



44358 S. GRIMMER BOULEVARD, FREMONT, CA 94538 ♦ TELEPHONE: (510) 226-9944 ♦ FAX: (510) 226-9948

July 16, 2013
Project No. SCS476

Mr. Jerry Wickham
Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway
Alameda, CA 94502

Reference: Golden Gate Sign Company
711 Independent Road
Oakland, Alameda County, California

Subject: Environmental Summary

Dear Mr. Wickham:

SCHUTZE & Associates, Inc. is pleased to submit this Environmental Summary for the Golden Gate Sign Company property at 711 Independent Road, Oakland (subject site). The purpose of the Summary is to discuss potential sources of MTBE¹ detected in groundwater beneath the subject site and to decide if further action is required. The subject property was occupied by the ACME Fixture Company Store for approximately 40 years and by Golden Gate Sign Company since 2000.² A former leaking underground storage tank (LUST) site exists at 700 Independent Road, approximately 200 ft southeast and up-gradient from the subject site. A 1,100-gallon underground storage tank (UST) was removed from the up-gradient site, the former SPK Industrial Property, in 2005. ACEH approved case closure in 2010 (#RO0002900).

A site map depicting both properties and the calculated groundwater flow direction for the SPK Industrial Property is provided as Figure 1.

Golden Gate Sign Company (711 Independent Road; Subject Site)

- ADR Environmental Group, Inc. (ADR) conducted a Phase II Subsurface Investigation at the subject site to investigate possible chlorinated solvent impacts at the property from an on-site paint shop (ADR, 2012). The investigation did not detect chlorinated solvents, but did detect MTBE.
- Twelve borings were advanced at the subject site in the course of ADR's Phase II investigation. ADR's Site Plan/Boring Location Plan, with notations giving the

¹ Methyl-tertiary butyl ether

² ADR Environmental Group, Inc., *Subsurface Investigation Report, Golden Gate Sign Company, 711 Independent Road, Oakland, California*, December 26, 2012

concentrations of MTBE detected, is attached as Figure 2. The highest MTBE concentration detected in groundwater was 150 µg/L in Boring B-9.

- Xylenes were detected in groundwater in Boring B-1 (2.5 µg/L) and Boring B-11 (1.5 µg/L). Ethylbenzene was detected in Boring B-1 at 0.75 µg/L. No other volatile organic compounds (VOCs) were detected in the samples (ADR did not analyze for TPH-g or other hydrocarbons).
- The only soil sample analyzed contained no VOCs.

Former SPK Industrial Property (700 Independent Road; up-gradient site)

- The date of installation for the UST and the associated product piping is not known. The tank was described at the time of removal as “rusty and stained with many holes.”³ The length of time that the tank was leaking is not known. Therefore, the tank may already have been leaking when MTBE was introduced into gasoline in 1979. The tank was removed in 2005, allowing a significant amount of time for gasoline constituents to migrate in the subsurface.
- Groundwater monitoring reports for the former UST site⁴ report a variable groundwater flow direction; however, calculations using the triangulation of monitoring wells MW-2, MW-3 and MW-5 indicate that the flow direction appears to be to the northwest, towards the subject site and the San Francisco Bay (Appendix A).
- The groundwater in the area of the subject site and the former UST site is subject to tidal influences.
- Kleinfelder, Inc.’s 2006 Site Field Investigation report⁵ stated “On the western side of the study area about 20 to 23 feet bgs a sandy layer was encountered.” This layer could act as a migration pathway.
- The up-gradient site was closed with elevated concentrations. The following are the concentrations from the last groundwater samples reported analyzed from monitoring well MW-2 (collected on March 4, 2010⁶):

TPH-d⁷ = 1,300 µg/L⁸

TPH-g⁹ = 32,000 µg/L

Benzene = 11,000 µg/L

Toluene = 96 µg/L

Ethylbenzene = 760 µg/L

Xylenes = 540 µg/L

³ ACEH Case Closure/No Further Action Letter, February 17, 2011

⁴ http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600165110

⁵ Kleinfelder, Inc., *Site Field Investigation, 700 Independent Road, Oakland, California*, September 27, 2006

⁶ Kleinfelder West, Inc., *First Quarter 2010 Groundwater Monitoring Report, 700 Independent Road, Oakland, California*, May 12, 2010

⁷ Total petroleum hydrocarbons as diesel

⁸ Micrograms per liter

⁹ Total petroleum hydrocarbons as gasoline

A table giving historic groundwater data for the site is attached (Table 1).

- MTBE was not detected at the former UST site and was removed from the sampling program in June of 2009.
- MTBE is nearly 29 times more soluble/mobile in water than benzene. The Environmental Protection Agency (EPA) states "BTEX¹⁰ plumes stabilize and recede less than 260 feet from the release source" (EPA Regulatory Determinations Support Document for CCL2, June 2008). The American Petroleum Institute states "If BTEX attenuation rates are relatively high, then a single release of oxygenated fuel may ultimately produce two distinct dissolved-phase plumes: a BTEX plume near the source and an ether oxygenate plume further down-gradient." (API Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE, February 2000).
- Tert-butyl alcohol (TBA), a degradation product of MTBE, does not appear to have been analyzed for in groundwater testing at the up-gradient site.

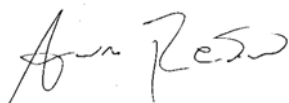
Conclusions

- If MTBE has been released at the subject site in the area of Boring B-9, other fuel additives should also have been detected at that location. Therefore, it is unlikely that the release occurred at the Boring B-9 location.
- There is a possibility that a small, unreported surface fuel spill occurred a certain distance away from Boring B-9 and only MTBE migrated to the boring location.
- There is a possibility that MTBE was insufficiently studied at the up-gradient LUST site and has migrated from that site to the boring location on the Golden Gate Sign property.

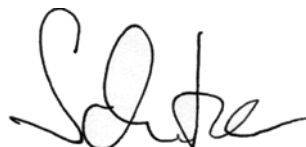
Based on the low concentrations of MTBE detected beneath the Golden Gate Sign Company and the likely off-site source, SCHUTZE & Associates, Inc. recommends no further investigations at the site. However, in order for the current owner to obtain approval for re-financing of the property, an agency opinion would be required. Please let us know if you concur with our "no further action" conclusion and if you can provide an agency opinion letter.

Cordially,

SCHUTZE & ASSOCIATES, INC.



Andrew Renshaw
Project Geologist



Jan H. Schutze, Geologist (M.Sc.)
President

¹⁰ Benzene, toluene, ethylbenzene and xylenes

Attachments

- Figure 1: Site Map with Calculated Groundwater Flow Direction from SPK Industrial Property, 700 Independent Road
- Figure 2: MTBE Concentrations in Groundwater (shown on ADR Environmental Group, Inc. Site Plan / Boring Location Plan dated December 2012)
- Table 1: Historic Groundwater Data (Kleinfelder, Inc., Total Petroleum Hydrocarbons, Volatile Organics and total Dissolved Solids in Groundwater (Table 4), First Quarter 2010)
- Appendix A: Calculated Groundwater Flow Direction (based on Kleinfelder, Inc. Groundwater Surface Elevation Contours and Estimated Groundwater Flow (Plate 3) dated March 28, 2008, June 11, 2008, December 1, 2008, March 12, 2009, June 30, 2009, December 23, 2009 and March 4, 2010)

FIGURES

LEGEND

APPROXIMATE SCALE (FEET)

