BEACON An Ultramar Company
525 WEST THIRD STREET • HANFORD, CA 93230 • (209) 582-0241

July 31, 1986

Mr. T. M. Gerow
Public Health Engineer
Alameda Co. Div. Of Env. Health
470 27th Street, Rm. 324
Oakland, CA 94612

To UG TANKS file

RE: Beacon Station #574
22315 Redwood Road
Castro Valley, CA

Dear Mr. Gerow:

Enclosed are the tank test results for the above referenced Beacon service station. Please review the results and if you should have any questions, please feel free to contact me immediately.

Very truly yours,

BEACON OIL COMPANY

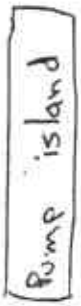
Beverly J. Long

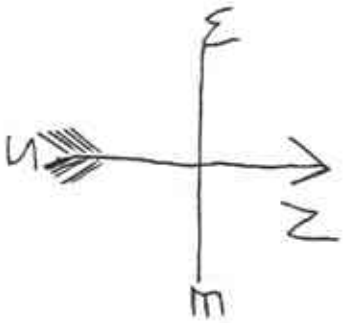
Beverly J. Long
Environmental Coordinator

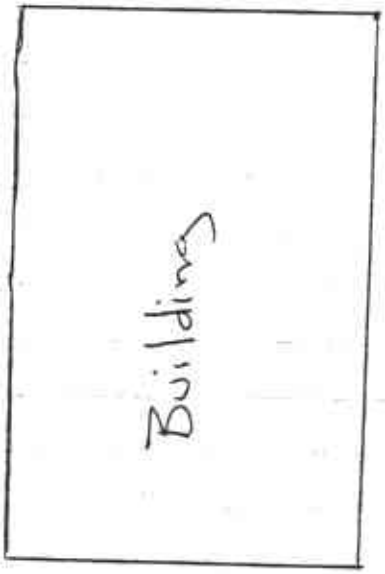
BJL/krp

Enclosure

Beacon #574
Redwood Rd.
Castro Valley







8,000 gal.
Reg. Lead →

Pump island

5,000 gal.
Super Unlead →

Pump island

5,000 gal.
Super Unlead →

7,500 gal.
Super Premium
Unlead →

On July 14, 1986 four underground storage tanks were tested. All tanks were full and ready to test when we arrived. The two 5,000 gal. Super Unlead tanks were manifolded together. A leak was observed and repaired in the vapor recovery system of the Super Unlead. The Super Premium Unlead tank was a 7,500 gal. steel tank and the Regular Lead was an 8,000 gal. steel tank. All systems were bled from vapor pockets. All systems were tested tight.

14. Beacon #574 — Redwood Rd. — Castro Valley, Ca. — 7-14-86
Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

Petro Tite TANK TESTER

15. TANK TO TEST

West
Identity by position

Regular Lead
Brand and Grade

16. CAPACITY

Nominal Capacity 8000 Gallons

By most accurate capacity chart available 8,121 Gallons

From
- [x] Station Chart
- [ ] Tank Manufacturer's Chart
- [ ] Company Engineering Data
- [ ] Charts supplied with petro tite
- [ ] Other

Is there doubt as to True Capacity? [ ]
See Section "DETERMINING TANK CAPACITY"

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up — to ⅛ in. — Gallons

Fill up. STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY

Tank Diameter 96"

	Stick Readings to ⅛ in.	Gallons	Total Gallons as. Reading
Inventory	Full Tank		8,121
	Top OFF		10
Product in full tank (up to fill pipe)			8,131

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

See manual sections applicable. Check below and record procedure in log (26).

obs. API Temp. 72°
obs. API Grav. 53.9
Corrected API Grav. 52.5

- [ ] Water in tank
- [ ] High water table in tank excavation
- [ ] Line(s) being tested with LVLLT

VAPOR RECOVERY SYSTEM
- [ ] Stage I
- [ ] Stage II

HEATH CONSULTANTS
100 TOSCA DRIVE
P.O. BOX CS-200

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to Grade* ..... "
Add 30" for 4" L ..... "
Add 24" for 3" L or air seal ..... "
Total tubing to assemble Approximate ..... "

20. EXTENSION HOSE SETTING

Tank top to grade* ..... "
Extend hose on suction tube 6" or more below tank top ..... "

*If Fill pipe extends above grade, use top of fill.

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK

Is Today Warmer? [ ] Colder? [ ] ___° F Product in Tank ___° F Fill-up Product on Truck ___° F Expected Change (+ or −)

22. Thermal-Sensor reading after circulation 15749 digits — 70°/71° Nearest °F

23. Digits per °F in range of expected change 325 digits

24. 8,131 (total quantity in full tank (16 or 17)) × .00056035 (coefficient of expansion for involved product) = 4.55620585 gallons (volume change in this tank per °F)

25. 4.55620585 (volume change per °F (24)) + 325 (Digits per °F in test Range (23)) = .014019094 (Volume change per digit. Compute to 4 decimal places.) This is test factor (a)

26. LOG OF TEST PROCEDURES			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (T) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGES EACH READING	39. ACCUMULATED CHANGE
27. DATE / TIME (24 hr.)	28. Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	Standpipe Level in Inches: Beginning of Reading	Level to which Restored	32. Product in Graduate: Before Reading	After Reading	Product Replaced (−) / Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower − (c)	37. Computation (c) × (a) = Expansion + Contraction −	Temperature Adjustment / Volume Minus Expansion (+) or Contraction (−) #33(V) − #37(T)	At High Level record Total End Deflection / At Low Level compute Change per Hour (NFPA criteria)

