SOMA
ENVIRONMENTAL ENGINEERING, INC.
6620 Owens Drive, Suite A • Pleasanton, CA 94588
TEL (925)734-6400 • FAX (925)734-6401

May 5, 2009

Mr. Paresh Khatri
Alameda County Health Care Services Agency
Environmental Health Services, Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Proposed Decommissioning of Monitoring Wells MW-8 and MW-9 at
15101 Freedom Avenue, San Leandro, California, **STID 4473/RO0000473**

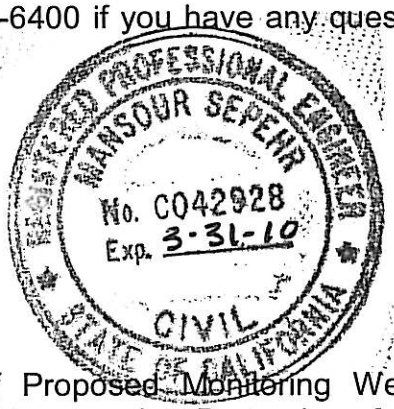
Dear Mr. Khatri:

Groundwater monitoring wells MW-8 and MW-9 were installed off-site to delineate the extent of the groundwater plume at 15101 Freedom Avenue in San Leandro during the August 2004 investigation. These wells were installed approximately 200 to 300 feet south of the site boundary along 152nd Avenue and Fairmont Drive (see attached site map). As can be seen in attached tables, TPH-g, BTEX, MtBE, and TBA concentrations have been below detection limit or below Regional Water Quality Control Board Environmental Screening Limits (ESLs) (100 µg/L, 1 µg/L, 40 µg/L, 30 µg/L, 20 µg/L, 5 µg/L, and 12 µg/L, respectively) in MW-8 and MW-9 since installation, except for the July 2008 monitoring event. Ethylbenzene was detected regularly in MW-8 from October 2006 through October 2007, but concentrations were below the ESL (30 µg/L) and decreased to non-detect by January 2008. Minor concentrations of TPH-g and ethylbenzene were detected in MW-8 (94.8 µg/L and 1 µg/L) and in MW-9 (161 µg/L and 2.15 µg/L) during July 2008, but concentrations were non-detect during the following monitoring events. Minor concentrations of 1,2-DCA have been observed in MW-9, but levels are only slightly above the ESL (0.5 µg/L) and have been decreasing steadily over time (from a high of 3.07 µg/L to 0.97 µg/L during the most recent monitoring event).

Based on the very minor to non-detect concentrations of contaminants of concern in these two farthest-downgradient monitoring wells, SOMA proposes decommissioning MW-8 and MW-9 by pressure grouting with neat cement and removal of the well box. Decommissioned wells will be completed to grade with concrete at the surface to match existing grade. Boring logs for MW-8 and MW-9 are included as attachments. SOMA further recommends reallocation of the encroachment bond for MW-8 and MW-9 to be applied to construction of proposed extraction wells EX-1 and EX-2 for use with the groundwater extraction system to remediate the groundwater plume.

Please do not hesitate to call me at 925-734-6400 if you have any questions or comments.

Sincerely,



Mansour Sepehr, PhD, PE

Attached: Site Map Showing Locations of Proposed Monitoring Wells and Monitoring Wells to be Decommissioned; Tables 1 and 2; Boring logs for MW-8 and MW-9

N

RESIDENTIAL AREA

151 st AVENUE

HSA

MW-1D

MW-1

FREEDOM AVENUE

SB-4

DISPENSER ISLANDS

MW-2

SB-1

USTs

MW-3D

MW-3

SB-2

SB-3

Site Boundary

STATION BUILDING

MW-4

DISPENSER ISLANDS

SB-5

MW-4D

MPE-1

MW-5

INTERSTATE 580

INTERSTATE 580 ONRAMP

COMMERCIAL AREA

EX-1

RESIDENTIAL AREA

EX-2

TWB-1

MW-6

FAIRMONT DRIVE

TWB-2

MW-7

LIBERTY ST

152 nd AVENUE

TWB-5

MW-9

MW-8

RESIDENTIAL AREA

TWB-3

ORIOLE AVENUE

RESIDENTIAL AREA

TWB-6

LARK AVENUE

TWB-4

1573 153rd Street

153 rd AVENUE

- Proposed Extraction Wells
- Proposed MPE Well
- Monitoring Wells 1st WBZ
- Monitoring Wells 2nd WBZ
- Irrigation Well
- Soil Borings drilled July, 2001
- Temporary Well Borehole Drilled by SOMA September 2003
- HSA Borehole
- CPT/MIP Borehole
- GS Borehole

Note: Monitoring wells MW-6 through MW-9 installed in September 2004.

approximate scale in feet

0 70 140

Site Map Showing Location of Proposed Extraction Wells and Monitoring Wells to be Decommissioned