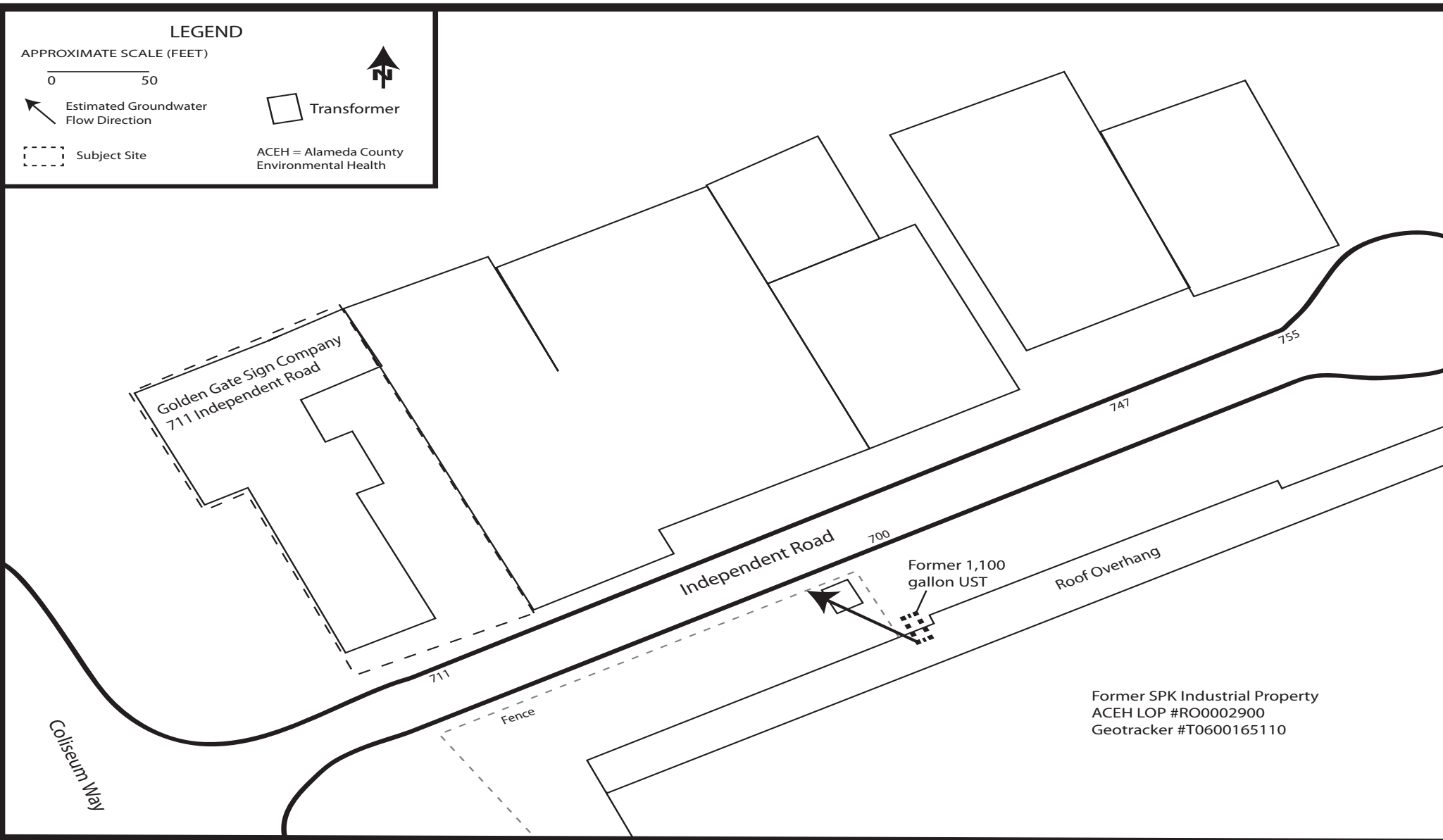
0 50

Estimated Groundwater Flow Direction

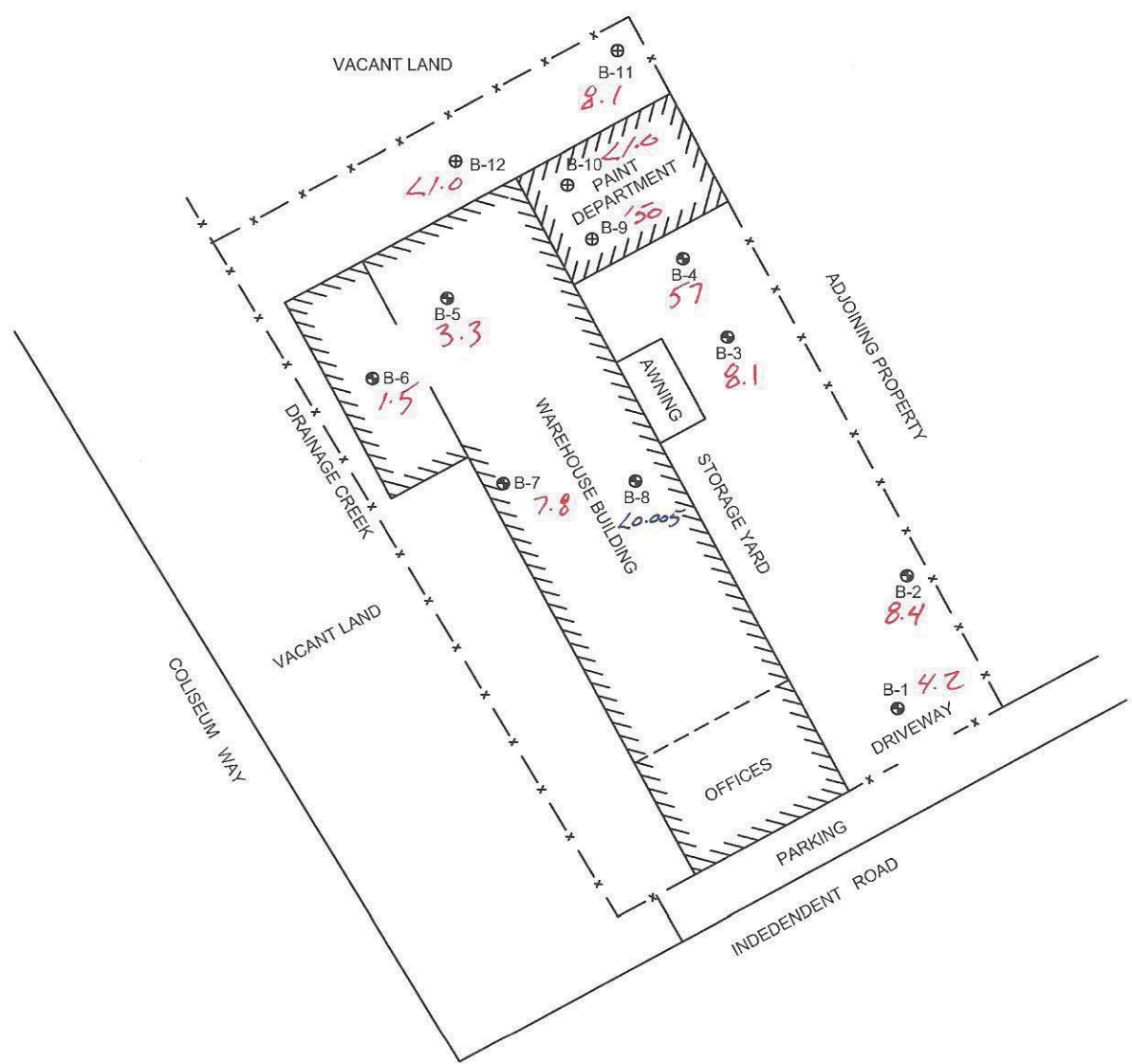
Subject Site

Transformer

ACEH = Alameda County Environmental Health



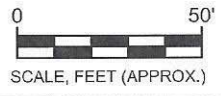
**SITE MAP WITH GROUNDWATER FLOW DIRECTION
FROM FORMER SPK INDUSTRIAL PROPERTY
700 INDEPENDENT ROAD, OAKLAND, CALIFORNIA**