[illegible] .0140

10:45	Begin High level Test	1		42"		.310		749			
11:00	High level Test Cont'd	2	–	42"	.310	.400	+.090	756	+7	+.098	-.008
11:15	" " " "	3		42"	.400	.475	+.075	766	+10	+.140	-.065
11:30	" " " "	4		42"	.475	.555	+.075	776	+10	+.140	-.065
11:45	" " " "	5		42"	.555	.660	+.105	783	+7	+.098	+.007
12:00	" " " "	6		42"	.660	.760	+.100	792	+9	+.126	-.026
12:15	" " " "	7		42"	.760	.875	+.115	802	+10	+.140	-.025
12:30	" " " "	8		42"	.285	.395	+.110	808	+6	+.084	+.026
12:30	Begin Low Level test	1		12"		.240					
12:45	Low Level test Cond't	2		12"	.240	.425	+.185	818	+10	+.140	+.045
13:00	" " " "	3		12"	.425	.575	+.150	829	+11	+.154	+.004
13:15	" " " "	4		12"	.100	.235	+.135	838	+9	+.126	+.009
13:30	" " " "	5		12"	.235	.360	+.125	848	+10	+.140	+.015
13:45	" " " "	6		12"	.360	.490	+.130	857	+9	+.126	+.004

+.032

Tank Tight

Data Chart for Tank System Tightness Test

petro tite
TANK TESTER

PLEASE PRINT

1. OWNER Property ☐ Tank(s) ☐

Beacon #574 — Redwood Rd. — Castro Valley, Ca. — 7-14-86
Name — Address — Representative — Telephone

Name — Address — Representative — Telephone

2. OPERATOR

Name — Address — Telephone

3. REASON FOR TEST (Explain Fully)

4. WHO REQUESTED TEST AND WHEN

Name — Title — Company or Affiliation — Date

Address — Telephone

5. WHO IS PAYING FOR THIS TEST?

Company, Agency or Individual — Person Authorizing — Title — Telephone

Billing Address — City — State — Zip

Attention of: — Order No. — Other Instructions

6. TANK(S) INVOLVED

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
East	7,500	Beacon	Super Prem. Unlead	20 yrs.	Steel
Middle #1	5,000	Beacon	Super Unlead	20 yrs.	Steel
Middle #2	5,000	Beacon	Super Unlead	20 yrs.	Steel
West	8,000	Beacon	Reg. Lead	20 yrs.	Steel

7. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
East of Building	concrete	4", Drop tubes removed	2"	yes, super Unlead (middle #1 & #2)	remote
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc.	Size, Fillfill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

8. UNDERGROUND WATER

Depth to the Water table _____"

Is the water over the tank? ☐ Yes ☐ No

9. FILL-UP ARRANGEMENTS

Tanks to be filled _____ hr. _____ Date Arranged by _____
Name — Telephone

Extra product to "top off" and run TSTT. How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____
Company — Name — Telephone

10. CONTRACTOR, MECHANICS, any other contractor involved

11. OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test etc.

12. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for petro tite TANK TESTER as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
East	Tight	+.009 G.P.H.	7-14-86
Middle #1	Tight	+.015 G.P.H.	7-14-86
Middle #2	Tight	+.032 G.P.H.	7-14-86
West	Tight		7-14-86

13. CERTIFICATION

This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Asociation Pamphlet 329.

7-14-86 — 4/484374
Date

James D. Walker
Technicians

Becker Ind. Inc. — James D. Walker
Testing Contractor or Company — By: Signature

2501 Oak St. Napa, Ca. 94559
Address

Serial No. of Thermal Sensor

14. Beacon — Castro Valley

Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

Petro Tite TANK TESTER

15. TANK TO TEST

Middle 1 — Identity of position

Unlead — Brand and Grade

16. CAPACITY

Nominal Capacity 5000 Gallons

By most accurate capacity chart available 5000 + 5000 Gallons

Is there doubt as to True Capacity? ☐

See Section "DETERMINING TANK CAPACITY"

From
- ☐ Station Chart
- ☐ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with petro tite TANK TESTER
- ☐ Other ______

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up ✓ " to ⅛ In. 0 Gallons

Fill up STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY

	Stick Readings to ⅛ in.	Gallons	Total Gallons ea. Reading
Inventory	Full tank		5,225
	Topoff		10
Product in full tank (up to fill pipe)			5235

Tank Diameter 96"

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

(D) API Temp 75°
Obs API Grav. 55.4
Corrected API Grav. 53.6

See manual sections applicable. Check below and record procedure in log (26).

☐ Water in tank ☐ High water table in tank excavation ☐ Line(s) being tested with LVLLT

VAPOR RECOVERY SYSTEM
- ☐ Stage I
- ☐ Stage II

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to Grade* .... "

Add 30" for 4" L .... "

Add 24" for 3" L or air seal .... "

Total tubing to assemble Approximate .... "

20. EXTENSION HOSE SETTING

Tank top to grade* .... "

Extend hose on suction tube 6" or more below tank top .... "

*If Fill pipe extends above grade, use top of fill.