SOMA ENVIRONMENTAL ENGINEERING, INC

TABLE 1
Groundwater Monitoring Results For MW-8 and MW-9
15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	Casing Elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MtBE 8260B [2] (µg/L)
MW-8	9/21/2004	41.14	12.98	28.16	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	41.14	11.22	29.92	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	41.14	NM	NM	NA	NA	NA	NA	NA	NA
	6/15/2005	41.14	10.46	30.68	<200	0.53	<2.0	<0.5	<1.0	<0.5
	8/26/2005	41.14	11.53	29.61	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	41.14	11.92	29.22	<50	<0.5	<2.0	1.36	1.8	<0.5
	2/9/2006	41.14	9.74	31.40	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	41.14	9.90	31.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	41.14	10.9	30.24	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	41.14	11.68	29.46	<50	<0.50	<2.0	3.37	<1.0	<0.50
	1/25/2007	41.14	11.44	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	41.14	10.81	30.33	<50	<0.5	<2.0	4.29	<2.0	<0.5
	7/25/2007	41.14	12.31	28.83	<50	<0.5	<2.0	4.39	<2.0	<0.5
	10/23/2007	41.14	12.37	28.77	<50	<0.5	<2.0	4.31	<2.0	<0.5
	1/21/2008	41.14	11.02	30.12	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	41.14	11.44	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	41.14	12.39	28.75	94.8	<0.5	<2.0	1	<2.0	<0.5
	10/15/2008	41.14	13.42	27.72	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	41.14	12.50	28.64	<50	<0.5	<0.5	<0.5	0.6	<0.5
	4/13/2009	**41.14**	**11.23**	**29.91**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

MW-9	9/21/2004	40.26	12.18	28.08	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	12/14/2004	40.26	10.91	29.35	<50	<0.5	<0.5	<0.5	<1.0	<0.5
	3/11/2005	40.26	10.52	29.74	<200	<0.5	<0.5	<0.5	<1.0	<0.5
	6/15/2005	40.26	14.73	25.53	<200	<0.5	<2.0	<0.5	<1.0	<0.5
	8/26/2005	40.26	10.59	29.67	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	11/11/2005	40.26	11.25	29.01	<50	<0.5	<2.0	<0.5	<1.0	<0.5
	2/9/2006	40.26	10.05	30.21	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	5/9/2006	40.26	9.06	31.20	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	8/10/2006	40.26	10.01	30.25	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	10/26/2006	40.26	10.81	29.45	<50	<0.50	<2.0	<0.50	<1.0	<0.50
	1/25/2007	40.26	10.67	29.59	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/26/2007	40.26	10.05	30.21	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/25/2007	40.26	11.44	28.82	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	10/23/2007	40.26	11.59	28.67	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	1/21/2008	40.26	10.37	29.89	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	4/15/2008	40.26	10.56	29.70	<50	<0.5	<2.0	<0.5	<2.0	<0.5
	7/2/2008	40.26	11.95	28.31	161	<0.5	<2.0	2.15	<2.0	<0.5
	10/15/2008	40.26	12.64	27.62	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	40.26	11.75	28.51	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	**40.26**	**10.89**	**29.37**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
ESL (ug/L)	**-**	**-**	**-**	**-**	**100**	**1**	**40**	**30**	**20**	**5**

Notes:

[1] : Top of casing elevations were surveyed to a datum of 67.07 M.S.L by Kier & Wright Civil Engineers & Land Surveyors on May 7, 2002.
On October 11, 2004, the site was re-surveyed by Harrington Surveys, Inc. of Walnut Creek, CA to a datum of California Coordinate System, Zone 3, NAD 83.

[2] MtBE analyzed by EPA Method 8021B, and confirmed by EPA Method 8260B.

<: Not detected above the laboratory reporting limit.

NA: Not Analyzed. Well MW-8 was inaccessible during the First Quarter 2005, car was parked over well.

NM: Not Measured. Well MW-8 was inaccessible during the First Quarter 2005, car was parked over well.

The first time SOMA monitored wells MW-8 and MW-9 was in September 2004.

ESL: Environmental Screening Levels per CRWQCB SFBay Region Interim Final Nov. 2007 (Revised May 2008);
Table F-1a,Groundwater Screening Levels (groundwater is a current or potential drinking water resource)

