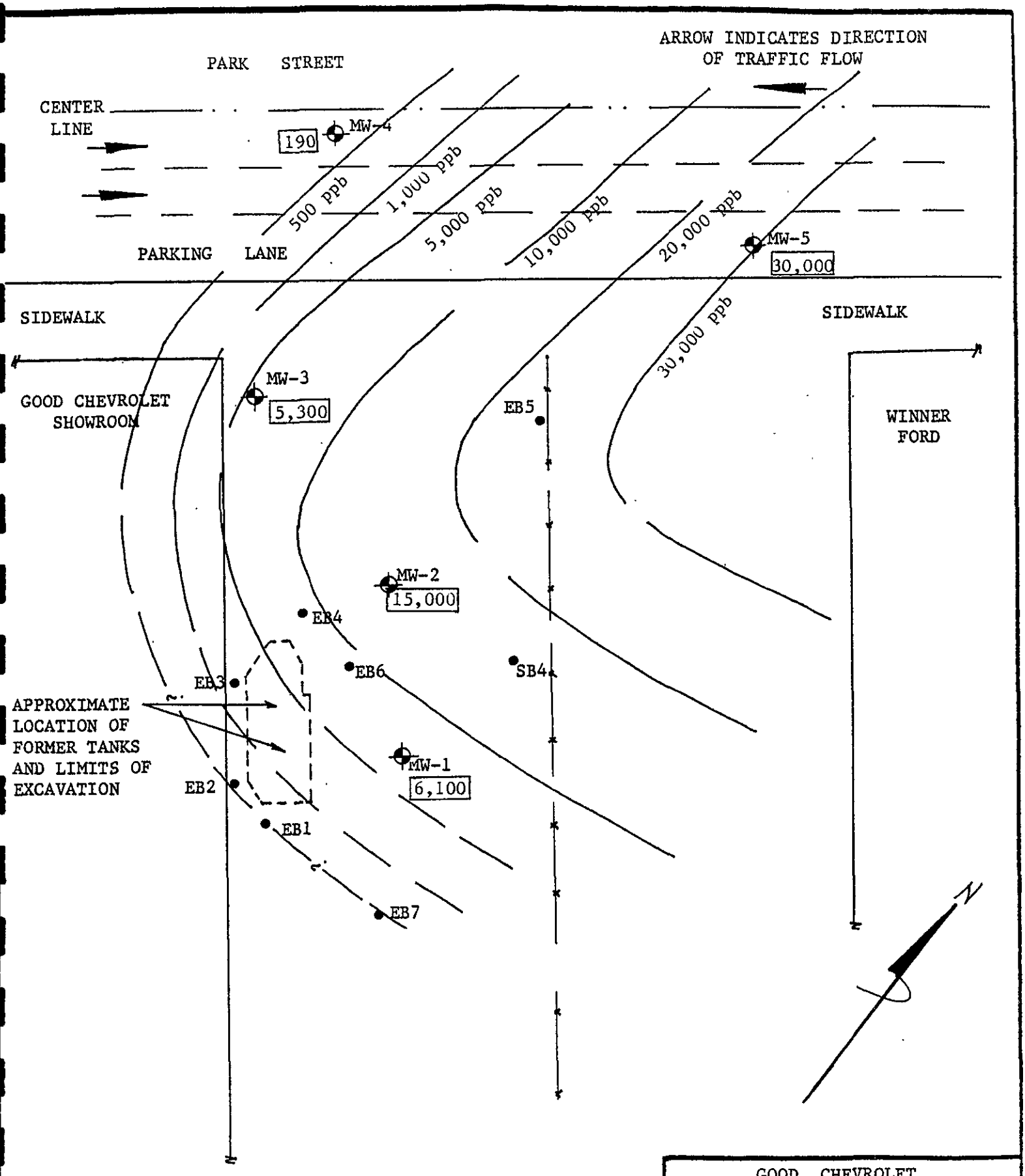
GOOD CHEVROLET		
DATE 4/28/94	SCALE 1"=20'	DRAWN BY dcg
GROUND WATER GRADIENT		
	Figure 8	



TPHg - Total Petroleum hydrocarbons as gasoline (concentrations in parts per million)

GeoPlexus, Inc.