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK

Is Today Warmer? ( ) Colder? ( ) ___°F Product in Tank ___°F Fill-up Product on Truck ___°F Expected Change (+ or −)

22. Thermal-Sensor reading after circulation 17037 digits 74/75 Nearest °F

23. Digits per °F in range of expected change 321 digits

24. 5,235 total quantity in full tank (16 or 17) × .00056816 coefficient of expansion for involved product = 2.9743176 gallons volume change in this tank per °F

25. 2.9743176 volume change per °F (24) ÷ 321 Digits per °F in test Range (23) = .0092657 [illegible] Volume change per digit. Compute to 4 decimal places. This is test factor (a)

HEATH CONSULTANTS
100 TOSCA DRIVE
P.O. BOX CS-200
STOUGHTON, MA 02072-1501

26. LOG OF TEST PROCEDURES				30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGES EACH READING	39. ACCUMULATED CHANGE
27. DATE / TIME (24 hr.)	28. Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.		Standpipe Level in Inches: Beginning of Reading	Level to which Restored	32. Product in Graduate: Before Reading	After Reading	Product Replaced (−) / Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower − (c)	37. Computation (c) × (a) = Expansion + Contraction −	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (−) #33(V) − #37(T)	At High Level record Total End Deflection / At Low Level compute Change per Hour (NFPA criteria)
									Middle #1 factor (a) .0093			Middle #2 Factor (a) .0092	

15.10	Begin High Level test	1		42"		.420		037/910					
15.25	High Level test Cont'd	2		42"	.420	.350	-.070	047/923	+10/+13	+.093/+.120		-.783	
15.40	" " " "	3		42"	.350	.000	-.350	060/921	+13/+4	+.134/+.037		-.508	
15.55	" " " "	4		42"	.800	.720	-.080	061/915	+7/+16	+.065/+.166		-.311	
16.10	" " " "	5		42"	.720	.720	+.000	.017/955	+10/+10	.093/.092		-.185	
16.25	" " " "	6		42"	.720	.750	+.030	086/964	+9/+9	.084/.093		-.137	
16.40	" " " "	7		42"	.750	.800	+.050	097/975	+11/+11	.102/.101		-.153	
16.55	" " " "	8		42"	.800	.855	+.055	103/990	+11/+15	+.102/+.138		-.185	
16.55	Begin Low Level Test	1		12"		.420							
17.10	Low Level TEST Cont'd	2		12"	.420	.560	+.140	118/000	+10/+10	+.093/+.092		-.045	
17.25	" " " "	3		12"	.560	.660	+.100	.125/003	+7/+3	+.065/+.028		+.007	
17.40	" " " "	4		12"	.660	.825	+.165	130/011	+11/+8	+.102/.074		-.011	
17.55	" " " "	5		12"	.265	.365	+.100	140/016	+4/+5	+.037/.046		+.017	+.013
18.10	" " " "	6		12"	.365	.515	+.150	149/023	+9/+7	.084/.064		+.002	+.015

+.015

* found leak @ syphone vapor riser - repaired

Petro Tite TANK TESTER

14. Beacon — Name of Supplier, Owner or Dealer | Redwood Rd. — Address No. and Street(s) | Castro Valley — City State | Date of Test

15. TANK TO TEST

East — Identity by position

Super Premium Unleaded — Brand and Grade

16. CAPACITY

Nominal Capacity 7500 gallons

By most accurate capacity chart available _____ Gallons

Is there doubt as to True Capacity? ☐ See Section "DETERMINING TANK CAPACITY"

From
- ☑ Station Chart
- ☐ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with Petro Tite
- ☐ Other _____

17. FILL-UP FOR TEST

035. API temp 80°
085. API Grav. 56.4
Corrected 54.0

Stick Water Bottom before Fill-up — to ⅛ in. — Gallons

Inventory	Stick Readings to ⅛ in.	Gallons	Total Gallons ea. Reading
	Full Tank		7500
	Top OFF		10
Product in full tank (up to fill pipe)			7510

Fill up. STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY

Tank Diameter 96"

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

See manual sections applicable. Check below and record procedure in log (26).

☐ Water in tank ☐ High water table in tank excavation ☐ Line(s) being tested with LVLLT

VAPOR RECOVERY SYSTEM
- ☐ Stage I
- ☐ Stage II

HEATH CONSULTANTS
100 TOSCA DRIVE
P.O. BOX CS-200

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to Grade* ..... "
Add 30" for 4" L ..... "
Add 24" for 3" L or air seal ..... "
Total tubing to assemble Approximate ..... "

20. EXTENSION HOSE SETTING

Tank top to grade* ..... "
Extend hose on suction tube 6" or more below tank top ..... "

*If Fill pipe extends above grade, use top of fill.