Table 2
Historical Gasoline Oxygenates Results
15101 Freedom Avenue, San Leandro, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-8	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	NA	NA	NA	NA	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	<0.5	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	<0.5	<0.5
	4/13/2009	**<10**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-9	9/21/2004	<10	<0.5	<0.5	<0.5	NA	NA
	12/14/2004	<2.5	<0.5	<0.5	<2.0	NA	NA
	3/11/2005	<2.5	<0.5	<0.5	<2.0	NA	NA
	6/15/2005	<10	<0.5	<0.5	<2.0	NA	NA
	8/26/2005	<10	<0.5	<0.5	<2.0	NA	NA
	11/11/2005	<10	<0.5	<0.5	<2.0	NA	NA
	2/9/2006	<10	<0.5	<0.5	<2.0	NA	NA
	5/9/2006	<10	<0.5	<0.5	<2.0	2.8	<0.5
	8/10/2006	<10	<0.5	<0.5	<2.0	1.83	<0.5
	10/26/2006	<10	<0.5	<0.5	<2.0	3.07	<0.5
	1/25/2007	<2.0	<0.5	<0.5	<2.0	2.92	<0.5
	4/26/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/25/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	10/23/2007	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	1/21/2008	<2.0	<0.5	<0.5	<2.0	1.18	<0.5

	4/15/2008	<2.0	<0.5	<0.5	<2.0	<0.5	<0.5
	7/2/2008	<2.0	<0.5	<0.5	<2.0	2.07	<0.5
	10/15/2008	<10	<0.5	<0.5	<0.5	1.5	<0.5
	1/7/2009	<10	<0.5	<0.5	<0.5	1.4	<0.5
	4/13/2009	**<10**	**<0.5**	**<0.5**	**<0.5**	**0.97**	**<0.5**
ESL		**12**	**NE**	**NE**	**NE**	**0.5**	**0.05**

Notes:

<: Not detected above the laboratory reporting limit.

NA: Not Analyzed. Well MW-8 was inaccessible during the 1Q05

NE: Not Established

TBA: tert-Butyl Alcohol

DIPE: Isopropyl Ether

ETBE: Ethyl tert-Butyl Ether

TAME: Methyl tert-Amyl Ether

ESL: Environmental Screening Levels per CRWQCB SFBay Region Interim Final Nov. 2007 (Revised May 2008); Table F-1a,Groundwater Screening Levels (groundwater is a current or potential drinking water resource)

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE MW-8

BORING LOCATION

SEE SITE MAP

PROJECT: 2552

SITE LOCATION: 1701 Fairmont Ave, San Leandro, CA

DRILLING METHOD: HSA

DRILLER: Gregg Drilling & Testing.

LOGGED BY: R. Papler R.G.

DATE DRILLED: August 26, 2004

CASING ELEVATION: NA

DEPTH TO 1ST GW: 17 ft bgs

APPROVED BY: R. Papler R.G.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED (split-spoon / core)	BLOWCOUNTS	GW LEVEL	WELL DIAGRAM
				6" Asphalt over 18" Baserock				
0	5		CL	SILTY CLAY: dark gray brown, stiff, moist, highly plastic; Low estimated permeability (LEK). No petroleum hydrocarbon (PHC) odor.				
0			CL	SILTY CLAY: light gray brown/ brownish gray, stiff, moist, high plasticity; LEK. No PHC odor.				
0	10		SM/ML	SANDY SILT w/ some Clay: gray brown, very stiff to hard, moist, mod. plastic; 15-20% very fine sand with moist clay stringer at 13-14"; LEK. No PHC odor.				
0			CL					
0	15			As above becoming very stiff to hard below 15' w/ caliche				
0			SM	As above w/ wet silty sand at 17-17.5'				
0	20		SC/CL	SANDY CLAY: gray brown, stiff to hard, damp to moist, mod. plastic; 30% very fine sand; MEK-LEK. No PHC odor.				
33			SC	CLAYEY SAND: gray brown, stiff to hard, moist to very moist; 20-30% very fine sand w/ wet stringer of silty sand at 22-22.5"; MEK (w/ HEK stringer). No PHC odor.				
0	25							

WELL DIAGRAM: CEMENT BENTONITE GROUT; 2" Schedule 40 PVC casing; BENTONITE SEAL; 2/12 SAND; 0.02 SLOTTED SCREEN

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE MW-8

BORING LOCATION

SEE SITE MAP

PROJECT: 2552

SITE LOCATION: 1701 Fairmont Ave, San Leandro, CA

DRILLING METHOD: HSA

DRILLER: Gregg Drilling & Testing.

LOGGED BY: R. Papler R.G.