(SOIL)
MTBE (H₂O)

LEGEND

- ⊕ BORING LOCATIONS BY ADR, DECEMBER 2012
- BORING LOCATIONS BY ADR, OCTOBER 2012



GGSC-001 FIG1 11-13-12 PYM

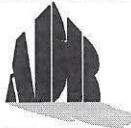
	<p>ADR Environmental Group, Inc. Due Diligence and Risk Management Services Nationwide (888) 622-3734</p>	<p>SITE PLAN / BORING LOCATION PLAN 711 Independent Road Oakland, California</p>
	<p>Project Number: GGSC 01-12-001-CA</p>	<p>Date: December 2012</p>

TABLE 1

Table 4
Total Petroleum Hydrocarbons, Volatile Organics and Total Dissolved Solids In Groundwater
700 Independent Road, Oakland, California

Sample Location	Date Sampled	TPH-d	TPH-g	Benzene	Butylbenzene (sec)	1,2 Dichloroethane	Ethylbenzene	Isopropylbenzene	Isopropyltoluene (4-)	Naphthalene	Propylbenzene (n-)	Toluene	Trimethylbenzene (1,2,4-)	Trimethylbenzene (1,3,5-)	Xylenes, total	Methyl tert butyl ether	Total Dissolved Solids
MW-1	3/19/2007	390a	3,300	162	NA	<1.1	60.2	NA	NA	NA	NA	205	NA	NA	351	<1.1	NA
	9/10/2007	315a	1,700b	145	0.9	<0.500	72.2	11.6	2.42	7.69	20.8	56.1	94.6	17.1	197	<0.500	NA
	12/17/2007	186a	1,510b	204	2.41	<0.500	78.6	9.96	1.69	4.35	19	15.1	67	6.12	56.7	<0.500	14,000,000
	3/28/2008	<100	12,000	1,020	NA	NA	161	NA	NA	NA	NA	19.1	NA	NA	60.0	<1.10	NA
	6/11/2008	235a	4,700	721	<4.40	<4.40	160	18.9	NA	<52.8	<4.40	84.8	132	11.0	126	<4.40	NA
	12/18/2/2008	484a	2,900	295	<4.40	<4.40	137	36.7	NA	298	88.4	27.1	501	35.1	218	<4.40	14,000,000
	3/12/2009	504	7,700	488	NA	NA	235	NA	NA	NA	NA	144	NA	NA	455	<4.40	NA
	6/30/2009	<100	870	99	NA	NA	33	NA	NA	NA	NA	15	NA	NA	34	NA	NA
	9/1/2009	<100	1,000	130	NA	NA	18	NA	NA	NA	NA	NA	7.7	NA	<13	NA	NA
	12/23/2009	<100	770	96	NA	NA	17	NA	NA	NA	NA	8.2	NA	NA	<13	NA	NA
	3/4/2010	110	<440**	44	NA	NA	4.1	NA	NA	NA	NA	2.6	NA	NA	<8.8	NA	NA
	3/19/2007	940a	38,000	11,600	NA	NA	226	588	NA	NA	NA	274	NA	NA	2,880	<13.2	NA
9/10/2007	1690a	52,100b	15,800	<22	611	1,120	69.1	22	<22	231	143	552	1,270	650	5,420	<22	NA
12/17/2007	3,770a	30,900b	13,300	<22	568	1,350	73	NA	<22	227	118	172	1,230	352	2,330	<22	17,000,000
3/28/2008	300a	47,000b	12,600	NA	NA	NA	619	NA	NA	NA	NA	67.3	NA	NA	1,040	<22	NA
6/11/2008	1,030a	31,000	19,700	<44	542	1,090	<88.0	NA	NA	<528	<44.0	81.0	154	731	1,410	<44	NA
12/18/2/2008	965a	53,000	20,500	<44	468	1,240	<88.0	NA	NA	196	125	<44	1,200	66.9	1,180	<44	17,000,000
3/12/2009	862	40,000	10,300	NA	NA	NA	1,050	NA	NA	NA	NA	91.5	NA	NA	980	<44	NA
3/1/2009 Dup	NA	42,000	10,900	NA	NA	NA	1,030	NA	NA	NA	NA	<44	NA	NA	995	<44	NA
6/30/2009	657a	20,000	7,300	NA	NA	NA	400	NA	NA	NA	NA	NA	NA	NA	330	NA	NA
6/30/2009 Dup	624a	20,000	7,600	NA	NA	NA	370	NA	NA	NA	NA	<44	NA	NA	300	NA	NA
9/1/2009	680a	26,000	13,000E	NA	NA	NA	780	NA	NA	NA	NA	54	NA	NA	510	NA	NA
9/1/2009 Dup	730a	26,000	11,000	NA	NA	NA	710	NA	NA	NA	NA	50	NA	NA	460	NA	NA
12/23/2009	<100	24,000	12,000	NA	NA	NA	2,000	NA	NA	NA	NA	140	NA	NA	950	NA	NA
12/23/2009 Dup	<100	22,000	14,000	NA	NA	NA	2,300	NA	NA	NA	NA	150	NA	NA	1,100	NA	NA
3/4/2010	1,000	32,000	9,900	NA	NA	NA	710	NA	NA	NA	NA	84	NA	NA	520	NA	NA
3/4/2010 Dup	1,300	32,000	11,000	NA	NA	NA	760	NA	NA	NA	NA	96	NA	NA	540	NA	NA
3/19/2007	<100	<50	<0.500	NA	NA	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.5	<0.5	NA
9/10/2007	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	NA
12/17/2007	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.5	8,600,000
3/28/2008	<100	<50	<0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
6/11/2008	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.00	NA	<6.0	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	NA
12/18/2/2008	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<1.00	NA	<1.0	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	7,700,000
3/12/2009	<100	<50	<0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
6/30/2009	<100	<50	<0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
9/1/2009	<100	<50	<0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
12/23/2009	<100	<50	<0.5	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
3/4/2010	<100	<0.5	0.79	NA	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.0	<0.5	NA

Table 4
Total Petroleum Hydrocarbons, Volatile Organics and Total Dissolved Solids In Groundwater
700 Independent Road, Oakland, California

MW-4	1/31/2008	< 100	56.0b	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
	3/28/2008	< 100	61d	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
	6/11/2008	< 100	<50	<0.5	<0.5	<0.5	<0.5	<1.00	NA	<6.00	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	NA
	12/1&2/2008	< 100	<50	<0.5	<0.5	<0.5	<0.5	<1.00	NA	<1.00	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	NA
	3/12/2009	< 100	<50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
	6/30/2009	< 100	<50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	9/1/2009	< 100	<50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	12/23/2009	< 100	<50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	3/4/2010	< 100	<50	0.90	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.0	NA	NA
MW-5	1/31/2008	544a	55 b	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	< 1.50	<0.5	NA
	3/28/2008	< 100	57d	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
	6/11/2008	< 100	< 50	<0.5	<0.50	<0.5	<0.5	<1.00	NA	<6.00	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	NA
	12/1&2/2008	< 100	< 50	<0.5	<0.50	<0.5	<0.5	<1.00	NA	<1.00	<0.5	<0.5	<0.5	<0.5	<1.50	<0.5	NA
	3/12/2009	< 100	< 50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	<0.5	NA
	6/30/2009	< 100	< 50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	9/1/2009	< 100	< 50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	12/23/2009	< 100	< 50	<0.5	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	<1.50	NA	NA
	3/4/2010	< 100	< 50	0.84	NA	NA	<0.5	NA	NA	NA	NA	<0.5	NA	NA	< 1.0	NA	NA
ESL*		210	210	46	NE	200	43	NE	NE	24	NE	130	NE	NE	100	1800	NE

Notes:

All results in micrograms per liter (µg/l). Values in bold exceed corresponding ESLs.

a - Chromatogram does not resemble typical diesel pattern (possibly fuel lighter than diesel). Lighter end hydrocarbons and hydrocarbon peaks within the diesel range quantified as diesel.

b - Although TPH-g is present, result is elevated due to the presence of non-target compounds within the gasoline quantitative range.