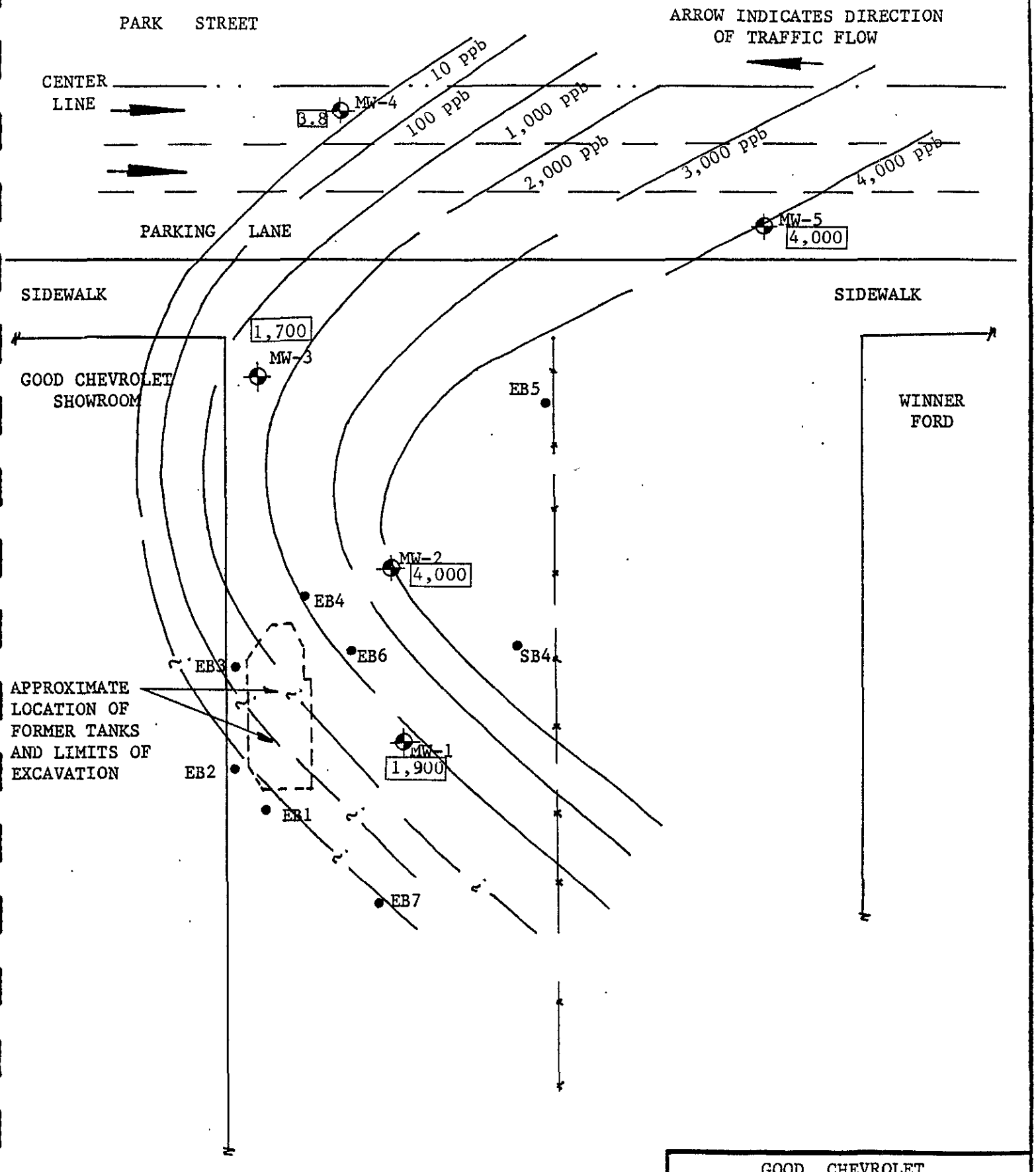
GOOD CHEVROLET		
DATE 5/4/94	SCALE 1"=20'	DRAWN BY dcg
TPHg CONCENTRATIONS IN SOIL		
	Figure 9	



TPHg - Total Petroleum Hydrocarbons as gasoline (parts per billion)

GeoPlexus, Inc.