DATE DRILLED: August 26, 2004

CASING ELEVATION: NA

DEPTH TO 1ST GW: 17 ft bgs

APPROVED BY: R. Papler R.G.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED (split-spoon / core)	BLOWCOUNTS	GW LEVEL	WELL DIAGRAM
0			SM/ML	SANDY SILT/ SILTY SAND w/ some Clay: gray brown, very stiff to hard, med. dense, moist; LEK. No PHC odor.				
2			CL	SILTY CLAY: dark gray brown, very stiff to hard, moist, high plasticity; w/ wet 3" stringer sandy silt/ silty sand at 27.75; LEK. No PHC odor.				
0	30		CL	SILTY CLAY w/ some Sand: gray brown, very stiff, moist, high plasticity; <15% very fine grain sand; LEK. No PHC odor.				
				Total depth 31 ft bgs Caved in to 29 ft Groundwater first encountered at 17 ft bgs then 22 ft bgs and later stabilized to 12.48 feet below toc (21 September 2004).				2/12 SAND SLUFF
	35							
	40							
	45							
	50							

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE MW-9

BORING LOCATION

SEE SITE MAP

PROJECT: 2552

SITE LOCATION: 1638 152-nd Street, San Leandro, CA

DRILLING METHOD: HSA

DRILLER: Gregg Drilling & Testing. (Jason)

LOGGED BY: R. Papler R.G./ E. Jennings

DATE DRILLED: August 25/ Sept 2, 2004

CASING ELEVATION: NA

DEPTH TO 1ST GW: 17 ft bgs

APPROVED BY: R. Papler R.G.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION
				3-4" asphalt over 6-8" baserock
			CL	SANDY CLAY/SILTY CLAY: dark gray brown; moist; plastic. Medium to low estimated permeability (MEK-LEK). No petroleum hydrocarbon (PHC) odor. (fill)
			CL	SILTY CLAY: dark gray, med. stiff, moist, high plasticity; w/ some caliche at 6.5-8'; Low estimated permeability (LEK). No petroleum hydrocarbon (PHC) odor.
0	5			*SILTY CLAY CUTTINGS: dark gray, moist, plastic.*
0				As above: color grading to light gray below 7.75'
0	10		SM/ML	SANDY SILT with some Clay: light gray brown, stiff to hard, damp, becoming very moist w/ depth, sl. plasticity; 20-40% very fine grain sand; <10-15% clay w/ caliche at 9.5-10.5'; w/ wet sand stringer at 11.5-12'; MEK. No PHC odor.
			SM	
0			SM/ML	SANDY SILT/ SILTY SAND w/ some Clay: light gray brown, very stiff/ med. dense, moist to very moist, plastic; 40-60% very fine to fine sand; MEK. No PHC odor.
0	15		SC/CL	SANDY CLAY/ CLAYEY SAND: light brown, med. stiff to stiff, damp to moist, plastic; 40-60% very fine to fine sand w/ very moist to wet silty sand stringer at 15.5-15.75'; LEK. No PHC odor.
			SM	
			SC/CL	
0			SC/CL	GRAVELLY SAND: gray brown, med. dense, wet, poorly graded; 20-40% subangular to subrounded gravel to 3/4"; HEK. No PHC odor.
0				
0	20		CL	SILTY CLAY w/ some Sand: gray brown, very stiff to hard, moist to very moist, high plasticity; <15% very fine grain sand w/ occasional gravel to 1/2" diameter; LEK. No PHC odor.
0				
0				
0				As above: becoming damp to moist and hard.
	25			

HAND AUGERED TO 5'

SAMPLED: split-spoon / core

BLOWCOUNTS

GW LEVEL

WELL DIAGRAM: 2" Schedule 40 PVC casing; CEMENT BENTONITE GROUT

ENVIRONMENTAL ENGINEERING, INC.

GEOLOGIC LOG OF BOREHOLE MW-9

BORING LOCATION

SEE SITE MAP

PROJECT: 2552

SITE LOCATION: 1638 152-nd Street, San Leandro, CA

DRILLING METHOD: HSA

DRILLER: Gregg Drilling & Testing. (Robert)

LOGGED BY: R. Papler R.G.

DATE DRILLED: August 25/ Sept 2, 2004

CASING ELEVATION: NA

DEPTH TO 1ST GW: 17 ft bgs

APPROVED BY: R. Papler R.G.

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS.	GEOLOGIC DESCRIPTION	SAMPLED (split-spoon / core)	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
2			CL	SILTY CLAY w/ some Sand: gray brown, very stiff to hard, damp to moist; <15% very fine grain sand; LEK. No PHC odor.				
2								
2								
3	30		CL/SC	SANDY CLAY: gray brown, very stiff, very moist, mod. - high plasticity; <15-20% very fine grain sand; MEK-LEK. No PHC odor.				
2						▽		
9			SM	CLAYEY SAND: gray brown, mod. to very stiff, moist to very moist; 50-60% very fine sand w/ wet silty sand stringer at 31.5-32'; MEK (w/ HEK stringer) No PHC odor.				
6			SC					
6			CL	SILTY CLAY w/ some Sand: gray brown, med. stiff, very moist, mod. to high plasticity; <10-15% very fine sand; LEK. No PHC odor.				
	35			Total depth 34.5 ft bgs Caved to 33.5 ft bgs Groundwater first encountered at 17 ft bgs then 31.5 ft bgs and later stabilized to 12.98 ft bgs.				
	40							
	45							
	50