E - Estimated value. The amount exceeds the calibration range but within the linear range of instrument.

* ESL - Environmental Screening Levels from San Francisco Regional Water Quality Control Board, Interim Final - November 2007 (revised May 2008). Lowest level reported from:

Table B. Environmental Screening Levels. Groundwater IS NOT a current or potential drinking water source.

** Laboratory reporting limit exceeds ESL (210 µg/L)

Acronyms, abbreviations:

TPH-d - Total Petroleum Hydrocarbons - diesel
 TPH-g - Total Petroleum Hydrocarbons - gasoline
 Dup - duplicate sample

NE - Not established
 NA - Not analyzed

APPENDIX A

GROUNDWATER CALCULATIONS

1.7" = 50'

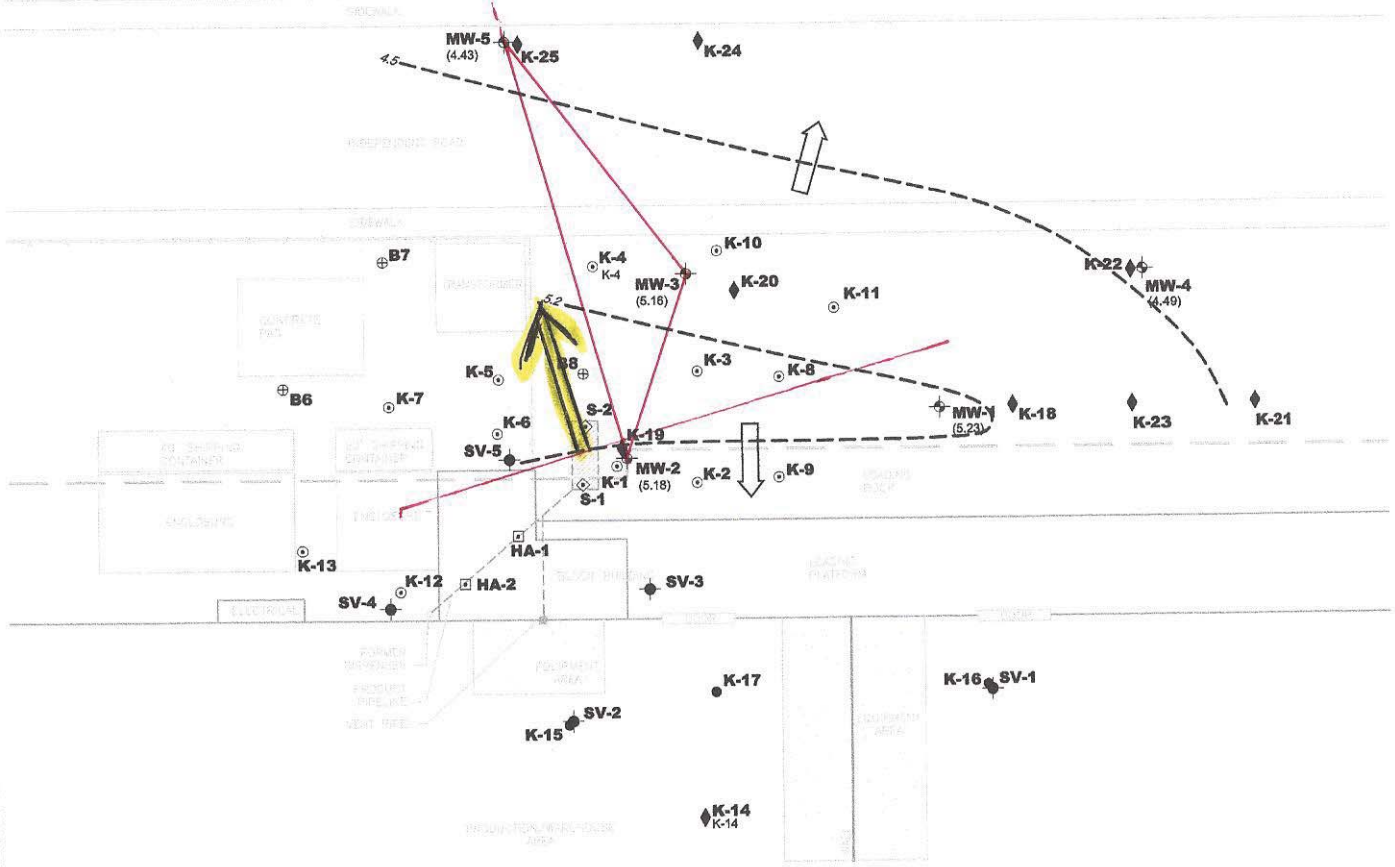
$$\frac{0.75}{2.25} = \frac{0.02}{x}$$

SUBJECT SITE 711 INDEPENDENT RD

← N 180 FT ←

- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
 - (5.18) GROUNDWATER SURFACE ELEVATION (feet, msl)
 - 20.5 --- GROUNDWATER ELEVATION CONTOURS (feet, msl)
 - APPROXIMATE DIRECTION OF GROUNDWATER FLOW