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK

Is Today Warmer? ( ) Colder? ( ) ___° F Product in Tank ___° F Fill-up Product on Truck ___° F Expected Change (+ or −)

22. Thermal-Sensor reading after circulation 16564 digits 73/74 Nearest °F

23. Digits per °F in range of expected change 322 digits

24. 7510 (total quantity in full tank (16 or 17)) × .00057384 (coefficient of expansion for involved product) = 4.3095384 gallons volume change in this tank per °F

25. 4.3095384 (volume change per °F (24)) ÷ 322 (Digits per °F in test Range (23)) = .013383659 Volume change per digit. Compute to 4 decimal places. This is test factor (a)

26. LOG OF TEST PROCEDURES			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGES EACH READING	39. ACCUMULATED CHANGE
27. DATE / TIME (24 hr)	28. Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	Standpipe Level in Inches: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32. Product in Graduate: Before Reading	Product in Graduate: After Reading	Product Replaced (−) / Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower − (c)	37. Computation (c) × (a) = Expansion + Contraction −	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (−) #33(V) − #37(T)	At High Level record Total End Deflection / At Low Level compute Change per Hour (NFPA criteria)

1515	start High Level	1	42					564					
1530		2	42.2	42	.340	.355	+.015	564	±0	±.000	+.015		
1545		3	42.0	42	.355	.355	±.000	564	±0	±.000	±.000		
1600		4	42.3	42	.355	.380	+.025	564	±0	±.000	+.025		
1615		5	42.8	42	.380	.440	+.060	569	+5	+.067	-.007		
1630		6		42	.440	.500	+.060	574	+5	+.067	-.007		
1645		7	43.2	42	.500	.605	+.105	582	+8	+.107	-.002		
1700		8		42	.650	.710	+.105	590	+8	+.107	-.002		
								↓↓					
1715	Start low level		15	12	.350	.535	+.185	590	±0	±.000	+.185		
1730			14	12	.535	.660	+.125	600	+10	+.134	-.009		
1745			14	12	.660	.780	+.120	611	+11	+.147	-.027		
1800			14.3	12	.780	.925	+.145	618	+7	+.094	+.051	+.015	
1815				12	.440	.555	+.115	627	+9	+.121	-.006	+.009	

Tank Tight +.009

Petro Tite TANK TESTER

14. —

Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

15. TANK TO TEST

middle 2
Identity by position

Super Unleaded
Brand and Grade

16. CAPACITY

Nominal Capacity 5,000 Gallons

By most accurate capacity chart available 5,225 Gallons

Is there doubt as to True Capacity? ☐
See Section "DETERMINING TANK CAPACITY"

From
- ☑ Station Chart
- ☐ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with Petro Tite TANK TESTER
- ☐ Other _____

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up — " to ⅛ in. — Gallons

	Stick Readings to ⅛ in.	Gallons	Total Gallons ea. Reading
Inventory	Fill tank		5225
Fill up. STICK BEFORE AND AFTER EACH COMPARTMENT DROP OR EACH METERED DELIVERY QUANTITY	Top off		10
Product in full tank (up to fill pipe)			5,235

Tank Diameter 96"

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

See manual sections applicable. Check below and record procedure in log (26).

☐ Water in tank ☐ High water table in tank excavation ☐ Line(s) being tested with LVLLT

VAPOR RECOVERY SYSTEM
- ☐ Stage I
- ☐ Stage II

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to Grade*	"
Add 30" for 4" L	"
Add 24" for 3" L or air seal	"
Total tubing to assemble Approximate	"

20. EXTENSION HOSE SETTING

Tank top to grade*	"
Extend hose on suction tube 6" or more below tank top	"

*If Fill pipe extends above grade, use top of fill.

21. TEMPERATURE/VOLUME FACTOR (a) TO TEST THIS TANK

Is Today Warmer? [ ] Colder? [ ] ___° F Product in Tank ___° F Fill-up Product on Truck ___° F Expected Change (+ or −)

22. Thermal-Sensor reading after circulation 5910 digits — 70/71 Nearest °F

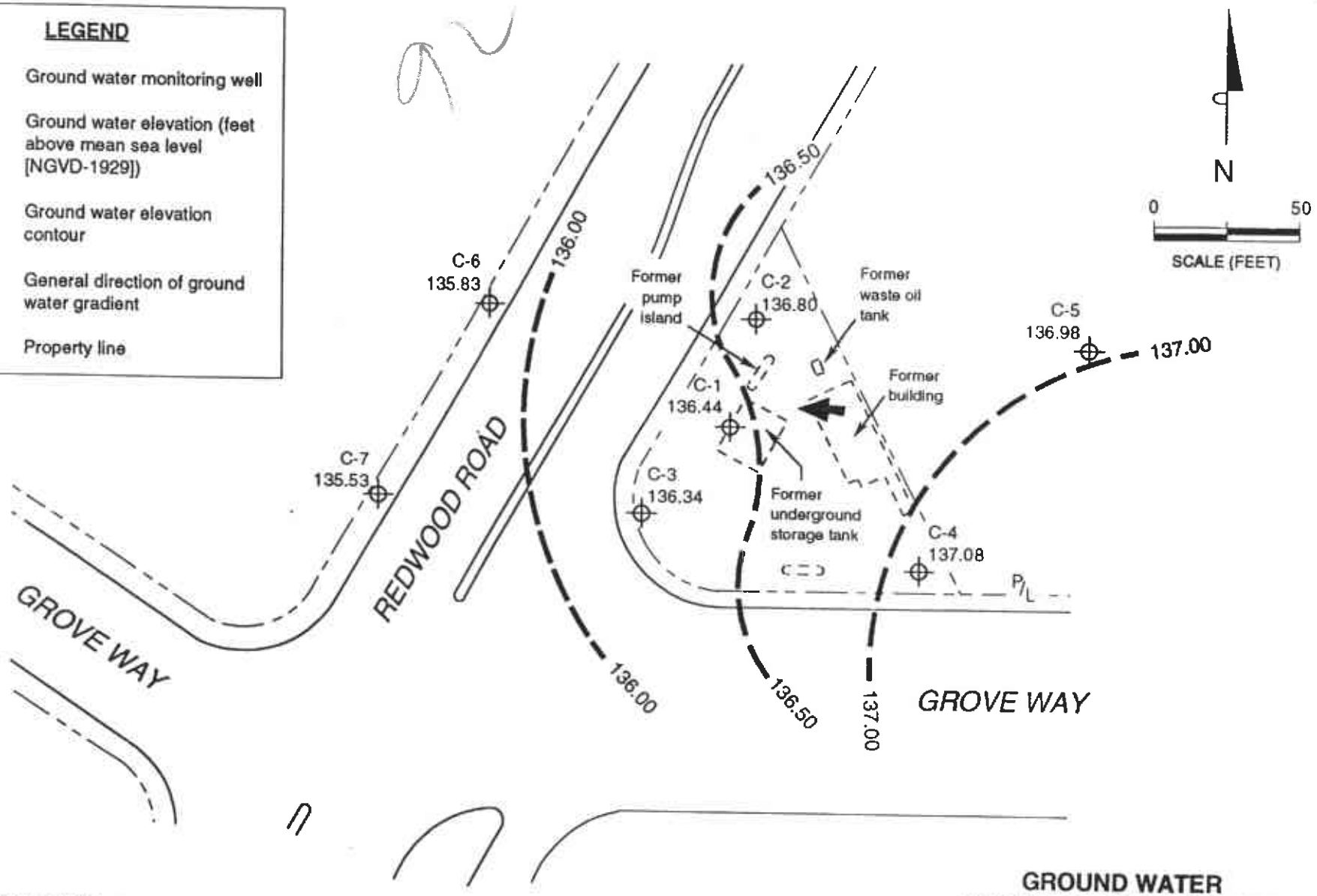
23. Digits per °F in range of expected change 325 digits