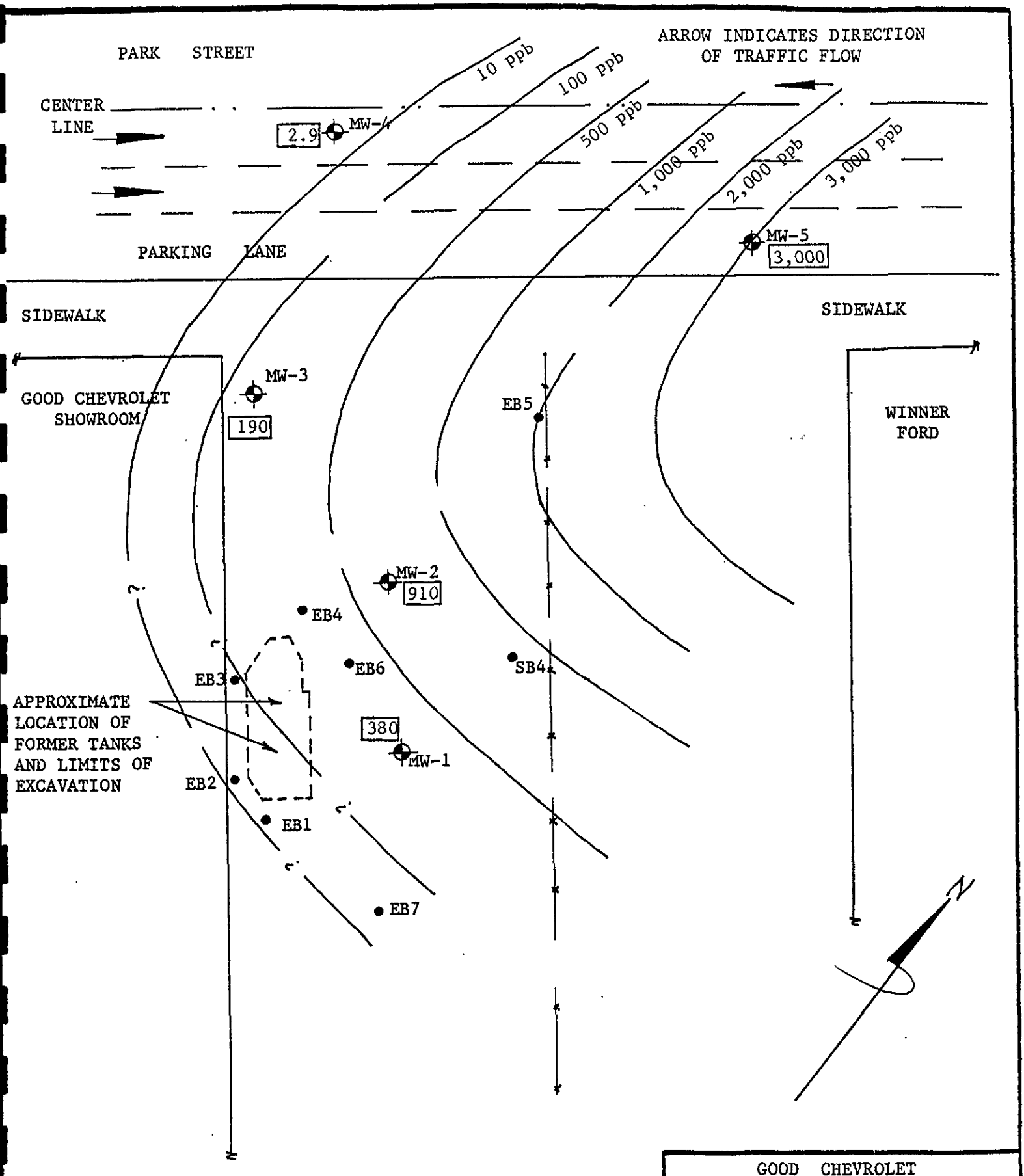
GOOD CHEVROLET		
DATE 5/4/94	SCALE 1"=20'	DRAWN BY dcg
TPHg CONCENTRATIONS IN WATER		
	Figure 10	



Benzene concnetrations parts per billion

GeoPlexus, Inc.