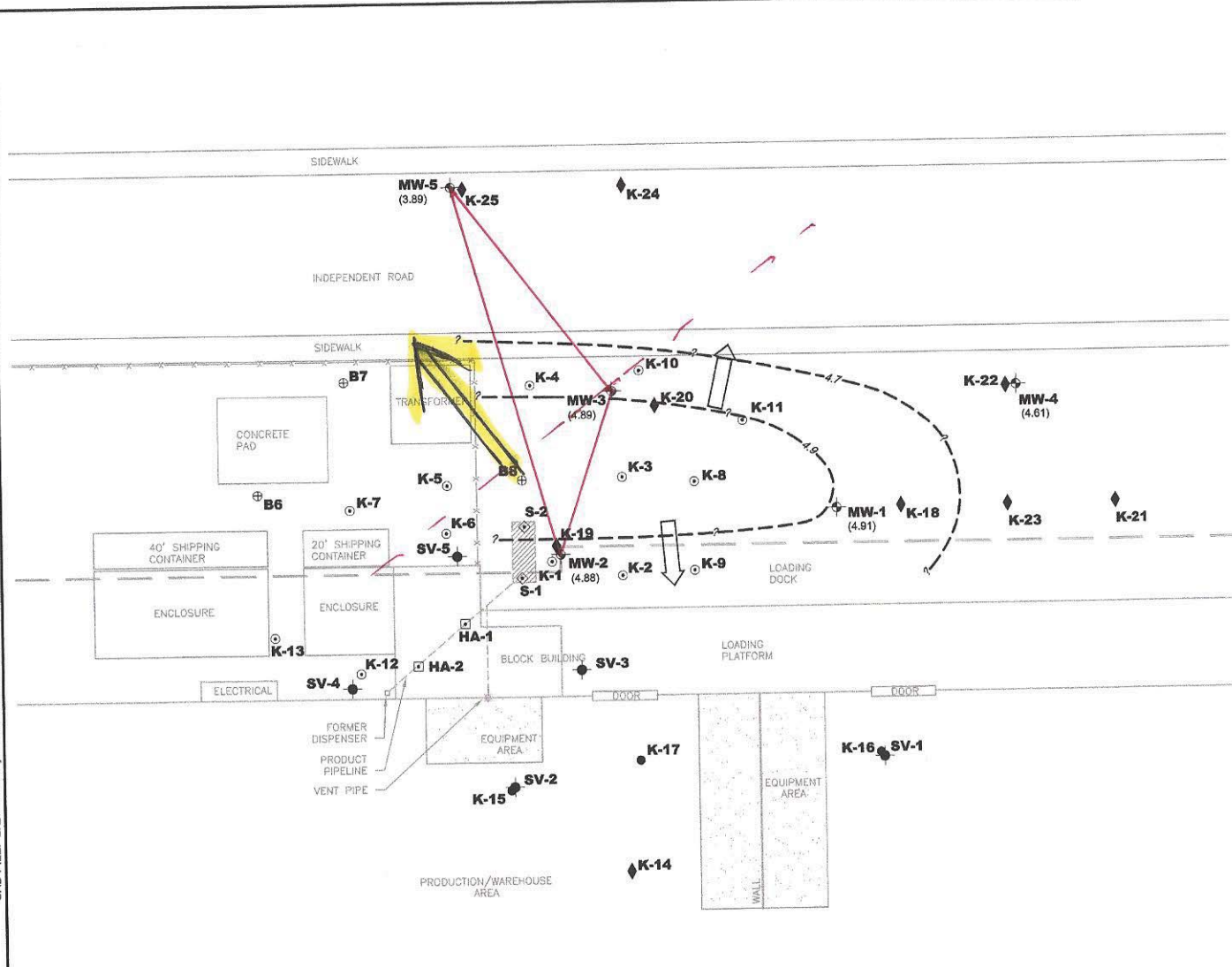
NOTE:
 Golder boring B8 located in the field.
 Locations of Golder borings B6 and B7 are approximate.



ATTACHED IMAGES: Images: 700 IR GW Contour 10.jpg
 ATTACHED XREFS: XRef: SitePlan; XRef: Eng-B_11x17_L_Style.dwg
 CADD PROJECT: 545045BIMAR 2008 LAYOUT: GW Contour 10.dwg
 CADD FILE: C:\Documents and Settings\IssueMy Documents\CADD\PROJECTS\545045BIMAR 2008\ LAYOUT: GW Contour 10.dwg
 PLEASANTON, CA

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<p>KLEINFELDER Bright People. Right Solutions. www.kleinfelder.com</p>	PROJECT NO.: 54504 / 5B DRAWN: MAY 2008 DRAWN BY: LGS CHECKED BY: CHA FILE NAME: GW-CONT_03-2008.dwg	GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: MARCH 28, 2008	PLATE 3
	700 INDEPENDENT ROAD OAKLAND, CALIFORNIA		



- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
- (4.61) GROUNDWATER ELEVATION (feet, msl)
- 4.7 --- GROUNDWATER ELEVATION CONTOURS (feet, msl)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

NOTE:
 Golder boring B8 located in the field.
 Locations of Golder borings B6 and B7 are approximate.

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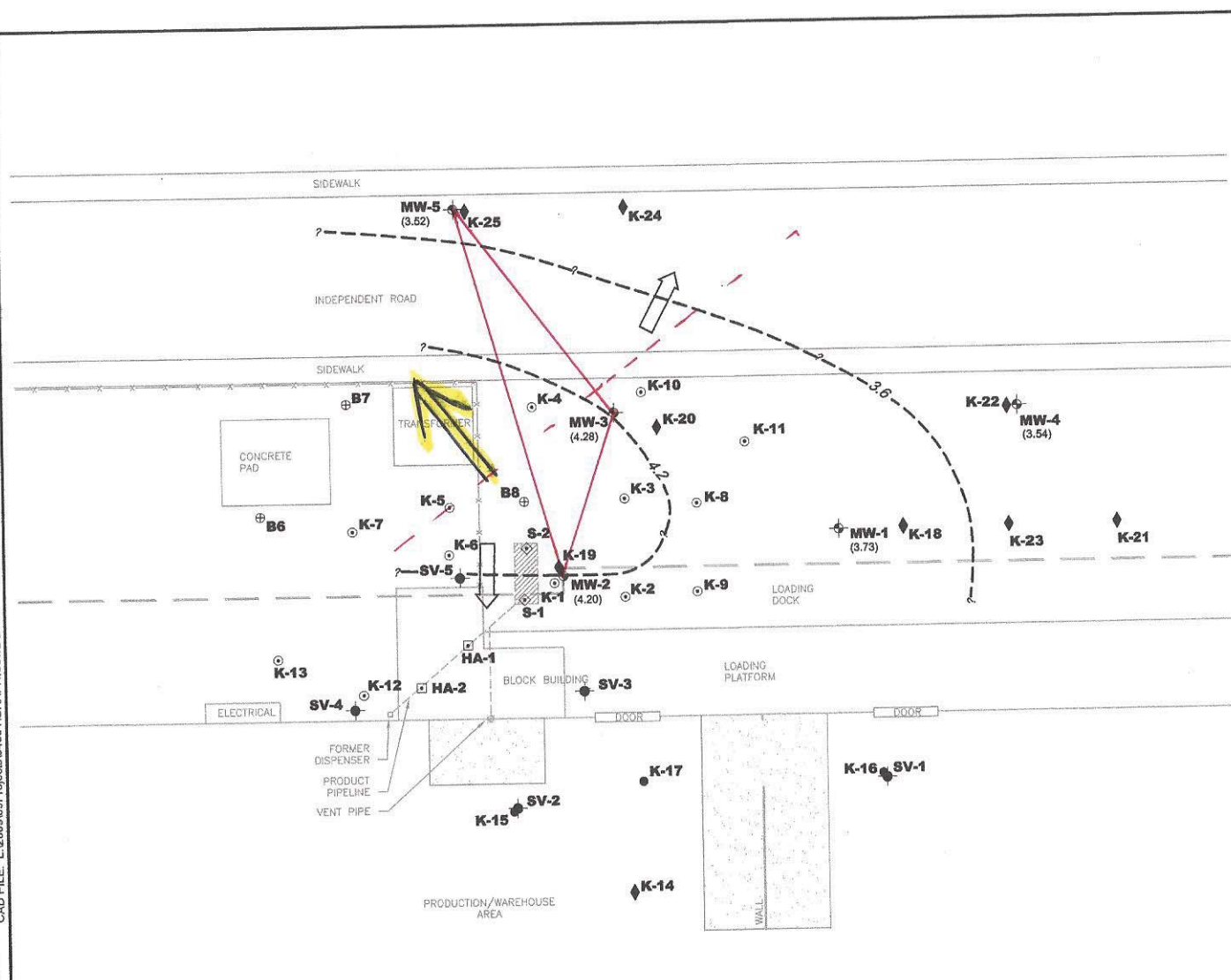