24. 5235 (total quantity in full tank (16 or 17)) × .00056667 (coefficient of expansion for involved product) = 2.9760345 (volume change in this tank per °F) gallons

25. 2.9760345 (volume change per °F (24)) ÷ 325 (Digits per °F in test Range (23)) = .009163183 (Volume change per digit. Compute to 4 decimal places.) This is test factor (a)

26. LOG OF TEST PROCEDURES			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGES EACH READING	39. ACCUMULATED CHANGE
27. DATE / TIME (24 hr.)	28. Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	Standpipe Level in Inches: Beginning of Reading	Level to which Restored	32. Product in Graduate: Before Reading	After Reading	Product Replaced (−) / Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower − (c)	37. Computation (c) × (a) = Expansion + Contraction −	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (−) #33(V) − #37(T)	At High Level record Total End Deflection / At Low Level compute Change per Hour (NFPA criteria)

HEATH CONSULTANTS
100 TOSCA DRIVE
P.O. BOX CS-200
STOUGHTON, MA. 02072-1591



NOTES:
Contour lines are interpretive based on fluid levels in monitoring wells measured on June 4, 1992

ALTON GEOSCIENCE
Pleasanton, California

Source: Geostrategies, Inc.

GROUND WATER ELEVATION CONTOUR MAP

Former Chevron Station No. 9-2960
2416 Grove Way
Castro Valley, California

FIGURE 2

31-0563 7/92

Table 1
Summary of Results of Ground Water Sampling
Former Chevron Service Station # 9-2960
2416 Grove Way/Redwood Road, Castro Valley, California

Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	TOP OF WELL BOX ELEVATION	DEPTH TO WATER	FREE PRODUCT THICKNESS	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-1	10/23/86	---	---	---	---	37000	6400	3700	---	4300	TMA
C-1	09/10/87	---	---	---	---	120000	25000	60000	13000	56000 *	ENS
C-1	10/03/90	153.36	18.67	---	134.69	---	---	---	---	---	NA
C-1	10/25/90	153.36	18.71	0.71	135.22	---	---	---	---	---	NA
C-1	01/22/91	153.36	18.70	0.70	135.22	---	---	---	---	---	NA
C-1	02/21/91	153.36	18.62	0.88	135.44	---	---	---	---	---	NA
C-1	04/01/91	153.36	16.91	0.03	136.47	---	---	---	---	---	NA
C-1	04/11/91	153.36	16.90	0.04	136.49	---	---	---	---	---	NA
C-1	07/01/91	153.36	17.61	0.00	135.75	---	---	---	---	---	NA
C-1	09/24/91	153.36	18.98	0.99	135.17	---	---	---	---	---	NA
C-1	10/23/91	153.36	19.32	1.24	135.03	---	---	---	---	---	NA
C-1	11/22/91	153.36	18.83	0.97	134.53	---	---	---	---	---	NA
C-1!	01/09/92	153.36	17.26	---	136.10	---	---	---	---	---	NA
C-1!	03/06/92	153.36	16.69	0.61	137.16	---	---	---	---	---	NA
C-1!	06/04/92	153.36	17.10	0.22	136.44	---	---	---	---	---	NA
C-2	10/23/86	---	---	---	---	30000	2700	1900	---	1500	TMA
C-2	09/10/87	---	---	---	---	14000	2600	2900	500	1200 *	ENS
C-2	10/16/89	---	---	---	---	600	260	34	1.7	41	NA
C-2	01/04/90	---	---	---	---	2600	470	150	23	130	NA
C-2	04/05/90	---	---	---	---	500	280	29	6.3	19	NA
C-2	07/02/90	---	---	---	---	2400	670	110	17	76	NA
C-2	10/03/90	---	---	---	---	---	---	---	---	---	NA
C-2	10/25/90	151.84	16.60	---	135.24	1300	390	47	9	58	SAL
C-2	01/22/91	151.84	16.69	---	135.15	2600	680	88	29	130	SAL
C-2	02/21/91	151.84	16.31	---	135.53	---	---	---	---	---	NA
C-2	04/01/91	151.84	15.08	---	136.76	---	---	---	---	---	NA
C-2	04/11/91	151.84	15.23	---	136.61	---	---	---	---	---	NA
C-2	07/01/91	151.84	15.96	---	135.88	---	---	---	---	---	NA
C-2	09/24/91	151.84	16.51	---	135.33	3600	1400	63	6.9	63	SAL
C-2	10/23/91	151.84	16.66	---	135.18	---	---	---	---	---	NA
C-2	11/22/91	151.84	16.37	---	135.47	---	---	---	---	---	NA
C-2	01/09/92	151.84	15.56	---	136.28	7100	770	740	190	690	SAL
C-2	03/06/92	151.84	14.37	---	137.47	3200	250	230	59	220	SAL
C-2	06/04/92	151.84	15.04	---	136.80	1500	ND<0.5	180	42	130	SAL