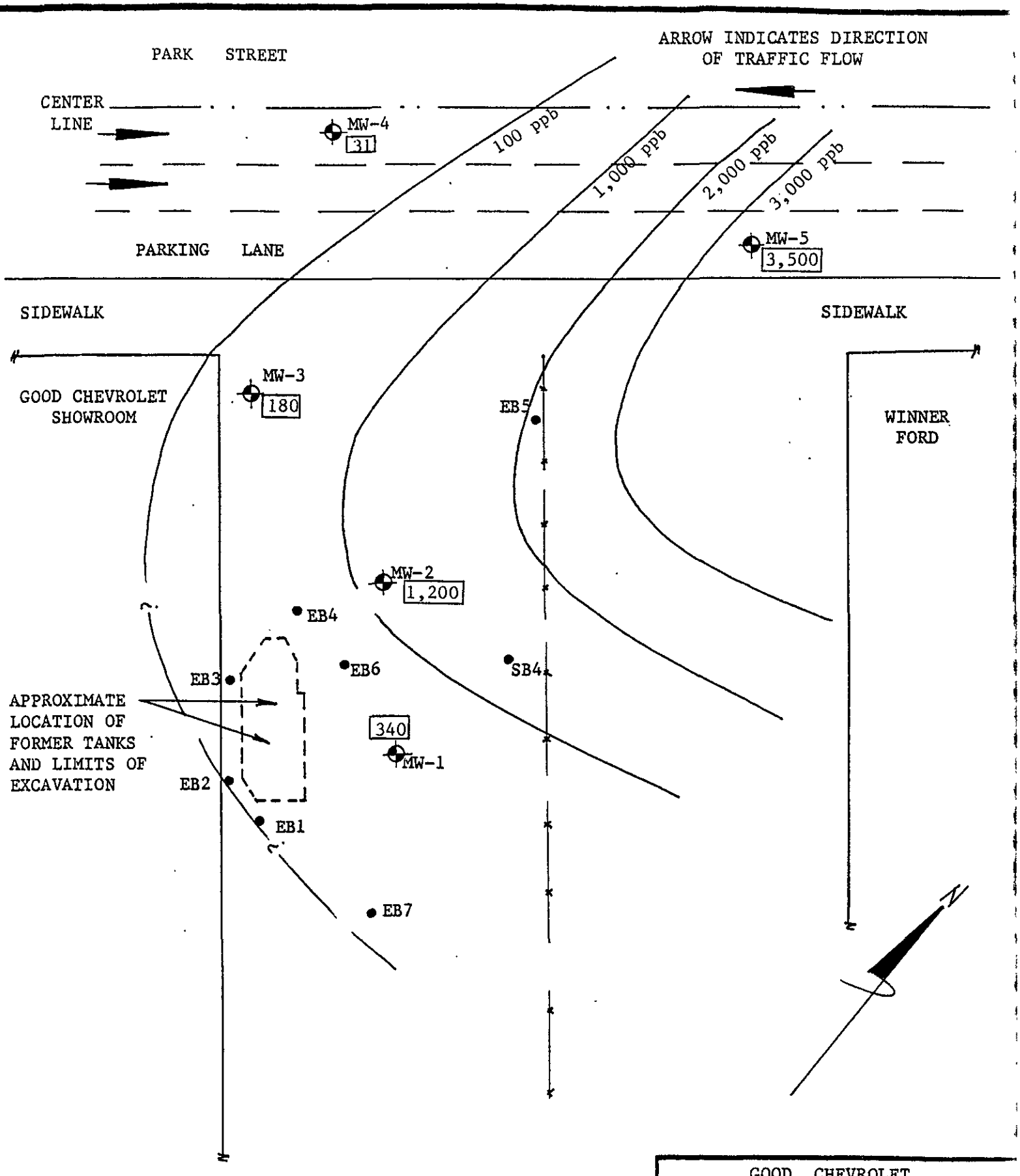
GOOD CHEVROLET		
DATE 5/4/94	SCALE 1"=20'	DRAWN BY dcg
BENZENE CONCENTRATIONS IN WATER		
	Figure 11	



Toluene concentrations in parts per billion

GeoPlexus, Inc.

GOOD CHEVROLET		
DATE 5/4/94	SCALE 1"=20'	DRAWN BY dcg
TOLUENE CONCENTRATIONS IN WATER		
	Figure 12	



Total Xylenes concentrations in parts per billion

GeoPlexus, Inc.