	PROJECT NO. 54504	GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: JUNE 11, 2008	PLATE
	DRAWN: MAY 2008		3
DRAWN BY: LGS			
CHECKED BY: CHA			
FILE NAME: GW-CONT_06-2008.dwg	700 INDEPENDENCE ROAD OAKLAND, CALIFORNIA		

$$\frac{0.76}{1.55} = \frac{0.08}{x}$$

PLOTTED: 09 Jan 2009, 8:07am, jsala

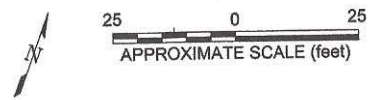
ATTACHED IMAGES: Images: contours.jpg Images: GW-CONT_06-2008.jpg
 ATTACHED VFILES: XRef: SITEPLAN XRef: EOP-B_11x17_L_StyleA.dwg
 CAD FILE: L:\2009\09\Projects\54504\GRA\PHIC\12-2008\ LAYOUT: GW contours



- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - ▨ FORMER UNDERGROUND STORAGE TANK
 - ⊕ MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - ◆ SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - ⊕ SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - ◇ UST CONFIRMATION SOIL SAMPLE
 - (4.28) GROUNDWATER ELEVATION (feet, msl)
 - 4.2 --- GROUNDWATER ELEVATION CONTOURS (feet, msl)
 - ➔ APPROXIMATE DIRECTION OF GROUNDWATER FLOW w/ith gradient

NOTE:
 Golder boring B8 located in the field. Locations of Golder borings B6 and B7 are approximate.

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PROJECT NO.	54504
DRAWN:	JAN 2009
DRAWN BY:	JDS
CHECKED BY:	CHA
FILE NAME:	GW-CONT_12-2008.dwg

GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: DECEMBER 1, 2008

700 INDEPENDENCE ROAD
 OAKLAND, CALIFORNIA

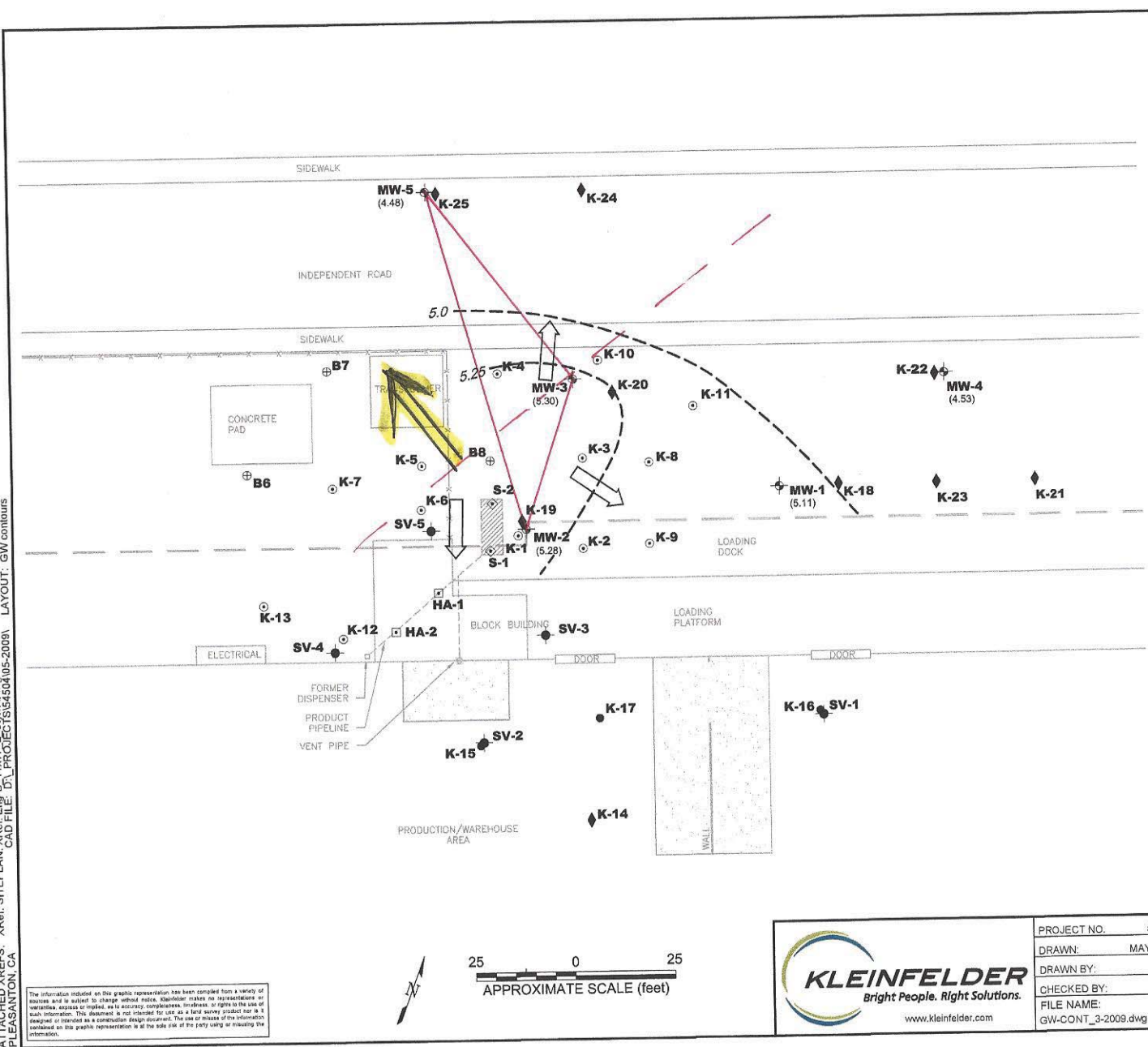
PLATE
3

$$\frac{0.82}{1.75} = \frac{0.47}{\infty}$$

PLOTTED: 20 May 2009, 9:24am, Isala

LAYOUT: GW contours

ATTACHED IMAGES: Images: contours.jpg Images: GW-CONT_06-2008.jpg
 ATTACHED XREFS: XREF: SITEPLAN: XREF: Eng-B_11x17_L_SvM.dwg
 CAD FILE: D:\PROJECTS\54504\05-2009\



- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
 - (5.30) GROUNDWATER ELEVATION (NAVD, 1988)
 - 5.25 --- GROUNDWATER ELEVATION CONTOURS (NAVD, 1988)
 - APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

NOTE:
 Golder boring B8 located in the field.
 Locations of Golder borings B6 and B7 are approximate.