Table 1
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Former Chevron Service Station # 9-2960
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Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	TOP OF WELL BOX ELEVATION	DEPTH TO WATER	FREE PRODUCT THICKNESS	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-3	10/23/86	---	---	---	---	3300	49	24	---	20	TMA
C-3	09/10/87	---	---	---	---	200	110	2.6	ND<2.0	ND<2.0	ENS
C-3	10/16/89	---	---	---	---	900	640	4.2	1.6	16	NA
C-3	01/04/90	---	---	---	---	920	430	7	6	7	NA
C-3	04/05/90	---	---	---	---	930	690	3.4	5.1	4.8	NA
C-3	07/02/90	---	---	---	---	1700	590	11	4.8	9.4	NA
C-3	10/03/90	154.13	19.16	---	134.97	---	---	---	---	---	NA
C-3	10/25/90	154.13	19.28	---	134.85	750	510	2	6	5	SAL
C-3	01/22/91	154.13	19.18	---	134.95	430	260	2	2	5	SAL
C-3D	01/22/91	154.13	19.18	---	134.95	400	250	2	2	5	SAL
C-3	02/21/91	154.13	18.88	---	135.25	---	---	---	---	---	NA
C-3	04/01/91	154.13	17.59	---	136.54	---	---	---	---	---	NA
C-3	04/11/91	154.13	17.81	---	136.32	---	---	---	---	---	NA
C-3	07/01/91	154.13	18.56	---	135.57	---	---	---	---	---	NA
C-3	09/24/91	154.13	19.12	---	135.01	260	52	0.7	0.8	2.2	SAL
C-3	10/23/91	154.13	19.24	---	134.89	---	---	---	---	---	NA
C-3	11/22/91	154.13	19.03	---	135.10	---	---	---	---	---	NA
C-3	01/09/92	154.13	18.23	---	135.90	240	120	0.9	ND<0.5	1.6	SAL
C-3	03/06/92	154.13	17.04	---	137.09	230	68	1.2	1.2	1.3	SAL
C-3	06/04/92	154.13	17.79	---	136.34	80	36	0.6	0.5	0.7	SAL

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C-4	10/23/86	---	---	---	---	570	3	4	---	5	TMA
C-4	09/10/87	---	---	---	---	500	3.0	ND<0.5	ND<0.5	ND<0.5	ENS
C-4	10/16/89	---	---	---	---	ND<500	12	1.0	ND<0.5	0.8	NA
C-4	01/04/90	---	---	---	---	ND<500	5	ND<0.5	ND<0.5	0.9	NA
C-4	04/05/90	---	---	---	---	ND<50	6.6	ND<0.5	ND<0.5	0.7	NA
C-4	07/02/90	---	---	---	---	71	4.1	ND<0.5	ND<0.5	ND<0.5	NA
C-4	10/03/90	---	---	---	---	---	---	---	---	---	NA
C-4	10/25/90	156.00	20.43	---	135.57	ND<50	2	ND<0.5	ND<0.5	ND<0.5	SAL
C-4	01/22/91	156.00	20.50	---	135.50	ND<50	3	ND<0.5	ND<0.5	ND<0.5	SAL
C-4	02/21/91	156.00	20.23	---	135.77	---	---	---	---	---	NA
C-4	04/01/91	156.00	19.03	---	136.97	---	---	---	---	---	NA
C-4	04/11/91	156.00	19.05	---	136.95	---	---	---	---	---	NA
C-4	07/01/91	156.00	19.90	---	136.10	---	---	---	---	---	NA
C-4	09/24/91	156.00	20.41	---	135.59	87 **	1.6	ND<0.5	ND<0.5	ND<0.5	SAL
C-4	10/23/91	156.00	20.53	---	135.47	---	---	---	---	---	NA
C-4	11/22/91	156.00	20.35	---	135.65	---	---	---	---	---	NA
C-4	01/09/92	156.00	19.54	---	136.46	51 ***	4.3	ND<0.5	ND<0.5	ND<0.5	SAL
C-4D	01/09/92	156.00	19.54	---	136.46	ND<50	4.8	ND<0.5	ND<0.5	ND<0.5	SAL
C-4	03/06/92	156.00	18.26	---	137.74	ND<50	0.8	ND<0.5	ND<0.5	ND<0.5	SAL
C-4	06/04/92	156.00	18.92	---	137.08	ND<50	ND<0.5	ND<0.5	ND<0.5	0.7	SAL