GOOD CHEVROLET		
DATE 5/4/94	SCALE 1"=20'	DRAWN BY dcg
XYLENE CONCENTRATIONS IN WATER		
	Figure 13	

APPENDIX A

CHAIN-OF-CUSTODY FORM
AND
ANALYTICAL TEST DATA

SOIL DATA

GeoPlexus, Inc.
1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

CHAIN-OF-CUSTODY

2312AGP52

PROJECT NUMBER	PROJECT NAME
C93013	GOOD CHEVROLET

Send Report Attention of:	Report Due	Verbal Due
DAVID GLICK	/ /	/ /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPHg/BTEX	Condition of Samples	Initial
MW4-S1	4/20/94	955		/	MON WELL 4 4.5-6'	1 EA	6" BRASS TUBE	/	35231	
MW4-S2		1000		/	MON WELL 4 9.5-11'			/	35232	
MW4-S3		1010		/	MON WELL 4 14.5-16'			/	35233	
MW5-S1		1304		/	MON WELL 5 4.5-6'			/	35234	
MW5-S2		1310		/	MON WELL 5 9.5-11'			/	35235	
MW5-S3		1314		/	MON WELL 5 14.5-16'			/	35236	

ICE/T
GOOD CONDITION
HEAD SPACE ABSENT

PRESERVATIVE APPROPRIATE
CONTAINERS

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	4/21/94 1545		15:45 4-21-94
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: STANDARD TURNAROUND

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

GEO Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, CA 95054	Client Project ID: # C93013; Good Chevrolet	Date Sampled: 04/20/94
		Date Received: 04/21/94
	Client Contact: David Glick	Date Extracted: 04/22/94
	Client P.O:	Date Analyzed: 04/22-04/23/94

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
35231	MW4-51	S	ND,b	ND	ND	ND	0.013	108
35232	MW4-52	S	9.7,a	1.1	0.82	0.42	1.3	102
35233	MW4-53	S	ND,b	ND	0.008	ND	0.022	105
35234	MW5-51	S	ND	ND	ND	ND	ND	98
35235	MW5-52	S	1100,b,c	12	43	20	93	---#
35236	MW5-53	S	1.1,b,c	0.033	0.17	0.044	0.22	95
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak co-elutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds are significant; no recognizable pattern; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible phase is present.

DHS Certification No. 1644

Edward Hamilton, Lab Director

APPENDIX B

CHAIN-OF-CUSTODY FORM
AND
ANALYTICAL TEST DATA

GROUND WATER DATA

GeoPlexus, Inc.
1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

CHAIN-OF-CUSTODY

2345AGP84

PROJECT NUMBER	PROJECT NAME
C93013	GOOD CHEVROLET

Send Report Attention of: DAVID GLICK

Report Due: / /

Verbal Due: / /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-g / BTEX	Condition of Samples	Initial
MW4-WS1A,B	4/28/94	1155		1	MON WELL 4	2 EA	ACIDIFIED 40 ML VOA	1	35388	
MW1-WS1A,B		1330		1	MON WELL 1			1	35389	
MW3-WS1A,B		1355		1	MON WELL 3			1	35390	
MW2-WS1A,B		1415		1	MON WELL 2			1	35391	
MW5-WS1A,B		1450		1	MON WELL 5			1	35392	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	4/29/94 1037	S R Hamilton	4/29/94 1037
Relinquished by: (Signature) S R Hamilton	Date/Time 4/29/94 1602	Received by: (Signature) Linda Rua	Date/Time 4-29-94 1:50 pm
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: STANDARD TURNAROUND

ICE/T ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓

PRESERVATIVE ✓ APPROPRIATE CONTAINERS ✓

VOAS O&G METALS OTHER

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

GEO Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, CA 95054	Client Project ID: C93013; Good Chevrolet	Date Sampled: 04/28/94
		Date Received: 04/29/94
	Client Contact: David Glick	Date Extracted: 04/29/94
	Client P.O:	Date Analyzed: 04/29/94

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
35388	MW4-WS1A	W	190,b,d	3.8	2.9	2.1	31	103
35389	MW1-WS1A	W	6100,a	1900	380	250	340	91
35390	MW3-WS1A	W	5300,a	1700	190	210	180	88
35391	MW2-WS1A	W	15,000,a	4000	910	480	1200	88
35392	MW5-WS1A	W	30,000,a	4000	3000	810	3500	89
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak co-elutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds are significant; no recognizable pattern; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible phase is present.

DHS Certification No. 1644

Edward Hamilton, Lab Director