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PROJECT NO:	54504
DRAWN:	MAY 2009
DRAWN BY:	JDS
CHECKED BY:	CHA
FILE NAME:	GW-CONT_3-2009.dwg

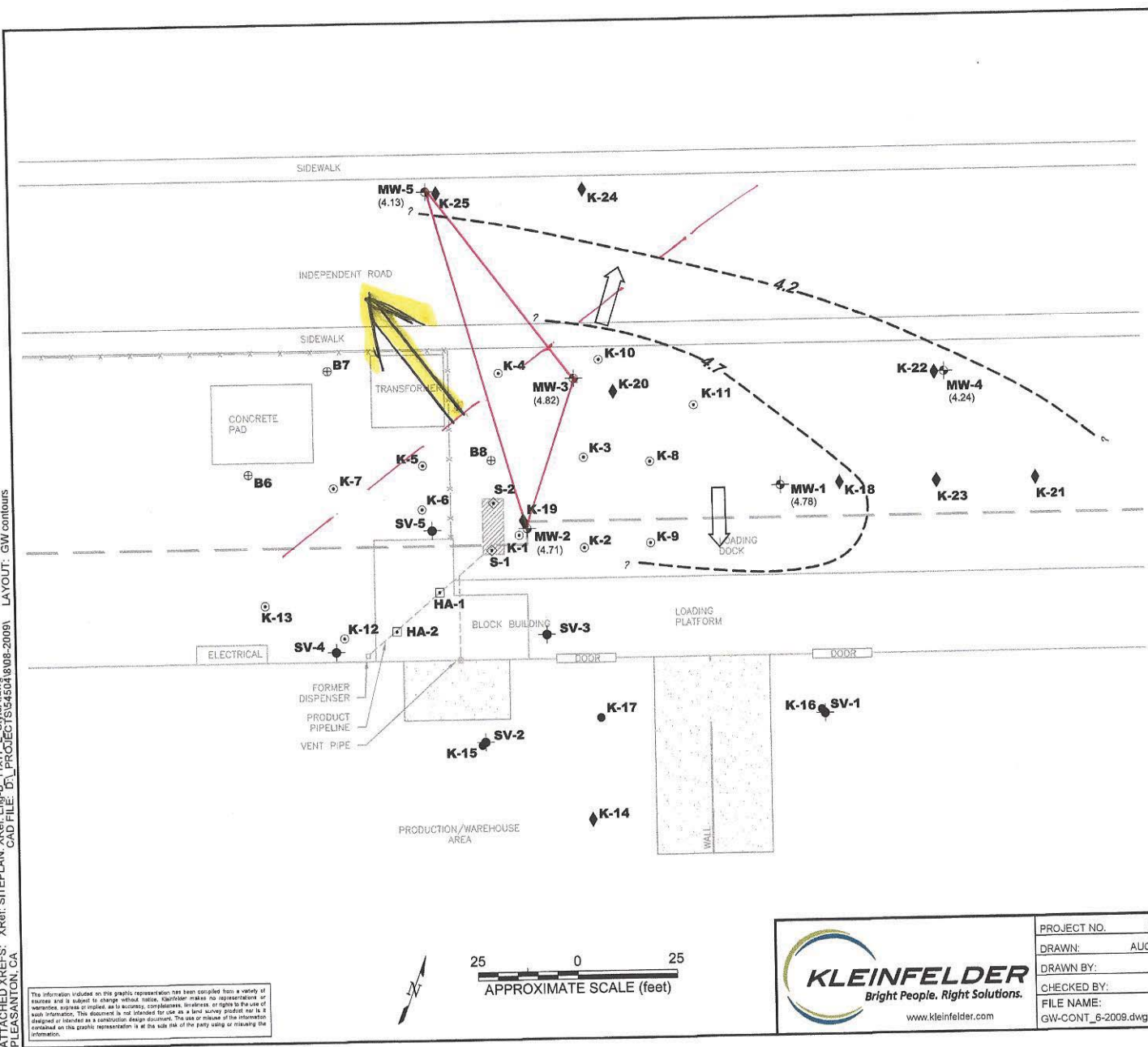
GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: MARCH 12, 2009
700 INDEPENDENCE ROAD OAKLAND, CALIFORNIA

PLATE
3

$$\frac{0.69}{1.75} = \frac{0.11}{x}$$

PLOTTED: 12 Aug 2009, 4:07pm, jsala

ATTACHED IMAGES: Images: contour.jpg Images: 1-cw_indep_rd.jpg
 ATTACHED FILES: XRef: SITEPLAN.XRef: Eng-B_11x17_L_SV6A.dwg
 CAD FILE: D:\PROJECTS\54504\808-2009\ LAYOUT: GW contours



- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
 - (4.24) GROUNDWATER ELEVATION (NAVD, 1988)
 - 4.2 --- GROUNDWATER ELEVATION CONTOURS (NAVD, 1988)
 - APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

NOTE:
 Golder boring B8 located in the field.
 Locations of Golder borings B6 and B7 are approximate.

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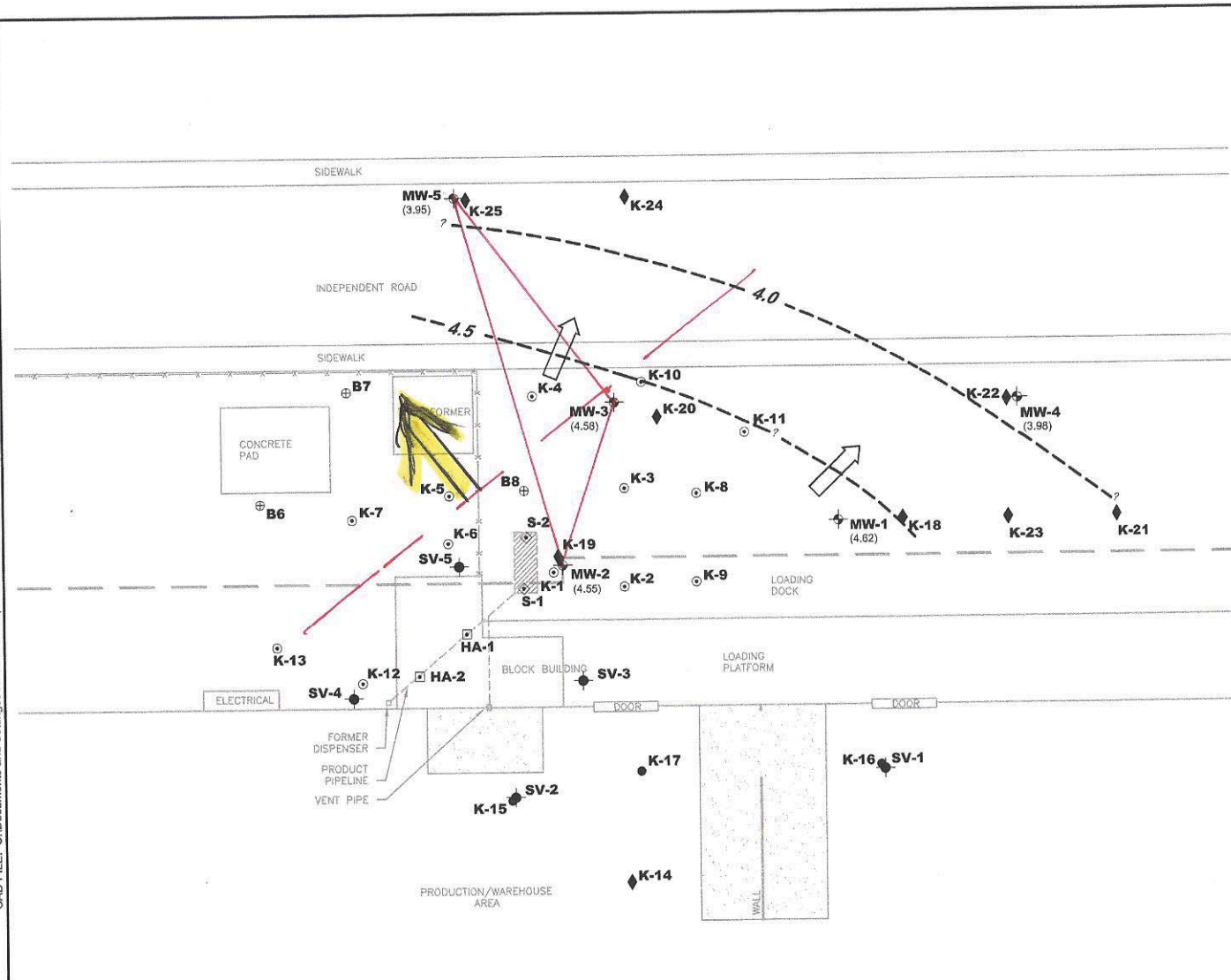
PROJECT NO.	54504
DRAWN:	AUG 2009
DRAWN BY:	JDS
CHECKED BY:	AD
FILE NAME:	
GW-CONT_6-2009.dwg	

GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: JUNE 30, 2009	
700 INDEPENDENCE ROAD OAKLAND, CALIFORNIA	

PLATE
3

$$\frac{0.63}{1.65} = \frac{0.07}{x}$$

PLOTTED: 12 Feb 2010, 12:53pm, AGeekas
 ATTACHED IMAGES: Images: 1-700 indep rd.jpg Images: 1-qw indep rd.jpg
 ATTACHED XREFS: XRef: SITEPLAN; XRef: Eng-B_11x17_L_StyleA.dwg
 CAD FILE: C:\Documents and Settings\AGeekas\Desktop\09-2009\12-2009\ LAYOUT: GW contours



- LEGEND**
- ROOF OVERHANG
 - *-x- FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
 - (5.52) GROUNDWATER ELEVATION (NAVD, 1988)
 - 5.0 --- GROUNDWATER ELEVATION CONTOURS (NAVD, 1988)
 - APPROXIMATE DIRECTION OF GROUNDWATER FLOW with gradient

NOTE:
 Golder boring B8 located in the field.
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	PROJECT NO. 54504	GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: DECEMBER 23, 2009	PLATE
	DRAWN: SEPT 2009		3
	DRAWN BY: JDS		
	CHECKED BY: AD		
	FILE NAME: GW-CONT_12-2009.dwg	700 INDEPENDENCE ROAD OAKLAND, CALIFORNIA	

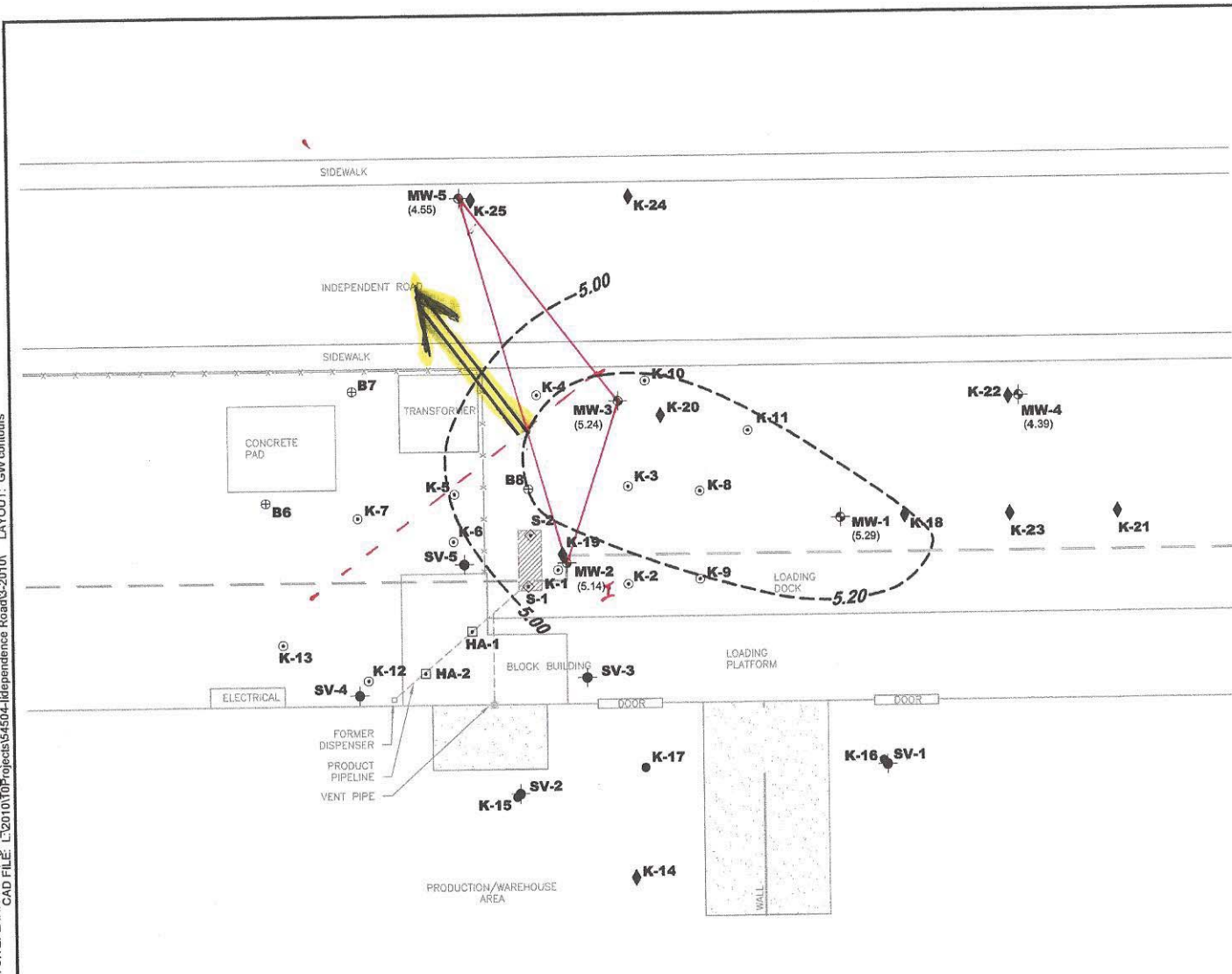
$0.69 = 1.55''$

$1.3'' = 50'$

$\frac{0.69}{1.55} = \frac{0.10}{x}$

PLOTTED: 27 Apr 2010, 9:34am, Isala

ATTACHED IMAGES: Images: 1-gw indep rd, 20100426171732.jpg Images: 1-gw indep rd.jpg
 ATTACHED XREFS: XRef: SITEPLAN: XRef: Eng-B, 11x17_L_Style.dwg
 PLEASANTON, CA CAD FILE: L:\2010\10\Projects\54504-Independence Road\5-2010_LAYOUT: GW contours



- LEGEND**
- ROOF OVERHANG
 - FENCE
 - PRODUCT PIPELINE
 - FORMER UNDERGROUND STORAGE TANK
 - MONITORING WELL (Kleinfelder, March 2007)
 - SOIL VAPOR BORING (Kleinfelder, March 2007)
 - SOIL BORING depth 24-32 ft (Kleinfelder, March 2007)
 - SOIL BORING depth 38-45 ft (Kleinfelder, March 2007 and February 2008)
 - SOIL BORING (Kleinfelder, 2006)
 - SOIL BORING (Golder Associates, August 2004)
 - HAND AUGER
 - UST CONFIRMATION SOIL SAMPLE
 - (5.29) GROUNDWATER ELEVATION (NAVD, 1988)
 - 5.00 --- GROUNDWATER ELEVATION CONTOURS (NAVD, 1988)

NOTE:
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PROJECT NO.	54504
DRAWN:	APR 2010
DRAWN BY:	JDS
CHECKED BY:	AD
FILE NAME:	GW-CONT_3-2010.dwg

GROUNDWATER SURFACE ELEVATION CONTOURS AND ESTIMATED GROUNDWATER FLOW: MARCH 4, 2010
700 INDEPENDENT ROAD OAKLAND, CALIFORNIA

PLATE
3