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WELL ID	DATE OF SAMPLING/ MONITORING	TOP OF WELL BOX ELEVATION	DEPTH TO WATER	FREE PRODUCT THICKNESS	GROUND WATER ELEVATION	TPH-G	B	T	E	X	LAB
C-5	10/03/90	153.38	17.78	---	135.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	10/25/90	153.38	17.92	---	135.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	11/09/90	153.38	17.92	---	135.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	01/22/91	153.38	17.80	---	135.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	02/21/91	153.38	17.51	---	135.87	---	---	---	---	---	NA
C-5	04/01/91	153.38	16.31	---	137.07	---	---	---	---	---	NA
C-5	04/11/91	153.38	16.36	---	137.02	---	---	---	---	---	NA
C-5	07/01/91	153.38	17.12	---	136.26	---	---	---	---	---	NA
C-5	09/24/91	153.38	17.70	---	135.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5D	09/24/91	153.38	17.70	---	135.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	10/23/91	153.38	17.82	---	135.56	---	---	---	---	---	NA
C-5	11/22/91	153.38	17.61	---	135.77	---	---	---	---	---	NA
C-5	01/09/92	153.38	17.04	---	136.34	ND<50	ND<0.5	0.7	ND<0.5	ND<0.5	SAL
C-5	03/06/92	153.38	15.76	---	137.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	06/04/92	153.38	16.40	---	136.98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	10/03/90	152.84	18.14	---	134.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	10/25/90	152.84	18.29	---	134.55	ND<50	ND<0.5	1	ND<0.5	ND<0.5	SAL
C-6	11/09/90	152.84	18.26	---	134.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	01/22/91	152.84	18.15	---	134.69	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	02/21/91	152.84	17.92	---	134.92	---	---	---	---	---	NA
C-6	04/01/91	152.84	17.11	---	135.73	---	---	---	---	---	NA
C-6	04/11/91	152.84	17.01	---	135.83	---	---	---	---	---	NA
C-6	07/01/91	152.84	17.72	---	135.12	---	---	---	---	---	NA
C-6	09/24/91	152.84	18.12	---	134.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	10/23/91	152.84	18.25	---	134.59	---	---	---	---	---	NA
C-6	11/22/91	152.84	18.05	---	134.79	---	---	---	---	---	NA
C-6	01/09/92	152.84	17.42	---	135.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	03/06/92	152.84	16.51	---	136.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	06/04/92	152.84	17.01	---	135.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

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C-7	10/03/90	155.34	20.82	---	134.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-7	10/25/90	155.34	20.91	---	134.43	ND<50	ND<0.5	1	ND<0.5	ND<0.5	SAL
C-7	11/09/90	155.34	20.94	---	134.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-7	01/22/91	155.34	21.50	---	133.84	ND<50	4	ND<0.5	ND<0.5	ND<0.5	SAL
C-7	02/21/91	155.34	20.71	---	134.63	---	---	---	---	---	NA
C-7	04/01/91	155.34	20.00	---	135.34	---	---	---	---	---	NA
C-7	04/11/91	155.34	20.05	---	135.29	---	---	---	---	---	NA
C-7	07/01/91	155.34	20.52	---	134.82	---	---	---	---	---	NA
C-7	09/24/91	155.34	20.82	---	134.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-7	10/23/91	155.34	20.91	---	134.43	---	---	---	---	---	NA
C-7	11/22/91	155.34	20.79	---	134.55	---	---	---	---	---	NA
C-7	01/09/92	155.34	20.16	---	135.18	ND<50	ND<0.5	ND<0.5	ND<0.5	0.9	SAL
C-7	03/06/92	155.34	19.42	---	135.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-7	06/04/92	155.34	19.81	---	135.53	250 ***	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	10/03/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	10/25/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	11/09/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	01/22/91	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	09/24/91	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	01/09/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	03/06/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	06/04/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

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RINSATE	09/10/87	NA	NA	NA	NA	ND<100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ENS
RINSATE	10/25/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RINSATE	09/24/90	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RINSATE	01/09/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RINSATE	03/06/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RINSATE	06/04/92	NA	NA	NA	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL

EXPLANATION OF ABBREVIATIONS:

TPH-G :Total Petroleum Hydrocarbons as Gasoline (EPA method 8015 modified)
B :Benzene (EPA method 8020 or 8240)
T :Toluene (EPA method 8020 or 8240)
E :Ethylbenzene (EPA method 8020 or 8240)
X :Xylenes (EPA method 8020 or 8240)
TB :Trip Blank
D :Duplicate

--- :Not analyzed/Not measured
NA :Not applicable/Not available
TMA :Thermo Analytical Inc.
ENS :Enseco
SAL :Superior Analytical Laboratory
* :Concentration for m-Xylene only.
** :Non-standard gasoline pattern observed in chromatogram.
*** :The chromatogram shows only a single peak in the gasoline range.
! :Not sampled due to observed sheen.

Note: Top of casing and ground water elevations are expressed at feet above mean sea level (NGVD - 1929)

WELLS	Direction
C-4, -7, MW-3	WNW
C-4, -6, 7	W
C-3, -4, MW-3	WSW
MW-1, 2, 3	SW
C-2, -3, 5	SSE
C-3, 4, 5	NW

$(315)\left[\frac{1.48}{1.85}\right] = 252'$

$(209)\left[\frac{1.15}{1.40}\right] = \sim 162'$

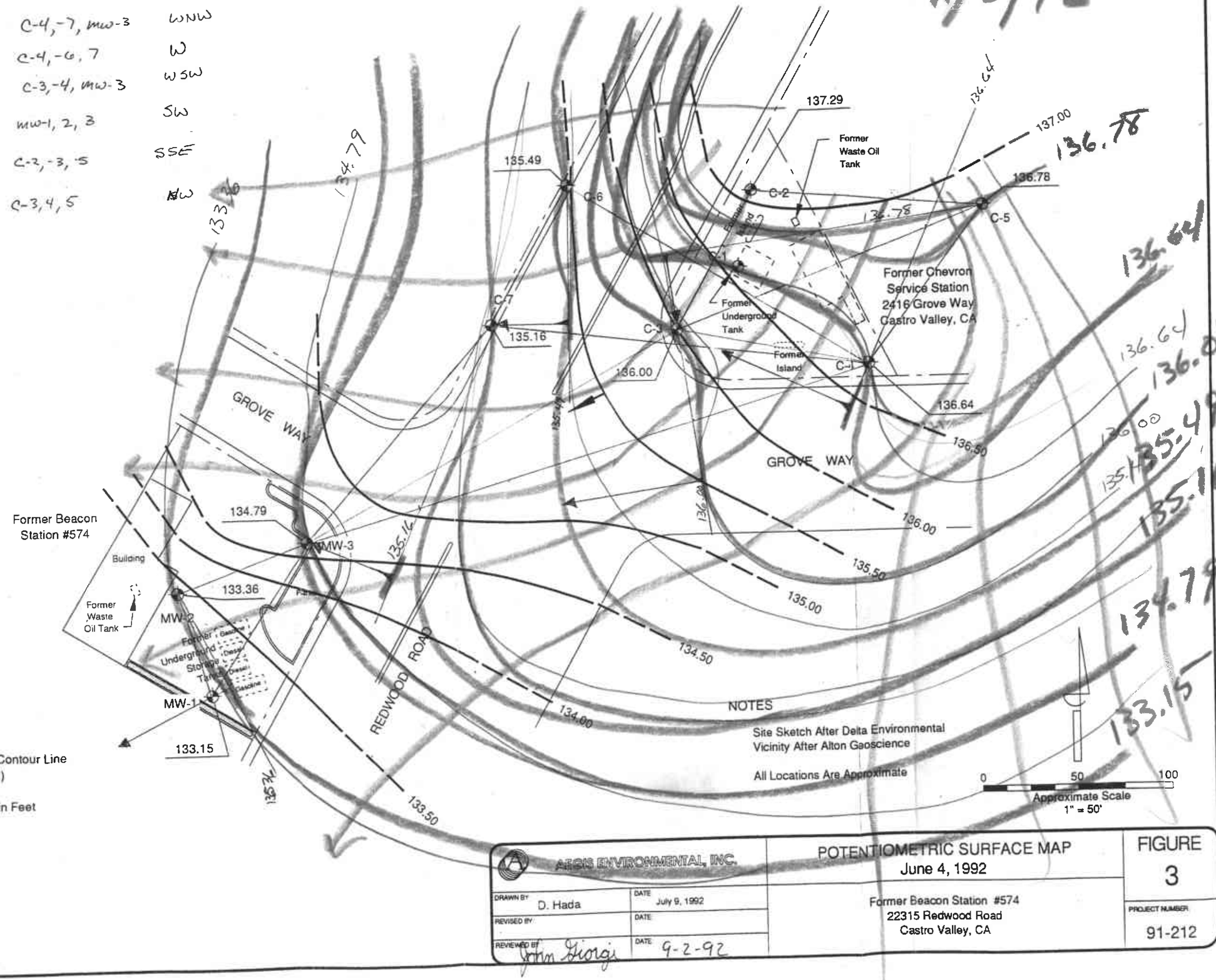
$(315)\left[\frac{0.64}{1.85}\right] = \sim 109'$

$(95)\left[\frac{1.43}{1.64}\right] = \sim 83'$

$(84)\left[\frac{0.51}{1.29}\right] = \sim 33'$

$(176)\left[\frac{0.14}{0.78}\right] = \sim 32'$

11/5/92



LEGEND

- Monitoring Well
- Potentiometric Surface Contour Line (Dashed Where Inferred)
- 133.15 Groundwater Elevation in Feet
- Estimated Direction of Groundwater Flow

Hydraulic Gradient = 0.01 ft/ft
Contour Interval = 0.5 ft.

136.78
136.64
136.64
136.00
135.49
135.16
134.79
133.15

AGRA ENVIRONMENTAL, INC.		POTENTIOMETRIC SURFACE MAP June 4, 1992	FIGURE 3
DRAWN BY: D. Hada	DATE: July 9, 1992	Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	PROJECT NUMBER: 91-212
REVISED BY:	DATE:		
REVIEWED BY: John Giorgi	DATE: 9-2-92		